

COLORADO RIVER BOARD OF CALIFORNIA

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



October 9, 2013

**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:

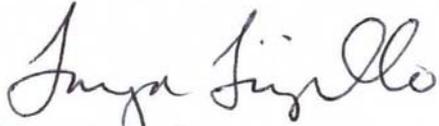
Date: October 9, 2013, Wednesday
Time: 10:00 a.m.
Place: Vineyard Room Holiday Inn Ontario Airport 2155 East Convention Center Way Ontario, CA 91764-4452 TEL: (909) 212-8000, FAX: (909) 418-6703

The Colorado River Board of California welcomes any comments from members of the public pertaining to items included on this agenda and related topics. Oral comments can be provided at the beginning of each Board meeting; 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
October 9, 2013, Wednesday
10:00 a.m.

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

A G E N D A

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. Minutes of the Meeting held August 14, 2013, Consideration and Approval (**Action**)
4. Protection of Existing Rights
 - a. Colorado River Water Report(s)
Report on current reservoir storage, reservoir releases, projected water use, forecasted river flows, scheduled deliveries to Mexico, and salinity
 - b. State and Local Water Reports
 - Reports on current water supply and use conditions
 - c. Colorado River Operations
 - Final 2014 Annual Operating Plan
 - d. Basin States Discussions
 - Minute 319 Update
 - Status of the Colorado River Basin Water Supply and Demand Study
 - Update regarding the LTEMP EIS and the Glen Canyon Dam Adaptive Management Program
 - Status update regarding the Salinity Control Forum and Workgroup
5. 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.

Agenda (continued)

6. Other Business

- a. Next Board Meeting: Regular Meeting
November 13, 2013, Wednesday, starting 10:00 a.m.
Holiday Inn Ontario Airport
2155 East Convention Center Way
Ontario, CA 91764-4452
TEL: (909) 212-8000, FAX: (909) 418-6703

Minutes of Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, August 14, 2013

A Regular Meeting of the Colorado River Board of California (Board) was held in the Vineyard Room, of the Holiday Inn Ontario Airport, 2155 East Convention Center Way, Ontario, California, Wednesday, August 14, 2013.

Board Members and Alternates Present

Dana Bart Fisher, Jr., Chairman
Stephen W. Benson
Franz W. De Klotz
Henry Merle Kuiper
Glen D. Peterson
David R. Pettijohn
W.D. Bud Pocklington

Jeanine Jones, Designee
Department of Water Resources

Board Members and Alternates Absent

John V. Foley
Michael T. Hogan
James Cleo Hanks
James B. McDaniel

Christopher G. Hayes, Designee
Department of Fish and Wildlife

Others Present

Steven B. Abbott
Tim Blair
John Carter
J.C. Jay Chen
Dan Denham
Michael Hughes
Thomas E. Levy
Lindia Y. Liu
Jan P. Matusak
Autumn Plourd

Halla Razak
Tom Ryan
Jack Seiler
Ed W. Smith
Joanna Smith
Gary F. Tavetian
Tanya M. Trujillo
Charles Van Dykes
Mark Van Vlack

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 10:07 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

Approval of Minutes

Chairman Fisher asked if there was a motion to approve the June 12th minutes. Mr. Jones moved the minutes to be approved. Seconded by Mr. Kuiper and unanimously carried, the June 12th meeting minutes were approved.

PROTECTION OF EXISTING RIGHTS

Colorado River Water Report

Mark Van Vlack, an engineer with the Colorado River Board, reported that the precipitation during July 2013 increased by 5%, from 76% to 81%. The April through July unregulated inflow into Lake Powell was 2.56 million acre-feet, which is 36% of average. The water-year forecast is for 4.33 million acre-feet of inflow or 40% of average, which indicates a very dry year. Lake Powell's storage is at 11.2 million acre-feet with a water surface elevation of 3,594.2 feet, which is 46% of capacity. As of August 1, 2013, the storage at Lake Mead is at 12.27 million acre-feet, with a water surface elevation of 1,105.9 feet, which is 47% of capacity. Total system storage is 30.3 million acre-feet or 51% of capacity. At this time last year, total storage was at 35.34 million acre-feet, or 59% of capacity. Current system storage is nearly 5 million acre-feet less than this time last year. Mr. Van Vlack noted that 2013, 2012, and 2002 have been among the driest years in the last 100 years, while 2011 was a wet year with 16 million acre-feet of inflow.

Ms. Trujillo added that before the Board meeting, the Bureau of Reclamation hosted a conference call to review the results of the August 24-month Study. During the call, it was noted that while precipitation increased in July, inflows to Lake Powell did not increase. The additional water was most likely absorbed into the dry ground before reaching the reservoir. During the call, Reclamation reiterated its prediction of a 7.48 million acre-feet release of water next year from Lake Powell. Ms. Trujillo added that the 7.48 million acre-feet release would be triggered by the requirements in the 2007 Interim Guidelines. Mr. Fisher noted that although the releases from Lake Powell will be lower than usual, Lower Basin releases from Lake Mead and California's allocation will remain the same. However, if the poor hydrology were to continue it could have significant impacts on the levels of both reservoirs. Mr. Fisher stated that this reality has prompted the Basin States to meet and discuss methods to slow the draining of the reservoirs.

State and Local Water Reports

Ms. Jeanine Jones of the California Department of Water Resources reported that the winter runoff season has ended and the State is experiencing its second dry year. Consequently, the sustained dry period has caused declining reservoir levels, particularly in San Luis Reservoir, and dwindling ground water supplies in the San Joaquin Valley. Preliminary modeling results by the Mid Pacific Region of the Bureau of Reclamation indicate that certain agricultural water users in the region will receive a zero allocation. Further, Ms. Jones reported that DWR has begun outreach activities to prepare for a dry 2014.

Mr. Glen Peterson, of the Metropolitan Water District, reported that MWD's total system storage is approximately 806,000 acre-feet, or 78% of capacity. The Colorado River Aqueduct is operating a seven-pump flow through August. MWD's current Colorado diversion target may include taking some of the intentionally created storage out of the reservoirs. Further, Mr. Peterson reported that sales have increased due to high demand, which is higher than the ten-year average.

COLORADO RIVER OPERATIONS

Development of the 2014 Annual Operating Plan

Ms. Trujillo reported that on July 30, 2013, Reclamation hosted its second consultation meeting for the 2014 Annual Operating Plan, which was followed up by the conference call relating to the August 24-Month Study. As was explained by Reclamation, next year's operations for 2014 will involve a 7.48 million acre-feet release from Lake Powell to Lake Mead as provided by the 2007 Guidelines. This action is historically significant because it is the first time in the history of normal reservoir operations that the release has been at such a low level. Lake Mead will be operated under normal or ICS surplus conditions, and Lower Basin deliveries will be consistent with normal operations. Reclamation will conduct its third review of the 2014 Annual Operating Plan on September 5.

Ms. Trujillo indicated that in accordance with the requirement within the 2007 Interim Guidelines for California to report on its progress in implementing California's Colorado River Water Use Plan, she made a presentation during the July 30 Annual Operating Plan consultation meeting outlining California's implementation efforts and it to stay within its normal 4.4 million acre-feet normal allocation.

Colorado River Environmental Activities

Ms. Trujillo reported that the Colorado River Basin Salinity Control Forum Workgroup met from July 10 through the 12 in Salt Lake City, UT. Lindia Liu, a water resource engineer with the Colorado River Board, attended the meeting. Ms. Trujillo stated that impending funding shortages are a major concern for the Lower Basin due to the projected funding shortfalls within the Lower Colorado Basin Development Fund (LCBDF). In response to a question from Halla Razak regarding funding, Jan Matusak confirmed that the LCBDF receives funds from hydropower revenues levied on Arizona, California and Nevada. Currently, the Workgroup is

evaluating short and long-term solutions to either reduce the costs of the program or increase revenue to the LCBDF. The Workgroup will present a report regarding these solutions during the next Salinity Control Forum meeting that will be held in October in Los Angeles.

Ms. Trujillo updated the Board on the status of the process to evaluate alternatives for brine water disposal at the Paradox Valley Injection Unit. Due to seismic activity that occurred in January 2013, operations of the unit have been reduced by 10%, resulting in a current salt disposal rate of approximately 100,000 tons. The Bureau of Reclamation and cooperating agencies, including the Colorado River Board, have begun the EIS process to determine alternatives to the existing disposal well.

Ms. Trujillo also reported that the Governor of California appointed Tom Howard, the Executive Director of the State Water Resources Control Board, as an additional California member to the Salinity Control Forum and Advisory Council.

BASIN STATES DISCUSSIONS

Minute 319 Updates and Next Steps

Ms. Trujillo reported on the status of the Minute 319 implementation efforts specifically relating to the formation of small bi-national workgroups. Ms. Trujillo stated that one of the most active workgroups relates to the environmental flow component that is designed to provide improvements to the Colorado River Delta utilizing Mexican water allocations. Chris Harris of the Colorado River Board will be attending a workshop from August 12 to August 14 in Tijuana, Mexico involving experts who are working to develop a pulse flow recommendation and a monitoring plan. One of the other workgroups that will be meeting is the Operations and Accounting Group that will be ensuring that the environmental flows into Mexico will be in compliance with normal operations in the U.S. In addition, Ms. Trujillo stated that there are still on-going discussions about Mexico's request to create a bi-national connection to the All-American Canal. Ms. Trujillo explained that an additional Minute would be required to implement that particular agreement.

Ms. Trujillo updated the Board on the on-going issues relating to Mexico's delivery obligations to the United States on the Rio Grande. There have been efforts by Texas to link the delivery issues on the Rio Grande to implementation efforts of Minute 319. DOI and the Department of State have expressed opposition to any linkage between the Rio Grande and the Minute 319 implementation efforts. The Basin States sent a letter to the Department of State and the Department of the Interior expressing their opposition to any linkage but have also offered their support to Texas and believe that the relationship with Mexico in the Colorado River Basin can serve as a model for the Texans on the Rio Grande.

Colorado River Basin Water Supply and Demand Study Report Next Steps

Ms. Trujillo reported that several Colorado River Board member agencies are participating in the Basin Study's on-going "Next Steps" process on the three workgroups that address Municipal and Industrial Conservation, Agricultural Conservation and Transfers, and Environment and Recreational Flows. The workgroups have been meeting on a monthly basis to develop their respective scopes of work. Work products from each of the workgroups are expected by the spring of next year.

Ms. Trujillo updated the Board on the United States Geological Survey's on-going National Water Census project for the Colorado River Basin. Ms. Trujillo stated that concerns exist regarding USGS' project and its relationship to the existing Basin Study but noted that the USGS plans to coordinate with the Basin States as the project moves forward.

Ms. Trujillo reported that the Senate Energy and Natural Resources Committee's Subcommittee on Water and Power, held an oversight hearing regarding the Basin Study on July 16, 2013. Ms. Trujillo testified at the hearing on behalf of the Lower Basin States' interests. Don Ostler represented the Upper Basin, and Reclamation Commissioner Mike Connor presented testimony for the Department of the Interior. The second panel included the Chairs from each of the workgroups. No congressional action is needed or anticipated in connection with the Basin Study.

Status of the Development of the Glen Canyon Dam Long-Term Experimental and Management Plan EIS Process and the Adaptive Management Workgroup

Ms. Trujillo reported on the status of the Glen Canyon Dam Long-Term Experimental Management Program (LTEMP) EIS, which will govern operations from Glen Canyon Dam down through the Grand Canyon area. During the first week of August, Reclamation and the National Park Service hosted a workshop in Arizona to describe some of the decision-making tools that will be used during the EIS process. Chris Harris and Mark Van Vlack from the Colorado River Board attended the workshop. The workshop included presentations regarding the status of endangered species and ecosystems in the area, as well as the results of sediment flow modeling.

The Adaptive Management Workgroup meeting followed the workshop. Part of the meeting included a report on the results of last year's high flow experiment and an evaluation of the impact of higher releases from Lake Powell on sediment movement and endangered species populations below the dam. There was also an update regarding the status of the LTEMP EIS. It is anticipated that a first draft of the LTEMP EIS is expected in the spring of 2014.

Board Member Peterson asked for clarification regarding sedimentation imbalances and restoration efforts below the dam. Ms. Trujillo explained that the dam is preventing sediment from depositing further down the river, preventing the formation of sandbars and beaches, which Mr. Fisher noted are important for rafters and fisheries in the area. Ms. Trujillo added that the high flow experiments evaluate impacts on those resources and also evaluate the impacts on hydropower generation, which can impact funding available for endangered species programs in the Upper Basin.

Update regarding the Weather Modification Program

Tom Ryan, from the Metropolitan Water District, gave a thorough presentation about the Basin States' on-going Weather Modification Program. The program began in 2006 with Programs in the Southwestern Water Conservation District and Durango areas. Since 2006, funding for the Weather Modification Program has totaled approximately \$2.3 million, in which the Six Agency Committee has funded \$773,000. Mr. Ryan discussed the status of various on-going projects, stating that the States are participating in twenty projects in Colorado, Utah, and Wyoming. Partners include water management agencies, recreational entities such as ski resorts and research institutes. Responding to a question from Ms. Trujillo regarding the mechanics of cloud seeding, Mr. Ryan explained that the process deposits silver iodide into clouds to generate snow within the target area. Mr. Ryan added that additional precipitation would only be generated when clouds are already present. Mr. Ryan estimated that since 2006, the program has generated nearly half a million acre-feet in precipitation at a cost of \$20 to \$30 per acre-foot.

Update regarding Innovative Water Conservation Grants

Tim Blair of the Metropolitan Water District reported on the status of the Innovative Conservation Grant Program. The program started in 2001 and awards grants up to \$50,000 for research on technologies that will conserve water. For this year's program MWD will be partnering with Reclamation, Central Arizona Project and Southern Nevada Water Authority. Mr. Blair explained that this program targets conservation technologies for urban water use. Ms. Trujillo added that Reclamation has similar innovation grant programs for agricultural conservation that could be highlighted during future meetings.

Quantification Settlement Agreement (QSA) Legal Status Update

Steve Abbott provided a general overview and explained that in 2010, Judge Candee invalidated the QSA and related agreements because he found that the QSA Joint Powers Authority violated the State Constitution. The water districts appealed the decision to the Court of Appeals and in December 2011, the ruling was reversed and sent back to the trial court. The cases were assigned to a new judge and were tried in November 2012. The cases included IID's direct validation action to confirm the validity of the QSA and related agreements, a CEQA challenge to the IID Transfer Program EIR, and a CEQA challenge to the QSA Program EIR. On July 31, 2013, the judge entered judgment in the three cases upholding the QSA and related agreements and denying the two CEQA petitions. Mr. Abbott explained the details of each judgment and noted that the County of Imperial and Imperial County Air Pollution Control District have filled appeals against the judgment related to the CEQA challenges to the QSA program.

OTHER BUSINESS

Ms. Trujillo noted that Reclamation Commissioner Mike Connor has been nominated to be the new Deputy Secretary of the Department of the Interior. Mr. Connor will be replacing David Hayes.

There being no further items to be brought before the Board, Chairman Fisher asked for a motion to adjourn the meeting. Upon the motion of Mr. Kuiper, seconded by Mr. Pockington and unanimously carried, the meeting was adjourned 11:44 am on August 14, 2013.

Tanya M. Trujillo
Executive Director

DRAFT

**SUMMARY WATER REPORT
COLORADO RIVER BASIN
October 1, 2013**

RESERVOIR STORAGE (as of September 30)	October 1, 2013			September 1, 2013		
	MAF	ELEV. IN FEET	% of Capacity	MAF	ELEV. IN FEET	% of Capacity
Lake Powell	10.934	3,591.2	45	10.788	3,589.6	44
Flaming Gorge	2.818	6,015.3	75	2.831	6,015.7	76
Navajo	0.933	6,022.3	55	0.865	6,014.9	51
Lake Mead	12.362	1,106.9	48	12.289	1,106.1	47
Lake Mohave	1.624	640.2	90	1.736	644.4	96
Lake Havasu	0.560	447.0	90	0.604	449.2	97
Total System Storage	29.940		50	29.824		50
System Storage Last Year	34.023		57	34.691		58

			September 3, 2013	
	MAF	% of Normal	MAF	% of Avg.
WY 2013 Precipitation (Basin Weighted Avg) 10/01/12 through 9/30/13		91 percent (28.8")		83 percent (24.1")
WY 2013 Current Basin Snowpack (Basin Weighted Avg) on day of 9/30/13 (Above two values based on average of data from 116 sites.)		NA		NA
September 17, 2013 Forecast of Unregulated Lake Powell Inflow	MAF	% of Normal	MAF	% of Avg.
2013 April through July unregulated inflow	2.559	36 %	2.559	36%
2013 Water Year	5.001	46 %	4.398	41%

**SUMMARY WATER REPORT
COLORADO RIVER BASIN
September 3, 2013**

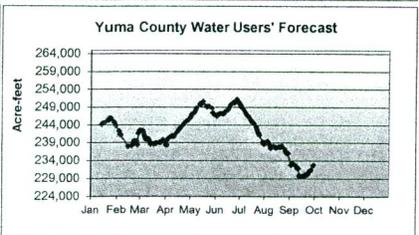
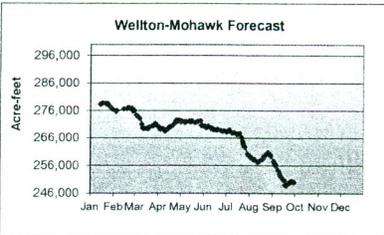
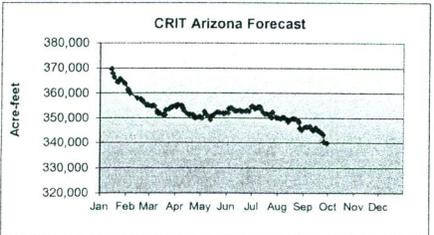
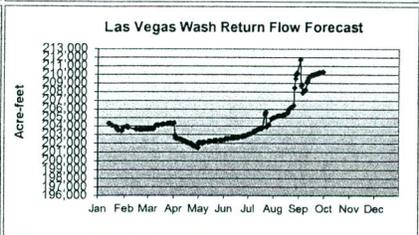
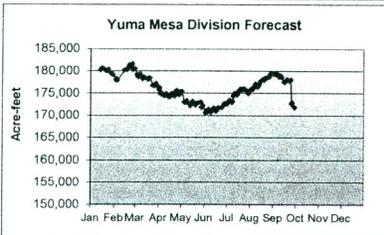
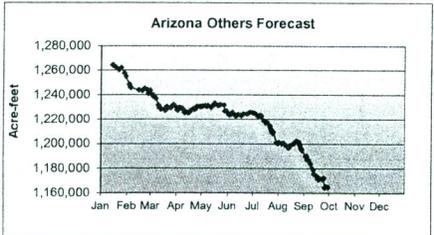
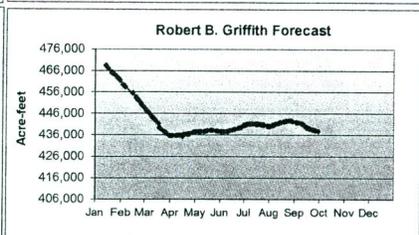
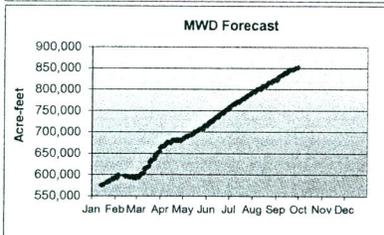
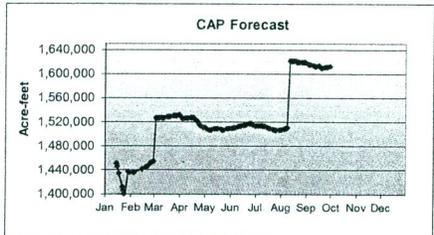
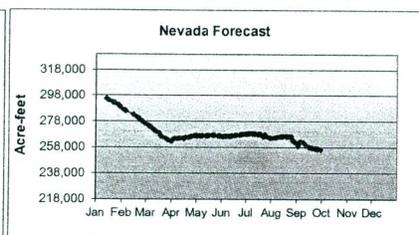
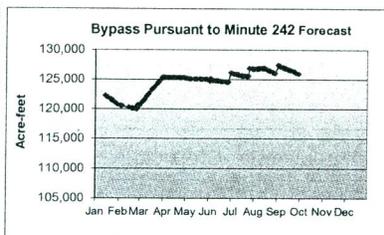
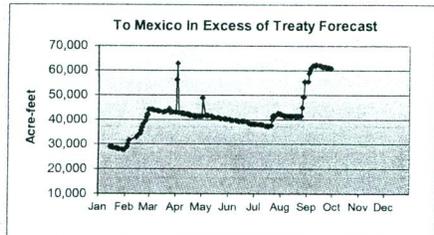
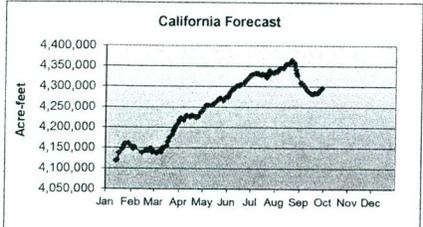
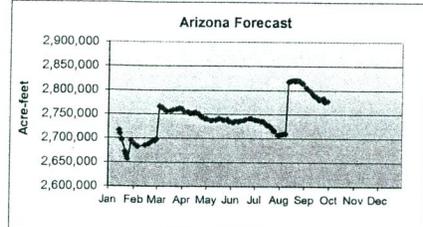
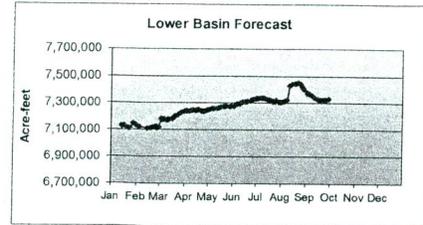
RESERVOIR STORAGE (as of August 31)	September 1, 2013			August 1, 2013		
	MAF	ELEV. IN FEET	% of Capacity	MAF	ELEV. IN FEET	% of Capacity
Lake Powell	10.788	3,589.6	44	11.202	3,594.2	46
Flaming Gorge	2.831	6,015.7	76	2.875	6,017.0	77
Navajo	0.865	6,014.9	51	0.889	6,017.5	52
Lake Mead	12.289	1,106.1	47	12.270	1,105.9	47
Lake Mohave	1.736	644.4	96	1.717	643.7	95
Lake Havasu	0.604	449.2	97	0.590	448.5	95
Total System Storage	29.824		50	30.304		51
System Storage Last Year	34.691		58	35.336		59

			August 5, 2013	
	MAF	% of Normal	MAF	% of Avg.
WY 2013 Precipitation (Basin Weighted Avg) 10/01/12 through 9/03/13		83 percent (24.1")		81 percent (21.4")
WY 2013 Current Basin Snowpack (Basin Weighted Avg) on day of 9/03/13 (Above two values based on average of data from 116 sites.)		NA		NA
August 19, 2013 Forecast of Unregulated Lake Powell Inflow	MAF	% of Normal	MAF	% of Avg.
2013 April through July unregulated inflow	2.559	36 %	2.559	36%
2013 Water Year	4.398	41 %	4.328	40%

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 CY2013	Forecast Use CY2013	Approved Use /2 CY2013	Excess to Approval CY2013
ARIZONA	2,149,999	2,776,990	2,799,604	-22,614
CALIFORNIA	3,526,347	4,296,535	4,119,207	177,328
NEVADA	182,824	256,151	300,000	-43,849
STATES TOTAL /3	5,859,170	7,329,676	7,218,811	110,865
MEXICO IN SATISFACTION OF TREATY (Including downward d TO MEXICO AS SCHEDULED	1,273,059	1,560,770	1,500,000	60,770
MEXICO IN EXCESS OF TREATY	1,219,872	1,500,000		
BYPASS PURSUANT TO MINUTE 242	53,187	60,770		
	87,464	125,921		
TOTAL LOWER BASIN & MEXICO	7,219,693	9,016,367		

- 1/ Incorporates Jan-Jul USGS monthly data and 77 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 Dept. 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.

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	To Date	Forecast	Approved	Excess To
	To Date	Use	Use	Estimated				
	CY2013	CY2013	CY2013	Use	CY2013	CY2013	CY2013	Approved
				CY2013				Diversion
								CY2013
CALIFORNIA PUMPERS	1,430	1,725	1,725	---	2,586	3,119	3,119	0
FORT MOJAVE INDIAN RESERVATION, CA	6,580	7,681	8,910	---	12,235	14,285	16,565	-2,280
CITY OF NEEDLES (includes LCWSP use)	1,601	1,931	1,931	0	2,255	2,720	2,720	0
METROPOLITAN WATER DISTRICT	729,630	850,917	563,433	---	731,961	854,038	566,534	---
COLORADO RIVER INDIAN RESERVATION, CA	3,072	3,705	3,705	---	7,748	9,345	9,345	0
PALO VERDE IRRIGATION DISTRICT	394,131	438,159	437,084	---	802,543	968,558	947,155	21,403
YUMA PROJECT RESERVATION DIVISION	40,629	50,123	47,023	---	76,318	99,534	99,900	-366
YUMA PROJECT RESERVATION DIVISION - INDIAN UNIT	---	---	---	---	36,561	47,856	48,600	-744
YUMA PROJECT RESERVATION DIVISION - BARD UNIT	---	---	---	---	39,757	51,678	51,300	378
YUMA ISLAND PUMPERS	3,188	3,845	3,845	---	5,762	6,950	6,950	0
FORT YUMA INDIAN RESERVATION - RANCH 5	0	283	1,046	---	0	512	1,891	-1,379
IMPERIAL IRRIGATION DISTRICT	2,055,478	2,542,174	2,632,629	-90,455	2,049,577	2,560,690	2,738,570	---
SALTON SEA SALINITY MANAGEMENT	33,931	70,000	70,000	0	35,169	72,374	72,904	---
COACHELLA VALLEY WATER DISTRICT	255,962	325,129	347,000	-21,871	265,193	337,766	361,165	---
OTHER LCWSP CONTRACTORS	552	666	599	---	891	1,075	1,075	0
CITY OF WINTERHAVEN	57	69	69	---	86	104	104	0
CHEMEHUEVI INDIAN RESERVATION	106	128	6,101	---	9,402	11,340	11,340	0
TOTAL CALIFORNIA	3,526,347	4,296,535			4,078,044	4,942,410	4,839,337	
FORT YUMA INDIAN RESERVATION /1	---	---	---	---	39,118	51,487	53,610	-2,123

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION

California Basic Apportionment	4,400,000
Payback of IOPP Overrun (IID, Ft Mojave)	-55,793
Intentionally Created Surplus Water (IID)	-25,000
Creation of Extraordinary Conservation ICS (MWD)	-200,000
Total State Adjusted Apportionment	4,119,207
Excess to Total State Adjusted Apportionment	177,328

ISG ANNUAL TARGET COMPARISON CALCULATION

Priorities 1, 2, 3b Use (PVID+YPRD+Island+PVID Mesa)	492,127
MWD Adjustment	-72,127
Total California Agricultural Use (PVID+YPRD+Island+IID+CVWD)	3,359,430
California Agricultural Paybacks	-62,000
Misc. PPRs Covered by IID and CVWD	14,500
California ICS Creation (IID ICS)	25,000
Total Use for Target Comparison ²	3,264,803
ISG Annual Target (Exhibit B)	3,462,000
Amount over/(under) ISG Annual Target	(197,197)

NOTES:

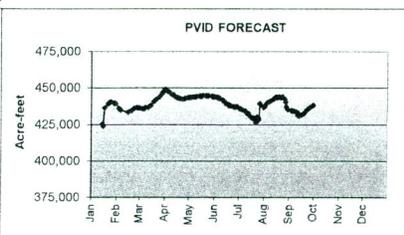
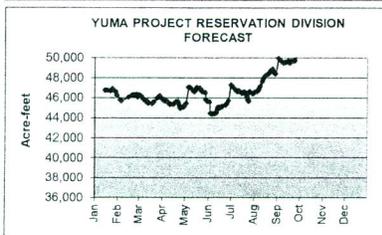
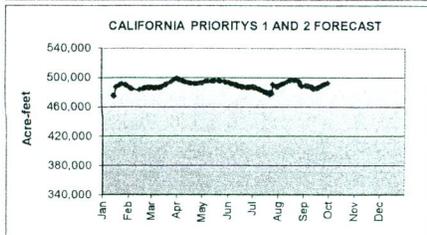
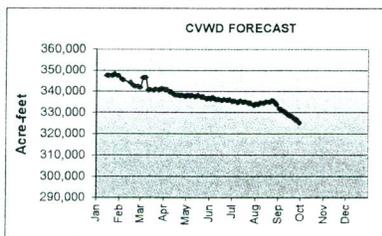
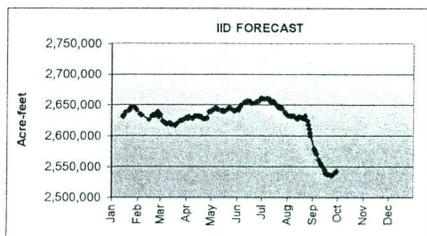
Ranch 5

Yuma Island assumed to be included in Priority 2.

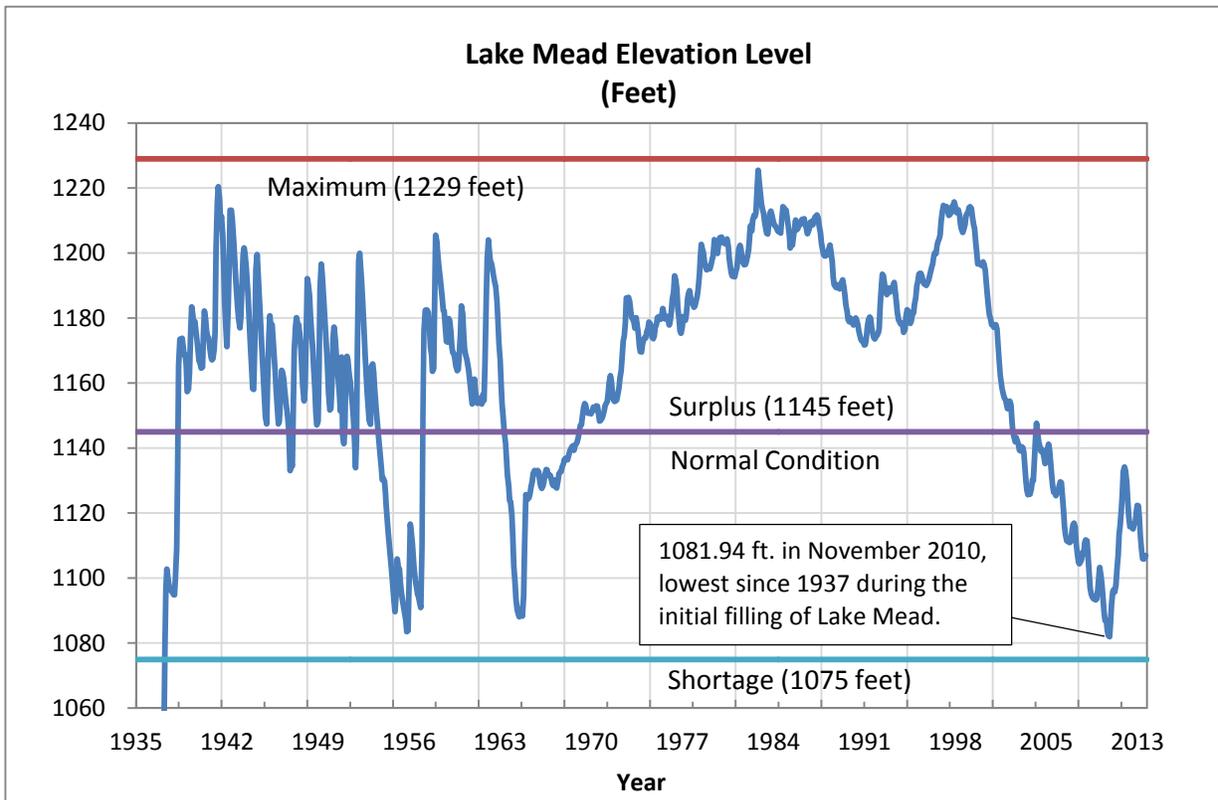
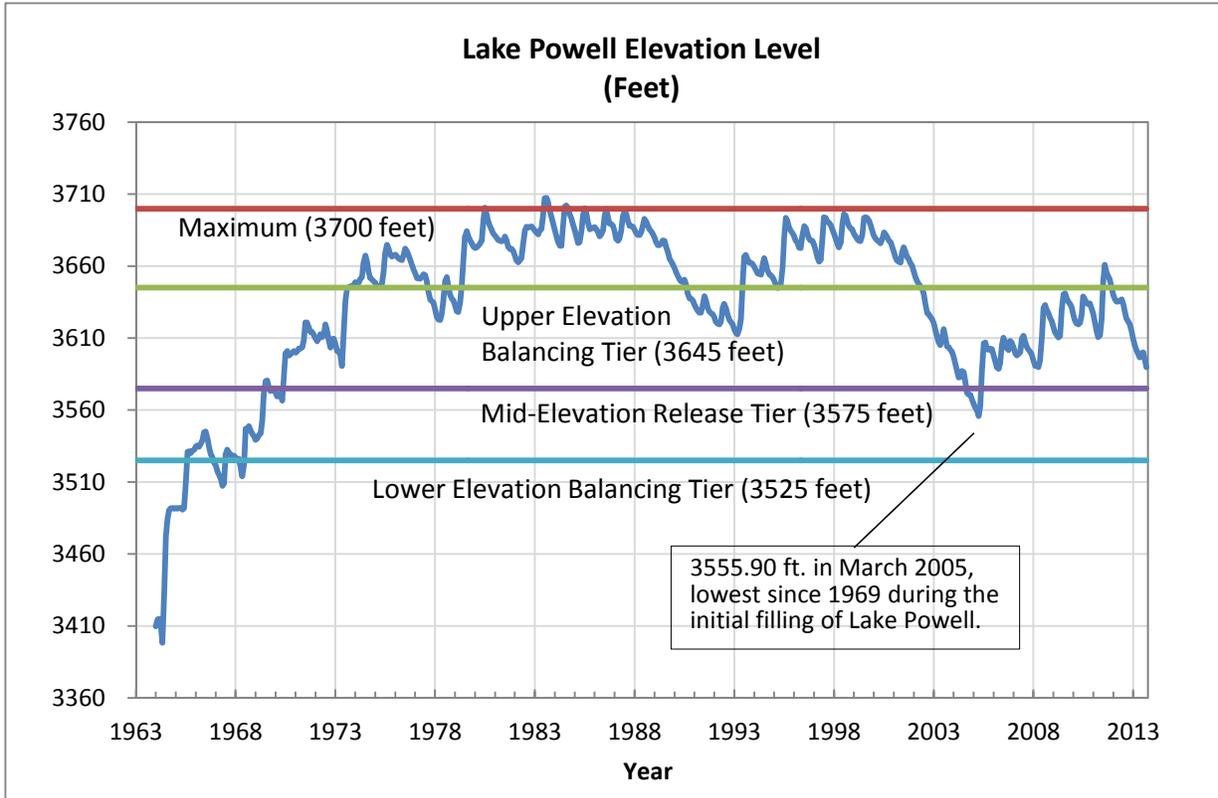
Click on California Schedules and Approvals above for incoming diversion schedules and approvals.

1/ Fort Yuma Indian Reservation includes Yuma Project Reservation Division Indian Unit, Ranch 5, an estimate of domestic use and pumpers.

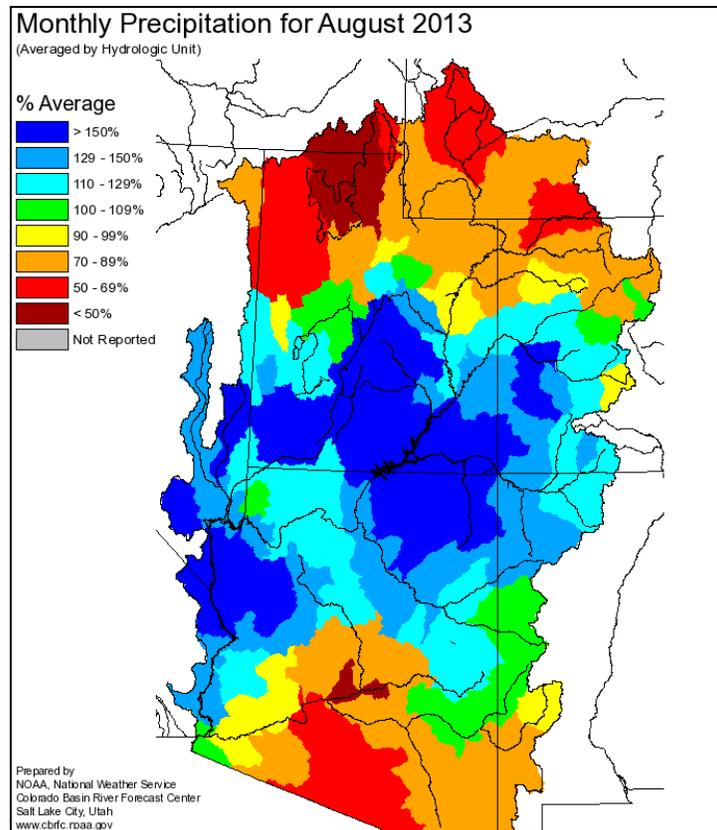
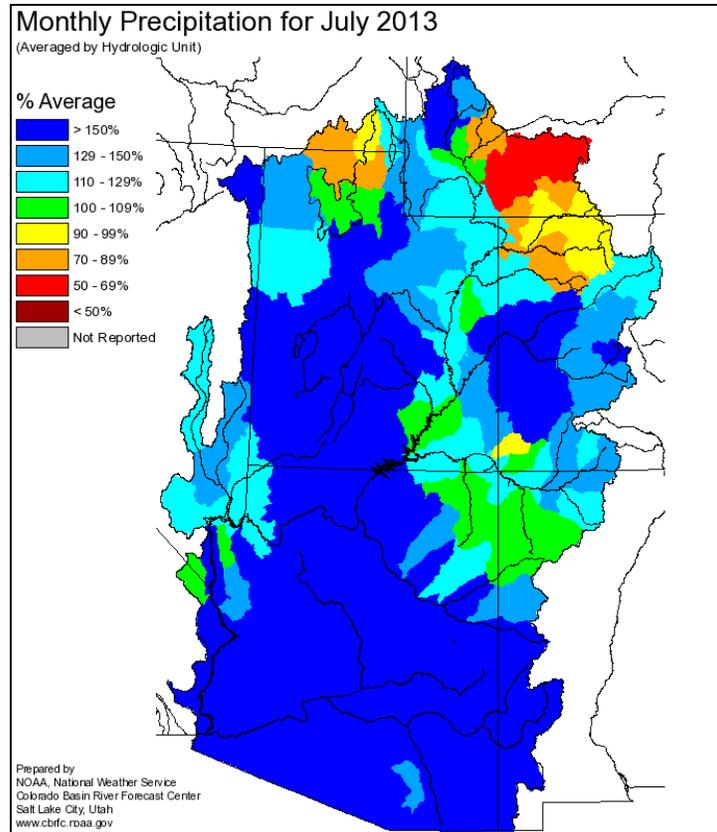
2/ Includes MWD Adjustment, California Agricultural Use and Paybacks, IID-CVWD covered PPRs, and taking out the MWD-CVWD Exchange



Historic Lakes Powell and Mead Surface Water Elevation Levels (End of WY 2013)



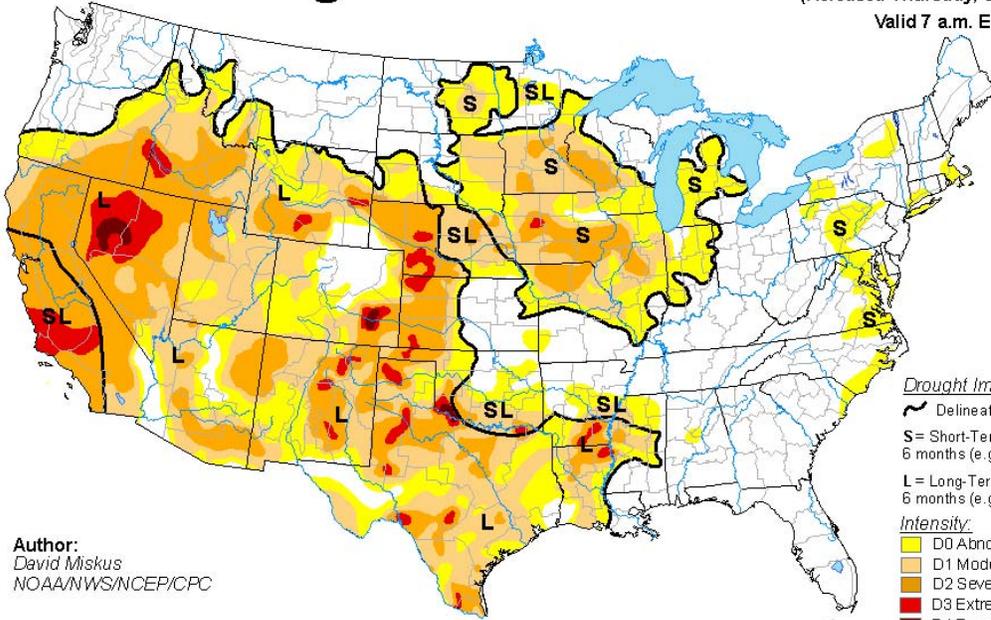
NOAA National Weather Service Monthly Precipitation Maps for July and August 2013



USDA United States Drought Monitor Map

U.S. Drought Monitor

October 1, 2013
 (Released Thursday, Oct. 3, 2013)
 Valid 7 a.m. EDT

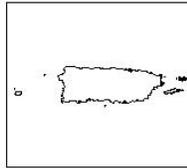
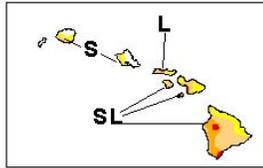


Author:
 David Miskus
 NOAA/NWS/NCEP/CPC

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

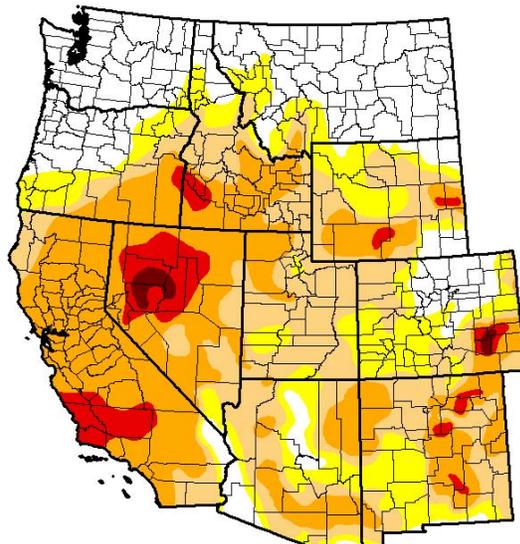
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



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

U.S. Drought Monitor West

October 1, 2013
 (Released Thursday, Oct. 3, 2013)
 Valid 7 a.m. EDT



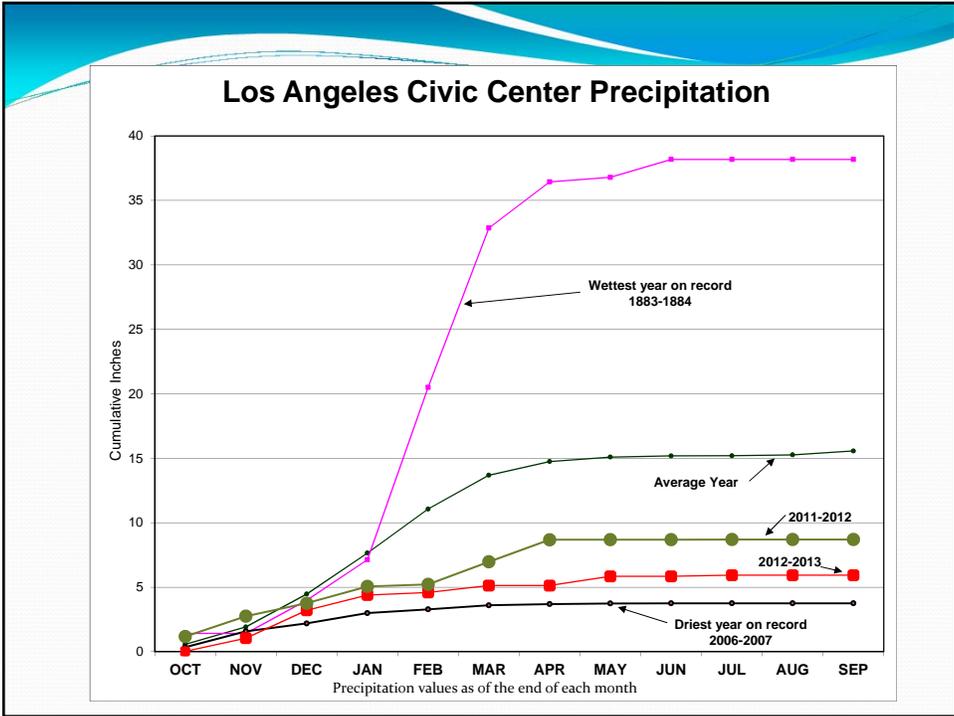
Intensity:
 D0 Abnormally Dry
 D1 Moderate Drought
 D2 Severe Drought
 D3 Extreme Drought
 D4 Exceptional Drought

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

Author:
 David Miskus
 NOAA/NWS/NCEP/CPC



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

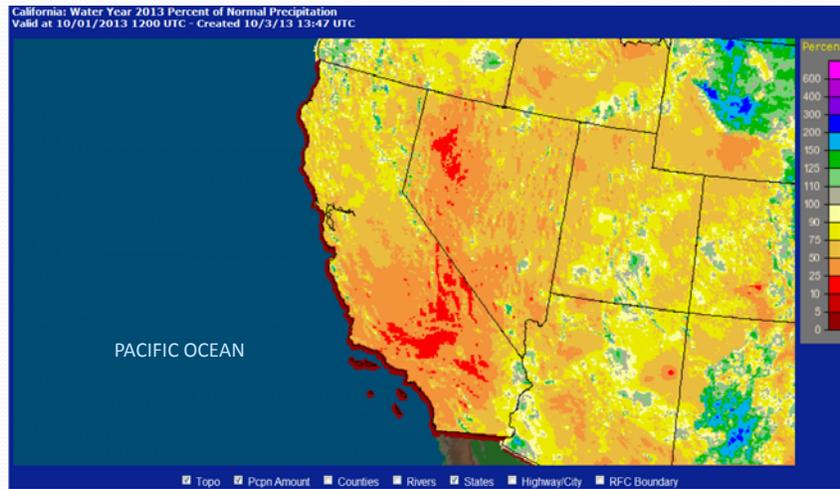


Precipitation at Six Major Stations in Southern California

From October 1, 2012 to September 30, 2013

Station	Precipitation in inches		Average to Date	Percent of Average
	Sep	Oct 1 to Sep 30		
San Luis Obispo	0.02	7.95	22.44	35%
Santa Barbara	0.00	8.24	17.78	46%
Los Angeles	0.00	5.93	15.56	38%
San Diego	0.00	4.07	10.15	40%
Blythe	0.57	3.59	3.81	94%
Imperial	0.53	2.48	2.83	88%

CA Current Water Year - Percent of Normal Precipitation



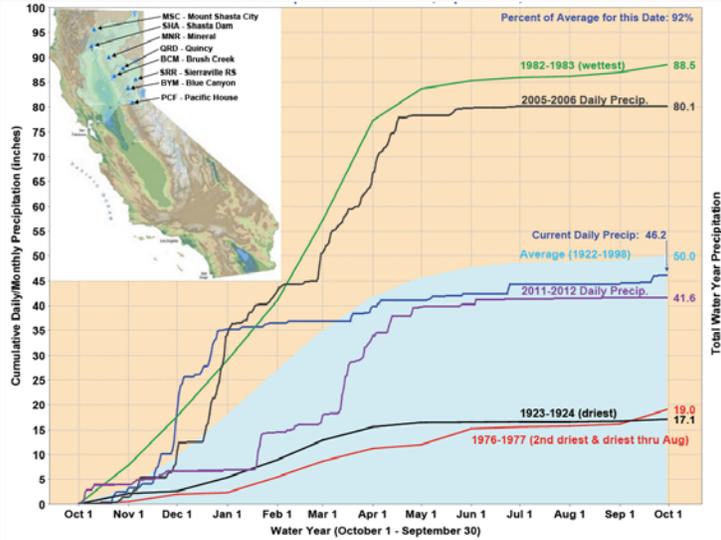
National Weather Service –Advance Hydrologic Prediction Center
<http://water.weather.gov/precip/>

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)
2008-09	80	65	80	12.9
2009-10	110	90	105	15.9
2010-11	135	145	130	15.1
2011-12	75	60	95	11.8
Comparison of Water Year Data as of September 1				
2011-12	75	60	95	11.5
2012-13	80	60	80	11.6

* 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.

Northern Sierra Precipitation-8 Station Index – Sep 30, 2013



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

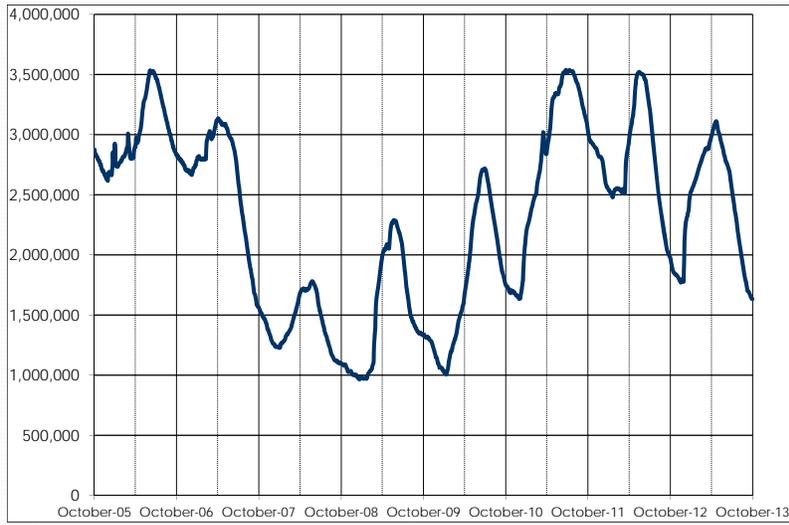
Comparison of SWP Water Storage

Reservoir	Capacity	2012 Storage (acre-feet)		2013 Storage (acre-feet)	
		As of 9/30/2012	% of Cap.	As of 9/30/2013	% of Cap.
Frenchman	55,475	33,353	60%	28,135	51%
Lake Davis	84,371	57,655	68%	52,813	63%
Antelope	22,564	17,524	78%	17,839	79%
Oroville	3,553,405	1,976,756	56%	1,633,290	46%
TOTAL North	3,715,815	2,085,288	56%	1,732,077	47%
Del Valle	39,914	37,663	94%	33,552	84%
San Luis (DWR)	1,062,180	389,085	37%	280,598	26%
Pyramid	169,901	168,819	99%	166,961	98%
Castaic	319,247	264,266	83%	284,946	89%
Silverwood	74,970	71,235	95%	72,063	96%
Perris	126,841	72,013	57%	72,570	57%
TOTAL South	1,793,053	1,003,081	56%	910,690	51%
TOTAL SWP	5,508,868	3,088,369	56%	2,642,767	48%

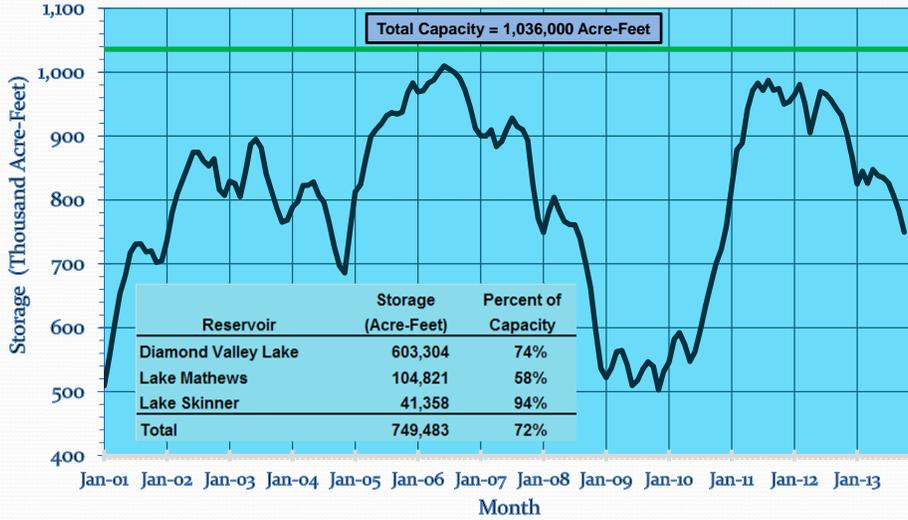
State Water Project Projected Deliveries:
 On March 22, 2013, Table-A allocations decreased from 40% to 35%

Oroville Storage (acre-feet)

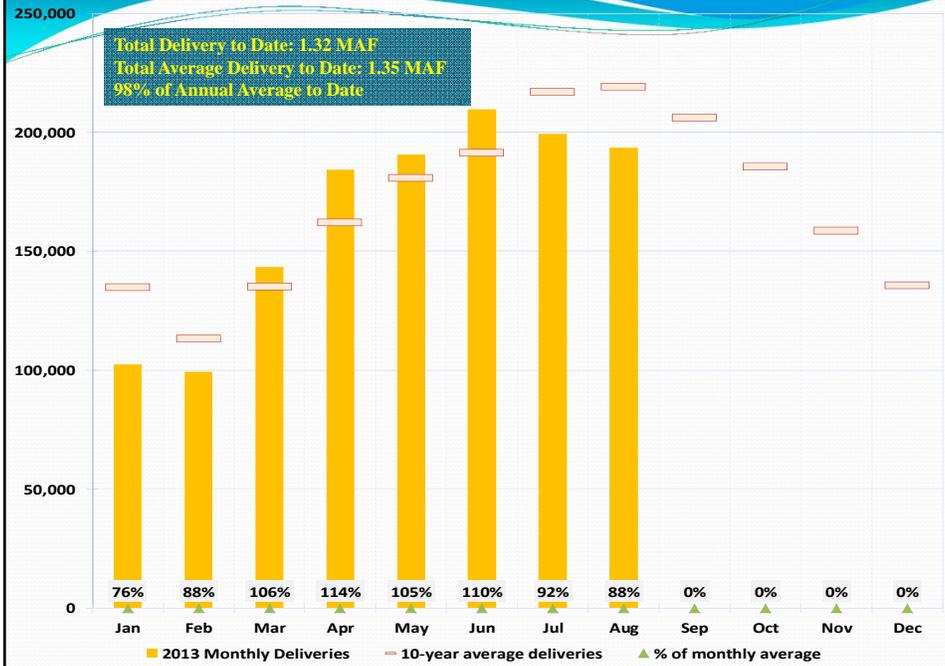
October 1, 2005 – September 30, 2013



MWD's Combined Reservoir Storage as of October 1, 2013 Lake Skinner, Lake Mathews, and Diamond Valley Lake



2013 Water Deliveries to Member Agencies (AF)



RECLAMATION

Managing Water in the West

DRAFT Annual Operating Plan for Colorado River Reservoirs 2014

Edits, in red, indicate changes from the Draft 2014 AOP posted on Reclamation's website for the 2014 AOP Second Consultation.

Hydrologic projections in this draft document of the 2014 AOP are based on the August 2013 24-Month Study.

Text and values highlighted in blue are provisional and subject to change.



U.S. Department of the Interior
Bureau of Reclamation

1 INTRODUCTION

3 Background

4
5 Each year's Annual Operating Plan (AOP) for Colorado River Reservoirs reports on both
6 the past operations of the Colorado River reservoirs for the completed year as well as
7 projected operations and releases from these reservoirs for the current (i.e., upcoming) year.
8 Accordingly, this 2014 AOP reports on 2013 operations as well as projected operations for
9 2014. In recent years, additional operational rules, guidelines, and decisions have been put
10 into place for Colorado River reservoirs including the 1996 Glen Canyon Dam Record of
11 Decision¹ (ROD), the 1997 Operating Criteria for Glen Canyon Dam,² the 1999 Off-stream
12 Storage of Colorado River Water Rule (43 CFR Part 414),³ the 2001 Interim Surplus
13 Guidelines⁴ addressing operation of Hoover Dam, the 2006 Flaming Gorge Dam ROD,⁵ the
14 2006 Navajo Dam ROD⁶ to implement recommended flows for endangered fish, the 2007
15 Interim Guidelines for the operations of Lake Powell and Lake Mead,⁷ and numerous
16 environmental assessments addressing experimental releases from Glen Canyon Dam. Each
17 AOP incorporates these rules, guidelines, and decisions and implements the criteria
18 contained in the applicable decision document or documents. Thus, the AOP makes
19 projections and reports on how the Bureau of Reclamation (Reclamation) will implement
20 these decisions in response to changing water supply conditions as they unfold during the
21 upcoming year, when conditions become known. Congress has charged the Secretary of the
22 Interior (Secretary) with stewardship and responsibility for a wide range of natural, cultural,
23 recreational, and tribal resources within the Colorado River Basin. The Secretary has the
24 authority to operate and maintain Reclamation facilities within the Colorado River Basin
25 addressed in this AOP to help manage these resources and accomplish their protection and
26 enhancement in a manner fully consistent with applicable provisions of Federal law
27 including the Law of the River, and other project-specific operational limitations.
28

¹ ROD for the Operation of Glen Canyon Dam, October 9, 1996. Available online at:
http://www.usbr.gov/uc/rm/amp/pdfs/sp_appndxG_ROD.pdf.

² Operating Criteria for Glen Canyon Dam (62 *Federal Register* 9447, March 3, 1997).

³ Off-stream Storage of Colorado River Water; Development and Release of Intentionally Created Unused Apportionment in the Lower Division States: Final Rule (43 CFR Part 414; 64 *Federal Register* 59006, November 1, 1999). Available online at:
<http://www.usbr.gov/lc/region/g4000/contracts/FinalRule43cfr414.pdf>.

⁴ ROD for the Colorado River Interim Surplus Guidelines, January 16, 2001 (67 *Federal Register* 7772, January 25, 2001). Available online at: http://www.usbr.gov/lc/region/g4000/surplus/surplus_rod_final.pdf.

⁵ ROD for the Operation of Flaming Gorge Dam, February 16, 2006. Available online at:
<http://www.usbr.gov/uc/envdocs/rod/fgFEIS/final-ROD-15feb06.pdf>.

⁶ ROD for Navajo Reservoir Operations, Navajo Unit – San Juan River, New Mexico, Colorado, Utah, July 31, 2006. Available online at: <http://www.usbr.gov/uc/envdocs/eis/navajo/pdfs/NavWaterOpsROD2006.pdf>.

⁷ ROD for Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (73 *Federal Register* 19873, April 11, 2008). The ROD adopting the 2007 Interim Guidelines was signed by the Secretary on December 13, 2007. Available online at:
<http://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

1 The Secretary recognized in the 2007 Interim Guidelines that the AOP serves to integrate
2 numerous federal policies affecting reservoir operations: *"The AOP is used to memorialize*
3 *operational decisions that are made pursuant to individual federal actions (e.g., ISG [the*
4 *2001 Interim Surplus Guidelines], 1996 Glen Canyon Dam ROD, this [2007 Interim*
5 *Guidelines] ROD). Thus, the AOP serves as a single, integrated reference document*
6 *required by section 602(b) of the CRBPA of 1968 [Colorado River Basin Project Act of*
7 *September 30, 1968 (Public Law 90-537)] regarding past and anticipated operations."*
8

9 Authority

10
11 This 2014 AOP was developed in accordance with the processes set forth in: Section 602 of
12 the CRBPA; the Criteria for Coordinated Long-Range Operation of Colorado River
13 Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968
14 (P. L. 90-537) (Operating Criteria), as amended, promulgated by the Secretary; and Section
15 1804(c)(3) of the Grand Canyon Protection Act of 1992 (P. L. 102-575).

16
17 Section 602(b) of the CRBPA requires the Secretary to prepare and *"transmit to the*
18 *Congress and to the Governors of the Colorado River Basin States a report describing the*
19 *actual operation under the adopted criteria [i.e., the Operating Criteria] for the preceding*
20 *compact water year and the projected operation for the current year."*

21
22 This AOP has been developed consistent with: the Operating Criteria; applicable Federal
23 laws; the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande,
24 the Treaty Between the United States of America and Mexico, signed February 3, 1944
25 (1944 United States-Mexico Water Treaty); interstate compacts; court decrees; the Colorado
26 River Water Delivery Agreement,⁸ the 2007 Interim Guidelines; and other documents
27 relating to the use of the waters of the Colorado River, which are commonly and collectively
28 known as the "Law of the River."

29
30 The 2014 AOP was prepared by Reclamation on behalf of the Secretary, working with other
31 Interior agencies and the Western Area Power Administration (Western). Reclamation
32 consulted with: the seven Colorado River Basin States Governors' representatives; the
33 Upper Colorado River Commission; Native American tribes; other appropriate Federal
34 agencies; representatives of academic and scientific communities; environmental
35 organizations; the recreation industry; water delivery contractors; contractors for the
36 purchase of Federal power; others interested in Colorado River operations; and the general
37 public through the Colorado River Management Work Group.

38
39 Article I(2) of the Operating Criteria allows for revision of the projected plan of operation to
40 reflect current hydrologic conditions with notification to the Congress and the Governors of
41 the Colorado River Basin States of any changes by June of each year. The process for

⁸ Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for Purposes of Section 5(B) of Interim Surplus Guidelines, October 10, 2003 (69 *Federal Register* 12202, March 15, 2004). Available online at: <http://www.usbr.gov/lc/region/g4000/crwda/crwda.pdf>.

1 revision of the AOP is further described in Section 7.C of the 2007 Interim Guidelines. Any
2 revision to the final AOP may occur only through the AOP consultation process as required
3 by applicable Federal law.
4

5 **Purpose**

6
7 The purpose of the AOP is to illustrate the potential range of reservoir operations that might
8 be expected in the upcoming water year, and to determine or address: (1) the quantity of
9 water considered necessary to be in storage in the Upper Basin reservoirs as of September
10 30, 2014, pursuant to Section 602(a) of the CRBPA; (2) water available for delivery
11 pursuant to the 1944 United States-Mexico Water Treaty and Minutes No. 242,⁹ 314,¹⁰ and
12 319¹¹ of the International Boundary and Water Commission, United States and Mexico
13 (IBWC); (3) whether the reasonable consumptive use requirements of mainstream users in
14 the Lower Division States will be met under a “Normal,” “Surplus,” or “Shortage”
15 Condition as outlined in Article III of the Operating Criteria and as implemented by the
16 2007 Interim Guidelines; and (4) whether water apportioned to, but unused by one or more
17 Lower Division States, exists and can be used to satisfy beneficial consumptive use requests
18 of mainstream users in other Lower Division States as provided in the Consolidated Decree
19 of the Supreme Court of the United States in *Arizona v. California*, 547 U.S. 150 (2006)
20 (Consolidated Decree).

21
22 Consistent with the above determinations and in accordance with other applicable provisions
23 of the “Law of the River,” the AOP was developed with “appropriate consideration of the
24 uses of the reservoirs for all purposes, including flood control, river regulation, beneficial
25 consumptive uses, power production, water quality control, recreation, enhancement of fish
26 and wildlife, and other environmental factors” (Operating Criteria, Article I (2)).
27

28 Since the hydrologic conditions of the Colorado River Basin can never be completely known
29 in advance, the AOP presents projected operations resulting from three different hydrologic
30 scenarios: the minimum probable, most probable, and maximum probable reservoir inflow
31 conditions. Projected reservoir operations are modified during the water year as runoff
32 forecasts are adjusted to reflect existing snowpack, basin storage, flow conditions, and as
33 changes occur in projected water deliveries.
34

⁹ Minute No. 242, Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River dated August 30, 1973. Available online at: <http://www.ibwc.gov/Files/Minutes/Min242.pdf>.

¹⁰ Minute No. 314, Extension of the Temporary Emergency Delivery of Colorado River Water for use in Tijuana, Baja California dated November 14, 2008. Available online at: http://www.ibwc.state.gov/Files/Minutes/Minute_314.pdf.

¹¹ Minute No. 319, Interim International Cooperative Measures in the Colorado River Basin Through 2017 and Extension of Minute 318 Cooperative Measures to Address the Continued Effects of the April 2010 Earthquake in the Mexicali Valley, Baja California dated November 20, 2012. Available online at: http://www.ibwc.gov/Files/Minutes/Minute_319.pdf.

1 **Summary**

2
3 **Upper Basin Delivery.** Taking into account (1) the existing water storage conditions in the
4 basin, (2) the August 2013 24-Month Study¹² projection of the most probable near-term
5 water supply conditions in the basin, and (3) Section 6.CB of the 2007 Interim Guidelines,
6 the Mid-Elevation Release Tier will govern the operation of Lake Powell for water year
7 2014. The August 2013 24-Month Study of the most probable inflow scenario projects the
8 water year 2014 release from Glen Canyon Dam to be 7.48 million acre-feet (maf) (9,230
9 million cubic meters [mcm]).

10
11 For further information about the variability of projected inflow into Lake Powell, see the
12 2014 Water Supply Assumptions section and the Lake Powell section under the Summary of
13 Reservoir Operations in 2013 and Projected 2014 Reservoir Operations, and Tables 3 and 4.

14
15 **Lower Basin Delivery.** Taking into account (1) the existing water storage conditions in the
16 basin, (2) the most probable near-term water supply conditions in the basin, and (3) Section
17 2.B.5 of the 2007 Interim Guidelines, the Intentionally Created Surplus (ICS) Surplus
18 Condition will governs the operation of Lake Mead for calendar year 2014 in accordance
19 with Article III(3)(b) of the Operating Criteria and Article II(B)(2) of the Consolidated
20 Decree.

21
22 No unused apportionment for calendar year 2014 is anticipated. If any unused
23 apportionment becomes available after adoption of this AOP, Reclamation, on behalf of the
24 Secretary, may allocate any such available unused apportionment for calendar year 2014.
25 Any such allocation shall be made in accordance with Article II(B)(6) of the Consolidated
26 Decree and the Lower Colorado Region Policy for Apportioned but Unused Water¹³
27 (Unused Water Policy).

28
29 Colorado River water may be stored off-stream pursuant to individual Storage and Interstate
30 Release Agreements (SIRAs) and 43 CFR Part 414 within the Lower Division States. The
31 Secretary shall make Intentionally Created Unused Apportionment (ICUA) available to
32 contractors in Arizona, California, or Nevada pursuant to individual SIRAs and 43 CFR Part
33 414.

34
35 The Inadvertent Overrun and Payback Policy (IOPP), which became effective January 1,
36 2004, will be in effect during calendar year 2014.¹⁴

37

¹² The 24-Month Study refers to the operational study conducted by Reclamation to project future reservoir operations. The most recent 24-Month Study report is available on Reclamation's Water Operations websites and is updated each month. Available online at: <http://www.usbr.gov/uc/water/crsp/studies/index.html> and <http://www.usbr.gov/lc/region/g4000/24mo.pdf>.

¹³ Lower Colorado Region Policy for Apportioned but Unused Water, February 11, 2010. Available online at: <http://www.usbr.gov/lc/region/g4000/UnusedWaterPolicy.pdf>.

¹⁴ Record of Decision for Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions, Final Environmental Impact Statement, October 10, 2003 (69 *Federal Register* 12202, March 15, 2004). Available online at: http://www.usbr.gov/lc/region/g4000/crwda/crwda_rod.pdf.

1 The 2007 Interim Guidelines adopted the ICS mechanism that among other things
2 encourages the efficient use and management of Colorado River water in the Lower Basin.
3 ICS may be created and delivered in 2014 pursuant to the 2007 Interim Guidelines and
4 appropriate delivery and forbearance agreements.
5

6 **1944 United States-Mexico Water Treaty Delivery.** A volume of 1,500 maf (1,850 mcm)
7 of water will be available to be scheduled for delivery to Mexico during calendar year 2014
8 in accordance with Article 15 of the 1944 United States-Mexico Water Treaty and Minutes
9 No. 242 and 314 of the IBWC. In accordance with IBWC Minute No. 319, it is anticipated
10 that this amount may be increased to address water delivered consistent with Sections III.4
11 and III.6.e.i. In addition, Mexico may defer delivery of water pursuant to Sections III.1 and
12 III.4 of IBWC Minute No. 319.

DRAFT



INTERNATIONAL BOUNDARY AND WATER COMMISSION

COMISIÓN INTERNACIONAL DE LÍMITES Y AGUAS

Minute No. 319 -

“Interim International Cooperative Measures in the Colorado River Basin through 2017 and Extension of Minute 318 Cooperative Measures to Address the Continued Effects of the April 2010 Earthquake in the Mexicali Valley, Baja California”

September 18, 2013



Minute No. 319

- ◆ **5 Year Interim Agreement**
(thru December 31, 2017)
- ◆ **Comprised of 7 Sections :**
 - ▶ Extension of Minute 318
 - ▶ Surplus Sharing
 - ▶ Shortage Sharing
 - ▶ Intentionally Created Mexican Allocation (ICMA)
 - ▶ Salinity Management
 - ▶ Water for the Environment & ICMA to ICS Exchange
 - ▶ International Projects



**Minute No. 319 Signing Ceremony –
November 20, 2012**

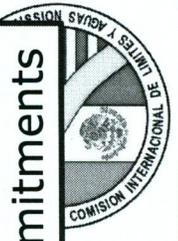


Implementation Process

- ◆ Establish Process Team (January 15, 2013)
- ◆ Identify the specific commitments and tasks
- ◆ Review the work needed
 - ▶ Feasibility Studies
 - ▶ Executive Projects
 - ▶ Binational Work Groups

ATTACHMENT 1
LIST OF MINUTE 319 COMMITMENTS

COMMITMENTS				
PROPOSED MEASURES				
Prepare a comprehensive Minute through 2026.				
IBWC will request the 24-Month Study from Reclamation and will provide it to CONAGUA				
Reclamation will provide the Commission with updated projections in the event of a mid-year review.				
1. EXTENSIONS OF MINUTE 318				
Perform the accounting of past and future deferred volumes.				
Process for use of Minute 318 water				
2. SURPLUS				
Timely notification process for surplus delivery schedule.				
3. SHORTAGE				
Consultation process when Mead elevation is below 1025				
U.S. will provide timely information on basin conditions as often as required.				
U.S. will provide 24-Month Study on a monthly basis				
U.S. will provide information on the causes of low Lake Mead elevations.				
Monitor and correlate Lake Mead elevations with drought indicators. Assess its applicability for future agreements.				
4. ICMA				
MX/IBWC will provide notification of ICMA creation and describe its origin				
MX/IBWC will request delivery of ICMA US/IBWC will review system status and approve the request				
Reclamation will send IBWC the ICMA gaging measurements				
IBWC will perform accounting for the creation, delivery, and balance of ICMA				
5. SALINITY				
Exchange between Principal Engineers [of letters?] to document the salinity calculation process				
6. PILOT PROGRAM WATER FOR THE ENVIRONMENT AND ICMA/ICS EXCHANGE				
Implement pilot project				
Evaluate the aspects involved in creating water for the environment				
Document the arrangements by NGOs to provide the base flow in a Principal Engineers Report				
Obtain resources for the joint investigation of the different aspects of the program:				
Evaluate the performance of the pilot program				
Explore options for future joint cooperative actions				
Test the mechanisms for assignment and delivery of water to the Riparian Corridor				
Evaluate the ecosystem response				
Develop a funding schedule for the 21 million dollars				



List of Minute No. 319 Commitments

Implementation Matrix



WORK GROUPS FOR IMPLEMENTATION OF MINUTE NO. 319



WORK GROUP	SUB-GROUP	OBJECTIVE	RELEVANT ACTIVITIES	DISTRIBUTION OF ACTIVITIES	PARTICIPANTS
1. HYDROLOGY GROUP & BASIN CONDITIONS		Monitoring and correlation of elevation in Lake Mead with drought indicators. Conditions of the Colorado River Basin	<ul style="list-style-type: none"> Monitor and correlate elevations in Lake Mead with drought indicators Evaluate implementation of indicators in future agreements Consultations on Annual Operation Plan. Monitor and review of current conditions in the Colorado River Basin Send and Received 24 Month Study 		Mexico: CILA MEX CONAGUA USA: USIBWC USBR
		Develop delivery schedule of pulse flow and base flow. Ensure that flow reach intended areas. Jointly develop research and evaluation plan for different aspects of the pilot project.	<ul style="list-style-type: none"> Develop a delivery schedule of pulse and base flows Conduct environmental group meetings. Establish the submission date for the delivery plan Develop a plan for monitoring the environmental response Ensure pulse flow arrives at delta Ensure base flow arrives at delta Develop plan for research and evaluation and pilot project report. 		Mexico: CILA MEX INE CONAGUA CONANP PRONATURA COLEF USA: TODOS
2. ENVIRONMENTAL GROUP	a) MIGUEL ALEMAN PILOT PROJECT	Development of Environmental Restoration Project in Miguel Alemán.	<ul style="list-style-type: none"> Develop Environmental Restoration Project in Miguel Alemán. 		Mexico: CILA MEX CONAGUA INE CONANP PRONATURA COLEF USA: USIBWC
	b) ENVIRONMENTAL PROJECTS	Identification of other areas and environmental restoration projects	<ul style="list-style-type: none"> Project of the National Fish and Wildlife Foundation and U.S. Fish and Wildlife Service. Identification of other areas and environmental restoration projects. 		Mexico: CILA MEX CONAGUA INE CONANP PRONATURA COLEF USA:

Process Teams

BINATIONAL PROCESS TEAM DESCRIPTION

- ◆ Binational Team to execute and track overall implementation of the Minute
- ◆ Tasked with coordinating the process to insure commitments are met within the established timelines

ACTIONS TO DATE

- ◆ Binational Kick-Off: January, 15, 2013
- ◆ Headed by Principal Engineers at USIBWC, MXIBWC, and Reclamation
- ◆ Coordination leads from each section identified to handle day to day and track implementation process



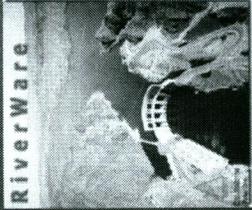
Process Teams

HYDROLOGY AND BASIN CONDITIONS DESCRIPTION

- ◆ Binational team formed to
 - ▶ Monitor and correlate elevations in Lake Mead with drought indicators
 - ▶ Evaluate implementation of indicator in future agreements
 - ▶ Monitor and review current Colorado River Basin conditions
 - ▶ Annual Operating Plan and 24-Month Study consultations

ACTIONS TO DATE

- ◆ Binational Kick-Off: Sept. 13, 2013
- ◆ Will establish work plan for meeting commitments identified in the Minute
- ◆ Binational Team consists of Federal and State Agencies
- ◆ Basin Condition Status Updates occurring regularly



RiverWare in Colorado River Basin Operations

- The RiverWare modelling platform is used for decision support over all time horizons
 - Long-term: The Colorado River Simulation System (CRSS)
 - Mid-term: The 24-Month Study model and Mid-term Operations Probabilistic Modeling System
 - Short-term: LC Region's Daily Operations model
 - Real-time: LC Region's Davis Parker model

RECLAMATION

5

24-Month Study Overview –Sept. 2013



Process Teams

WATER ACCOUNTING AND SYSTEM OPERATIONS

DESCRIPTION

- ◆ Binational Team to analyze effects of Minute commitments on system operations and establish procedures for water accounting

ACTIONS TO DATE

- ◆ Binational Kick-Off: August 14, 2013
 - ▶ Federal, State, and Non-Governmental Organizations from U.S. and Mexico
- ◆ Identified list of commitments and tasks
 - ▶ E.g Section III.1 Deferred Delivery, ICMA, BICS, etc.
- ◆ Reviewing draft pulse flow proposal for feasibility within system operations constraints and to address any operational concerns with proposed rates of delivery



International Projects

REFORMA CANAL LINING PROJECT

DESCRIPTION

- ◆ Water Conservation Project in Mexico to generate Intentionally Created Mexican Allocation (ICMA)
- ◆ Part of the \$21 Million USD invested by U.S. for water infrastructure and the environment pilot projects

ACTIONS TO DATE

- ◆ Binational Kick-Off: Sept. 12, 2013
- ◆ Mexico delegation currently performing studies to evaluate best use of funds and various project alternatives to meet Minute goals
- ◆ USIBWC and Reclamation finalizing Inter-Agency Agreement and internal processes to transfer funds to Mexico



Reforma Canal at Morelos Dam



International Projects

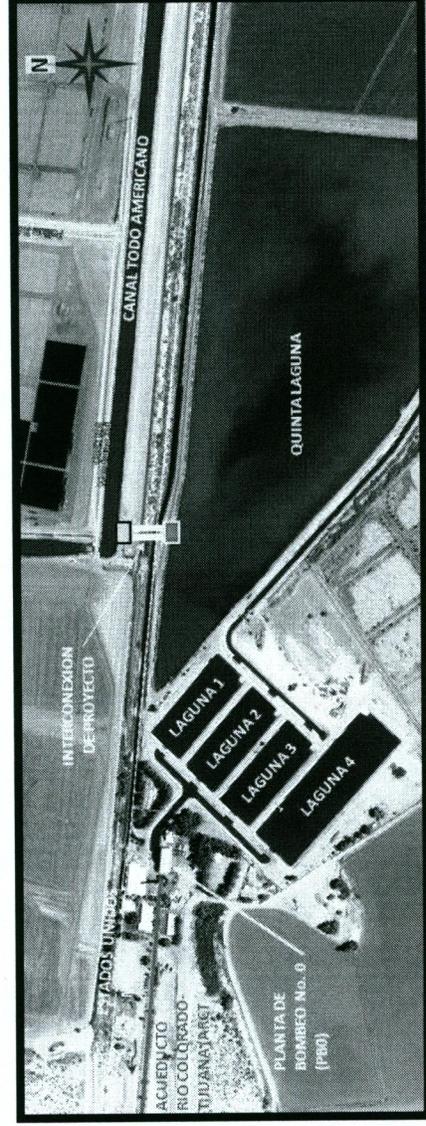
ALL AMERICAN CANAL(AAC) - PUMPING PLANT NO. 0(PB0) CONNECTION

DESCRIPTION

- ◆ Project to allow for delivery of water to Mexico at the American Canal during emergencies
- ◆ Currently Being Designed by Comisión Estatal del Agua de Baja California (CEA) with additional consultations with Imperial Irrigation District and Reclamation

ACTIONS TO DATE

- ◆ 50% Design Plans currently being developed
- ◆ Binational Technical Team meeting regularly to share data and provide regular review of design documents and continue efforts prior to Minute No. 319 signing
- ◆ "White Paper" being developed to identify latest project details



AAC-BP0 Connection Project Site



International Projects

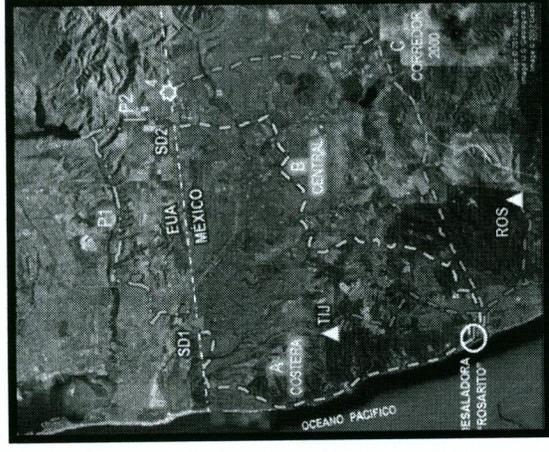
BINATIONAL DESALINATION PLANT IN ROSARITO, B.C.

DESCRIPTION

- ◆ Develop binational study for development of a binational desalination plant in Rosarito, B.C.
 - ▶ Capacity of 2.2 cubic meters per second for supply to Tijuana and San Diego

ACTIONS TO DATE

- Several Phases Already Developed for site selection and connections
- ◆ Environmental Study to be developed by Mexico
- ◆ Additional Binational discussion planned for October 2013



Alternatives analysis for routing of U.S. connection



International Projects

OTHER INTERNATIONAL PROJECTS

DESCRIPTION

- ◆ Beneficial Use of the New River
- ◆ Binational Desalination Plant near the Gulf of California (Sea of Cortez)
- ◆ Modernization and Technical Improvements to Irrigation District 014

ACTIONS TO DATE

- These additional projects identified in the Minute are currently being analyzed by Mexico for further development and prioritization
- Additional binational discussion expected once review is completed



Environmental Projects

LAGUNA GRANDE RESTORATION: PHASE 1

DESCRIPTION

- ◆ Project under the Minute 319 Pilot Project carried out using a portion of \$21 Million funds and contributed to PRONATURA NOROESTE
- ◆ Restoration of a 14 hectares (35 acres) restoration site located near the riparian corridor in 2013

ACTIONS TO DATE

- Phase I Restoration Project
 - 30% Complete (April-July 12)
 - Site work in progress to clear invasive species and level land
 - Produced 60,000 trees to be planted on-site
 - Planted 8,182 trees in a 7.5 acre area
 - A total 4.7 hectares (11.6 acres) has been reforested (33.5% of the total area)
- Proposal for Phase II submitted September 2013 and currently under review
 - 115 hectares (284 acres)



Tree Planting at Laguna Grande
Restoration Site - 04/2013



Environmental Projects

ENVIRONMENTAL RESTORATION PROJECT AT MIGUEL ALEMAN SITE

DESCRIPTION

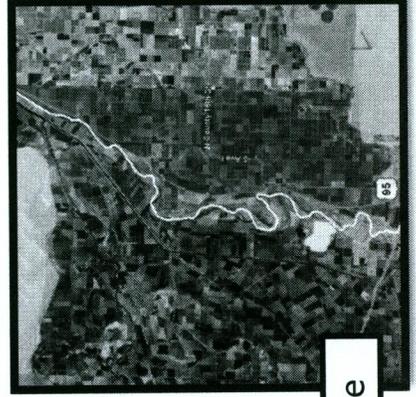
- ◆ 30 hectares (74 acres) Restoration site located in Mexico near the Hunter's Hole Restoration site in the U.S.
 - ▶ Planting of 56,500 trees
 - ▶ Production of 40,000 mesquites, 15,000 willows, and 15,000 cottonwoods
- ◆ Project funded using U.S. and Mexican contributions (approx \$700,000 USD)

ACTIONS TO DATE

- Considerable work complete using Mexican funds
- Agreement currently being finalized for U.S. portion



Removal of Non-Native Plants



Miguel Aleman Restoration Site



Water for the Environment & ICMAA ICS Pilot Project

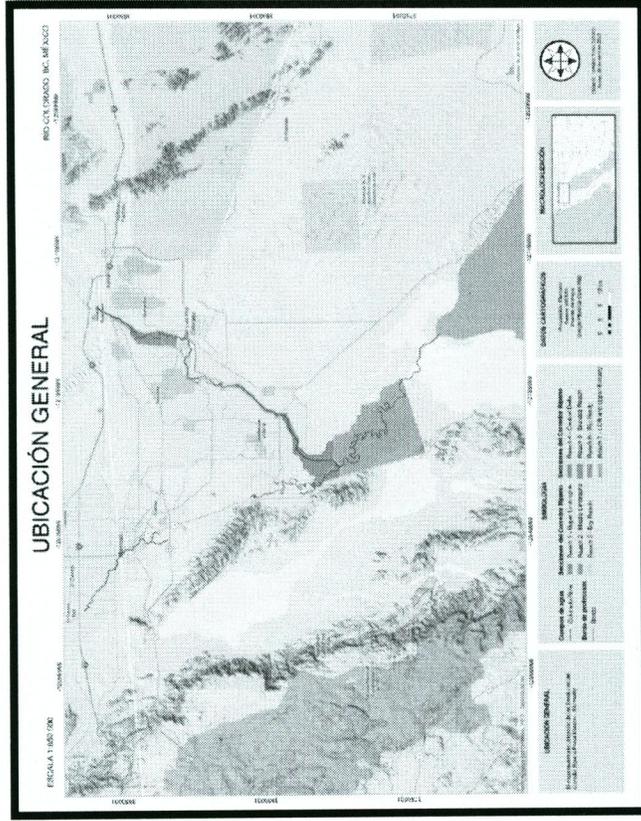
ENVIRONMENTAL FLOW DELIVERY PLAN

DESCRIPTION

- ◆ Pilot Project to provide environmental water to the Colorado River limitrophe and its delta
 - ▶ 52,696 acre-feet (65 MCM) for base flow to provide water for restoration sites through 2017
 - ▶ 105,392 acre-feet (130 MCM) for pulse flow in 2014

ACTIONS TO DATE

- Binational Environmental Flows Team formed
 - Federal, State, and Non-Governmental Organizations from U.S. and Mexico
- Binational Group of Experts and Scientists to provide recommendations for pulse flow and environmental monitoring goals
 - Binational Meetings held May, July, and September
- Currently Drafting Delivery Plan
- Currently Developing Monitoring Recommendations



Limitrophe Reaches Targeted
by Pulse Flow



Water for the Environment & ICMA ICS Pilot Project

SECTION III.1 DEFERRED DELIVERY AND ICMA

DESCRIPTION

- ◆ Minute Commitment to allows Mexico to defer delivery of allocated water until a future date
 - ▶ Includes volumes previously deferred under Minute No. 318
 - ▶ Source of water for the environmental pulse flow and ICMA/ICS exchange pilot project (124,000 acre feet [153 MCM])

ACTIONS TO DATE

- 349,913 thousand cubic meters (283,678 AF) scheduled as of October 31, 2013 for deferred delivery
- Additional volumes expected to be deferred in November and December of 2013 and 2014 calendar year



INTERNATIONAL BOUNDARY AND WATER COMMISSION

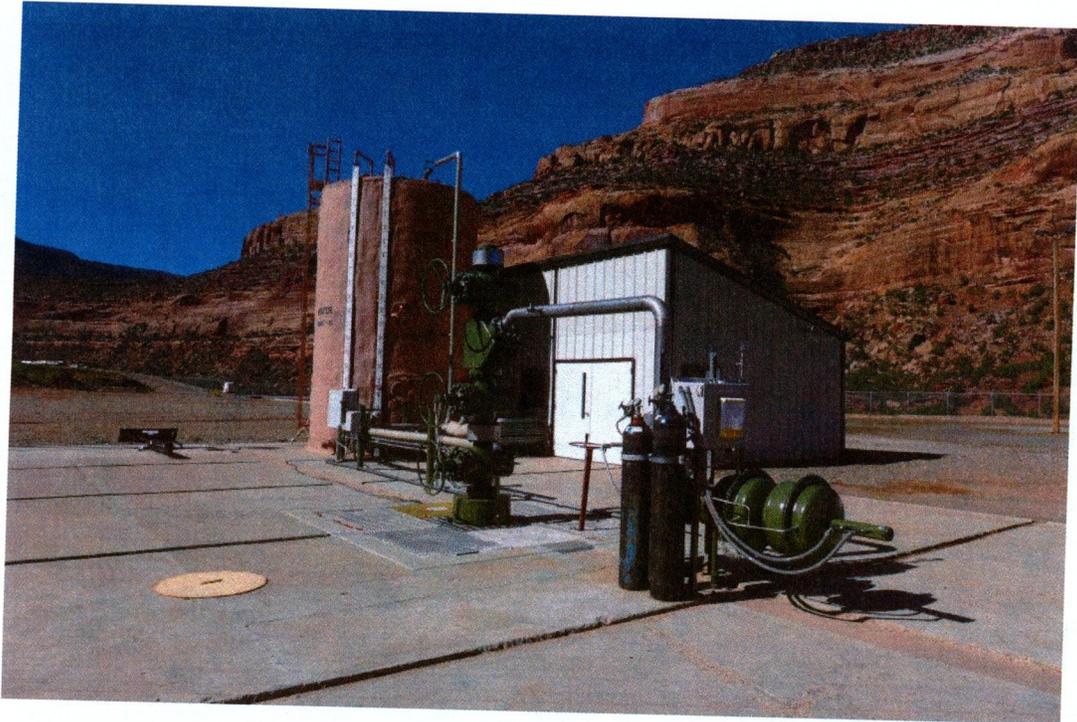
COMISIÓN INTERNACIONAL DE LÍMITES Y AGUAS



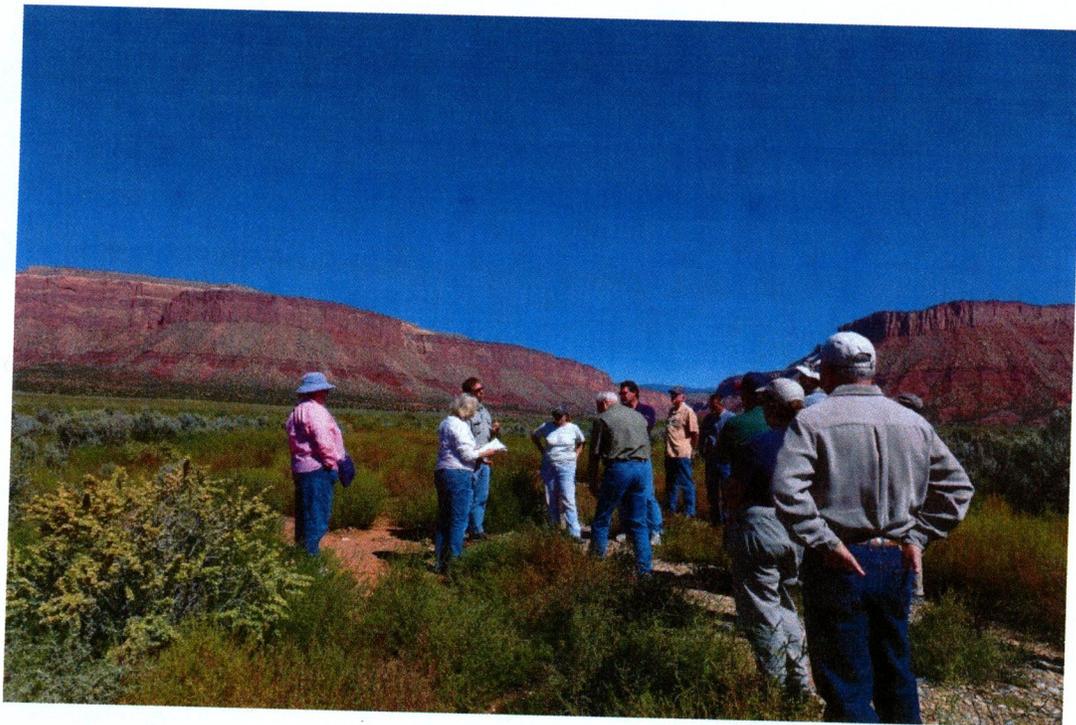
QUESTIONS?

Paradox Valley Tour September 24-25, 2013

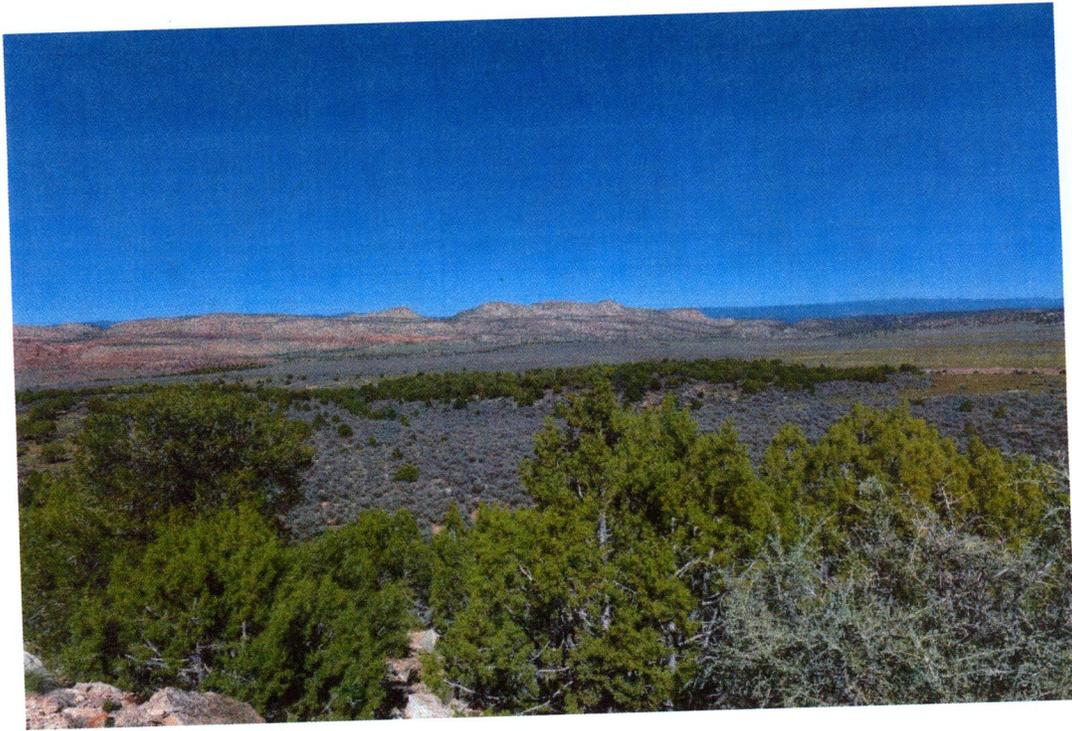
Paradox Brine Injection Well



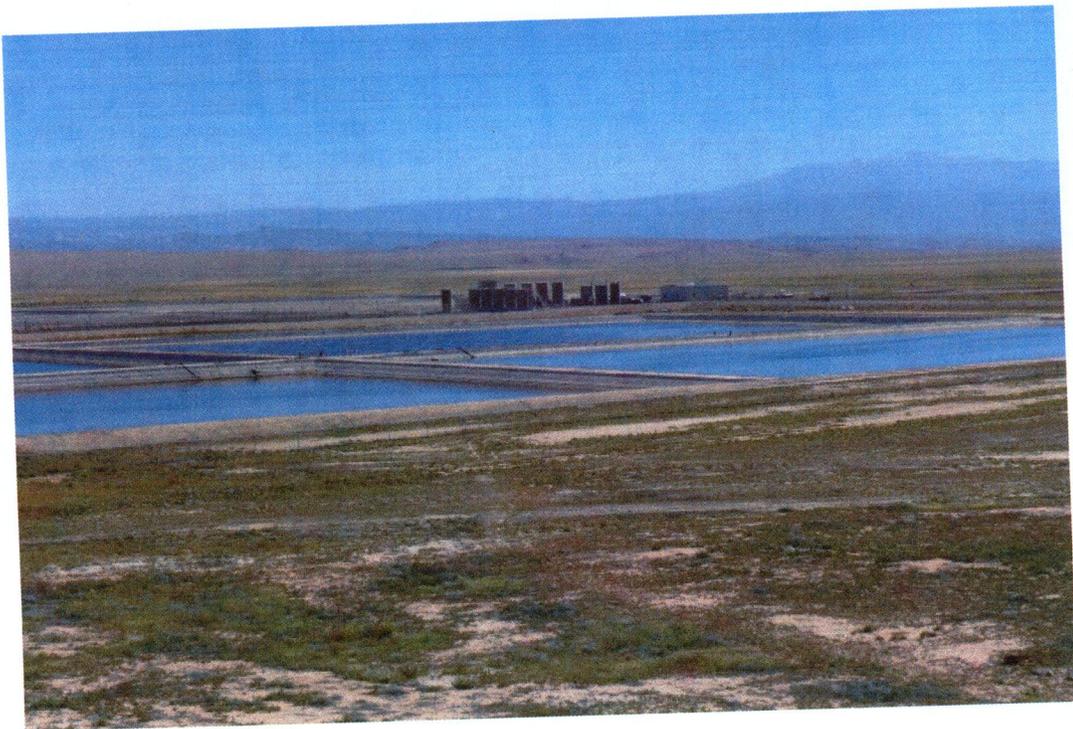
West Paradox Evaporation Site



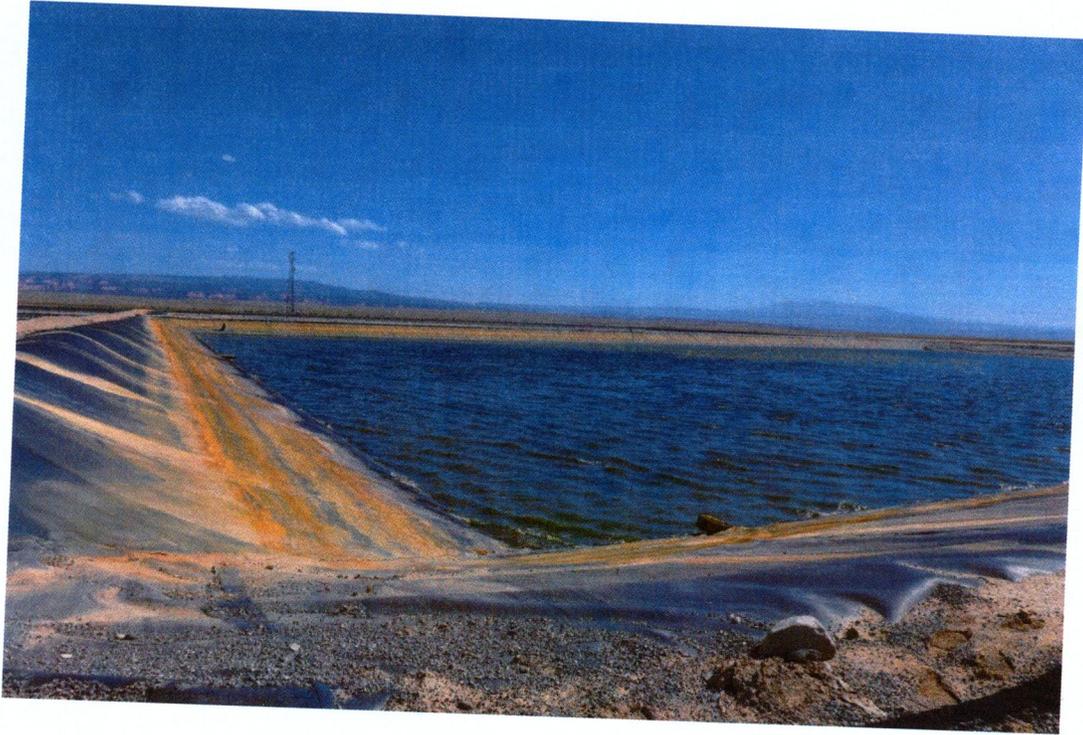
Overlooking East Paradox Evaporation Site



Privately-owned Danish Flats Evaporation Ponds Facility in Cisco, Utah

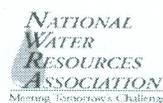


Evaporation Pond at Danish Flats Facility



Netted Evaporation Pond at Danish Flats Facility





July 26, 2013

The Honorable Dan Ashe
Director
US Fish and Wildlife Service
1849 C. St. NW
Washington, DC 20240

Re: Categorical exclusion for listing injurious species under the Lacey Act (Federal Register Notice FWS- HQ-FHC-2013-NO44; July 1 2013)

Dear Director Ashe:

We are writing on behalf of our organizations to request that the US Fish and Wildlife Service grant a 90 day extension, until November 1, 2013, for public comment on your proposed changes to the National Environmental Policy Act: Implementing Procedures; Addition to Categorical Exclusions for U.S. Fish and Wildlife Service as noticed in the July 1, 2013 Federal Register.

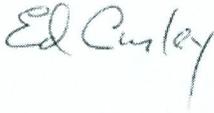
Our members are responding to the serious challenges posed by invasive species. This includes implementing measures ranging from control and treatment in the water supply to partnerships with Federal and State agencies on activities such as boat inspections and public awareness outreach.

The water supply community has a vital interest in trying to stop the spread of invasive species; however, we also depend on the ability to move water across state boundaries to satisfy the growing needs of the populations that we serve. This is especially true for our associations which represent water agencies in the Arid West who must, for example, move Colorado River water over multiple state boundaries, from Colorado to New Mexico and from Oklahoma to Texas.

The proposed changes concerning categorical exclusions in the NEPA process when species are listed under the Lacey Act provide an opportunity for the water community to work with the US Fish and Wildlife Service in support of our shared goals of stopping the spread of Invasive species. This is a complex issue, and we would greatly appreciate your granting a 90 day extension for the comment period. This extension would allow our associations and their member agencies the time to prepare and submit thoughtful comments for your consideration.

Thank you very much for your consideration of our request.

Sincerely,



Ed Curley, President
Western Coalition of Arid States



Timothy Quinn, Ph.D., Executive Director
Association of California Water Agencies



Dan Keppen, Executive Director
Family Farm Alliance



Leroy Goodson, Executive Director
Texas Water Conservation Association



Robert W. Johnson, Interim Manager
National Water Resources Association

cc: Ms. Susan Jewell

U. S. Fish and Wildlife Service

4401 North Fairfax Drive Suite 700

Arlington, VA 22203

E-Mail: prevent_invasives@fws.gov

latimes.com/science/sciencenow/la-sci-sn-willow-flycatcher-lawsuit20130930,0,1979959.story

latimes.com

Lawsuit filed to protect endangered southwestern willow flycatcher

By Louis Sahagun

1:05 PM PDT, September 30, 2013

A U.S. Department of Agriculture program designed to control invasive streamside trees advertisement by releasing exotic leaf-eating beetles has gone awry and is destroying the nesting areas of a federally endangered songbird, according to a lawsuit filed Monday by two conservation groups.

The lawsuit filed in U.S. District Court in Las Vegas by the Center for Biological Diversity and the Maricopa Audubon Society accuses the department and its Animal and Plant Inspection Service, or APHIS, of failing to safeguard the southwestern willow flycatcher from the effects of the release of the beetles imported from central Asia to eradicate tamarisk trees.

Flycatchers often nest where tamarisks have crowded out native cottonwood and willow trees. About 25% of the birds' territories are in areas dominated by the tamarisk, a water-hungry tree that grows in impenetrable thickets.

The department began releasing the beetles in 14 states in 2005 with assurances that the insects would not be introduced within 200 miles of flycatcher habitat. It also said the beetle could not survive in regions south of 37 degrees north latitude, where shorter days suppress its reproduction.

In an environmental assessment published two years earlier, APHIS officials said the strain of beetle "exhibits a particular life history that will enable its safe release in the 14 proposed states."

According to the lawsuit, however, the department in 2006 introduced beetles into flycatcher-nesting areas along the Virgin River in southern Utah. Now, they are spreading into nesting areas in southern Utah, Nevada and northern and western Arizona.

"Their agreements were broken," Robin Silver, a spokesman for the Center for Biological Diversity, said. "The beetle is going wild below 37 degrees north latitude."

"If we don't deal with this problem immediately, it will wipe out the middle part of the flycatcher's range," Silver said. "Eventually, there may not be enough habitat left to sustain the species."

The lawsuit seeks mitigation, including that APHIS consult with the U.S. Fish and Wildlife Service to develop and fund a plan to replace tamarisks targeted by the program (which was terminated in 2010) with native willows and cottonwood trees.

“The APHIS program has been successful in terms of beetles killing tamarisks,” Mark Larson, president of the Maricopa Audubon Society, said in an interview. “But killing those tamarisks has left the flycatchers with no place to nest.”

An estimated 90% of the flycatcher's historical breeding habitats have been wiped out or altered by river and stream impoundments, flood-control projects and groundwater pumping, federal wildlife authorities say. Other threats include the brown-headed cowbird, which takes over the nests of other birds, and ongoing destruction of tropical rainforests, where the flycatcher winters.

ALSO:

[How much does a glass of wine contain? It may depend on the glass](#)

[Sayonara, silicon? Engineers build first carbon nanotube computer](#)

[Convicted earthquake scientist says he can't be blamed for 309 deaths](#)

louis.sahagun@latimes.com

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YOUR WATER YOUR FUTURE



SOUTHERN NEVADA WATER AUTHORITY

October 2, 2013

Dr. Terry Fulp, Director
U. S. Department of Interior
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 61470
Boulder City, Nevada 89006-1470

Subject: Inadvertent Overrun and Payback Policy Implementation

Dear Dr. Fulp:

Hydrologic conditions in the Colorado River Basin continue to deteriorate and Reclamation's responsibilities as water master of the Lower Colorado River Basin have never been more significant. As ongoing drought pushes the Colorado River system closer to a first-ever shortage declaration, all entities entitled to receive water from the system are obliged to stay within their contractual and decreed rights, use water only beneficially, and honor any obligations to pay back the system for past overruns consistent with Reclamation's Inadvertent Overrun and Payback Policy (IOPP) and enforcement thereunder. Reclamation, for its part, should diligently ensure user compliance with the Law of the River, including the IOPP.

On July, 24, 2013, Reclamation met with a group of stakeholders and shared its position relative to certain aspects of the IOPP. This letter is to confirm our understanding of Reclamation's position and to clarify our expectations as to how Reclamation will implement and enforce the IOPP.

1. Reclamation confirmed that the IOPP does not allow system payback to be delayed based on a contractor's assertion of "hardship." We agree with and support Reclamation's position. As reservoir levels decline and critical elevations are reached, it is vitally important that the system be made whole as soon as possible.
2. Reclamation confirmed that the IOPP and payback obligations therein will be enforced in strict accordance with Section 9 of the IOPP and will be measured by the actual reduction in the contractor's consumptive use in that year. We agree with and support Reclamation's position. To allow a contractor to overrun its approved order in the same year that it is supposed to be paying the system back would subvert the intent of the IOPP and abuse the system.

3. Reclamation indicated a willingness to work with affected contractors to pre-approve established payback mechanisms prior to publication of the Decree Accounting Report. We agree with that approach and are counting on Reclamation to follow through with that action. Pre-approval of payback mechanisms will allow contractors to respond more quickly to the Decree Accounting Report and expedite system payback.
4. Reclamation currently estimates about a fifty percent probability of shortage in 2016. Just as it does for the delivery of Intentionally Created Surplus and ICMA, Reclamation should insure that Colorado River overruns do not trigger or exacerbate shortage. Accordingly, Reclamation should closely monitor ongoing water use by all contractors with the aim of avoiding any new overruns as shortage is approached and should use its best efforts to ensure that all outstanding overrun accounts are paid back prior to the beginning of any shortage year.
5. Because the IOPP does not allow overruns during shortage, we ask that Reclamation advise all contractors of the possibility of shortage and work proactively to ensure contractors are prepared to police themselves and limit water deliveries accordingly.

Through many conversations with Reclamation and other stakeholders, we believe a consensus developed on many issues relating to IOPP implementation and enforcement. In the near-term we did not resolve all of the outstanding issues related to the IOPP; however, we feel that the current understanding of Reclamation's interpretation of the IOPP and our expectations outlined above help minimize risk and provide the assurances necessary for ongoing operations in the face of what appear to be imminent shortage declarations. Accordingly, we propose that Reclamation delay further development and completion of IOPP procedures until projected hydrologic conditions improve significantly. This delay in the finalization of procedures will allow Reclamation and our agencies to shift focus away from administrative procedures and instead focus on operations of the system as we approach critical reservoir elevations.

The future health of the Colorado River system is dependent upon the cooperative relationships that we have all worked so hard to develop. As you know, the Basin States, water users and other stakeholders are considering bold alternatives to conserve and augment water supplies in the Colorado River system. These efforts, and the substantial expenditures needed to make them a reality, cannot succeed and are not likely to be undertaken unless Reclamation continues to demonstrate its commitment to manage the river in accordance with applicable laws, regulations, contract entitlements, and policies, including the IOPP.

Dr. Terry Fulp
October 2, 2013
Page 3

We appreciate Reclamation's continued efforts to manage the Colorado River system in a sustainable fashion, particularly as basin hydrology deteriorates. Ongoing dialogue such as we have had with regard to the IOPP is essential. We look forward to addressing the future challenges of the system together and ask that, in recognition of this letter, Reclamation respond with its concurrence.

Sincerely,

A handwritten signature in black ink, appearing to read "Patricia Mulroy". The signature is fluid and cursive, with a large initial "P" and a long horizontal stroke at the end.

Patricia Mulroy
General Manager
Southern Nevada Water Authority

A handwritten signature in black ink, appearing to read "David Modeer". The signature is cursive and somewhat stylized, with a large initial "D" and a long horizontal stroke at the end.

David Modeer
General Manager
Central Arizona Project



United States Department of the Interior

BUREAU OF RECLAMATION
Lower Colorado Regional Office
P.O. Box 61470
Boulder City, NV 89006-1470

IN REPLY REFER TO:

LC-1000
ADM-1.10

OCT 03 2013

VIA ELECTRONIC MAIL ONLY

Mr. David Modeer
General Manager
Central Arizona Project
P.O. Box 43020
Phoenix, AZ 43020

Ms. Patricia Mulroy
General Manager
Southern Nevada Water Authority
1001 South Valley View
Las Vegas, NV 89153

Subject: Inadvertent Overrun and Payback Policy Implementation

Dear Mr. Modeer and Ms. Mulroy:

We have received your letter dated October 2, 2013, regarding the ongoing implementation of the Inadvertent Overrun and Payback Policy (IOPP). Your letter seeks confirmation of Reclamation's position on certain issues associated with implementation of the IOPP that were discussed at the July 24, 2013 meeting attended by representatives of Reclamation, your agencies, and other Colorado River contractors.

As indicated in your letter, hydrologic conditions have not improved, the amount of storage in the Colorado River Basin continues to decrease, and Reclamation's recent projections indicate that there is approximately a 50 percent chance that the Secretary of the Interior will determine a shortage condition in the Lower Basin for calendar year 2016. I understand and share the concerns of all in the Basin, particularly those entities which would be impacted by a shortage determination. In light of the unique role of the Department of the Interior, through the Secretary of the Interior and Reclamation, I assure you that we take our responsibilities for management of the lower Colorado River Basin extremely seriously, and we will continue to manage the system to ensure user compliance with the Law of the River, including the IOPP. The ongoing drought conditions in the Basin require all users of the Colorado River work together to take actions to conserve water and preserve reservoir storage with the goal of minimizing or avoiding shortages, if possible.

Based on our discussions and as specifically noted in your letter, Reclamation intends to continue to administer the IOPP in accordance with the policy. Specifically:

1. The IOPP does not allow system payback to be delayed (i.e., there is no "hardship" provision).
2. Reclamation will follow the precise language of Section 2.9 of the IOPP in the enforcement of paybacks.
3. Reclamation will work with contractors with potential overruns to pre-approve established payback plans prior to publication of the Water Accounting Report.
4. Reclamation agrees that Colorado River overruns should not trigger or exacerbate shortage and will closely monitor ongoing water use by all contractors with the aim of avoiding any new overruns as a shortage is approached. Furthermore, Reclamation will use its best efforts to ensure that all outstanding overrun accounts are paid back prior to the beginning of any shortage year.
5. Given that the IOPP does not allow overruns during shortage, Reclamation will advise all entitlement holders of the possibility of shortage (through the 43 CFR Part 417 process and other meetings as appropriate) and work proactively - in advance - to ensure contractors are aware of the changing conditions and are prepared to limit water deliveries accordingly.

In light of current hydrologic conditions, our mutual on-going efforts to resolve outstanding issues related to the IOPP, and the successful implementation of the IOPP that has occurred since 2004 without IOPP Procedures, we agree with your agencies that it would be prudent to delay further development and completion of IOPP procedures until hydrologic conditions improve. We look forward to working with your agencies and others as we continue to administer the IOPP.

Given the ongoing drought conditions in the Basin, Reclamation will continue to work with all Colorado River water users to manage the river in accordance with applicable laws, regulations, contract entitlements, and policies. We recognize the need for robust responses to the ongoing drought, and believe that cooperative approaches to the challenges we face provide the greatest likelihood of successful implementation.

Sincerely,



Terrance J. Fulp, Ph.D.
Regional Director

cc: Ms. Tanya M. Trujillo
Executive Director
Colorado River Board of
California
770 Fairmont Avenue, Suite 100
Glendale, CA 91203-1035

Ms. Sandra A. Fabritz-Whitney
Director
Arizona Department of Water Resources
3550 North Central Avenue
Phoenix, AZ 85012-2105

Ms. Jayne Harkins, P.E.
Executive Director
Colorado River Commission
State of Nevada
555 East Washington Ave, Suite 300
Las Vegas, NV 89101-1065



NWRI

California Department of Water Resources National Water Research Institute

Drought Response Workshop

Tuesday, October 8, 2013 ♦ 9:00 am to 3:30 pm

Final Agenda

Location:

Atrium Hotel
18700 MacArthur Blvd.
Irvine, CA 92612
Room: Garden 4 & 5

Contacts:

Brandi Caskey, NWRI
(714) 378-3278 (office)
Jeff Mosher, NWRI
(714) 705-3722 (cell)

Time	Topic	Presenter
9:00 am	Welcome and Introductions	Jeanine Jones, P.E. , California Department of Water Resources (DWR) Jeff Mosher , National Water Research Institute (NWRI)
9:15 am	Statewide Water Conditions and Preparing for a Potentially Dry 2014	Jeanine Jones , DWR
9:45 am	Colorado River Basin Study	Bill Hasencamp , Metropolitan Water District of Southern California
10:15 am	State Water Project Operations Outlook for 2014	John Leahigh, P.E. , DWR
10:45 am	Break	
11:00 pm	Climate Change and Water Supply Research	Mike Anderson, Ph.D. , DWR
11:30 am	New Center for Weather and Water Extremes at Scripps	Martin Ralph, Ph.D. , Scripps Institution of Oceanography
12:00 noon	Poolside Buffet Lunch	
12:45 pm	Irvine Ranch Water District's Groundwater Banking Program	Paul Cook, P.E. , Irvine Ranch Water District

Time	Topic	Presenter
1:15 am	Development and Implementation of Drought-Related Messaging	Darcy Burke , Municipal Water District of Orange County
1:45 pm	Potential Political Impacts in Southern California of Drought-Related Water Availability and Rate Increases	John Rossi , Western Municipal Water District
2:15 pm	Remote Sensing Products to Help Manage Water During Dry Times	Stephanie Granger , NASA Jet Propulsion Laboratory, California Institute of Technology
2:45 pm	SFPUC's Experience with the Rim Fire	Dave Briggs , San Francisco Public Utilities Commission
3:15 pm	Summary and Wrap-Up	Jeanine Jones , DWR Jeff Mosher , NWRI
3:30 pm	Workshop Adjourns	

For questions, please contact Brandi Caskey of NWRI at email bcaskey@nwri-usa.org or call (714) 378-3278.

Basin States Technical Work Group Meeting

October 17, 2013

McCarran Airport, Las Vegas, Mezzanine Rooms 4 and 5

10:00 am to 3:00 pm

DRAFT AGENDA

1. Welcome and introductions
2. Review of Agenda
3. Discussion of Colorado River Basin Reservoir Operations, Hydrology and Risk Analysis – Katrina Grantz designee and Dan Bunk
4. Update on water year 2013 and forecasted water year 2014 hydrology – Kevin Werner CRBFC
5. Colorado River stream flow predictions based on sea surface temperatures influenced synoptic storm patterns on the Upper Colorado River watershed – Dr. Rajagopol/CAP to coordinate
6. Update of USGS ground water studies in the Colorado River Basin – Brett Bruce USGS
7. Overview of Wyoming weather modification experiment, status and progress – Barry Lawrence (Wyoming Water Development Office) and Dan Breed (Project Scientist with NCAR)
8. Overview and Status update of Weather Modification in the Colorado River Basin – Tom Ryan
9. Proposed changes to the 24-Month Study – Katrina Grantz designee USBR
10. Update on basin Study Next Steps progress – Carly Jerla
11. Update on implementation of Minute 319 including environmental flows to the Delta – Chris Cutler
12. Status Reports:
 - a. Lake Powell Pipeline – Robert King
 - b. Navajo Negotiations – Tom Bushatzke
 - c. CAP Update
 - d. SNWA Updates
 - e. Overruns and IOPP update – Paul Matuska
 - f. MTOM update – Shana Tighi USBR
13. Other Items

14. Proposed next meeting – April 23, 2014

DRAFT CBRFC Fourth Annual Stakeholder Agenda
Colorado Basin River Forecast Center
October 22nd and 23rd, 2013

October 22nd

9:00 a.m. – 10:00 a.m.

- Overview of Meeting and Goals
 - Summary of comments from the questionnaire that helped shape agenda
 - Our goals for the meeting
 - Current CBRFC paradigm (summary)
 - New products and services from the past year (summary)
 - New products and services planned for the upcoming year (summary)
 - What was something we felt we did really well?
 - What was something that we think we can improve on?
 - Additional goals from attendees that we may have missed (i.e., what are the goals of the attendees?).

10:00 a.m. – 10:30 a.m.

- Customer Survey Results
 - How we plan to respond to at least some key points
 - Discussion

10:30 a.m. – 11:00 a.m. Break to meet with staff, others

11:00 a.m. – 12:30 p.m.

- CBRFC Product Review: (when, where, what key products we issue with a focus on water supply and Daily ESP)
 - Water Supply
 - Development Process
 - Collaboration and Coordination (clear up NRCS “vs.” CBRFC perceived drama)
 - Interpretation and presentation of forecasts
 - What does water supply tell us and when does it tell us?
 - Forecast limitations and uncertainty
 - Role of soil moisture, QPF/QTF, low flow accuracy, routing
 - Deterministic forecast
 - Dissemination and use
 - Discussion

12:30 p.m. – 1:30 p.m. Lunch (brought in)

1:30 p.m. – 3:30 p.m.

- ESP
 - Review, using Green Mountain as an example forecast point
 - Calibration
 - Accounting for diversions and use
 - Unregulated vs. Regulated vs. Natural
 - Interpretation and Presentation
 - Daily ESP forecast
 - Adjusted ESP traces vs. Non-adjusted ESP traces
 - Uncertainty
 - Dissemination
 - Discussion

3:30 p.m. – 4:00 p.m. Wrap up, meet with staff, others

5:30 p.m. – ??? Happy Hour, Downtown Salt Lake City

October 23rd

9:00 a.m. – 10:00 a.m.

- Daily ESP Forecast verification
 - Strengths and weaknesses
 - Discussion
- Annual verification studies from water supply focal points

10:00 a.m. – 11:00 a.m.

- Stakeholder presentations
 - Presentation from WWA
 - Presenter 1 (SNWA)
 - Presenter 2 (TBD)

11:00 a.m. – 12:00 p.m.

- Product Accessibility
 - Webpage
 - Lessons learned from the past
 - How have we addressed comments in the past?
 - Outstanding improvements
 - Path forward
 - Current improvements
 - Added or Soon-To-Be-Added Documentation
 - Future plans
 - HEFS
 - Discussion

Integrated
Water
Management

Government
Agency
Alignment

Investment in
Innovation and
Infrastructure

CALIFORNIA

WATER PLAN eNEWS

Wednesday Update

SUBSCRIBE UNSUBSCRIBE COMMENTS / SUGGESTIONS



Oct. 2, 2013

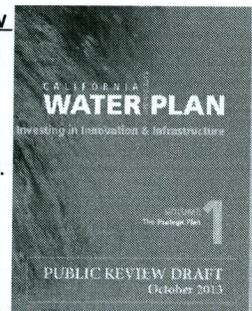


This weekly electronic newsletter is designed to keep you current on California Water Plan news. We welcome comments, suggestions and any news tips that may be of interest to water planners.

Update 2013 Public Review Draft Special Edition

First Water Plan volume released as public review draft becomes available

Today marks the release of the public review draft for *California Water Plan Update 2013*. The content reflects input received from extensive collaboration with hundreds of stakeholders and dozens of state agencies. The Water Plan is organized in five volumes. The first three will be released this month. They will all be discussed at the Water Plan plenary meeting, Tuesday and Wednesday, Oct. 29 and 30, in Sacramento.



Volume 1: The Strategic Plan. This volume is being released today. It provides an overview of the current water issues and obstacles in California.

Volume 2: Regional Reports. Twelve regional reports make up this volume. They include California's 10 hydrologic regions. Current issues and challenges, as well as water management opportunities, are discussed for each region.

Volume 3: Resource Management Strategies. This volume contains 30 types of strategies for improving water quality, water supply reliability, flood management, and ecosystem assets.

Volume 4: Reference Guide. Will be released with the final report.

Volume 5: Technical Guide. Will be released with the final report. A navigation guide for the Water Plan is available online.

45-day comment period for each volume, reviewer's guide offers help with submissions

The release of each volume will be followed by a 45-day comment period. Details on the various methods for submitting comments are available in a reviewer's guide developed specifically for the Water Plan. Reviewers are encouraged to use Adobe Reader's *Sticky Notes* for submitting comments.

Volume	Release Date	Comment Deadline
1. The Strategic Plan	Oct. 2	Nov. 18
3. Resource Management Strategies	Oct. 16	Dec. 2
2. Regional Reports	Oct. 23	Dec. 9

Executive summary details the Water Plan's roadmap for action

The release of volume 1 includes an executive summary. It details the purpose of the Water Plan as a roadmap that informs legislative action, as well as planning and decision-making. While the Water Plan doesn't create mandates, it does provide a roadmap for action toward sustainable water management in California.

UPCOMING MEETINGS

WATER PLAN WEBSITE