

COLORADO RIVER BOARD OF CALIFORNIA

770 FAIRMONT AVENUE, SUITE 100
GLENDALE, CA 91203-1068
(818) 500-1625
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December 5, 2011

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

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

Date: December 14, 2011, Wednesday
Time: 2 p.m.
Place: Ballroom Emperor I Caesars Palace Hotel 3570 Las Vegas Boulevard, South Las Vegas, NV 89109-8924 TEL: (702) 731-7222, FAX: (702) 731-7172

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: Christopher S. Harris, Acting 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.


Christopher S. Harris
Acting Executive Director

attachment: Agenda

Special Meeting
COLORADO RIVER BOARD OF CALIFORNIA
December 14, 2011, Wednesday
2:00 p.m.

Ballroom Emperor I
Caesars Palace Hotel
3570 Las Vegas Boulevard, South
Las Vegas, NV 89109-8924

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 November 9, 2011,
Consideration and Approval (**Action**) TAB 1
4. Agency Managers Meetings
5. Protection of Existing Rights
 - a. Colorado River Water Report(s) TAB 2
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 TAB 3
Reports on current water supply and use conditions
 - c. Colorado River Operations TAB 4
 - 2012 Annual Operating Plan for Colorado River System Reservoirs (2012 AOP)
 - Status of the Basin Study Report Development Process
 - d. Basin States Discussions
 - Status of U.S./Mexico Binational Discussions
 - e. Status Reports
 - Legislative and Congressional Update, Peter Carlson, Will & Carlson, Inc.
 - Salinity Control Program Update, Don Barnett, Executive Director,
Colorado River Basin Salinity Control Forum

Agenda (continued)

6. 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.

7. Other Business

a. Next Board Meeting: Regular Meeting

January 11, 2012, 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

3.a. - Approval November 9, 2011, Board Meeting Minutes

Minutes of Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, November 9, 2011

A Regular Meeting of the Colorado River Board of California (Board) was held in the Vineyard Room, at the Holiday Inn Ontario Airport, at 2155 East Convention Center Way, Ontario, California, Wednesday, November 9, 2011.

Board Members Present

Dana B. Fisher, Chairman
John V. Foley
Henry Merle Kuiper
W.D. "Bill" Knutson
John Palmer Powell, Jr.

Christopher G. Hayes, Designee
Department of Fish and Game

Jeanine Jones, Designee
Department of Water Resources

Board Members and Alternates Absent

Thomas M. Erb
Terese Marie Ghio
James Cleo Hanks

James B. McDaniel
John Pierre Menvielle

Others Present

Steven B. Abbott
James H. Bond
Brenda Burman
John P. Carter
Dave Fogerson
Leslie Gallagher
William J. Hasencamp
Michael L. King
Thomas E. Levy
Jan P. Matusak
Carrie Oliphant
Tom J. Ryan
Steven B. Robbins
Glen Peterson

David R. Pettijohn
Jack Seiler
Ed W. Smith
Mark Stuart
Bill D. Wright

J.C. Jay Chen
Christopher S. Harris
Lindia Y. Liu
Gary E. Tavetian
Mark Van Vlack
Gerald R. Zimmerman

CALL TO ORDER

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

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Fisher asked if there was anyone in the audience who wanted 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 requested the approval of the October 12th meeting minutes. Mr. Knutson moved the October 12th minutes be approved. Mr. Chris Hayes seconded the motion. Unanimously carried, the Board approved the October 12th meeting minutes.

Proposed 2012 Board Meeting Schedule

Chairman Fisher reported that included in the Board folder is the proposed 2012 calendar year Board meeting schedule. Mr. Kuiper suggested that since schedule is essentially the same as in years past and the Board can agree to change the schedule as needed that the Board might as well adopt the 2012 schedule as presented in the Board folder. Mr. Knutson moved the Board 2012 meeting schedule be adopted. Mr. Kuiper seconded the motion. Unanimously carried, the Board adopted the Board's 2012 meeting schedule.

PROTECTION OF EXISTING RIGHTS

Colorado River Water Report

Mr. Harris reported that from October 1st to October 30th, precipitation in the Basin was about 136 percent of normal. There were some storms that tracked through the Basin and precipitation was reported but Snowpack water equivalent wasn't yet reported for October. The observed April through July unregulated flow into Lake Powell for 2011 was 12.9 million acre-feet (maf) or 162 percent of capacity. The observed 2011 water year unregulated flow into Lake Powell was 16.8 maf, or 139 percent of capacity.

Mr. Harris reported that as of October 31st the reservoir storage in Lake Powell was 17.26 maf, or 71 percent of capacity. The water surface elevation was 3,650.4 feet. The storage in Lake Mead was 13.45 maf, or 52 percent of capacity. The water surface elevation was 1,120.9 feet. Total System storage was 38.53 maf, or 65 percent of capacity. Last year at this time, there was 32.78 maf of water in storage, or 55 percent of capacity. Total System storage was about five million acre-feet more than this time last year.

Mr. Harris reported that Reclamation's estimated consumptive use (CU) for the State of Nevada is under its entitlement of 300,000 acre-feet (244,000 acre-feet); and for Arizona, the CU is projected to be under its basic entitlement of 2.8 maf (2.796 maf); and for California the CU is also projected to be under its apportionment of 4.4 maf (4.317 maf). The total projected CU in the

Lower Basin is expected to be about 7.357 maf.

Mr. Smith of the Palo Verde Irrigation District, asked if Mexico would be diverting their full amount. Mr. Zimmerman responded that Mexico is planning on creating up to 50,000 acre-feet of Intentionally Created Mexican Apportionment water this year, by reducing that amount from their 1.5 maf diversion.

State and Local Water Reports

Mr. Stuart of the Department of Water Resources, Southern District, reported that precipitation in California during the month of October was good. Storage in Lake Oroville was about 2.89 maf, or 82 percent of capacity. North of the Delta total State Water Project (SWP) was 3.02 maf. South of the Delta SWP storage was about 1.585 maf, or 87 percent of capacity. Total SWP storage was 4.607 maf or 84 percent of capacity.

Mr. Foley, of The Metropolitan Water District of Southern California (MWD), reported that as of November 1st, 2011 the storage in Diamond Valley Lake was about 763,000 acre-feet, or 94 percent of capacity. Storage in Lake Mathews was about 151,000 acre-feet, or 83 percent of capacity. Storage in Lake Skinner was 36,000 acre-feet, or 82 percent of capacity. Total storage of the three reservoirs was about 950,000 acre-feet or 92 percent of capacity. Total delivery to member agencies as of October 1st, was about 1.30 maf, or 79 percent of average (last ten years).

Colorado River Operations

Ms. Lorri Gray-Lee Appointed Regional Director of Reclamation's Pacific Northwest Region

Mr. Harris reported that Ms. Lorri Gray-Lee was appointed as the new Regional Director for the Pacific Northwest Region. She has been the Regional Director of the Lower Colorado Region for about four years, and will be assuming her duties full-time as the Regional Director for the Pacific Northwest Region on January 1, 2012. Mr. Terry Fulp has been appointed the Acting Regional Director for the Lower Colorado Region.

Final Draft 2012 Annual Operating Plan for Colorado River System Reservoirs

Mr. Harris reported that the final draft of the 2012 Annual Operating Plan (2012 AOP) was forward to the Commissioner's Office for review and approval. The 2012 AOP will then be forwarded to the Secretary's Office for his review and concurrence. Upon the Secretary's approval, the Final 2012 AOP will be posted to Reclamation's web-pages in the Upper and Lower Colorado Regions.

Reclamation's Letter Regarding 2011 Inadvertent Overrun and Payback Policy Payback Obligation for the Fort Mojave Indian Tribe in California

Mr. Harris reported the Reclamation and the Fort Mojave Indian Tribe (FMIT) had reached an agreement on the actual amount of Inadvertent Overrun and Payback Policy (IOPP) payback obligation that the FMIT owes for 2011 on its uses in California. Originally Reclamation maintained that the obligation was 4,557 acre-feet, and the Tribe maintained that the amount 2,255

acre-feet. Reclamation and the FMIT now agree that the payback obligation is 2,049 acre-feet. The discrepancy was apparently associated with communication difficulties, differences in accounting methodologies, and reporting timelines.

Three Lower Basin Water Agencies' Joint Letter to Reclamation Concerning Implementation of Actions to Enhance Storage in Lake Mead 2011

Mr. Harris reported that Central Arizona Water Conservation District, The Metropolitan Water District of Southern California, and the Southern Nevada Water Authority recently submitted a letter, included in the Board folder, to Reclamation's Lower Colorado Regional Office requesting that any "unused apportionment" not be reapportioned and released, but retained in storage in Lake Mead. The municipal entities are committed to continuing various water conservation programs (e.g., interstate water banking, creation of intentionally created surplus, operations of Warren H. Brock Reservoir, etc.). Retaining any unused apportionment (i.e., unused Nevada apportionment) in Lake Mead benefits the System and all users in the Lower Basin.

Basin States Discussions

Status of the U.S./Mexico Binational Discussion

Mr. Zimmerman reported that little substantive progress has been made since our last meeting, however, the objective still remains to have a signed Treaty Minute, acceptable to both countries, by the beginning of 2012. Mr. Zimmerman reported that several smaller subgroups have been meeting, and the Legal Committee will receive reports from these groups on November 10th. Further information regarding any major legal issues associated with development of the Minute as it has been explained in the Exploratory Cooperative Binational Package.

Mr. Zimmerman reported that the technical modeling group including technical staff from the U.S. and Mexico, have been modeling the trigger elevations in U.S. reservoirs as well as Climatic triggers. Numerous modeling runs and studies have been done. The U.S. maintains that surface water elevations in Lake Mead, some similar storage trigger need to be used, where Mexico and the U.S. would be sharing shortages and surplus at the same time. Mexico want climatic triggers that can be used, because Mexico believes that climatic triggers cannot be affected by man's activities. The U.S. and Mexico have been discussing this for several months. The technical modeling group has shared their information and Reclamation is preparing a report on shortage and surplus triggers associated with reservoir elevations, storage contents, and climatic indices. Reclamation is also working on a more detailed draft of the Exploratory Cooperative Binational Package that is anticipated to be available for review by the states in mid-November. A conference call among the Basin States' principal representatives and Reclamation is scheduled November 21st. There was discussion regarding the time and effort typically involved with Basin-wide agreements among the Basin stakeholders.

Status of the Colorado River Basin Water Supply and Demand Study Report (Basin Study)

Mr. Zimmerman reported that the California Basin Study participants have been working with Reclamation to finalize the current trends demand data and developing data for each of the alternative demand scenarios. The current trends documents and demand data for each of the

scenarios will be used in the next phase of the study. The goals of the Options and Strategies Phase of the Basin Study are to: 1) receive broad input on potential options for addressing future water supply and demand imbalances; 2) evaluate representative options for major categories of options received; 3) explore effectiveness of various combinations of options; and 4) summarize findings related to performance and robustness of various options and portfolios.

Mr. Zimmerman reported a public release of the Options and Strategies Phase of the Basin Study is anticipated by November 22nd. There will also be a public outreach process that will include meetings and webinars, and a booth at the Colorado River Water Users Association conference in Las Vegas, Nevada.

Board's Comments on the Proposed Rule Designating Critical Habitat of the Southwestern Willow Flycatcher

Mr. Harris reported that the U.S. Fish and Wildlife proposed rule designating revised Critical Habitat for the Southwestern Willow Flycatcher (WIFL) was issued on August 15th. The Board submitted a comment letter stating: 1) that all lands within planning and implementation area of the Lower Colorado River Multiple Species Conservation Program should be excluded from designation as critical habitat for the WIFL, pursuant to Endangered Species Act Section 4(b)(2), including National Wildlife Refuge lands managed by the U.S. Fish and Wildlife Service (USFWS); and 2) that no critical habitat should be designated for the WIFL within the operation full-pool of Lake Mead.

Mr. Harris thanked the Board member agencies for their review and input on the Board's comment letter that was submitted to the USFWS by the October 14th deadline.

Reclamation's Upper Colorado Region News Release Entitled "Public Invited to Open Houses on Plan for Glen Canyon Dam Operations", and Federal Register Notice Entitled "Notice to Solicit Comments and Hold Public Scoping Meetings on the Adoption of a Long-term Experimental and Management Plan for the Operation of Glen Canyon Dam"

Mr. Harris reported that Reclamation is beginning the next phase of the National Environmental Policy Act (NEPA) process for the development of the "Long-Term Experimental Plan" (LTEMP). Reclamation has scheduled a series of public meeting associated with its development of the LTEMP for Glen Canyon Dam operations. Mr. Harris added that there has not been another environmental review of the Glen Canyon Dam operations since the 1995 Glen Canyon Dam Environmental Impact Study (EIS). Mr. Harris reported that LTEMP is intended to determine the following: 1) Timing and volume of water flows; 2) Whether modification to dam operations may be required; and 3) Whether there is a need for a recovery implementation program for endangered species in Glen and Grand Canyons. Mr. Harris reported that all of the options and alternatives identified in the LTEMP will be analyzed in an EIS pursuant to NEPA.

There was some discussion on the process, Mr. Matusak mentioned that the draft EIS is scheduled to be released December 2012, the final EIS is scheduled for December 2013, and the Record of Decision, expected by Winter 2013.

WATER QUALITY

Colorado River Basin Salinity Control Forum and Advisory Council Meeting

Mr. Harris reported that the Salinity Control Forum (Forum) and Advisory Council met in Santa Fe, New Mexico on October 24-26, 2011. The Forum adopted the October 2011 Triennial Review, Water Quality Standards for Salinity, Colorado River System. The Triennial Review reports that there is little probability of exceeding the numeric criteria with the Plan of implementation in place. Each state is asked to adopt this Triennial Review pursuant to their own state's water quality standards. The Triennial Review report is posted at www.coloradoriversalinity.org.

Mr. Harris reported that the Forum urged Reclamation to continue moving forward with its pilot evaporation pond study, and complete the environmental assessment process associated with other potential alternatives, including a complete replacement of the brine injection well, for the aging Paradox Valley Unit.

Mr. Harris reported that the current Farm Bill is set to expire on September 30, 2012. The Basin states need to become involved in discussions associated with development of the next Farm Bill in congress. The Farm Bill provisions must continue to support and encourage the U.S. Department of Agriculture's (USDA) successful on-farm salinity control program. Mr. Harris reported that a letter is being sent to the USDA-National Resource Conservation Service (NRCS) in support of the three-year funding plan developed by the three NRCS state Conservationists and the requested Environmental Quality Incentives Program funding plan for salinity control activities. The Forum approved having the Forum's Executive Director, and other representatives, continue to work with Congressional delegations to maintain full funding for the Salinity Control Program. The next Forum meeting is tentatively scheduled end of May, or early June 2012, and likely held in Utah.

OTHER BUSINESS

Next Board Meeting

Vice Chairman Knutson announced that the next meeting of the Colorado River Board will be held on Wednesday, December 14, 2011, at 2:00 p.m., at Caesars Palace Hotel, Las Vegas, Nevada, in conjunction with the annual conference of Colorado River Water Users Association.

There being no further items to be brought before the Board, Chairman Fisher asked for a motion to adjourn. Mr. Knutson moved the Board meeting be adjourned. Mr. Kuiper seconded the motion. With unanimous approval, the Board meeting was adjourned at 11:20 a.m. on November 9, 2011.

Christopher S. Harris
Acting Executive Director

5.a. - Colorado River Water Reports

**SUMMARY WATER REPORT
COLORADO RIVER BASIN
December 5, 2011**

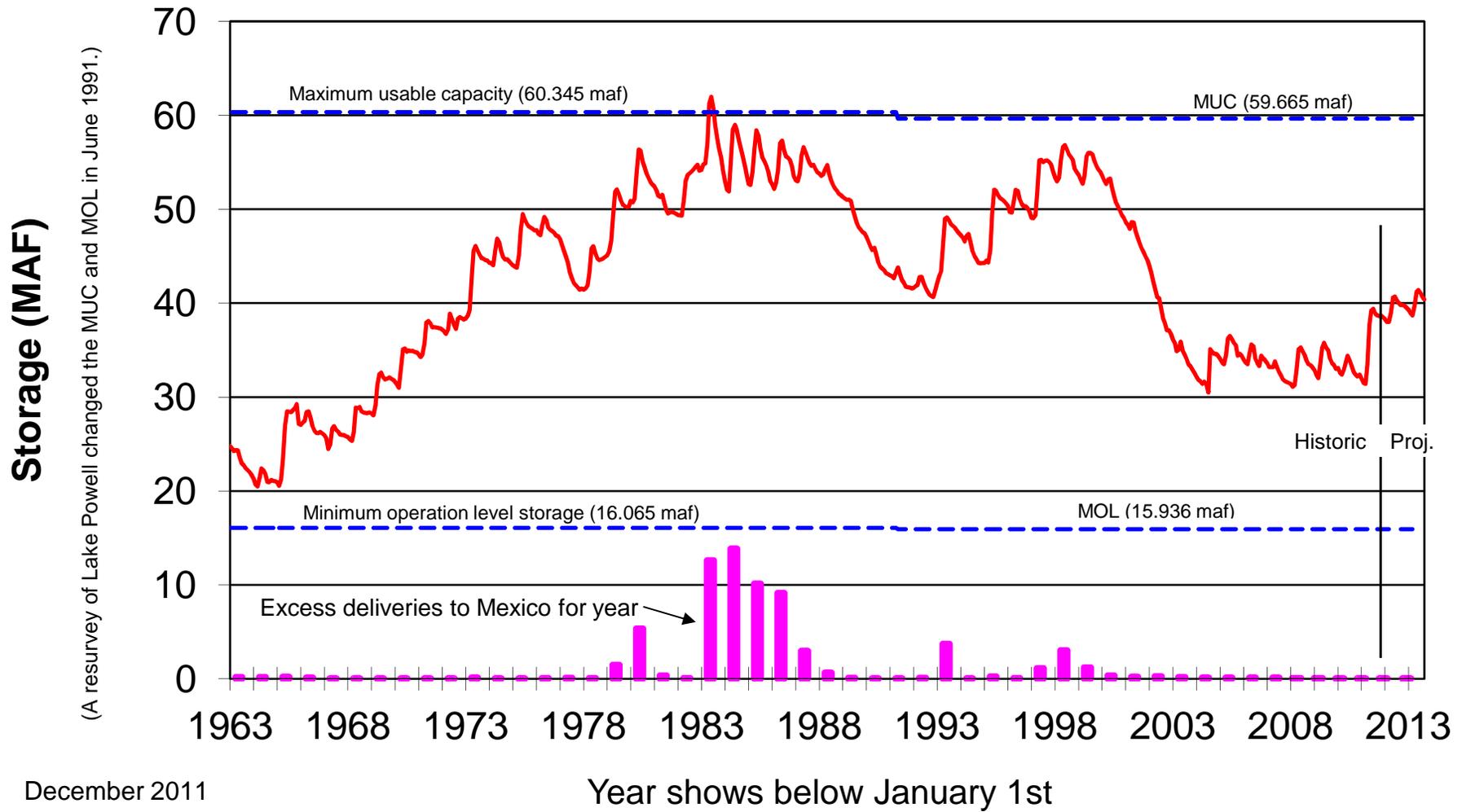
	MAF	ELEV. IN FEET	% of Capacity	October 31, 2011		
				MAF	ELEV. IN FEET	% of Capacity
RESERVOIR STORAGE (as of December 4)						
Lake Powell	16.592	3,644.9	68	17.259	3,650.4	71
Flaming Gorge	3.434	6,032.2	92	3.437	6,032.3	92
Navajo	1.326	6,058.2	78	1.327	6,058.3	78
Lake Mead	14.033	1,126.8	54	13.445	1,120.9	52
Lake Mohave	1.491	635.2	82	1.436	633.1	79
Lake Havasu	0.563	447.1	91	0.579	448.0	94
Total System Storage	38.469		64	38.528		65
System Storage Last Year	32.304		54	32.779		55

	October 31, 2011	
WY 2012 Precipitation (Basin Weighted Avg) 10/01/11 through 12/5/11	104 percent (6.3")	136 percent (3.3")
WY 2012 Snowpack Water Equivalent (Basin Weighted Avg) on day of 12/5/11 (Above two values based on average of data from 116 sites.)	82 percent (3.8")	N/A
	October 17, 2011	
December 1, 2011 Forecast of Unregulated Lake Powell Inflow	MAF	% of Normal
2011 April through July unregulated inflow Observed	12.891	162 %
2011 Water Year Observed	16.778	139 %

USBR Forecasted Year-End 2011 and 2010 Consum. Use, December 5, 2011 a.				MAF	
		2011	2010		
		Diversion	- Return =	Net	
Nevada (Estimated Total)		0.450	0.220	0.230	0.242
Arizona (Total)		3.643	0.860	2.783	2.782
CAP Total				1.601	1.653
<i>Az. Water Banking Authority</i>				0.134	0.134
OTHERS				1.182	1.130
California (Total) b./		4.921	0.603	4.318	4.356
MWD				0.698	1.099
3.85 Agriculture					
IID c./	<u>Total</u>	<u>Conserved</u>		<u>Forecasted</u>	<u>Estimated</u>
CVWD d./	3.253	-0.360		2.893	2.550
PVID	0.344	-0.031		0.313	0.302
YPRD	0.342	0		0.342	0.270
Island e./	0.048	0		0.048	0.039
Total Ag.	0.007	0		0.007	0.003
Others	3.994	-0.391		3.603	3.164
PVID-MWD following to storage (to be determined)				0.017	0.093
Arizona, California, and Nevada Total f./		9.014	1.683	7.331	7.381

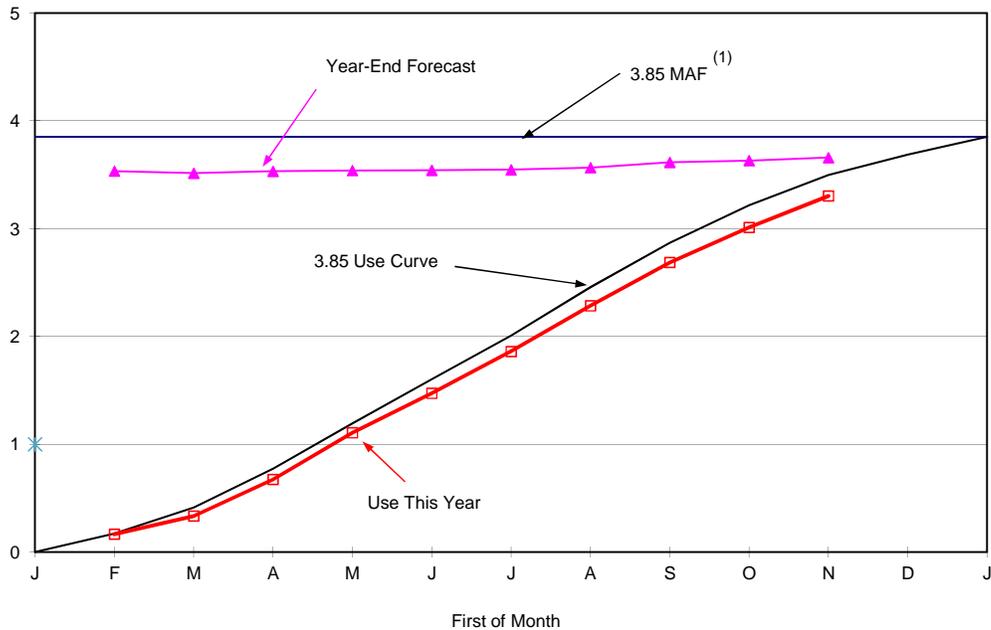
- a./ Incorporates Jan.-Sep. USGS monthly data and 75 daily reporting stations which may be revised after provisions; data reports are distributed by USGS. Use to date estimated for users reporting monthly and annually.
- b./ California 2011 basic use apportionment of 4.4 MAF has been adjusted to 4.174 MAF for payback of Inadvertent Overrun and Payback Policy overruns (-1,213 AF), Intentionally Created Surplus Water by IID (-12,000 AF), Creation of Extraordinary Conservation ICS MWD (-200,000 AF)
- c./ 0.105 MAF conserved by IID-MWD Agreement as amended in 2007: 105,000 AF conserved for SDCWA under the IID-SDCWA Transfer Agreement as amended, 80,000 AF of which is being diverted by MWD; 16,000 AF required to conserved for CVWD under the IID-CVWD Acquisition Agreement, 67,700 AF conserved by the All-American Canal Lining Project.
- d./ 30,850 acre-feet conserved by the Coachella Canal Lining Project.
- e./ Includes estimated amount of 6,530 acre-feet of disputed uses by Yuma Island pumpers and 0 acre-feet by Yuma Project Ranch 5 being charged by USBR to Priority 2.
- f./ 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.

Monthly Total Colorado River Basin Storage



December 2011

**FIGURE 1
DECEMBER 1, 2011 FORECAST OF 2011 YEAR-END COLORADO RIVER WATER USE
BY THE CALIFORNIA AGRICULTURAL AGENCIES**



Forecast of Colorado River Water Use by the California Agricultural Agencies (Millions of Acre-feet)			
Month	Use as of First of Month	Forecast of Year End Use	Forecast of Unused Water (1)
Jan	0.000	-----	-----
Feb	0.167	3.533	0.009
Mar	0.335	3.514	0.028
Apr	0.674	3.531	0.011
May	1.107	3.539	0.004
Jun	1.473	3.541	0.001
Jul	1.861	3.546	-0.004
Aug	2.285	3.566	-0.023
Sep	2.686	3.615	-0.073
Oct	3.011	3.631	-0.089
Nov	3.304	3.659	-0.117
Dec			
Jan			

(1) The forecast of unused water is based on the availability of 3.542 MAF under the first three priorities of the water delivery contracts. This accounts for the 85,000 af of conserved water available to MWD under the 1988 IID-MWD Conservation agreement and the 1988 IID-MWD-CVWD-PVID Agreement as amended; 80,000 AF of conserved water available to SDCWA under the IID-SDCWA Transfer Agreement as amended being diverted by MWD; as estimated 26,000 AF of conserved water available to SDCWA and MWD as a result of the Coachella Canal Lining Project, 67,700 AF of water available to SDCWA and MWD as a result of the All American Canal Lining Project; 14,500 AF of water IID and CVWD are forbearing to permit the Secretary of the Interior to satisfy a portion of Indian and miscellaneous present perfected rights use and 25,000 AF of water IID is conserving to create Extraordinary Conservation Intentionally Created Surplus. 0 AF has been subtracted for IID's Salton Sea Salinity Management in 2011. As USBR is charging uses by Yuma Island pumpers to priority 2, the amount of unused water has been reduced by those uses - 6,530 AF. The CRB does not concur with USBR's viewpoint on this matter.

COLORADO RIVER BOARD OF CALIFORNIA

November 28, 2011

COLORADO RIVER WATER REPORT

The following report summarizes data obtained from provisional reports of the U.S. Geological Survey, U.S. Bureau of Reclamation, International Boundary and Water Commission, and Imperial Irrigation District.

I. Active Surface Storage^{1/} in Reservoirs at end of Month (Thousand Acre-feet).

	<u>October 2011</u>				
<u>Upper Basin</u>	<u>Storage</u>	<u>Elevation in feet</u>	<u>% of Capacity</u>	<u>Change During Month</u>	<u>Change from 2010</u>
Lake Powell	17,249	3,650.3	71%	-344	1,935
Flaming Gorge	3,438	6,032.3	92%	-30	307
Fontenelle	274	6,496.6	79%	-25	24
Navajo	1,327	6,058.3	78%	-0	-66
Blue Mesa	644	7,497.8	78%	-55	92
Morrow Point	110	7,151.1	94%	2	-2
Crystal	<u>16</u>	<u>6,749.7</u>	<u>89%</u>	<u>2</u>	<u>-0</u>
Sub-total	23,057		74%	-450	2,289
<u>Lower Basin</u>					
Lake Mead	13,456	1,121.0	51%	479	3,485
Lake Mohave	1,435	633.0	79%	-175	-2
Lake Havasu	<u>579</u>	<u>448.0</u>	<u>94%</u>	<u>-6</u>	<u>-23</u>
Sub-total	15,471		54%	298	3,461
Upper and Lower Basin Total	38,527 ^{2/}		65%	-153	5,749

^{1/} Figures shown do not include reservoir dead storage.

^{2/} Storage above minimum operation level is 38,527 - 15,936 = 22,591 thousand acre-feet. Minimum operation level (15,936 thousand acre-feet) is defined as the sum of active content at minimum power pool plus minimum active content required to make surface diversions at Lake Havasu and Navajo Reservoir.

II. Upper Basin Discharge (Acre-feet).

<u>Station</u>	Meas. Flow October 2011	<u>Cumulative Flow</u> October thru October	<u>Meas. Flow Adjusted for CRSP Surface Storage Changes</u>	
			October 2011	% of Oct. 90- year average (1922-2011 water years)
Green River at Green River, Utah	267,000	267,000	237,000	149%
Colorado River near Cisco, Utah	312,800	312,800	261,300	112%
San Juan River near Bluff, Utah	61,000	61,000	60,600	68%
At Lee Ferry (Compact Point)	985,100	985,100	559,300	114%

III. Lower Basin Discharge (Acre-feet).

<u>Station</u>	October 2011	<u>Cumulative Flow</u> October thru October
Below Hoover Dam	443,300	443,300
Below Davis Dam	629,700	629,700
Below Parker Dam	470,000	470,000
Above Imperial Dam	419,500	419,500

IV. Consumptive Use of Lower Colorado River Mainstream Water (Acre-feet).
October, 2011

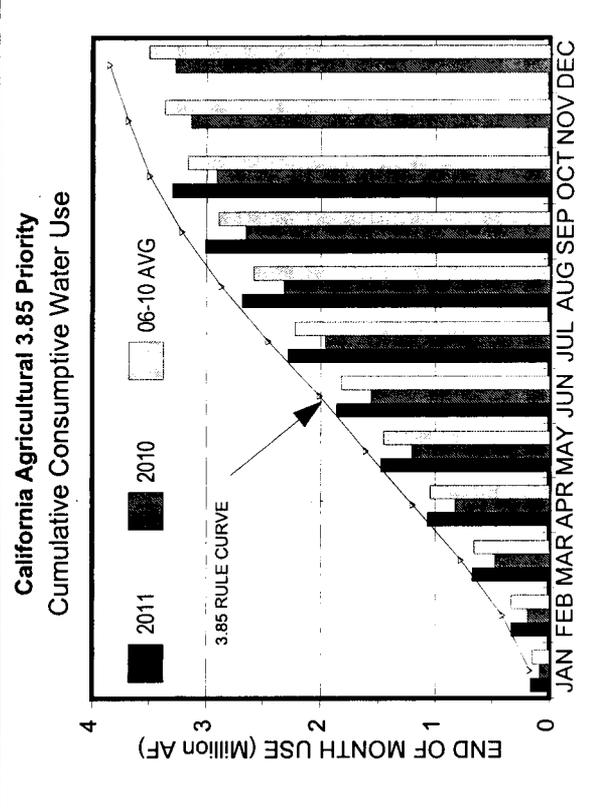
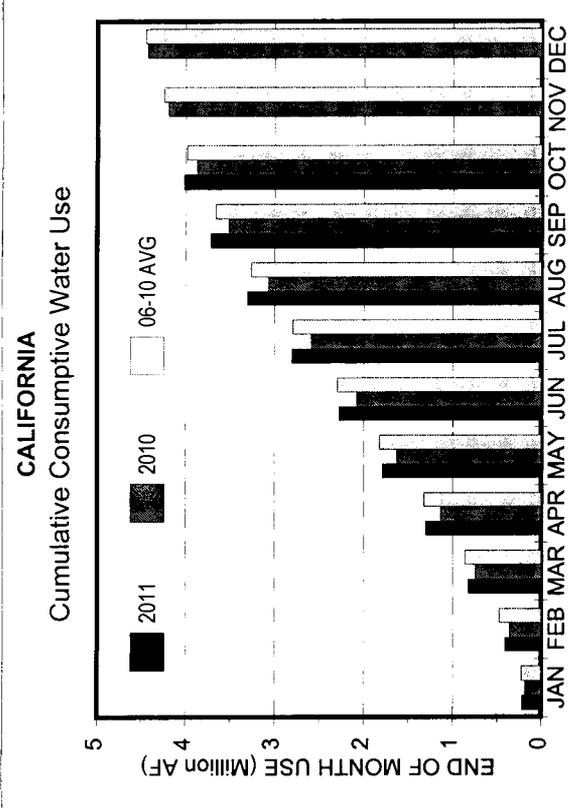
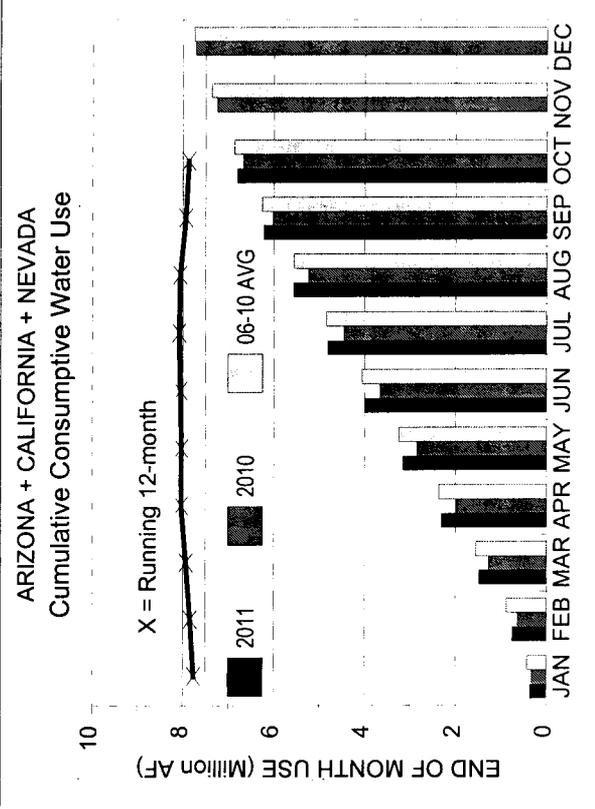
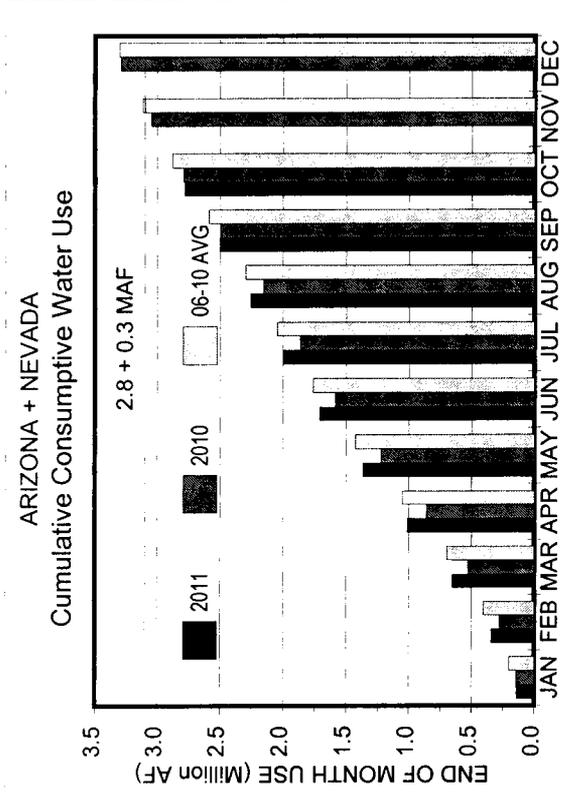
California Users	Diversion	Return	Consumptive Use	Change in Cons. Use From Oct. 2010	Cumulative Cons. Use		
					January thru October	Change from prev. Jan. thru Oct.	12 Months thru October
Palo Verde Irrig. Dist.	60,120	40,410	19,710	5,340	363,300	64,970	375,030
Yuma Proj. (Res. Div.) ^{b/}	7,800	2,620	5,180	120	44,720	9,900	48,520
Imperial Irrig. Dist. ^{a/}	227,850		227,850	48,810	2,521,390	269,830	2,804,150
Salton Sea Mitigation	0		0	-23,910	0	-55,640	23,700
USBR Operations	13,230		13,230	7,930	99,990	91,540	104,030
IID plus Salton Sea Mitigation	241,080		241,080	32,830	2,621,380	305,730	2,931,880
Coachella Val. Wat. Dist. ^{a/}	26,390		26,390	1,440	274,130	12,530	314,420
Subtotal	335,390	43,030	292,360	39,730	3,303,530	393,130	3,669,850
Fort Mojave Ind. Res. ^{c/}	440	200	240	-1,760	7,100	-16,020	8,740
Cal. Miscellaneous ^{d/}	1,670		1,670	0	32,000	0	34,000
Metropolitan Water Dist.	8,640	430	8,210	-93,790	675,480	-230,240	866,320
Total	346,140	43,660	302,480	-55,820	4,018,110	146,870	4,578,910
<u>Arizona Users</u>							
Central Arizona Project	149,370		149,370	-16,130	1,294,530	-16,000	1,635,920
Colorado River Ind. Res.	48,650	27,880	20,770	2,550	375,180	-17,040	396,070
Gila Gravity Main Canal	61,650	11,400	50,250	4,220	538,030	66,810	593,820
Yuma Proj. (Valley Div.)	40,030	12,980	27,050	4,450	213,130	25,460	238,500
Fort Mojave Ind. Res. ^{c/}	2,780	1,280	1,500	-3,950	36,640	-33,590	51,540
Havasut Nat. Wildlife Ref.	540	0	540	-2,080	10,200	-24,790	10,700
Arizona Miscellaneous ^{d/}	5,930		5,930	0	76,690	0	85,000
Total	308,950	53,540	255,410	-10,940	2,544,400	850	3,011,550
<u>Nevada Users</u>							
From Lake Mead ^{b/}	38,320	11,880	26,440	-1,970	239,730	-8,350	274,340
Mohave Steam Plant	10		10	-30	140	-180	190
Total	38,330	11,880	26,450	-2,000	239,870	-8,530	274,530
Total Consumptive Use (Ariz., Cal., Nev.)	693,420	109,080	584,340	-68,760	6,802,380	139,190	7,864,990

a. Based on measurements below Pilot Knob (assumed to be equal to USBR Article V data after credit is given for unmeasured California return flows between Imperial Dam and Pilot Knob). In addition, Salton Sea mitigation is not part of IID's use but is included in IID total diversion. USBR Operations consists of Salton Sea Operations 0 acre-feet and Warren H. Brock Reservoir Operations 4,040 acre-feet.

b. Return flow estimates based on averages of past returns as calculated by USBR for Article V data.

c. Starting January 2011 consumptive use value is diversion minus returns as reported by Reclamation.

d. An estimated residual made by the Colorado River Board of California combining such items as small diversions along the river, unmeasured groundwater return flow, etc., which, when combined with other quantities listed to arrive at the State's total, presents an estimate of the State's Consumptive use of Lower Colorado River water.



December 1, 2011, Observed Colorado River Flow into
Lake Powell (1) (Million Acre-feet)

	<u>USBR and National Weather Service</u>		<u>Change From Last</u>	
	<u>April-July 2011</u>	<u>Water Year 2011</u>	<u>April-July 2011</u>	<u>Wat Yr 2011</u>
Maximum (2)	12.891	16.778	0.000	0.000
Mean	12.891 *	16.778 **	0.000	0.000
Minimum (2)	12.891	16.778	0.000	0.000

* This month's A-J observed is 162% of the 30-year A-J average shown below.

** This month's W-Y observed is 139% of the 30-year W-Y average shown below.

Comparison with past records
of Colorado River
inflow into Lake Powell
(at Lee Ferry prior to 1962)

	<u>April-July Flow</u>	<u>Water Year Flow</u>
Long-Time Average (1922-2010)	7.741	11.519
30-yr. Average (1961-90)	7.735	11.724
10-yr. Average (2001-2010)	5.203	8.449
Max. of Record	15.404 (1984)	21.873 (1984)
Min. of Record	1.115 (2002)	3.058 (2002)
Year 2000	4.352	7.310
Year 2001	4.301	6.955
Year 2002	1.115	3.058
Year 2003	3.918	6.358
Year 2004	3.640	6.128
Year 2005	8.810	12.614
Year 2006	5.318	8.769
Year 2007	4.052	8.231
Year 2008	8.906	12.356
Year 2009	7.804	10.633
Year 2010	5.795	8.738
Total Years 2000 - 2004	17.326	29.809
5-Year Average (2000-2004)	3.465	5.962

(1) Under conditions of no other Upper Basin reservoirs.

(2) USBR and NWS forecasts indicate the probability of 95 percent of the time the actual flow will not exceed the maximum value, and will not be less than the minimum value.

VI. Scheduled Flows to Mexico — Arrivals and excess arrivals of Water for Calendar Year 2011
(Acre-feet)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Scheduled Flow ⁽⁹⁾	Total Arrivals	Excess Arrivals in accord with Minute 242	Other Excess Arrivals	Total Excess Arrivals	Cumulative Excess Arrivals	Flow Through NIB and Limitrophe	Flow By-Pass Southerly International Boundary
Jan.	128,113	146,704	5,905	12,686	18,591	18,591	130,960	5,905
Feb.	155,921	179,145	5,785	17,439	23,224	41,815	162,997	5,785
March	195,427	205,858	6,960	3,471	10,431	52,246	186,916	6,960
April	192,064	215,185	11,516	11,605	23,121	75,367	189,110	11,516
May	110,741	128,851	13,637	4,473	18,110	93,477	99,134	13,637
June	119,567	133,593	13,283	743	14,026	107,503	105,689	13,283
July	125,941	137,212	10,042	1,229	11,271	118,774	116,164	10,042
August	94,770	106,320	9,774	1,776	11,550	130,324	86,791	9,774
Sept.	89,308	103,240	12,621	1,311	13,932	144,256	79,487	12,621
Oct.	55,371	75,234	13,157	6,706	19,863	164,119	50,142	13,157
Nov.	109,271							
Dec.	116,485							
	<u>1,492,979</u>	<u>1,431,342</u>	<u>102,680</u>	<u>61,439</u>			<u>1,207,390</u>	<u>102,680</u>

- Column (1). Flow schedule requested by Mexico. In surplus years as determined by the United States, Mexico can schedule up to 1.7 rather than 1.5 million acre-feet.
- (2). Total Colorado River waters reaching Mexico. It is the sum of: 1) Colorado River water measured at the Northerly International Boundary, 2) drainage waters measured at the Southerly International Boundary near San Luis, Arizona, and 3) Wellton-Mohawk drainage waters measured at the Southerly International Boundary. It is the sum of Columns (1) + (5).
- (3). Arizona's Wellton-Mohawk Irrigation and Drainage District drainage water. This water is discharged to the Santa Clara Slough in Mexico via a concrete-lined canal.
- (4). Excess arrivals other than Wellton-Mohawk drainage. It is the sum of: 1) a delivery of about 5,000 a. f. per year to ensure that Mexico receives what is scheduled, 2) releases from Parker Dam which are not used due to unexpected rainfall in the Palo Verde, Coachella, Imperial, and and Yuma areas, 3) controlled flood releases on the Gila and Colorado River, and 4) local runoff.
- (5). Sum of Columns (3) and (4).
- (6). Cumulation of Column (5).
- (7). Including Colorado River flow at the Northerly International Boundary plus flow from Cooper, 11-mile, and 21-mile spillways.
- (8). Including flow at the Southerly International Boundary, from the East and West Main canals, Yuma Valley Main, 242 Lateral plus diversions from Lake Havasu for Tijuana.
- (9). Revised schedule of Calander Year 2011 as of May 27, 2011

WEIGHTED MONTHLY SALINITY AT
SELECTED COLORADO RIVER STATIONS
AND RUNNING 12-MONTH NIB-IMPERIAL FLOW-WEIGHTED SALINITY DIFFERENTIAL
(in parts per million)

Month	Below Hoover Dam		Below Parker Dam ^{3/}		Palo Verde ^{3/} Canal Near Blythe		At Imperial Dam		At Northerly Inter- national Boundary		Running 12-Month Flow-Wtd. Differential ^{2/}	
	5-Year avg. ^{1/}	2010	5-Year avg. ^{1/}	2010	5-Year avg. ^{1/}	2010	5-Year avg. ^{1/}	2010	5-Year avg. ^{1/}	2010	5-Year avg. ^{1/}	2010
Jan.	690	623	709	630	751	660	913	756	1,041	831	882	130.7
Feb.	675	628	706	660	732	690	835	729	998	856	779	131.2
March	684	622	699	640	727	650	805	663	925	746	802	125.8
April	680	613	700	630	714	650	801	672	892	752	735	123.6
May	677	614	698	630	709	640	822	685	962	951	852	130.6
June	678	607	695	610	712	640	812	672	956	909	819	136.3
July	682	611	688	620	709	620	797	658	909	834	848	139.8
August	690	594	686	620	706	620	800	678	907	888	915	142.7
Sept.	672	590	686	620	737	650	815	676	952	843	913	144.0
Oct.	680	592	689	620	739	630	854	694	1,070	783	913	141.1
Nov.	682	609	692	640	746	650	897	692	1,010	816	915	142.9
Dec.	681	596	702	620	731	650	877	733	999	819	913	137.3

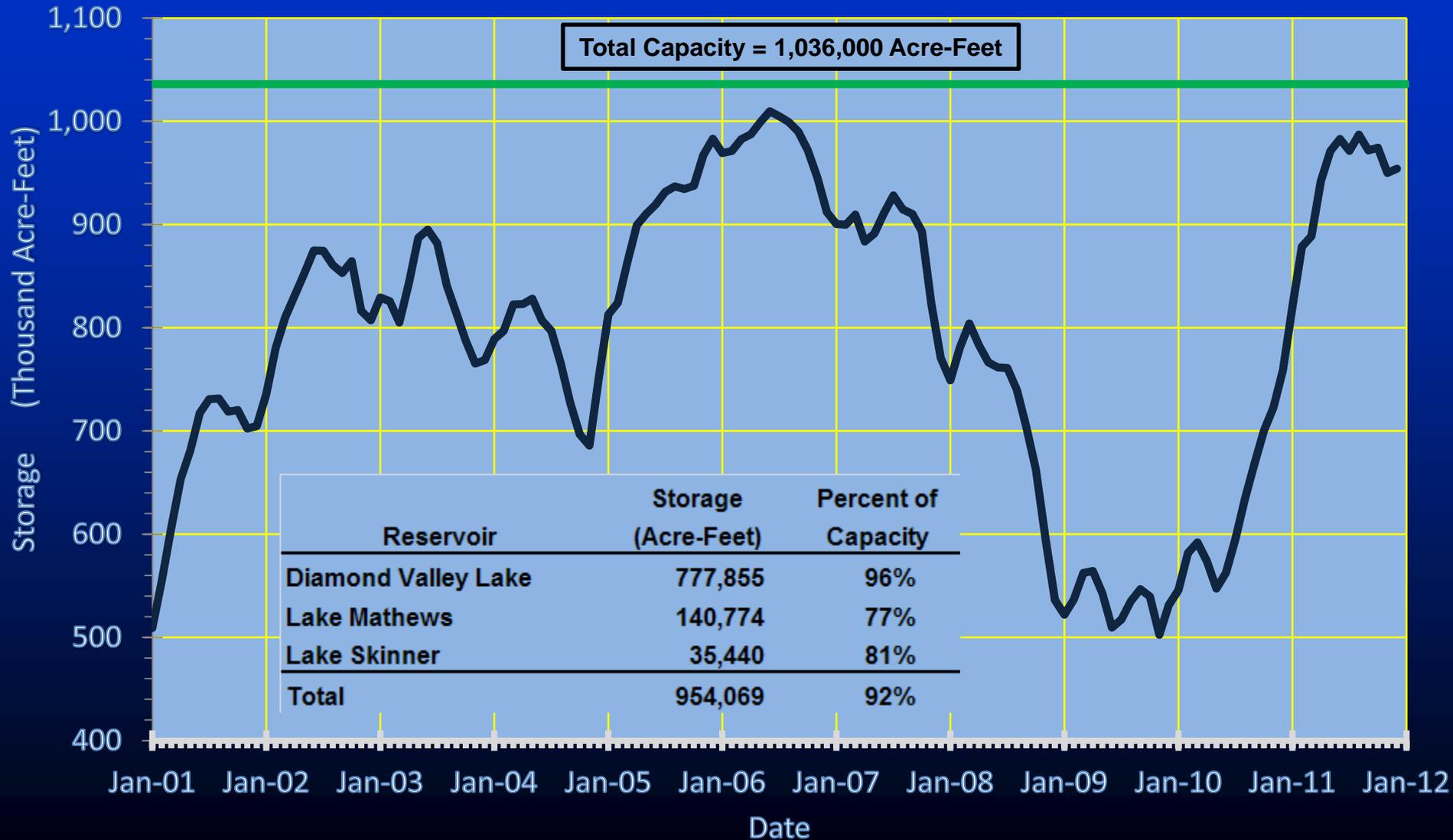
General Notes:

- 1/ 5-Year averages are arithmetical.
- 2/ 12-month flow-weighted differential between NIB and Imperial Dam through month shown in left column.
- 3/ Operational values only.
- 4/ Values are grab samples (one or two samples per month) and are rounded to represent general magnitude of salinity at Parker Dam and Palo Verde Canal.
- 5/ Preliminary

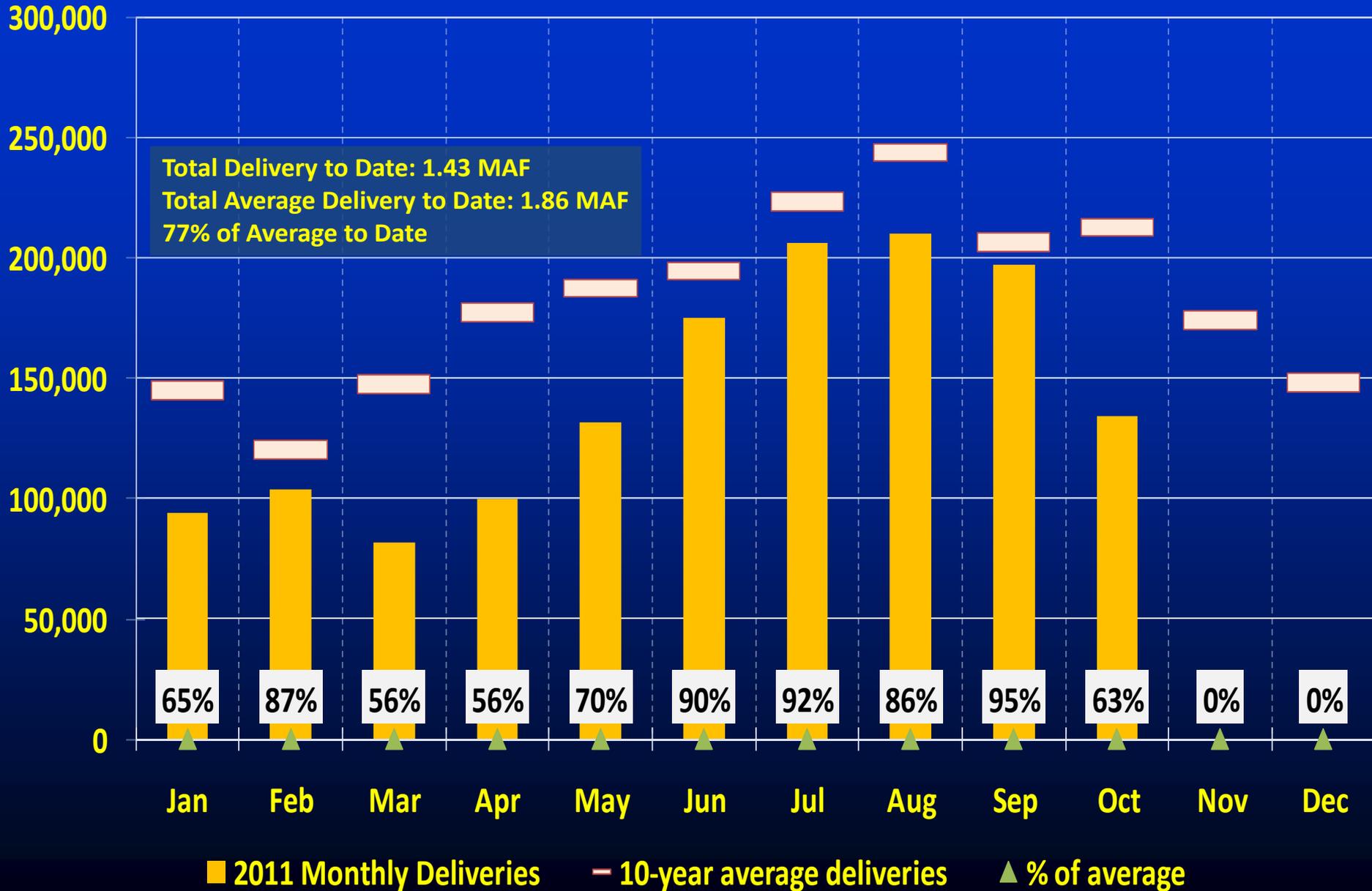
5.b. - State and Local Water Reports

MWD's Combined Reservoir Storage as of December 1, 2011

Lake Skinner, Lake Mathews, and Diamond Valley Lake

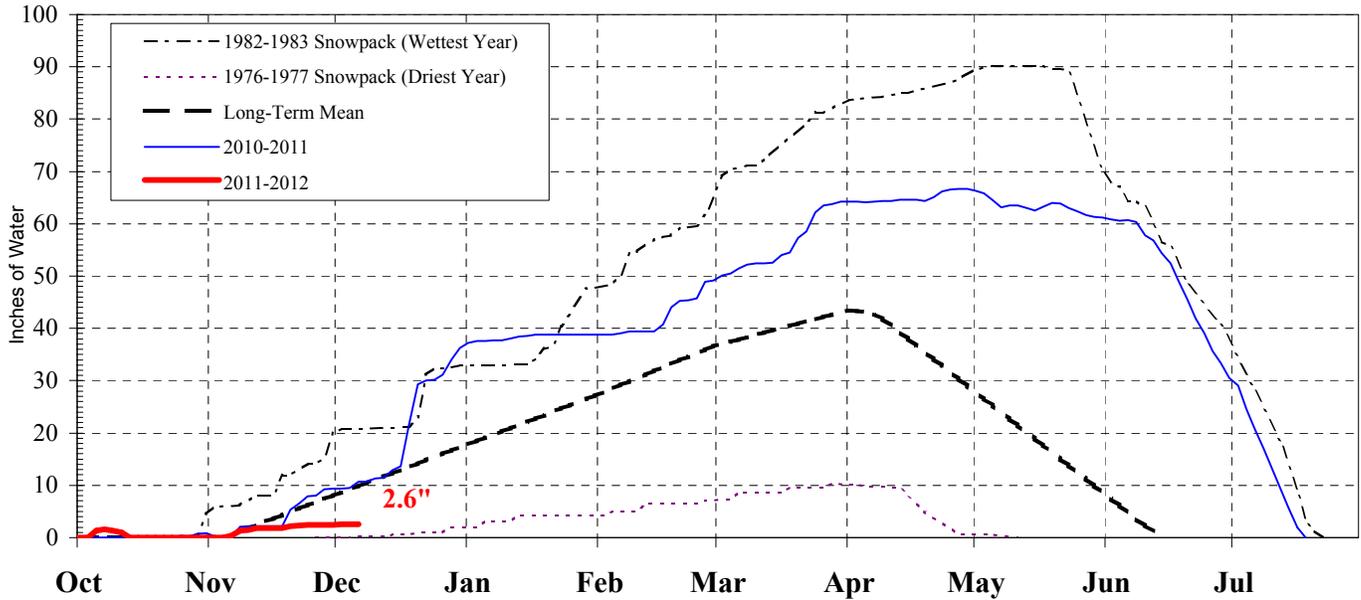


2011 Water Deliveries to Member Agencies (AF)

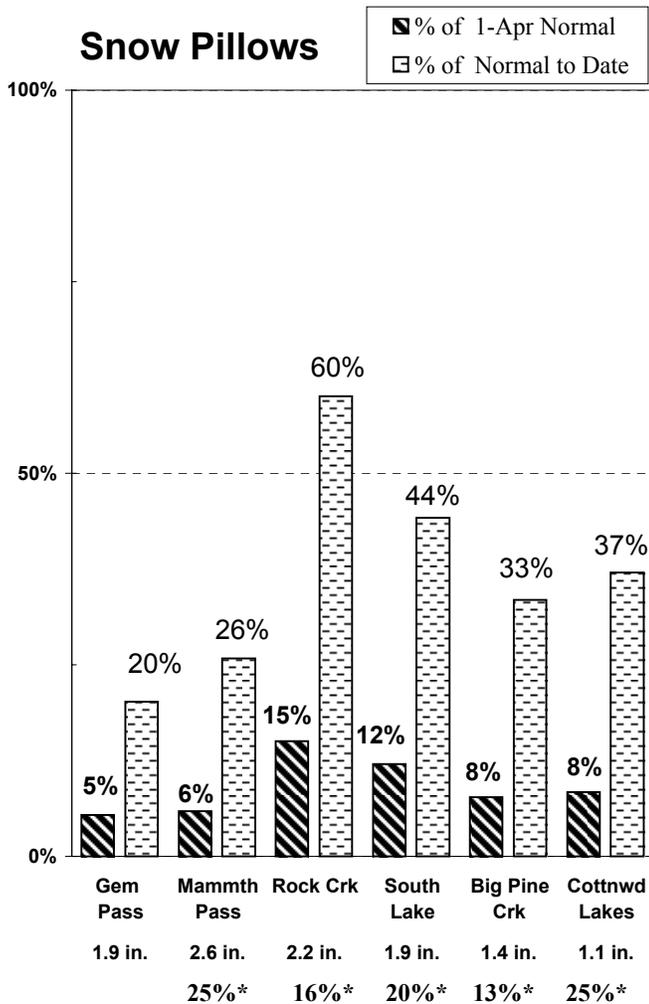


EASTERN SIERRA CURRENT PRECIPITATION CONDITIONS As of December 7, 2011

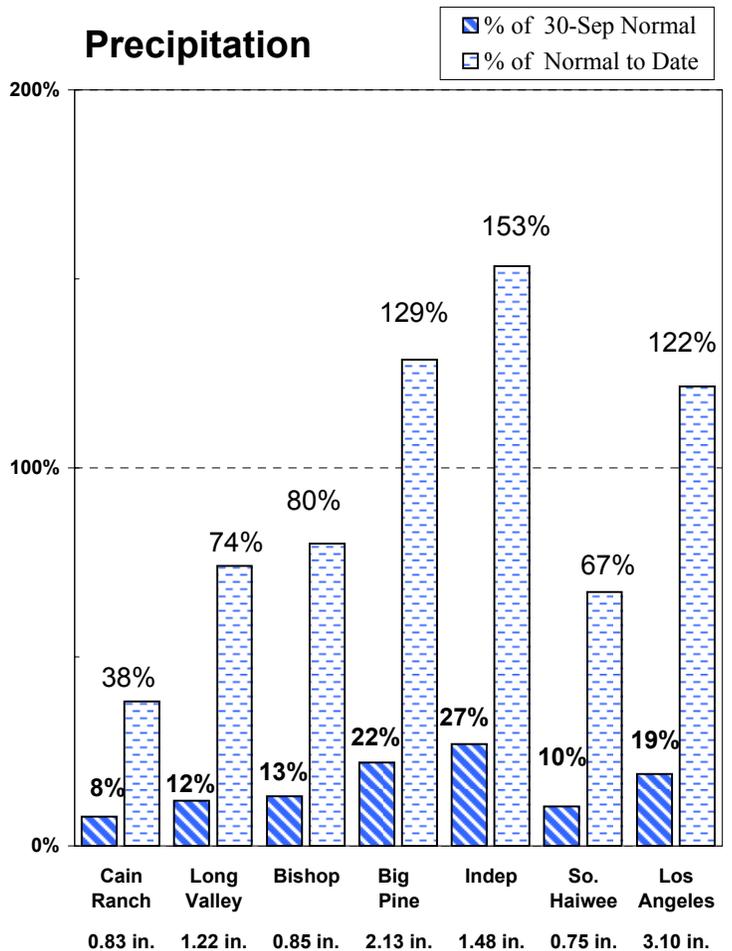
Mammoth Pass Snowpack



Snow Pillows



Precipitation



* Individual snow pillow represents an area that contributes this percent of the total Owens River Basin runoff.

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

5.c. - Colorado River Operations

Lower Colorado Region
Boulder City, Nev.

Media Contact: Rose Davis
702-293-8421

Released On: November 29, 2011

Colorado River Basin Water Supply and Demand Study Seeks Input to Help Resolve Projected Future Supply and Demand Imbalances

The Bureau of Reclamation is announcing the initiation of Phase 4 of the Colorado River Basin Water Supply and Demand Study: Development and Evaluation of Opportunities for Balancing Water Supply and Demand. The Colorado River Basin (Basin) Study was initiated by Reclamation as part of the Department of the Interior's WaterSMART program under the 2009 SECURE Water Act (P.L. 111-11).

With Phase 4 of the Study, the team is seeking a broad range of options to help resolve future water supply and demand imbalances in the Colorado River. The team will explore the effectiveness of various options and groupings of options, referred to as strategies, for help resolve projected future imbalances. The performance of options and strategies will be evaluated over time and across the combination of water supply and demand scenarios. Due to the scale of the Basin, the magnitude and timing of projected imbalances, and the broad nature of the Basin resources being considered, a wide variety of options will likely be explored, including conservation and reuse, development of local groundwater supplies, augmented water transfers, and operational efficiencies.

The reports and analysis in the Study will better define options for future water management of the Colorado River Basin where climate change, record drought, population increases and environmental needs have heightened competition for scarce water supplies. Based on preliminary assessments, large supply-demand imbalances greater than 3.5 million acre-feet (maf) are plausible over the next 50 years when considering a water supply scenario that incorporates changes in climate. Work is ongoing to explore alternative combinations of supply and demand that could result in a range of imbalances both greater and less than 3 maf.

“Those who best understand the dynamics of the Colorado River are the people who can bring the most to the table in gathering ideas and insight on the potential future management of the basin,” Commissioner Michael L. Connor said today. “Phase 4 of this basin study invites a broad discussion on ideas that can help identify how future water managers will address imbalances between supply and demand along the Colorado. Reclamation, the se

Colorado River Basin States and our many partners throughout the basin have much to learn from this study to guide future management, so it is critical that we provide this forum to gather a wide array of public input.”

Reclamation is considering the needs of the Basin resources that are dependent upon a healthy river system, including water for municipal, industrial and agricultural use, hydroelectric power generation, recreation, fish and wildlife and water dependent ecological systems, under a broad range of conditions that could occur over the next 50 years.

“Bringing in many perspectives is critical to the success of the Study,” said Co-Study Manager for Reclamation Carly Jerla. “We are seeking input from a wide range of stakeholders and interested parties from within and outside of the Basin to help identify a broad range of ideas because no single option will be adequate to meet all of the future needs of Basin resources,” Jerla added.

Due to the inherent complexities of the Study and the many diverse interests and perspectives, new information will be distributed in the form of technical updates. The updates will be published to reflect continuous technical developments and the ongoing input of stakeholders. Interim Report No. 1 was published in June 2011 and technical updates to that report included in Interim Report No. 2 will be published in January 2012, with additional technical updates in spring 2012. The Study is targeted for completion in July 2012.

Additional information on the Study including preliminary information on future supply and demand projected imbalances, the process for submitting ideas, and information on how to join a webinar about the Study, can be found online at:

www.usbr.gov/lc/region/programs/crbstudy.html.

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Reclamation is the largest wholesale water supplier and the second largest producer of hydroelectric power in the United States, with operations and facilities in the 17 Western States. Its facilities also provide substantial flood control, recreation, and fish and wildlife benefits. Visit our website at www.usbr.gov.

Colorado River Basin Water Supply and Demand Study

Public Input Sought for Options to Resolve Water Supply and Demand Imbalances

Since January 2010, the Bureau of Reclamation and agencies representing the seven Colorado River Basin States have been conducting a study on the Colorado River Basin. The purpose of the Study is to define future imbalances in water supply and demand in the Basin through the year 2060, and to develop and analyze options and strategies to resolve those imbalances. The Study is now entering its final phase and input is being sought on a broad range of options to resolve future water supply and demand imbalances.

The Study will not result in the selection or funding of a particular proposed option. Rather, the Study is intended to explore a broad range of options to help address future imbalances.

Spanning parts of the seven states of Arizona, California, Colorado, New Mexico, Nevada, Utah, and Wyoming, the Colorado River Basin is one of the most critical sources of water in the western United States and Mexico. It is widely known that the Colorado River, based on inflows observed over the last century, is over-allocated and supply and demand imbalances are likely to be exacerbated in the future.

Reclamation is considering the needs of Basin resources that are dependent upon a healthy river system, including water for municipal, industrial, and agricultural use; hydroelectric power generation; recreation; fish and wildlife and their habitats; water quality including salinity; flow and water-dependent ecological systems; and flood control, all under a range of conditions that could occur over the next 50 years.

How to Submit Input

To submit an option to help resolve future supply and demand imbalances in the Basin, please submit an "Option Submittal Form" available on the Study website at:

<http://www.usbr.gov/lc/region/programs/crbstudy.html>.

To submit a hard copy of the form, mail to:

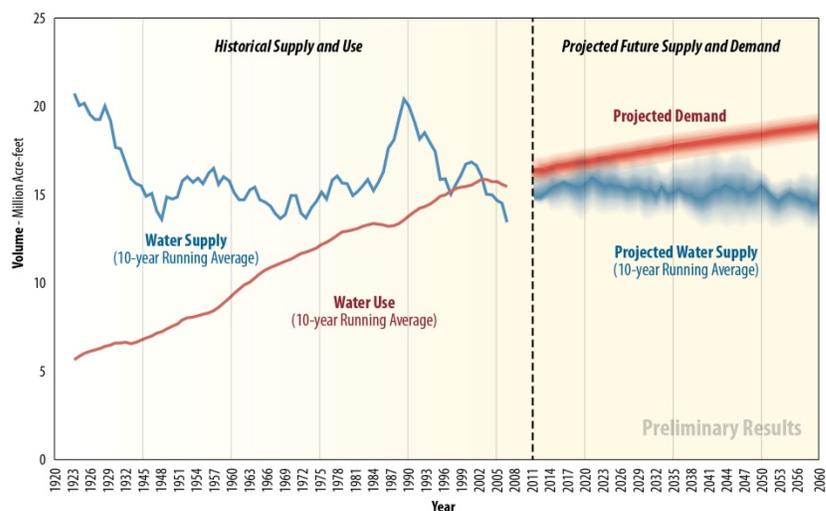
Bureau of Reclamation,
Attention Ms. Pam Adams, LC-2721, P.O. Box
61470, Boulder City, NV 89006-1470.

Please submit input by February 1, 2012.

Study Approach and Projected Range of Water Supply and Demand Imbalances

An Interim Report was released in June 2011. It was made available for public comment, and, together with other technical updates, is building the foundation to the complete Study, planned for July 2012. At this point in the Study process, additional input is being sought on a broad range of potential options to resolve imbalances in the Basin. The effectiveness of the various options at resolving those imbalances will then be explored.

Given the historical variability of Colorado River inflows and the potential for increased variability in the future, there is great uncertainty associated with future water supply throughout the Basin over the next 50 years. That uncertainty, coupled with the uncertainty in future demand for water Basin-wide, is being addressed using a scenario planning approach.



Based on preliminary assessments of the scenarios quantified to date, large supply-demand imbalances (greater than 3.5 million acre-feet) are plausible over the next 50 years, particularly when considering potential changes in climate. Work is ongoing to consider alternative combinations of supply and demand that will likely result in imbalances both greater than and less than 3.5 million acre-feet.

Managing Water Supply and Demand in the Colorado River Basin

Water managers and water users in the Basin have long recognized the need to adapt to and mitigate the impacts of shortfalls between water supply and demands.

Recent efforts implemented by Basin stakeholders have focused on improving efficiency of operations, improving water conservation and storage, improving municipal water use efficiency, augmenting the Basin supply, implementing voluntary water transfers, conjunctively using surface water and groundwater, and extending supplies through greater reuse of water.

No single option or project will be adequate to meet all of the needs in all areas under each of the future scenarios. A combination of options addressing supply augmentation, demand management such as conservation, and system operational efficiencies will likely be needed.

Many of these efforts have resulted in solutions to past water management challenges and will continue to provide benefit to the Basin in meeting the challenges that lie ahead. Due to the scale of the Basin, the magnitude and timing of projected imbalances, and the broad needs of the Basin being considered, a wide variety of options will be explored, including additional conservation and reuse, development of local groundwater supplies, augmentation, and operational efficiencies.

Additional Study Information

The reports and analysis being prepared as components of this Study will better define options for future water management of the Basin where potential changes in climate, record drought, population increases, and environmental needs have heightened competition for scarce water supplies. Interest in the Study is broad and includes Native American tribes and communities, agricultural users, purveyors of municipal and industrial water, power users and providers, recreational groups, and conservation groups.

As described above, and due to the many diverse viewpoints and perspectives of those interested in the Study, technical updates are being published to reflect Study progress and the ongoing input of stakeholders. Interim Report No. 1 was published in June 2011 and updates to the technical reports included in Interim Report No. 1 are anticipated to be published in January 2012.

For additional information on the Study, including a report describing the preliminary assessment of potential future imbalances and the approach for organizing and evaluating options, visit us **online** at: <http://www.usbr.gov/lc/region/programs/crbstudy.html> or contact us:

E-mail: ColoradoRiverBasinStudy@usbr.gov

Mail: Bureau of Reclamation
Attention: Ms. Pam Adams, LC-2721
P.O. Box 61470
Boulder City, NV 89006-1470
Phone: 702-293-8500

