

Minutes of Regular Meeting  
COLORADO RIVER BOARD OF CALIFORNIA  
Wednesday, September 9, 2009

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 E. Convention Center Way, Ontario, California, Wednesday, September 9, 2009.

Board Members and Alternate Present

Dana B. Fisher, Jr. Chairman  
Thomas M. Erb  
John V. Foley  
W. D. 'Bill' Knutson  
Henry Merle Kuiper  
John W. McFadden

John Pierre Menvielle  
David Elms, Designee  
Department of Fish and Game  
Jeanine Jones, Designee  
Department of Water Resources

Board Members

Terese Maria Ghio

James B. McDaniel

Others Present

Steven B. Abbott  
James H. Bond  
Celia A. Brewer  
John P. Carter  
Dave Fogerson  
William J. Hasencamp  
Charles Keene  
Michael L. King  
Russell Kitahara  
Thomas E. Levy  
Jan P. Matusak  
Dan Parks  
Halla Razak  
Steven B. Robbins  
Jack Seiler

Ed W. Smith  
William H. Swan  
Bradley Udall  
Joseph A. Vanderhorst  
Bill D. Wright

Abbas Amirteymoori  
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 10:07 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 August 12<sup>th</sup> meeting minutes. Mr. Menvielle moved the August 12<sup>th</sup> minutes be approved. Mr. Knutson seconded the motion. Unanimously carried, the Board approved the August 12<sup>th</sup> meeting minutes.

### October Board Meeting and Bi-National Workshop

Mr. Zimmerman reported that the Bi-National Workshop is scheduled to be held in Mexicali on October 14<sup>th</sup> and 15<sup>th</sup>. The October Board meeting was originally scheduled to be on the 14<sup>th</sup>. Mr. Zimmerman asked the Board for direction regarding the conflict in schedule. Chairman Fisher asked if there was a motion to cancel the October Board meeting. Mr. Knutson moved that the October Board meeting be cancelled. Mr. Menvielle seconded the motion. Unanimously carried, the Board approved that the October Board meeting be cancelled, with the proviso that if the Chairman deemed necessary a special meeting could be convened in October.

## **AGENCY MANAGERS' MEETING**

Mr. Zimmerman reported that the Agency Managers have not met since the August Board meeting. Chairman Fisher requested that the Agency Managers meet after the September Board meeting.

## **PROTECTION OF EXISTING RIGHTS**

### Colorado River Water Report

Mr. Amirteymoori reported that as of August 31<sup>st</sup>, the reservoir storage in Lake Powell was 15.71 million acre-feet (maf), or 65 percent of capacity. The water surface elevation was 3,637.5 feet. The storage in Lake Mead was 10.94 maf, or 42 percent of capacity. The water surface elevation was 1,093.7 feet. Total System storage was 34.84 maf, or 58 percent of capacity. Last year at this time, there was 34.52 maf of water in storage, or 58 percent of capacity. Total System storage was about 0.3 maf more than the storage at this time last year. Storage had increased in the Upper Basin by about one maf, and decreased in the Lower Basin also by about one maf.

Mr. Amirteymoori reported that precipitation from October 1<sup>st</sup> to August 31<sup>st</sup>, was 99 percent of normal, and there was no measureable snowpack water equivalent. The observed April through July inflow into Lake Powell for Water Year 2009 was 7.81 maf, or 99 percent of normal. The projected 2009 Water Year unregulated inflow into Lake Powell was about 10.97 maf, or about 91 percent of normal.

Mr. Amirteymoori reported that Reclamation's estimated consumptive use (CU) for the State of Nevada is under its entitlement of 300,000 acre-feet (290,000 acre-feet); and for Arizona, the CU is projected to be slightly under its basic entitlement of 2.8 maf (2.783 maf); and for California the CU is also projected to be under its apportionment of 4.4 maf (4.256 maf). The total projected CU in the Lower Basin is expected to be about 7.329 maf.

### State and Local Water Reports

Mr. Charles Keene, of the California Department of Water Resources, reported on the storage conditions of the State Water Project (SWP) in California. Total water storage in the SWP is about 43 percent of capacity, approximately 300,000 acre-feet more on September 1, 2009 than on September 1, 2008. Lake Oroville is about 250,000 acre-feet more this year than this time last year. Though there is an increase in storage over last year, there are restrictions associated with conveyance capacity, restrictions for endangered species and operational issues at Oroville Dam that Ms. Jeanine Jones mentioned last month. SWP deliveries are expected to remain at 40 percent of Table A Entitlements for this year.

Mr. Foley, of The Metropolitan Water District of Southern California (MWD), reported that the combined reservoir storage of Diamond Valley Lake, Lake Mathews, and Lake Skinner as of September 1<sup>st</sup> was 546,700 acre-feet, or 53 percent of capacity. Storage in Diamond Valley Lake was 351,500 acre-feet, or 43 percent of capacity.

Mr. Thomas Erb, of the Los Angeles Department of Water and Power (LADWP), reported that the Eastern Sierra winter snows have not yet started and there was nothing to report. However, LADWP has been successful in meeting its water conservation goals and is well within their MWD allocation. The LADWP is considering recommending to the City Council that it adds another watering day, increasing the current two-day limit to a total of three days a week for landscape irrigation.

## **PRESENTATION ON THE COLORADO RIVER BASIN CLIMATE CHANGE AND GLOBAL WARMING**

### *Resolving Projections for the Colorado River Basin*

Mr. Bradley Udall, with the University of Colorado, the National Oceanic Atmospheric Administration, and Director of the Western Water Assessment, reported on the history of Colorado River climate change studies, reconciling disparities among the Colorado River climate change projections, and implications of climate change for the Colorado River Basin.

Mr. Udall briefed the Board on climate studies over the years, by Stockton and Boggess in 1979, and Revelle and Waggoner in 1983 representing the first studies. The first studies were not very sophisticated and predated available climate models. The mid-studies were represented by three studies: Nash and Gleick in 1991 and 1993; McCabe and Wolock in 1999 (NAST – National Assessment Synthesis Team – U.S. Global Change Research Program); and the Intergovernmental Panel on Climate Change (IPCC) in 2001. Mr. Udall reported that the recent studies were represented by: Milly et al. 2005 “Global Patterns of trends in runoff”; Christensen and Lettenmaier in 2004 and 2006; Hoerling and Eischeid in 2006 “Past Peak Water?”; Seager et al in 2007 “Model Projections of an Imminent Transitions to More Arid Climate Southwestern North America”; IPCC in 2007 (Regional Assessments); National Research Council Colorado River Report in 2007; McCabe and Wolock in 2007 “Warming may create substantial water shortages. . .”; Barnet and Pierce, in 2008 “When will Lake Mead Go Dry?”; Barnet and Pierce in 2009 “Sustainable Water Deliveries from Colorado River in changing climate”; Rajagopalan in 2009 “Water Supply risk on the Colorado River: Can management mitigate?”; and comments and responses to Barnet and Pierce 2008.

Mr. Udall reported, through a series of slides, on the results of the different studies. The Intergovernmental Panel on Climate Change (IPCC) in their 2007 AR4 projections stated that there will be differences in storm tracks and weather patterns, and that climate change and the hydrologic cycle are inter-related. Essentially, the wet areas will be getting wetter and the dry areas will be getting drier, partly due to increased evaporation and less precipitation, with deserts moving northward. The Southwest is likely to get drier.

Mr. Udall reported on the progression of Data and Models in studies about the influence of climate change on streamflows in the Colorado River Basin. There are basically three different ways to simulate stream flow data: 1) Extract stream flow data from the global climate circulation models, as reported by Chris Milly et al. in 2005 and Seager et al. in 2007; 2) Using statistical hydrology techniques as applied by Marty Hoerling and John Eishceid in 2006 and Revelle and Waggoner in 1983, which are essentially the relationship of temperature, precipitation and streamflow; 3) The Hydrology Process Models such as NWSRFS, VIC, WEAP, etc. The best of these are represented by the work of Christensen and Lettenmaier, 2004 and 2006.

Mr. Udall reported the mean results from Christensen and Lettenmaier 2006 with low and high emission scenarios and four models. The predicted mid-century streamflow was about negative seven percent and end-of-century varied between negative eight and negative eleven percent. However, Dennis Letenmaier of the University of Washington recently re-ran the models using a different downscaling technique, that resulted in negative values for mid-century streamflow ranging from negative ten to negative twelve percent and end-of-century values ranging from negative fifteen and sixteen percent reduction in streamflow.

Mr. Udall reported that Chris Milly’s 2005 study based on the hydrology layer of several global climate models predicts that the southwest will become more arid by about 10 to 20 percent. Prior to this study it was unknown that the hydrology layer could be extracted from the global climate models. Ninety percent of the global climate models agree that a warming trend will continue in the southwest of the U.S.

Mr. Udall reported that Mr. Rick Seager, of Columbia University, reported in “Model projections of an Imminent Transition to a more arid climate in Southwestern North America” – Science, 2007, that runoff as precipitation minus evaporation from 1900 to 2080, nineteen of the twenty models predicted a drying trend of as much as minus sixteen percent by 2050. The twenty models were large scale, the runoff data was coarse, and the southwest is a large area.

Mr. Udall reported that Hoerling and Eischeid in 2006 published “Historical and Projected Lee Ferry Flows,” where flows at Lee Ferry were projected to be negative 45 percent by 2050. The projection was based on a coarse grain “hydrology model” using a scale too large to effectively model the mountains in the Basin. The authors now believe their study overstates future losses.

Mr. Udall reported on a climate study done by the University of Colorado on “Climate Change in Colorado: A Synthesis to Support Water Resources Management and Adaption”-2008. There is a table in the report that compares the results of seven published projections of the Colorado River Basin, on the number of Global Climate Model runs, spatial scale, temperature, precipitation, end date of projection, and change in runoff.

Mr. Udall reported on current efforts to reconcile the disparity of amount of Colorado River flow projections. He noted that current published modeled projections of Colorado River flow range from negative six to negative forty-five percent.

Mr. Udall reported that the National Oceanic Atmosphere Administration (NOAA) is funding a three-year study engaging the University of Washington, University of Arizona, University of Colorado, Scripps Institute, and others to reconcile the range of the results from all of the different studies. The first step of the investigation is to look at the historical hydrology models and compare them based on current refinements. The second step is to drive the hydrological models with current climate model results. Many models are to be included in the investigation including the VIC (Variable Infiltration Capacity), Colorado Basin River Forecast Center SAC-Snow17, NOAA, and Hoerling “Bucket” Model. Mr. Udall added that the Southern Nevada Water Authority hosted a meeting November 14, 2009, on the status of the scientific studies of the Colorado River Basin and were presented and discussed, with about fifty participants representing stakeholders in the Basin attended.

Mr. Udall reported the initial effort of coordinating a “bake off” of the current models driven with the same sets of climate data to compare the results of the different models for the Colorado River Basin.

Mr. Udall reported that an important revelation of the Colorado River Basin is that of scale. Small areas of the Basin have a large influence on the hydrological parameters. For example, regarding scale, eighty four percent of the precipitation on the Basin occurs above 9,000 feet in elevation, and only thirteen percent of the Basin is about 9,000 feet. Those small areas of the Basin need to be considered properly otherwise predictions would essentially be misleading if not useless. The orographic features as well as inherent characteristics of the sub-basins within the Colorado River Basin strongly affect the hydrologic parameters of the each sub-basin. For instance, regarding precipitation, about eight to twelve percent of the precipitation occurs in the Muddy and Escalante sub-basins yet those sub-basins provide almost

no runoff. The Colorado Plateau and the San Juan's receive up to twenty percent of the precipitation yet provide less than twelve percent of the runoff. The Upper Colorado sub-basin receives up to sixteen percent of the precipitation yet provides up to twenty four percent of the runoff. Regarding runoff efficiency (how much precipitation actually runs off) varies greatly from about five percent for Dirt Devil drainage area to greater than forty percent in the upper main stem of the Colorado River Basin. In terms of runoff efficiency the Upper Colorado sub-basin is the most efficient of the sub-basins. The Gunnison is a close second with the Yampa/White, Upper Green River and Unita/San Rafael providing nearly eighty percent runoff to the mainstream of the Upper Colorado River.

Mr. Udall reported that in the Colorado River Basin, scale is very important. In the Colorado River Basin, about 6.3 percent of the area is from 9,000 feet to 10,000 feet, and approximately twenty five percent of the runoff is generated. About 4.3 percent of the area is from 10,000 to 11,000 feet in elevation, and about 27 percent of the runoff is generated. About 2.1 percent of the area is between 11,000 and 12,000 feet, and about 22 percent of the runoff is generated. About 0.5 percent of the area is from 12,000 to 13,000 feet, and about 11 percent of the runoff is generated. Thus, 84 percent of the runoff is from only 13.2 percent of the total land area, all of it above 9,000 feet.

Mr. Udall reported that modeling results from the Christensen and Lettenmaier study with multiple runs with high and low emission scenarios published in 2006 indicated that projected declines in the Colorado River snowpack may not be as severe as elsewhere in the West at lower elevations. For instance, if the Christensen and Lettenmaier study had included the Lake Tahoe watershed, whose elevation is much lower than that of the Colorado River Basin, then the reduction in snowpack may have been on the order of fifty percent.

Mr. Udall reported that in the process of exercising the various hydrology models and comparing their performance during the historic period they considered what would happen if the temperature was increased by one degree Celsius and/or precipitation modified by plus or minus ten percent. If only temperature is modified by one degree Celsius, the runoff was decreased by minus four to minus nine percent. The results were found to be model dependent. If only precipitation is modified by plus or minus ten percent, the resultant change in runoff was twenty percent, consistent with the direction of change in precipitation. These results were independent of the hydrology model. The overall results indicate that a temperature increase of one degree Celsius would be equivalent to between minus two and minus five percent precipitation. If by 2050 there is an increase in temperature of two degrees Celsius, then it is likely that there will be a reduction in runoff of between minus eight to minus eighteen percent runoff, with no changes in precipitation.

Mr. Udall reported on recent correspondences regarding the Barnett and Pierce, 2008 study "When Will Lake Mead Go Dry?" In the Barnett and Pierce study, the prediction was made that Lake Mead will be dry by 2021. Barsugli et al. wrote a comment to the journal *Water Resources Research* challenging the model used in the Barnett and Pierce study and claiming that though the risks are potentially serious there is a window of opportunity to get policy and management right. Barnett and Pierce responded to the comment stating that the recent drought is the new norm and the current "shortage agreements tantamount to inaction."

Mr. Udall reported that Rajagopalan et al. 2009 published the study “Water supply risk on the Colorado River; Can management mitigate?” Five alternatives were examined including slower demand growth, more aggressive shortage policies as well as uncertainty in demand. Near term risks were relatively low and management offered some risk mitigation. The climatic regime was the largest factor. The study found that some system-wide management can reduce risk substantially but risk explodes after 2027.

Mr. Udall added that Barnett and Pierce, 2009 “sustainable water deliveries from the Colorado River in a changing climate” used similar modeling assumptions as well as timeframe, though the interpretations of the results are different.

Mr. Udall reported that where the Barnett and Pierce, 2008 study predicted a fifty percent chance of Lake Mead going dry by 2021 and a fifty percent chance of the water level in Lake Mead reaching the minimum power pool by 2017, the Barnett and Pierce 2009 study predicts that deliveries will not be met eighty-eight percent of the time by 2050 with a twenty percent climate reduction in flow and an average shortfall of 2.2 maf. The Barsugli et al, 2009 study predicts a fifty percent chance of Lake Mead going dry by 2033 to 2047, and an average deficit of 1.7 maf. There are differences in immediacy and extent but both studies agree that long-term future risks are extraordinary.

Mr. Udall reported that current funding includes: Evaluation of all Inter-governmental Panel on Climate Change Models for the Colorado River Basin; Downscale Climate Model Data using Alternative Methodologies; Investigate Runoff “Elasticity” Using Hydrology Models; Investigate High Elevation Impacts on Runoff; Stakeholder Workshop (held November 2008); Evaluate Project Effectiveness for Policy; and Communicate Findings. Mr. Udall reported proposed new work: (1) Evaluate Alternative Datasets; (2) Diagnose Reasons for Different Temperature Sensitivities; (3) Understand the Difference between the work of Seager and Milly; (4) Evaluate Runoff Sensitivities using North American Regional Climate Change Assessment Program Data; (5) Continue to Investigate High Elevation Runoff Physics; Track AR5 Model Results as they become available; and (6) Prepare papers and hold Stakeholder Meetings.

Mr. Udall added that another workshop on reconciling flows in the Colorado River basin is in the works, with at least two papers in progress. The Board will be notified in advance of the workshop. Mr. Udall answered questions and elaborated on details of concern to the Board, of particular concern was the impact of climate change on the watersheds in California. Ms. Jeanine Jones, of the Department of Water Resources, reported that pursuant to the Governor’s Executive Order a few years ago the State is required to update the impacts of climate change in general and specifically the water supply. The second update has recently been published and includes detailed analysis of impacts to the SWP and the federal Central Valley Project. The Sierra Mountain ranges in California are much lower than those of the Colorado and hence attract less snow and rainfall. By the year 2050, the predicted snowmelt is greatly diminished and by 2100 nearly all of the runoff from snow melt is gone.

## PROTECTION OF EXISTING RIGHTS (Continued)

### Colorado River Operations

#### *2010 Annual Operating Plan for Colorado River System Reservoirs*

Mr. Zimmerman reported that the second consultation meeting of the 2010 Annual Operating Plan (2010 AOP) Work Group was held August 26<sup>th</sup>, by Reclamation. Based upon the projected water surface elevations in Lake Powell and Lake Mead on January 1<sup>st</sup> and the most probable water supply conditions in 2010, releases from Glen Canyon would be governed by the Upper Balancing Tier at the beginning of the year and then, if the most probable forecast holds through the mid-year review, releases would be governed by the Equalization Tier for the remainder of the year. The Equalization Trigger for Lake Powell in 2010 is water surface elevation 3,642 feet and under the most probable forecast releases from Glen Canyon would be more than 8.23 maf.

Mr. Zimmerman reported that releases from Hoover Dam will be governed under an Intentionally Created Surplus (ICS) condition. Normal demands would be met from the mainstream in the Lower Basin. Entities who have created ICS water would be allowed to draw that water. Mexico will be allowed to schedule the delivery of 1.5 maf during calendar year 2010 and releases from Hoover Dam will be made to satisfy Mexico's deliver schedule.

Mr. Zimmerman reported that MWD anticipates the delivery of 6,000 acre-feet of Intentionally Created Unused Apportionment stored in Arizona in calendar year 2010. In addition MWD would also take delivery of 32,000 acre-feet of system efficiency ICS credits created from the Drop 2 Storage reservoir project in calendar year 2010. If water supply availability permits, MWD would also take delivery of additional ICS water in 2010. Mr. Zimmerman reported that Imperial Irrigation District anticipates creation of 25,000 acre-feet of Extraordinary Conservation ICS credits in 2009 and 2010. Southern Nevada Water Authority anticipates creation of 30,000 acre-feet of tributary conservation ICS and would likely take delivery of 28,500 acre-feet in 2010.

Mr. Zimmerman reported that a copy of the draft 2010 AOP can be downloaded from Reclamation's webpage at: [www.usbr.gov/lc/region/g4000/AOP2010/AOP10\\_draft.pdf](http://www.usbr.gov/lc/region/g4000/AOP2010/AOP10_draft.pdf). The final consultation meeting is scheduled to be held September 22<sup>nd</sup>.

#### *Yuma Desalting Plant Pilot Project Status*

Mr. Zimmerman reported that on August 26<sup>th</sup>, Reclamation announced the release of "Finding of No Significant Impact" (FONSI) determination associated with the proposed pilot run of the Yuma Desalting Plant (YDP). The proposed pilot run is scheduled to be initiated in early 2010. The YDP would operate from one year to 18 months at one-third capacity. The YDP would produce about 60 acre-feet of product water per day. The product water would be blended with drainage water to produce about 29,000 acre-feet of water. The 29,000 acre-feet of water discharged to the Colorado River includes 22,400 acre-feet of desalted water and 7,000 acre-feet of untreated irrigation drainage water. The comment period for the draft FONSI determination closed on September 28<sup>th</sup>. A copy of the final draft Environmental Assessment



can be found at: [www.usbr.gov/lc/yuma/environmental\\_docs/environs\\_docs.html](http://www.usbr.gov/lc/yuma/environmental_docs/environs_docs.html).

### *Consultations with Mexico*

Mr. Zimmerman reported that on July 17<sup>th</sup>, the principal engineers for the Mexican and American Sections of the International Boundary and Water Commission (IBWC) submitted a report to the IBWC Commissioners regarding cooperative actions that would be undertaken by the two countries during the pilot run of the YDP. Generally, these actions involve: (1) Steps to monitor potential water quality impacts to the Cienega de Santa Clara; and (2) Improve the plumbing of water conveyance networks in order to more efficiently convey water to the Cienega and Mexico. Mexico, the U.S., and non-governmental organizations will each provide 10,000 acre-feet of additional water for habitat maintenance at the Cienega. A copy of the IBWC report was included in the handout materials.

### *California Water Crisis*

Mr. Zimmerman reported that on August 28<sup>th</sup>, one of California's congressional representatives, Ms. Grace Napolitano, sent a letter to the Interior Secretary Salazar regarding California's on-going water crisis associated with the drought. The letter suggests a series of proposed steps that could be taken to help alleviate the impacts of the drought on California water users. Those actions include the following: It is proposed that Reclamation would establish a program to create an additional one million acre-feet of water supply; Reclamation would establish a "Farmer helping Farmer" irrigation efficiency initiative, through investment in on-farm irrigation system efficiency improvements; and Reclamation would establish a "Water Conservation" initiative for urban and rural water districts, allowing conserved water to be sold, leased, or rented. Representative Napolitano's letter also urges the administration to submit amendments to the Fiscal Year 2010 budget for the projected \$250 million required to implement the suggested programs. A copy of Representative Napolitano's letter was included in the Board folder.

### *Imperial Irrigation District's Calendar Year 2009 Intentionally Created Surplus*

Mr. Zimmerman reported that Reclamation approved IID's plan to create up to 25,000 acre-feet of Extraordinary Conservation Intentionally Created Surplus (EC ICS) in 2009. Pursuant to the Interim Guidelines, IID will be required to submit a Certification Report to Reclamation's Regional Director demonstrating the amount of EC ICS created and that the method of creation is consistent with the approved ICS plan. A copy of Reclamation's letter was included in the Board folder.

### *House Committee Report Language regarding H.R. 3183*

Mr. Zimmerman reported at the August Board meeting that concern was expressed regarding language in a House Committee report associated with the review of the operating criteria for Glen Canyon Dam. The House Committee report contained language that: criticized the Department of the Interior's management of the Colorado River System; and encouraged Reclamation in consultation with, and with the concurrence of, the National Park Service to revisit the Glen Canyon Dam operating criteria. The Basin states' representatives and others sent

letters to Senators in the Basin, as well as to Interior Secretary Salazar.

Based upon letters received from concerned stakeholders, including the seven Basin states, Senators from all seven of the Basin states sent a letter, dated August 11<sup>th</sup>, to ranking House and Senate members on the Appropriations and Energy and Water Committees expressing their concern about the House Committee's report language. The Basin states' Senators offered alternative language that they suggested should replace the existing report language. A copy of the Senators' letter was included in the Board folder.

*Water Organizations' Letter to Secretary of the Interior Requesting at Least \$1.2 Billion in the FY 2011 Presidential Budget for the U.S. Bureau of Reclamation's Water and Related Resources Programs*

Mr. Zimmerman reported that an August 21<sup>st</sup> letter from a consortium of water resources organizations to the Interior Secretary Salazar requested that the Administration request at least \$1.2 billion in the FY-2011 President's Budget for Reclamation's Water and Related Resources Programs. As part of this request, the organizations urged the Secretary's support for at least \$100 million for Reclamation's Title XVI Water Recycling program, and funding to address the serious issues associated with the aging water infrastructure and rural water needs throughout the western United States.

## **BASIN STATES DISCUSSIONS**

*International Boundary and Water Commission Transboundary Aquifer Program*

Mr. Zimmerman reported that the Board received IBWC's August 19<sup>th</sup> Joint Report on the Transboundary Aquifer Program. The program intends to provide an assessment for the transboundary aquifers shared between Mexico and the United States. Public Law 109-448, the stated authority for these assessments, specifically excludes aquifers shared by California and Mexico. The Board sent a letter, August 21<sup>st</sup>, to the Commissioner of the American Section of the IBWC, Mr. Bill Ruth, indicating that provisions in P.L. 109-448 excluding aquifers shared by California and Mexico need to be followed. A copy of the Board's letter to IBWC was included in the Board folder.

*Snake Valley Groundwater System*

Mr. Zimmerman reported that on August 13<sup>th</sup>, the States of Utah and Nevada entered into a long-term agreement to split the water resources of the groundwater aquifer in the Snake Valley that are shared by the two states. The agreement could also begin to provide a valuable water resource to the SNWA in about ten years. The interstate agreement protects the rights and uses of the farmers, ranchers, and other residents within the boundary of the Snake Valley basin.

Mr. Zimmerman reported that approximately two-thirds of the groundwater basin is located in Utah, where most of the current water use exist, but the basin is supplied by runoff from snowmelt from Nevada's Snake River Mountain range. Under the terms of the agreement, each state will have access to 66,000 acre-feet of groundwater per year, including all current

uses. There will be monitoring and technical studies conducted before additional development within the Snake River Valley. Copies of the technical report and agreement were included in the Board folder.

### *Basin Study Program 2009*

Mr. Zimmerman reported that the Reclamation-wide review committee has not announced the three to four proposals to be selected for development of detailed plans of study. It is anticipated that the announcement will be made later this month. If the Basin states' Basin Study proposal is selected, the detailed plan of study will be developed along with the necessary funding agreements between the Basin states and Reclamation and among the seven Basin states.

### *The Bi-National Discussions*

Mr. Zimmerman reported that progress is being made in the discussions with Mexico on pursuing potential bi-national projects and programs. At this time, the Basin states representatives are preparing for the October 14<sup>th</sup> and 15<sup>th</sup> workshops to be held in Mexicali, Mexico. The technical work group will be meeting on September 10<sup>th</sup> to prepare materials for the Basin states principals meeting, to be held on September 24<sup>th</sup> in Las Vegas, Nevada. Items of discussion include: The proposed conceptual minute that addresses the ongoing bi-national process; a response to Mexico's proposals that were presented at the August 4<sup>th</sup> and 5<sup>th</sup> workshop; and the Basin states proposal for cooperative shortage management and Mexico's creation and storage of Intentionally Created Mexican Apportionment (ICMA) in U.S. system reservoirs.

### California Environmental Issues

#### *Secretary of the Interior's Letter to the Glen Canyon dam Adaptive Management Work Group Regarding the Appointment of Assistant Secretary for Water and Science, Ms. Anne Castle, as Secretary's Designee*

Mr. Harris reported that on August 7<sup>th</sup>, Secretary of the Interior Salazar appointed Ms. Anne Castle as the "Secretary's Designee" to the Glen Canyon Dam Adaptive Management Work Group (AMWG). The AMWG met in Phoenix on August 12<sup>th</sup> and 13<sup>th</sup> primarily to approve the budget for the Glen Canyon Adaptive Management Program for FY-2010/11. The AMWG also approved the Draft Humpback Chub Conservation Plan. This plan directs efforts and activities toward a recovery implementation program in the Grand Canyon reach of the river for humpback chub, where federal agencies will act to ensure that they alleviate jeopardy for the humpback chub and protect the remaining fish that are in a few small population centers within the Glen and Grand Canyon reaches of the Colorado River.

#### *Grand Canyon Trust v. United States Lawsuit*

Mr. Gary Tavetian, of the California Attorney Generals Office, reported that the judge made his various rulings on summary judgment, but there are still parts of the case that exist in trial court. The plaintiffs have moved to have the Federal Court of Appeal hear the rulings that the trial court made. The motion has been denied so the case is still in trial court.

## **WATER QUALITY**

### Colorado River Basin Salinity Control

#### *Secretary of the Interior's Announcement of \$11.1 Million for Salinity Control Programs*

Mr. Amirteymoori reported that on August 19<sup>th</sup>, Secretary Salazar announced that Reclamation will award grants totaling more than \$11.1 million to irrigation companies in Colorado, Utah, and Wyoming to fund salinity control projects within the Upper Colorado River Basin under the American Recovery and Reinvestment Act of 2009. A copy of the press release was included in the Board folder.

#### *Colorado River Basin Salinity Control Program Status*

Mr. Amirteymoori reported that the Colorado River Basin Salinity Control Forum's Work Group (Work Group) met in Salt Lake City, Utah, on September 1<sup>st</sup>. A brief description of the important issues that were discussed at the Work Group meeting include: Reclamation reported on the status of the funding opportunity announcement for the funds that were available through the American Recovery and Reinvestment Act (ARRA); Reclamation has selected five proposals with a total cost of about \$15.8 million (about \$11 million ARRA funds, and about \$4.8 million cost share funds); it is estimated that annually approximately 12,000 tons of salt would be removed with implementation of these projects that must be completed by October 2010; Reclamation reported that the report to Congress has gone through different levels of review and will be ready to be submitted by the time the Congress is back from its summer recess; and Reclamation has extended its funding of the projects through March 2010. The Natural Resources Conservation Service (NRCS) provided its three-year plan to the Work Group. Based upon the NRCS plan, the level of funding for the next three years remains close to the funding level over the past few years (i.e., about \$18.2 million in FY 2009, \$19.6 million in FY-2010, and \$20 million in FY 2011).

## **OTHER BUISNESS**

### Next Board Meeting

Chairman Fisher announced that the next meeting of the Colorado River Board will be held on Thursday, November 12, 2009, at 10:00 a.m., at the Holiday Inn Ontario Airport, 2155 East Convention Center Way, Ontario, California.

There being no further items to be brought before the Board, Chairman Fisher asked for a motion to adjourn. Mr. Kuiper moved the Board meeting be adjourned. Mr. Menvielle seconded the motion, and with unanimous approval, the Board meeting was adjourned at 11:29 a.m. on September 9, 2009.

/S/

Gerald R. Zimmerman  
Executive Director