

**EXECUTIVE DIRECTOR'S REPORT
TO THE
COLORADO RIVER BOARD OF CALIFORNIA**

October 10, 2016

ADMINISTRATION

Minutes of the September 14, 2016 Meeting of the Colorado River Board

A draft of the Minutes from the Board meeting held on September 14, 2016 has been circulated for review.

COLORADO RIVER BASIN WATER REPORT

October 1, 2016 marks the beginning of the Water Year 2017. As of October 3, 2016, the preliminary observed unregulated inflow for Water Year 2016 was 9.62 million acre-feet, or 89% of normal. As of October 3, 2016, the water level at Lake Mead was at 1,075.36 feet with 9.63 million acre-feet of storage, or 37% of capacity. The water level at Lake Powell was at 3,610.92 feet with 12.82 million acre-feet of storage, or 53% of capacity. As of October 3, 2016, the total system storage was at 30.17 million acre-feet, or 51% of capacity, which is about 121,000 acre-feet less than this time last year. As of October 3, 2016, the Upper Colorado River Basin reservoirs, other than Lake Powell, ranged from 66% of capacity at Fontenelle Reservoir to 93% of capacity at Morrow Point Reservoir.

The National Oceanic and Atmospheric Administration's Colorado River Basin Forecast Center will be hosting an introductory Stakeholder Forum on October 17-18 to review the tools utilized in water supply forecasting and the uncertainty associated with forecasting methodologies. The forum will include a review of the Forecast Center's website and will include an interactive discussion among the various entities within the Basin that utilize the Forecast Center's products. The draft agenda for the meetings can be found at: <http://www.cbrfc.noaa.gov/present/2016/forum/agenda.pdf>.

Presentation regarding ongoing and emergency response actions relating to water quality issues within the Colorado River Basin

During the Board meeting, staff will present an update regarding certain water quality topics of interest to Colorado River Board agencies. In general, water quality activities in the Colorado River Basin span a wide range of actions, including routine monitoring, large-scale remediation, and occasional emergency responses. Routine monitoring is carried out by a wide variety of agencies throughout the Colorado River Basin, including state agencies, federal agencies, and water suppliers. Although information on water quality can be obtained from these individual entities, the Southern Nevada Water Authority has developed a Lower Colorado River Water Quality Database that contains a consolidated source of water quality data for many parameters at sites along the Lower Colorado River.

There are three main ongoing large-scale remediation projects aimed at protecting the water quality of the Colorado River. These include the Uranium Mill Tailings Remediation Project near Moab, Utah, the Las Vegas Wash Perchlorate Contamination remediation, and the Topock Hexavalent Chromium Project. The Moab Uranium Mill Tailings Remediation Project involves 16 million tons of radioactive mill tailings that were left at a site 750 feet from the Colorado River upstream of Lake Powell. Over half (52%) of the tailings have been removed as of July 2016. Remediation began in 2009 and is being carried out by the Department of Energy. The Las Vegas Wash Perchlorate Contamination remediation project pumps and treats groundwater contributing to the Las Vegas Wash, which was contaminated by decades of production of perchlorate used for rocket fuel. Levels of perchlorate declined significantly in the early 2000's as treatment was brought online. Finally, groundwater and soil contaminated with hexavalent chromium alongside the I-40 bridge outside Needles, California are being mitigated by the site owner PG&E, the California Department of Toxic Substances Control, and the Department of the Interior. An in-situ groundwater treatment plan is currently in the process of being installed.

Incidents requiring emergency actions to address water quality issues can occur along the Colorado River and will require collaboration by multiple agencies at the local, tribal, state and federal level. An example of this type of water quality emergency is the Gold King Mine spill. On August 5, 2015, during an investigation of metals loading in the Animas Watershed, the U.S. Environmental Protection Agency (EPA) triggered a release of 3 million gallons (9.2 acre-feet) of acidic metal-rich water from the Gold King Mine. Over an eight day period, the plume of polluted water traveled downstream in the Animas River to the San Juan River, which is a tributary to the Colorado River that flows into Lake Powell. Immediately after the spill, the EPA notified the states of Colorado, New Mexico, Utah, Arizona as well as three tribes, which include the Navajo Nation, Southern Ute and Ute Mountain Ute Tribes and collaborated spill responses efforts with those entities. In addition, the federal response included public outreach and water quality sampling by the EPA and Reclamation. The USGS provided turbidity, flow data and collected sediment samples, comparing them to samples from previous years. The spill triggered a robust response from state agencies such as the Colorado Department of Public Health and Environment, the New Mexico Environment Department, and the Utah Department of Environmental Quality. The states conducted sampling during the spill and continue long-term monitoring across the affected area. Long-term monitoring plans have been released by Colorado, New Mexico and Utah.

On August 1, 2016, the EPA released a report entitled, "One Year After the Gold King Mine Incident". The report provides details regarding the activities that led to the spill as well as the spill notification and response efforts. According to the report, water quality data shows that the dissolved metal levels present in the plume returned "to pre-incident conditions" in all areas shortly after the plume traveled down the Animas River to the San Juan River. The EPA has dedicated \$29 million to fund a wide range of federal, state, tribal and local responses and monitoring efforts, both immediate and long-term. Over \$2 million in Clean Water Act grants have been provided to state, tribal and local entities, in addition to over \$3 million in reimbursements for emergency response expenses under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

The region around the Gold King Mine contains hundreds of abandoned mines, and the EPA estimated there are 5.5 million gallons of mine releases occurring within the region every day. On September 7, 2016, the Gold King Mine site, as well as 47 other locations in the region, were

declared Superfund sites, giving them greater access to federal funding for cleanup and mitigation efforts.

The response to the Gold King Mine spill is an example of the emergency notification process and response collaboration between federal, state, local and tribal partners in the Upper Basin. If a similar incident were to occur in the Lower Basin, Lower Basin States, local agencies and tribal entities would follow the operational plans outlined in the “Lower Colorado River Geographic Response Plan” (Lower Basin Response Plan), which is the primary guide for emergency preparedness and response along the Lower Colorado River from Hoover Dam to the U.S./Mexico Border. The Lower Basin Response Plan is organized by three geographic areas that include Hoover Dam to Davis Dam (Area One); Davis Dam to Parker Dam (Area Two); and Parker Dam to the United States/Mexico Border (Area Three). The Lower Basin Response Plan was developed under the guidance of a Steering Committee that included representatives from federal, state, local, tribal, industry and non-governmental entities. As such, the Lower Basin Response Plan is a joint effort that can be updated periodically to include additional response actions and information.

COLORADO RIVER BASIN PROGRAM REPORTS

Basin States Drought Contingency Planning

Discussions have continued within each of the Lower Basin States to review some of the concepts developed among the Lower Basin States and Reclamation for a Drought Contingency Plan to encourage more water savings and storage in Lake Mead in order to decrease the likelihood that Lake Mead will drop below elevation 1,020 and to add flexibility and certainty for operations at lower reservoir levels. The new contingency plan would supplement the existing 2007 Interim Guidelines for the Coordinated Operation of Lake Mead and Lake Powell through 2026.

Colorado River Basin Salinity Control Program

The next meeting of the Salinity Control Forum will be held on October 26-27 in Moab, Utah. On October 25, Reclamation will host a tour of the existing Paradox Valley Unit injection well location. The well has exceeded longevity expectations and will provide an overview of the potential alternatives that are being considered in the ongoing EIS process. The current replacement options are to drill a new well utilizing deep injection technologies that are similar to the existing disposal processes, construct surface evaporation ponds, or develop a commercial disposal market for the withdrawn salts and brine. The EIS process is expected to continue through 2018 and is being managed through Reclamation’s Upper Colorado Regional Office. The Paradox well has been the largest single source of salinity control that the program has implemented and has been effective in reducing the salt levels in the river by approximately 110,000 tons of salt per year. Reductions in salinity translate directly to more efficient agricultural water usage, more efficient water reuse potential and cost savings on fixture replacements.

Reclamation continues to work on the modeling for the 2017 Triennial review and the first draft of the modeling results will be presented to the Forum during its October meeting. The modeling efforts help advise the Forum regarding the most appropriate and cost-effective level of

salinity control measures to pursue. A draft video describing the Colorado River Basin Salinity Control Program, the causes of salt load increases in the River, the impacts of high salinity levels, and the success and continuing need for the program has been developed. The video includes photos of salinity damages to agriculture, municipal/industrial uses, and the environment in both the Upper Basin and the Lower Basin.

Status of the implementation of Minute 319 and negotiation of Minute 32x

The bi-national negotiating group that is evaluating options for the potential successor to Minute 319 met most recently on September 21-22 in Tijuana, Mexico to continue discussion of potential items to include in the next Minute. Mexico's participation in drought contingency planning efforts to increase and protect Lake Mead's elevation levels has continued to be a topic of the bi-national discussions. Elements under discussion include whether to extend or expand some of the current provisions of Minute 319 through 2026 so that the new Minute would coincide with the timeline of the 2007 Interim Guidelines. The new Minute will build off elements of Minute 319 and no major modifications are anticipated. Development of the key domestic implementation agreements will start as soon as the basic elements of the new Minute have come together.

On September 28, the IBWC held a Citizen's Forum meeting in El Centro with a focus on presentations regarding New River restoration efforts in both Mexicali and Calixico. The water quality of the New River deliveries has improved recently, but efforts are still underway in both countries to continue to make improvements. Flows from the New River into the US have decreased over the past several years as a result of additional waste water reuse in Mexico.

Status of the Glen Canyon Dam Adaptive Management Program

The Department of the Interior released the Long-Term Experimental and Management Plan (LTEMP) Final EIS on October 7. The EIS will guide dam operations for the next twenty years and includes experimental activities meant to benefit downstream resources such as endangered fish, beaches used by rafters, and historic cultural sites, while maintaining water supply requirements, hydropower production and otherwise complying with the Law of the River. The preferred alternative identified in the EIS expands the use of high flow experiments (HFEs), incorporating several new types of high flows while extending the implementation of regular HFEs over the term of the EIS. The preferred alternative also includes new experimental flows, such as low summer flows, flows for insect production, and trout management flows. Changes to the annual release pattern from Glen Canyon Dam are intended to maximize hydropower production, while also ensuring that monthly release volumes do not affect the operating tier of Lake Powell. The preferred alternative also includes a decision-making framework meant to incorporate stakeholders in the process of determining which experimental actions are carried out in any given year. The full FEIS can be found at <http://itempeis.anl.gov/documents/final-eis/>. A Record of Decision is expected in November or December. Reclamation and the USFWS continue to coordinate on the development of an associated LTEMP Biological Opinion.

Contrary to the predictions last month that an HFE would be unlikely this fall, due to fall monsoonal rain activity, researchers have determined that tributaries below Glen Canyon Dam have contributed enough sediment to the Glen, Marble and Grand Canyon reaches of the mainstem to trigger a HFE in November. Stakeholders have been meeting to evaluate the status of conditions in the Canyon, including sediment availability and the potential for flushing a small population of

invasive green sunfish downstream. The group will reach a final decision on whether to carry out an HFE by mid-October. National Park Service staff are pursuing several methods of removing or reducing the recently discovered population of green sunfish, while also planning for a longer-term solution to remove habitat features being used by the fish.

The Technical Work Group will be meeting on October 18-19 in Phoenix, Arizona. The group will focus on development of the next three-year budget and work plan, which will cover FY18-20. The group will also discuss integration of the forthcoming LTEMP Science Plan into the Adaptive Management Program within the Long Term Experimental and Management Plan that will be completed soon.

Status of the Lower Colorado River Multi-Species Conservation Program

The Lower Colorado River Multi-Species Conservation Program Work Group met by teleconference on September 29. The meeting was focused on the northern Mexican gartersnake, which was recently federally listed as a threatened species under the Endangered Species Act. Discussion revolved around adding the species as a “covered species.” Proposed Conservation Measures and Avoidance and Minimization Measures to mitigate for impacts to the snake have been drafted by Reclamation. The Work Group also discussed the regulatory process for adding the northern Mexican gartersnake to the program, including any potential permit modification and related NEPA compliance requirements.

The Steering Committee is scheduled to meet in Las Vegas, Nevada, on October 26, 2016, and expects to discuss and possibly take action on the addition of the northern Mexican gartersnake as a covered species.

ANNOUNCEMENTS

(a) On November 15, 2016, the State Water Resources Control Board is planning to hold a Workshop Regarding the Status of the Salton Sea Management Program. More information regarding the Salton Sea Management Program can be found at: <http://resources.ca.gov/salton-sea/>.

(b) Colorado River Board staff participated in the second meeting of the Colorado River Traveling Exhibit Advisory Committee on October 4-5, 2016 in Chicago, Illinois. Staff from the Field Museum are leading the efforts to develop the goals and content of the Colorado River exhibition with the assistance of a steering committee from within the Basin. A preliminary plan for the exhibit is expected to be completed by the end of 2016.

(c) On September 27, 2016, Reclamation issued a draft of proposed modifications to the evaluation criteria for three categories of WaterSmart grants (Water and Energy Efficiency Grants, Small-Scale Water Efficiency Projects and Cooperative Watershed Management Program Grants). Most of the proposed changes relate to the definition of the types of applicants that can receive funding for the various grant categories. The proposed modifications to the Water and Energy Efficiency grant evaluation criteria will add a consideration for the sustainability benefits of the proposed projects, especially those that dedicate water for instream flows or benefit endangered or threatened species. Under the revised regulations, water marketing proposals would no longer be considered under this category, but would be categorized under a new category of grants which is

still under development. A new funding category will be created for Small-Scale Water Efficiency Projects, which were previously funded under the Water Conservation Field Services Program. The proposed criteria will allow funding to be available for watershed groups working collaboratively on water management issues, through the Cooperative Watershed Management Program.

Details regarding the proposed updated regulations can be found at: <http://www.usbr.gov/watersmart/>. Comments are due October 28, and the changes would apply to projects seeking funding beginning in FY17. Comments regarding the Water and Energy Efficiency Grants and Small-Scale Water Efficiency Projects should be sent to Darion Mayhorn at dmayhorn@usbr.gov. Comments regarding the Cooperative Watershed Management Program Phase II draft criteria and eligible project types should be sent to Avra Morgan at aomorgan@usbr.gov.

The President's fiscal year 2017 budget request includes \$23.4 million for WaterSMART Grants and \$1.75 million for the Cooperative Watershed Management Program. Eligible applicants for WaterSMART Grants include States, Indian Tribes, irrigation districts, water districts, municipalities, and other organizations. Eligible applicants for Phase II of the Cooperative Watershed Management Program include established watershed groups that represent a diverse group of stakeholders, have completed a watershed restoration plan, and are capable of promoting the sustainable use of water resources. Funding opportunity announcements for WaterSMART Grants are expected to be published in November 2016, and the funding opportunity announcement for the Phase II of the Cooperative Watershed Management Program is expected to be published in January 2017.

(e) The Colorado River Water Users Association meeting is scheduled to be held on December 14-16, 2016 in Las Vegas, Nevada. CRB staff is assisting with the development of the program and preparation of a video and slide show that will be presented during the program. If any agencies would like to contribute material, please contact Angela Rashid at arashid@crb.ca.gov.

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