

GCPBA RIVERNEWS 06/13/12 - THIRD LOWEST JUNE POWELL INFLOW - JULY FLOWS, 10,000 TO 18,000 CFS

Glen Canyon Dam / Lake Powell

The monthly unregulated inflow volume to Lake Powell for May was 792 thousand acre-feet (kaf) (34% of average). This was 142 kaf above what was forecasted in early May. The release volume from Glen Canyon Dam in May was 601 kaf which was 1,000 acre-feet above what was scheduled for release during the month. As a result of the difference between the projections made in early May and actual conditions and operations that occurred in May, the elevation of Lake Powell at the end of May was 1.10 feet higher than projected. On May 31, 2012 the elevation of Lake Powell was 3636.83 feet above sea level (63.17 feet below full pool).

The Water Supply Forecast for Lake Powell (April through July Unregulated Inflow Volume) has been updated for June and the forecasted unregulated inflow volume for the period from April through July for Lake Powell is now 2.01 maf (28% of average). This is the third driest June forecast for Lake Powell since these forecasts began to be issued. Only 1977 and 2002 had lower June forecasts and these years ultimately were the 2 driest water years in the historic record for Lake Powell (1963-2011).

Current Dam Operations

In August 2011, pursuant to the Interim Guidelines, the Operating Tier for Glen Canyon Dam was established to be the Equalization Tier. Under the Equalization Tier when conditions dry out as they have this year, the minimum annual release from Lake Powell can generally be as low as 8.23 maf. However, water year 2011 was a very wet Equalization year and not all of the Equalization release volume for 2011 could be achieved by September 30, 2011. As a result, 1.233 maf of the 2011 Equalization release volume was actually released after the end of water year 2011. This increased the minimum release volume for water year 2012 under Equalization to 9.463 maf. Under the dry hydrologic conditions currently projected for Lake Powell, the water year 2012 release volume is projected to be at this minimum Equalization level of 9.463 maf. As hydrologic conditions for Lake Powell and Lake Mead change throughout the year, Reclamation will adjust operations of Glen Canyon Dam to release the appropriate annual volume during 2012 to achieve Equalization objectives as practicably as possible by September 30, 2012.

Releases from Glen Canyon Dam are now averaging about 12,600 cfs with fluctuations

for power generation throughout the day that peak near 15,000 cfs in the afternoons and with early morning low level releases are about 9,000 cfs and this operation is consistent with the Glen Canyon Operating Criteria (Federal Register, Volume 62, No. 41, March 3, 1997). The release volume for June is scheduled to be 708 kaf. In July, the monthly release volume will likely be about 889 kaf. Release fluctuations in July are projected to be in the range from about 10,000 cfs during the early morning hours to an afternoon peak of about 18,000 cfs.

In addition to daily scheduled fluctuations for power generation, the instantaneous releases from Glen Canyon Dam may also fluctuate to provide 40 MW of system regulation. These instantaneous release adjustments stabilize the electrical generation and transmission system and translate to a range of about 1100 cfs above or below the hourly scheduled release rate. Typically, fluctuations for system regulation are very short lived and balance out over the hour and do not have noticeable impacts on downstream river flow conditions.

Releases from Glen Canyon Dam can also fluctuate beyond scheduled fluctuations for power generation when called upon as a partner that shares reserve requirements within the electrical generator community (i.e. balancing area). There are many generators that supply electricity to the transmission system within the balancing area. At times, a participating generator may experience operating conditions such that it cannot make its scheduled delivery of electricity to the system (i.e. unscheduled outage). To provide system reliability, all participating electricity generators within the balancing area maintain a specified level of generation capacity (i.e. reserves) that can be called upon when an unscheduled outage occurs. Glen Canyon Dam typically maintains 113 MW of reserves for this purpose.

Reserve agreements allow the controllers of the balancing area to call upon Glen Canyon Dam to produce up to an additional 113 MW of electricity beyond what is originally scheduled for a given hour. Reserve calls can be maintained for a maximum of 2 hours after which time the generation rate should be returned to the original schedule. The 113 MW reserve requirement for Glen Canyon Dam translates to approximately 2,800 cfs of flow in the river. When the balancing area controllers call for reserve generation from Glen Canyon Dam, releases from the dam can exceed scheduled levels and have a noticeable impact on the river downstream from Glen Canyon Dam. But these calls for reserves are fairly infrequent and typically are for much less than the required level of 113 MW.

Current Inflow Forecasts and Model Projections

Over the next three months (June, July and August) the forecasted unregulated inflow volume to Lake Powell is projected to be 350 kaf (13% of average), 100 kaf (9% of average) and 150 kaf (30% of average), respectively. These percent of averages are all based on the historic period from 1981 through 2010. The most probable (i.e. 50% likely to be exceeded) unregulated inflow volume for WY2012 is projected to be 5.01 maf (46% of average). Comparing this projected water year unregulated inflow volume to the driest year on record (2002) in which the unregulated inflow volume was only 2.64 maf (24% of average), water year 2012 will likely be very dry, yet not nearly as dry as conditions were in 2002. The currently projected water year unregulated inflow volume of 5.01 maf would rank as the 3rd driest year on record since the closure of Glen Canyon Dam (1963).

The annual release volume from Glen Canyon Dam will likely be 9.463 maf and the elevation of Lake Powell at the end of WY2012 is projected to be 3621.3 feet above sea level. This elevation corresponds to a live storage volume of 13.90 maf (57 % of full capacity). These projections are based on conditions in the June 24-Months Study

Upper Colorado River Basin Hydrology

Since water year 2005, hydrologic conditions in the Upper Colorado River Basin have been near average with significant variability from year to year. The unregulated inflow to Lake Powell, which is a good measure of the hydrologic condition in the Colorado River Basin, has averaged a water year volume of 10.98 maf (101% of average (period 1981-2010)) during the period from 2005 through 2011. The hydrologic variability during this period has been from a low water year unregulated inflow volume of 8.62 maf (80% of average) in water year 2006 to a high water year unregulated inflow volume of 15.97 maf (147% of average) which occurred in water year 2011.

Overall reservoir storage in the Colorado River Basin has increased by over 8 maf since the beginning of water year 2005 and this is a significant improvement over the drought conditions during water years 2000 through 2004. On October 1, 2004, the beginning of water year 2005, the total reservoir storage in the Colorado River Basin was 29.84 maf (50.2% of capacity). On October 1, 2011, the beginning of water year 2012, the total reservoir storage in the Colorado River Basin was 38.66 maf (64.8% of capacity). As of June 12, 2012 the total reservoir storage in the Colorado River Basin was 36.59 maf (61.4% of capacity).

Updated: June 13, 2012 Rick Clayton

GCPBA RIVERNEWS 05/23/2012 – SECRETARY SALAZAR ANNOUNCES IMPROVEMENTS TO GLEN CANYON DAM OPERATIONS TO RESTORE HIGH FLOWS AND NATIVE FISH IN GRAND CANYON

Department of the Interior (DOI) Press Release

WASHINGTON ^ Secretary of the Interior Ken Salazar announced today that, as part of the Interior's Glen Canyon Dam Adaptive Management Program, and in cooperation with five Interior agencies, the Bureau of Reclamation is approving two long-term research and experimental programs of high-flow releases and native fish protection to preserve and improve the Grand Canyon and its resources. Together, these decisions represent the most important experimental modification of operations of Arizona's Glen Canyon Dam in over sixteen years.

The two programs authorize changes in flow releases from the dam to meet water and power needs, but also to allow better conservation of sediment downstream, more targeted efforts to control non-native fish predation, and continued scientific experimentation, data collection, and monitoring to better address the important resources in the Colorado River below Glen Canyon Dam.

"We've gained tremendous knowledge about the unique resources of the Grand Canyon in the Colorado River downstream of Glen Canyon Dam over the past sixteen years," said Secretary Salazar. "Today's decisions constitute a milestone in the history of the Colorado River and will provide a scientific foundation to improve future operations to benefit resources in the Grand Canyon, as well as the millions of Americans who rely on the river for water and power."

The first program establishes a long-term protocol for testing high-flow releases from Glen Canyon dam to determine whether multiple high flow events can be used to rebuild and conserve sandbars, beaches, and associated backwater habitats that have been destroyed or lost over the years of the dam's construction and operation. The experimental protocol will simulate natural flood conditions in order to provide key wildlife habitat, potentially reduce erosion of archaeological sites, enhance riparian vegetation, maintain or increase camping opportunities, and improve the wilderness experience along the Colorado River in Grand Canyon National Park. The protocol is designed to

take full advantage of sediment provided by tributaries of the Colorado River as a result of rainstorms and monsoons.

The protocol for high-flow experimental releases applies scientific information gained in previous high flow releases in 1996, 2004, and 2008 and provides the necessary, flexible framework to conduct further experimental releases through 2020 to determine the optimal timing, duration, frequency, and conditions that will maximize ecological and riparian benefits downstream in the Grand Canyon. For more information on the program, [click here](#).

The second program outlines a series of actions and research to control non-native fish and protect endangered native fish in the Colorado River below Glen Canyon Dam. Conservation of native fish, particularly the endangered humpback chub, will be enhanced by reducing the threat of predation and competition from non-native fish and improving critical habitat. The actions will also ensure continued compliance with the Endangered Species Act and a Final Biological Opinion issued by the U.S. Fish and Wildlife Service in 2011. Extensive government-to-government tribal consultations and analyses were conducted to ensure the required non-native fish control actions can be implemented in a way that respects tribal perspectives. For more information on the program, [click here](#).

"Implementation of these two programs marks a huge step forward in integrating the management of a dam that's critical to the delivery of water and power to millions of people in the Southwest with better conservation of the incredible values of the Grand Canyon," said Assistant Secretary for Water and Science Anne Castle. "We are refining our operations to reflect what we've learned and address the concerns expressed by several Native American tribes about the management of fish at locations honored as sacred sites by many of the tribes and pueblos."

The actions outlined in both detailed Environmental Assessments completed today include important scientific research and monitoring components that are fundamental to the adaptive management process. Reclamation has primary responsibility for operation of Glen Canyon Dam and the National Park Service has primary responsibility for Grand Canyon National Park and Glen Canyon National Recreation Area.

"The National Park Service is a strong supporter of high flow tests to help determine how best to rebuild and sustain the beaches and sand bars below Glen Canyon Dam. We appreciate the extensive collaboration required to develop these research programs which are critical to preserving the awesome resources and visitor experience along the Colorado River in Grand Canyon

National Park," said Jonathan B. Jarvis, Director of the National Park Service.

Today's actions represent the most comprehensive experiment for protection of the Grand Canyon since Secretary of the Interior Bruce Babbitt signed a Record of Decision in 1996 and conducted the first high flow release. The experiments will help answer critical questions about the complex interactions between dam releases and resource responses, and also advance the goal of the Grand Canyon Protection Act to improve resource conditions.

Contact: Adam Fetcher (DOI) 202-208-2416

Lisa Iams (Reclamation) 801-524-3673

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GCPBA RIVERNEWS 04/23/2012 - ADDING SAND AND STEADY FLOWS CONSIDERED BY LTEMP PLANNERS

On April 4th and 5th, in Flagstaff, the National Park Service (NPS) and the Bureau of Reclamation (BOR) met to discuss the planning for an Environmental Impact Statement (EIS) for the Long Term Experimental and Management Plan (LTEMP) governing the operation of Glen Canyon Dam. The public was invited to attend, and parties with a stake in dam operations were represented.

The meeting gave GCPBA, as well as other interested groups in attendance, a chance to have input into how the dam may better control the flows that affect us in so many ways on the river. This was a unique opportunity for us to help generate the alternatives that will be including in the forthcoming Environmental Impact Statement (EIS).

Federal planning projects usually only allow interested organizations and the public to comment once the alternatives have been written. This time, we had input in the formative stages of the alternatives, thanks to Rob Billerbeck of the NPS and Beverly Heffernan of the BOR.

During the first day of the meetings, the purpose, need, and objectives were discussed, and interested parties were invited to make presentations to the assembled group.

Rich Turner made a presentation for the GCPBA Board, which seems to have been well received by planners. That, of course, doesn't mean all, or any of our ideas will be part of the proposed alternatives (as many groups with sometimes conflicting ideas are involved), but we made our voice heard in this important process.

On the second day of the meeting, we went into "break-out groups to discuss the eleven ideas for draft alternatives that were listed in the March, 2012 LTEMP newsletter. There were five breakout secessions in the morning and 6 in the afternoon.

One of the morning groups discussed a draft alternative dealing with the idea of increasing hydropower without adding any new infrastructure to the dam. In this group, even the representative from the dam agreed that this alternative would most likely not meet the "purpose and need" of the process to preserve and protect beaches, while generating hydropower – yes it would generate power, but it would be devastating to the beaches.

Is Adding Sand A Viable Option?

The really interesting thing to come out of this breakout secession, however, was the perspective of the power generation folks on sediment augmentation. When the idea was looked at many years ago, it was pretty much immediately dismissed as too expensive.

Since the 1996 Record of Decision (ROD) that mandated a "Modified Low Fluctuating Flow" (MLFF) regime, the power companies estimate that the MLFF regime has kept them from making 50 million additional dollars per year. That's closing in on a billion dollars since 1996. The cost to build a sediment augmentation system, that would add sediment at Lee's Ferry, is about 300 million dollars and would cost 8 million a year to operate. With those considerations in mind,

adding sand is seen as an economically viable option. Power generating interests indicated that they would be likely to agree to do it, if they could go back to operating at pre-ROD levels.

Another benefit of adding the sediment at the Ferry instead of immediately below the dam, is the curtain of sediment-laden water would probably act as a barrier to keep the trout from migrating downstream allowing the Humpback Chub to thrive.

In the afternoon, a session discussed the idea of conserving the maximum amount of sediment already in the system, and that that is brought in by the Paria and Little Colorado Rivers, below Glen Canyon Dam. This is an alternative GCPBA initially favored, but it would most likely also not meet the "purpose" and "need" of the process, since it really cripples power production.

Low, steady flows of about 11,300 cfs are what would result from an 8.23 million acre feet release year (pretty much the norm to meet compact requirements for water delivery). Under this regime, floods would not need to be timed to sediment inputs since the low steady flows would retain sand in the system until there was a desired amount for a high flow event. Under this scenario there would be no sand augmentation. Ted Melis, one of the authors of an article titled "*Is There Enough Sand,*" participated in this group. He indicated that it is possible to time flows to deposit material in pretty much any section of the canyon we choose.

The final alternatives will be written and published later this year. This EIS is VERY important to river runners because dam operations affect the camping beaches, vegetation, wildlife, and how much water we have under our boats.

When the final alternatives do come out, the public will have an opportunity to comment.

Please take that time have your voices heard.

Rich Turner for GCPBA

GCPBA RIVERNEWS 4/10/12 - APRIL/MAY FLOW RATE RANGE 7,000-13,000 CFS PLUS OR MINUS 1,100 CFS

Glen Canyon Dam / Lake Powell

The monthly unregulated inflow volume to Lake Powell for March was 560 thousand acre-feet (kaf) (84% of average). This was 10 kaf above what was forecasted in early March. The release volume from Glen Canyon Dam in March was 600 kaf which was exactly equal to what was projected for release for the month. As a result of the difference between projected and actual inflows during March, the elevation of Lake Powell at the end of March was 0.36 feet (about 4 inches) higher than projected. On March 31, 2012 the elevation of Lake Powell was 3635.33 feet above sea level (64.67 feet below full pool).

Snowpack conditions above Lake Powell are currently 43% of average (April 10, 2012) and this percentage has dropped significantly over the past month. The runoff season appears to have started about one month earlier than normal due to above normal temperatures during March and April. The Colorado Basin River Forecast Center updated their Water Supply Forecast for Lake Powell (April through July Unregulated Inflow Volume) from the March forecast, which was 5.30 maf (74% of average), to the April forecast which is now 3.50 maf (49% of average). This forecast was updated on April 3, 2012.

Current Dam Operations

In August 2011, pursuant to the Interim Guidelines, the Operating Tier for Glen Canyon Dam was established to be the Equalization Tier. Under the Equalization Tier for 2012, with 1.233 maf of release carried over from 2011 to 2012, the annual release volume for 2012 could be as low as 9.46 maf or higher depending on actual inflow conditions. As hydrologic conditions for Lake Powell and Lake Mead change throughout the year, Reclamation will adjust operations of Glen Canyon Dam to release the appropriate annual volume during 2012 to achieve Equalization objectives as practicably as possible by September 30, 2012.

Releases from Glen Canyon Dam are now averaging about 10,083 cfs with fluctuations for power generation throughout the day that peak near 13,000 cfs in the afternoons and with early morning low level releases are about 7,000 cfs and this operation is consistent with the Glen Canyon Operating Criteria (Federal Register, Volume 62, No. 41, March 3, 1997). The release volume for April is scheduled to be 600 kaf. In May, the monthly release volume will likely be 600 kaf as well depending on snowpack and forecast conditions. Release fluctuations in May would likely be similar to April ranging from 7,000 cfs, in the early morning, to 13,000 cfs, in the afternoon.

In addition to daily scheduled fluctuations for power generation, the instantaneous releases from Glen Canyon Dam may also fluctuate to provide 40 MW of system regulation. These instantaneous release adjustments stabilize the electrical generation and transmission system and translate to a range of about 1100 cfs above or below the hourly scheduled release rate. Typically,

fluctuations for system regulation are very short lived and balance out over the hour and do not have noticeable impacts on downstream river flow conditions.

Releases from Glen Canyon Dam can also fluctuate beyond scheduled fluctuations for power generation when called upon as a partner that shares reserve requirements within the electrical generator community (i.e. balancing area). There are many generators that supply electricity to the transmission system within the balancing area. At times, a participating generator may experience operating conditions such that it cannot make its scheduled delivery of electricity to the system (i.e. unscheduled outage). To provide system reliability, all participating electricity generators within the balancing area maintain a specified level of generation capacity (i.e. reserves) that can be called upon when an unscheduled outage occurs. Glen Canyon Dam typically maintains 113 MW of reserves for this purpose.

Reserve agreements allow the controllers of the balancing area to call upon Glen Canyon Dam to produce up to an additional 113 MW of electricity beyond what is originally scheduled for a given hour. Reserve calls can be maintained for a maximum of 2 hours after which time the generation rate should be returned to the original schedule. The 113 MW reserve requirement for Glen Canyon Dam translates to approximately 2,800 cfs of flow in the river. When the balancing area controllers call for reserve generation from Glen Canyon Dam, releases from the dam can exceed scheduled levels and have a noticeable impact on the river downstream from Glen Canyon Dam. But these calls for reserves are fairly infrequent and typically are for much less than the required level of 113 MW.

Current Inflow Forecasts and Model Projections Over the next three months (April, May and June) the forecasted unregulated inflow volume to Lake Powell is projected to be 800 kaf (76% of average), 1050 kaf (45% of average) and 1,150 kaf (43% of average), respectively. These percent of averages are all based on the historic period from 1981 through 2010. Combining this forecast with the April Water Supply Forecast and extending projections to the end of WY2012, the most probable (i.e. 50% likely to be exceeded) unregulated inflow volume for WY2012 is projected to be 6.79 maf (63% of average). There is still a fair amount of uncertainty associated with this forecast. Recent analysis indicates that it is reasonably possible for the actual unregulated inflow volume for water year 2012 to be as low as 4.89 maf (45% of average) or as high as 9.22 maf (85% of average) depending on the range of precipitation patterns that could occur over the next several months.

Based on the reasonable range of inflow conditions that could occur this year, the annual release volume from Glen Canyon Dam could be as low as 9.46 maf to as high as 9.98 maf.

Under the most probable inflow condition, the annual release volume is projected to be 9.46 maf and the elevation of Lake Powell at the end of WY2012 is projected to be 3632.55 feet above sea level. This elevation corresponds to a live storage volume of 15.14 maf (62% of full capacity).

Upper Colorado River Basin Hydrology

Since water year 2005, hydrologic conditions in the Upper Colorado River Basin have been near

average with significant variability from year to year. The unregulated inflow to Lake Powell, which is a good measure of the hydrologic condition in the Colorado River Basin, has averaged a water year volume of 10.98 maf (101% of average (period 1981-2010)) during the period from 2005 through 2011. The hydrologic variability during this period has been from a low water year unregulated inflow volume of 8.62 maf (80% of average) in water year 2006 to a high water year unregulated inflow volume of 15.97 maf (147% of average) which occurred in water year 2011.

Overall reservoir storage in the Colorado River Basin has increased by over 8 maf since the beginning of water year 2005 and this is a significant improvement over the drought conditions during water years 2000 through 2004. On October 1, 2004, the beginning of water year 2005, the total reservoir storage in the Colorado River Basin was 29.84 maf (50.2% of capacity). On October 1, 2011, the beginning of water year 2012, the total reservoir storage in the Colorado River Basin was 38.66 maf (64.8% of capacity). As of April 9, 2012 the total reservoir storage in the Colorado River Basin was 37.47 maf (62.8% of capacity).

Updated: April 10, 2012 Rick Clayton

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GCPBA RIVERNEWS - FIFTEEN 2013 LOTTERY AWARDED TRIPS REVOKED

The Grand Canyon River Permits Office revoked 15 previously awarded 2013 Colorado River trip permits for failure of the applicants to properly account the number of trips which they participated in on their lottery applications, thereby resulting in more points towards securing a permit than the applicant had actually earned.

The errors were discovered in a post lottery review of 2013 lottery applications. In a letter from Steve Sullivan, Permits Office Manager to Wally Rist, President of GCPBA following an inquiry from Rist, Sullivan summarized the situation, stating "10 days ago we revoked around 15 permits that were won in the 2013 Main Lottery. Why? Because the applicants did not list their most recent river trips (thus artificially giving their applications too many chances). In all cases we reinstated their points (lottery chances) and refunded their deposits (all refunds are complete except for the one person who paid by check debit - that has to go through a paperwork refund process)."

Here is a copy of the letter sent by the Permits Office to the folks who had their permits rescinded. Dear _____, Unfortunately, I need to revoke the _____ river trip you were awarded through Grand Canyon's 2013 Main Lottery. As is our standard practice for all lotteries, we closely review each applicant's points (lottery chances) to ensure all winners won fairly. Based on your answer of _____ to the last trip question, your lottery application was given _____ chances. Our review and later visual verification of river trip participant lists shows you should have answered the last trip question with _____. This would have given your lottery application fewer points and may have resulted in a different applicant being picked ahead of you. If you believe we are in error and you were not on this later river trip, please write back so I can have our law enforcement rangers investigate further.

While I am glad you had the opportunity to go on that more recent river trip, I wish you had listed it in your profile when applying in the 2013 Main Lottery. I also understand this may have been an oversight on your behalf. Nevertheless, this leaves me with no option but to revoke the river trip you mistakenly won. I will instruct pay.gov to return the deposit you made, and make it so your points are not negatively affected for future lotteries. I will also re-release that launch date in another lottery in a month or so, and you will remain eligible to try again at that time in that lottery. This will keep it fair for all applicants. I have updated your last trip date, so that should no longer be an issue. Again, I am sorry this did not work out.

Sincerely, Steve Sullivan

For GCPBA: Richard "Ricardo" Martin

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DAILY NOVEMBER FLOWS REMAIN STEADY, INCREASING TO 21,600 CFS NOV

Since September 1, 2011, releases from Glen Canyon Dam have been held steady at approximately 15,500 cfs as part of a steady flow experiment as described in the Final Environmental Assessment for Experimental Releases from Glen Canyon Dam, Arizona, 2008 through 2012 (EA). The steady flow experiment for this year (2011) will be completed by the end of the day on October 31, 2011.

Beginning on November 1, 2011, releases from Glen Canyon Dam will be adjusted to approximately 14,900 cfs until the end of the day on November 10, 2011. During this period, Glen Canyon Dam will maintain 109 MW of generation capacity for possible calls on reserve generation and 40 MW of generation capacity for system regulation. Releases will be steady during this period.

Beginning on November 11, 2011, releases from Glen Canyon Dam will be adjusted to approximately 19,175 cfs until the end of the day on November 16, 2011. During this period, Glen Canyon Dam will maintain 40 MW of generation capacity for system regulation. Releases will be steady during this period.

Beginning on November 17, 2011, releases from Glen Canyon Dam will be adjusted to approximately 21,600 cfs until the end of the day on November 30, 2011. During this period, Glen Canyon Dam will maintain 15 MW of generation capacity for possible calls on reserve generation. Releases will be steady during this period.

The total release volume for November will be approximately 1.123 maf in order to complete this release schedule. Hourly and daily average releases from Glen Canyon Dam for November 2011 will be scheduled through Western Area Power Administration. While daily fluctuations are not anticipated during November, all release adjustments will be scheduled to be consistent with the Glen Canyon Dam Operating Criteria (Federal Register, Volume 62, No. 41, March 3, 1997).

We anticipate the release volume for December 2011 will be 1.231 maf. This will be confirmed in a subsequent notification toward the end of November.

This notification supersedes all previously issued notifications and is current until a new notification is issued. All times identified in this notification are local time (Mountain Standard Time) and not hour ending.

If there are any concerns or questions regarding these operations, I can be reached at 801-524-3710. Your cooperation is greatly appreciated.

Rick Clavton Hydraulic Engineer/Glen Canyon Dam

**GCPBA NEWSWIRE -
RIVER RUNNER COMMENTS INVITED/PUBLIC MEETINGS BEGIN NOV. 7, 2011 IN
PHOENIX**

**BUREAU OF RECLAMATION~UPPER COLORADO REGION
NATIONAL PARK SERVICE~INTERMOUNTAIN REGION**

Public Invited to Open Houses on Plan for Glen Canyon Dam Operations

Beginning Nov. 7, the public will have an opportunity to attend public meetings on the development of a long-term plan that will determine the timing and volume of water flows from Glen Canyon Dam. Those flows affect hydroelectricity production, beach recreation, native fish and other river-related plants and animals, as well as archeological sites in Grand Canyon National Park and Glen Canyon National Recreation Area.

The long-term plan will address routine operations as well as "experimental" flows that provide additional scientific information about how to protect endangered fish and lessen the effects of dam operations on downstream ecology and other resources. The plan will ensure that regulated flows on the Colorado River meet the goals of supplying hydroelectricity and water for communities, agriculture and industry at the same time they protect the ecologies of the Grand Canyon and Glen Canyon.

The meetings, to be held jointly by the Bureau of Reclamation and the National Park Service, will take place in:

- **Phoenix, Arizona:** Monday, November 7, 2011, 6 to 8 p.m., Sheraton Crescent Hotel, 2620 W. Dunlap Avenue, Phoenix, AZ 85201.
- **Flagstaff, Arizona:** Tuesday, November 8, 2011, 6 to 8 p.m., Radisson Woodlands Hotel Flagstaff, 1175 W. Route 66, Flagstaff, AZ 86001.
- **Page, Arizona:** Wednesday, November 9, 2011, 6 to 8 p.m., Courtyard Page at Lake Powell, 600 Clubhouse Drive, Page, AZ 86040.
- **Salt Lake City, Utah:** Tuesday, November 15, 2011, 6 to 8 p.m., Hilton Salt Lake City Center, 255 South West Temple, Salt Lake City, UT 84101.
- **Las Vegas, Nevada:** Wednesday, November 16, 2011, 6 to 8 p.m., Ramada Las Vegas, 325 East Flamingo Road, Las Vegas, NV 89169.
- **Lakewood, Colorado:** Thursday, November 17, 2011, 6 to 8 p.m., Sheraton Denver West Hotel, 360 Union Boulevard, Lakewood, CO 80228.
- **Web-based meeting:** Tuesday, November 15, 2011, 1 to 3 p.m. Mountain Time. For specific information about the web-based meeting and how to participate, please refer to the project website at: <http://ltempeis.anl.gov>.

Reclamation and the NPS will accept comments that are received or postmarked by Friday, Dec. 30, 2011.

Work on the new plan, known as the Long-Term Experimental and Management Plan (LTEMP), is the first comprehensive review of Glen Canyon Dam operations in 15 years. The purpose of the LTEMP is to use current and newly developed science to improve and protect resources of Glen Canyon National Recreation Area, Grand Canyon National Park, and Lake Mead National Recreation Area while also complying with the Law of the River, the 1992

Grand Canyon Protection Act, the Endangered Species Act, and other applicable laws. The LTEMP process will determine the need for future modifications to Glen Canyon Dam operations, and whether to establish an Endangered Species Act Recovery Implementation Program for endangered fish species below Glen Canyon Dam.

Changes to dam operations and other actions taken by the Department of the Interior (DOI) will be evaluated as "alternatives" in an Environmental Impact Statement (EIS). The EIS will document and evaluate impacts of the alternatives.

The public meetings announced today are part of the "public scoping" phase of the National Environmental Policy Act (NEPA) process. Public scoping gives interested individuals and groups the opportunity to comment on a proposed action, recommend alternatives, and to identify and prioritize the issues to be considered in the EIS analyses. Scoping is the earliest, but not the last, opportunity for people to provide input on the Glen Canyon Dam LTEMP EIS.

This process will be similar to the process used to develop the Colorado River Management Plan, which was adopted in 2006 after a series of public meetings and discussions and several comment periods.

Each public scoping meeting will include a welcome and project overview session (15 minutes) and opportunities for the public to review exhibits, informally discuss issues, and ask questions of technical experts and managers.

More information on the meetings will be announced through local media, newsletters, and the project web site: <http://ltempeis.anl.gov>.

The public can submit comments by the following methods:

- Website: <http://ltempeis.anl.gov>. (the preferred method)
- Mail: Glen Canyon LTEMP EIS Scoping, Argonne National Laboratory, EVS/240, 9700 S. Cass Avenue, Argonne, IL 60439.

Pertinent current information relating to the environmental impact of Glen Canyon management and the consequences of various flow regimes can be found at:
<http://www.gcmrc.gov/>

Ecosystem ecology meets adaptive management: food web response to a controlled flood on the Colorado River, Glen Canyon - Read More: <http://www.esajournals.org/doi/abs/10.1890/10-1719.1>

Summary Report of Responses of Key Resources to the 2000 Low Steady Summer Flow Experiment, along the Colorado River Downstream from Glen Canyon Dam, Arizona - Read More: <http://pubs.usgs.gov/of/2011/1220/>

Field evaluation of the error arising from inadequate time averaging in the standard use of depth-integrating suspended-sediment samplers - Read More: <http://pubs.usgs.gov/pp/1774/>

An experiment to control nonnative fish in the Colorado River, Grand Canyon, Arizona: U.S. Geological Survey Fact Sheet 2011-3093 - Read More: <http://pubs.usgs.gov/fs/2011/3093/>

Reclamation and the NPS will accept comments that are received or postmarked by Friday, Dec. 30, 2011.

To have your name added to the mailing list for future information, visit the Glen Canyon LTEMP EIS website listed below or contact Beverley Heffernan, Bureau of Reclamation, Upper Colorado Region, Attention: UC-700, 125 South State Street, Salt Lake City, UT 84138-1147; facsimile (801) 524-3826.

Additional information, including a full copy of the Notice of Intent published yesterday in the Federal Register is available at the project web site: <http://ltempeis.anl.gov>.

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