



PO Box 466
Moab, UT 84532
435-259-1063

May 5, 2008

Mr. Bradley S. Warren
CRSP Manager
Colorado River Storage Project Management Center
Western Area Power Administration
150 East Social Hall Avenue
Suite 300
Salt Lake City, UT 84111-1580

E-mail: CRSPMCadj@wapa.gov

Dear Mr. Warren,

Thank you for this opportunity to comment on Rate Order No. WAPA-137 for Colorado River Storage Project Transmission and Ancillary Services Rates. We understand this new rate schedule (SLIP-F8) expires September 30, 2010, and that the current rate is insufficient to meet within the allowable period the revenue requirements for the Salt Lake City Area/Integrated Projects, which include operation, maintenance, interest expenses, and the required repayment of investment, commonly called the Basin Fund. This proposal will extend the service rates for five years to 2015.

Institutional history

The 1928 Boulder Canyon Project Act launched the federal government into the hydropower business. The revenues from federal dams on the Colorado River are intended to assist in repaying the federal Treasury for irrigation projects such as Boulder Canyon Project and Colorado River Storage Project.

More recently a portion of these revenues have also been used to fund environmental mitigation programs in the Colorado River basin such as salinity control and recovery programs for endangered fish.

Mr. Bradley S. Warren
May 5, 2008
Page two

What concerns us most, after looking at the institutional history of federal power projects on the Colorado River more closely, is the congressional record of the Colorado River Storage Project Act of 1956 (CRSP). During the testimony warnings were made about lost power generation efficiency in the 21st century due to lowered reservoir levels for reasons of over consumption and increased evaporation from excessive storage. While the Act passed, Congress did act more cautiously later on. Authorization was denied for plans to build new dams in Grand Canyon, thus avoiding additional evaporative losses and salinity gains. Nonetheless, these problems persist.

Forecasting

Climate change is now exacerbating these problems, as lower inflows coupled with over allocation, is leaving less water available for power production. The National Academy of Sciences, as well as the Secretary Kempthorne (speech to Colorado River Water Users Association on December 13, 2007), recognizes that the Colorado River's annual yield will continue to decrease over time due to human-induced atmospheric warming. As Reclamation's hydrologic modeling does not presently account for climate change, and allows for further depletions in the upper basin, the situation of reservoir durability remains uncertain.

In February the Scripps Institute warned that climate change could cause both Lake Mead and Lake Powell to go empty despite the new shortage guidelines now in effect—a 10% chance by 2013, 50% chance by 2023, and 100% by 2036. Specifically the report also says hydropower generation at both reservoirs has a 50 percent likelihood of falling to zero by 2021.

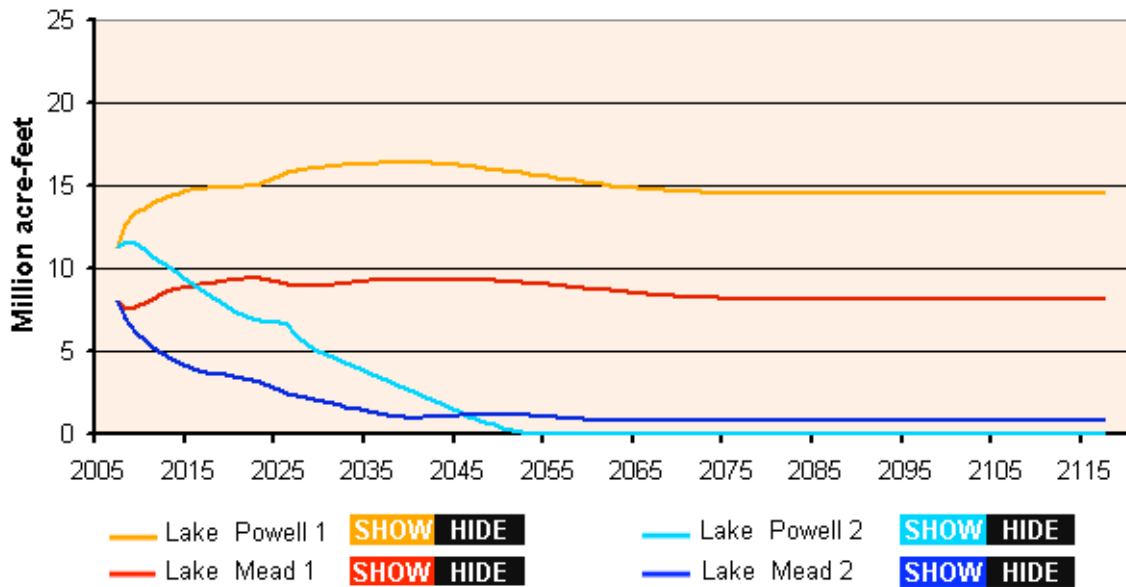
Once the reservoirs empty, water consumption will more often than not keep these reservoirs at or near empty due to limited surplus flows to refill them.

By contrast WAPA's forecasts, based on Reclamation's modeling for power generation, transmissions and revenues, completely ignore these and similar findings. As such, beyond 2021, Reclamation's shortage modeling assumes reservoir capacity will be sufficient for viable hydropower production.

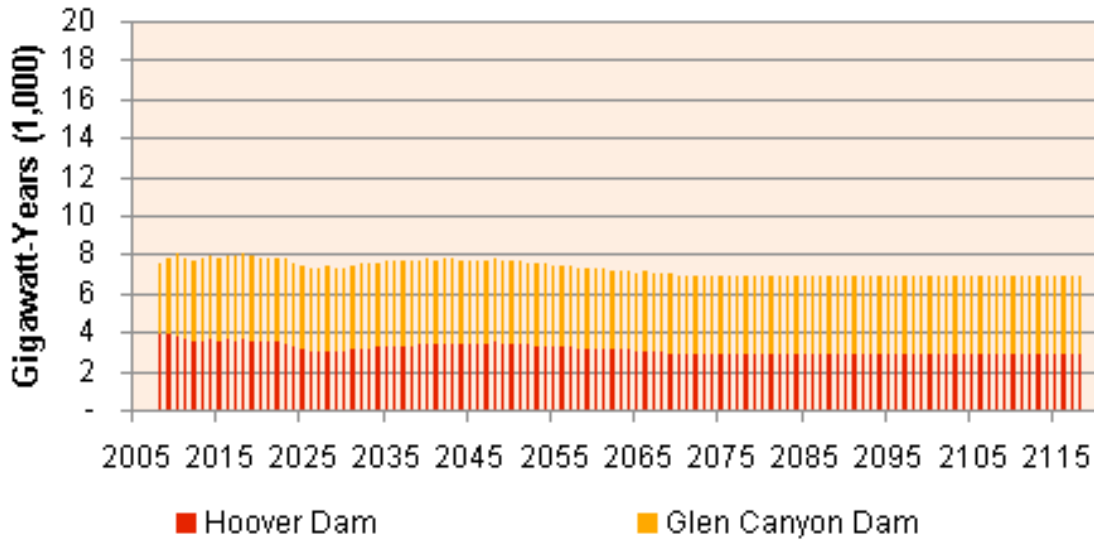
In using the Colorado River Open Source Simulator (CROSS <http://www.onthecolorado.org/Cross.cfm>) and imputing Scripps' assumptions, the challenges ahead for WAPA appears quite daunting. Below are CROSS outputs for reservoir levels and hydropower generation that compare Reclamation's assumptions to those utilized by Scripps when evaluating climate change—a ten percent reduction in

flows now and scaling to 30 percent by 2060. Reclamation's assumptions are shown in orange/red and those reflecting Scripps adjustments are shown in blue.

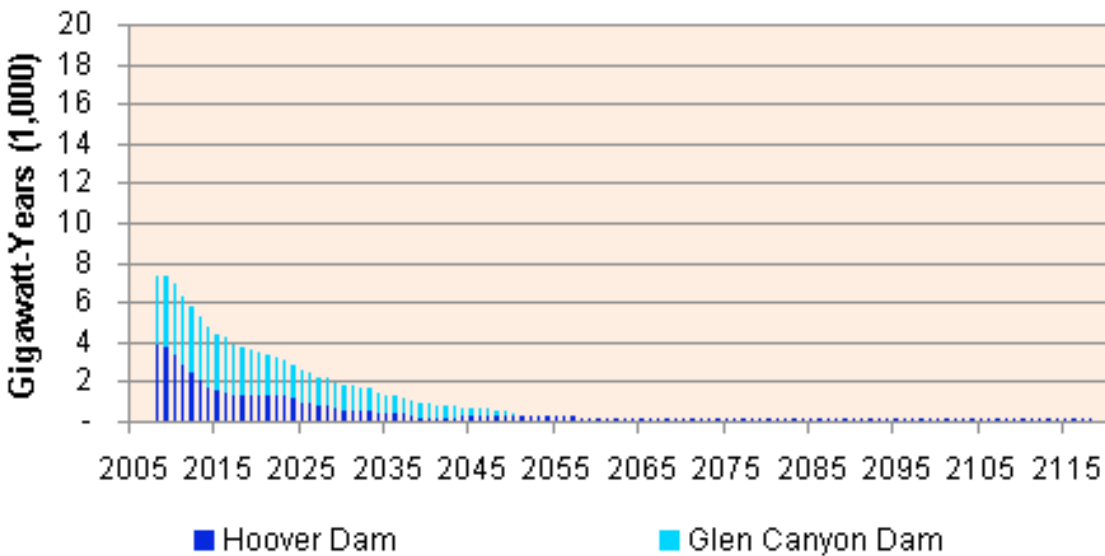
**Projected Lakes Powell and Mead Available Storage by Year
Average of 111 traces using ISM simulation
Scenarios for Reclamation and Scripps**



Reclamation Scenario ISM Results for Projected Hydropower Generation



Scripps Scenario ISM Results for Projected Hydropower Generation



Mr. Bradley S. Warren
May 5, 2008
Page five

Considering the alternative assumptions used above are consistent with many studies over the past few years, it is derelict for WAPA to ignore incorporating such analysis into their forecasting, nor to extend their planning horizon beyond 2015. It is quite probable that within the next decade WAPA will be unable to meet its obligations to the Basin Fund. The Fund itself may evaporate, for which WAPA has identified no contingencies. Such revenue losses would have tremendous repercussions on funding for those environmental programs to reduce salinity and remove jeopardy for endangered fish.

Conclusion

It is unfortunate that Glen Canyon Dam was authorized. Had it not, there would be more water, less salinity, less jeopardy, and less debt. Clearly, Congress and the Department of Interior have overtaxed the capabilities of the Colorado River. Habitat loss and endangered species have been among the first to suffer. Now WAPA, its customers and the Basin Fund are next in line. It's therefore critical that WAPA undertake an honest assessment of the potential for future hydropower generation at Glen Canyon Dam in accordance with the mounting evidence of persistent and growing inflow reductions resulting from climate change.

Sincerely yours,

A handwritten signature in black ink, appearing to read "John Weisheit". The signature is fluid and cursive, with the first name "John" being more prominent.

John Weisheit
Living Rivers

Reference:

Barnett, T. P., and D. W. Pierce (2008), When will Lake Mead go dry?, *Water Resour. Res.*, 44, W03201, doi:10.1029/2007WR006704.