

IRRIGATION & ELECTRICAL DISTRICTS
ASSOCIATION OF ARIZONA

R.D. JUSTICE
PRESIDENT

ELSTON GRUBAUGH
VICE-PRESIDENT

SUITE 140
340 E. PALM LANE
PHOENIX, ARIZONA 85004-4603
(602) 254-5908
Fax (602) 257-9542
E-mail: rslynch@rslynchaty.com

WILLIAM H. STACY
SECRETARY-TREASURER

ROBERT S. LYNCH
COUNSEL AND
ASSISTANT SECRETARY-TREASURER

E-MAILED ONLY

July 2, 2012

Glen Canyon Dam LTEMP EIS Alternatives
Argonne National Laboratory
9700 S. Cass Avenue – EVS/240
Argonne, IL 60439
ltempiswebmaster@anl.gov

Re: IEDA Comments on LTEMP EIS Alternatives

The Department of the Interior through the Bureau of Reclamation (“Reclamation”) and the National Park Service (“NPS”) has solicited input from the public on alternatives to be examined in the environmental impact statement (“EIS”) analyzing the development of a Long-Term Experimental and Management Plan (“LTEMP”) focusing on daily operation of Glen Canyon Dam (“GCD”) for hydropower generating purposes. The Irrigation & Electrical Districts Association of Arizona (“IEDA”) appreciates the opportunity to provide comments on and suggestions of alternatives to the LTEMP EIS.

IEDA is an Arizona non-profit association formed in 1962 to represent the interests of its members with regard to power, water and other related issues and to provide an interface for dealing with federal agencies that manage and distribute these resources.

Fourteen of our 25 members and associate members contract with the Western Area Power Administration (“Western”) for power from the Colorado River Storage Project (“CRSP”). Such members have, under contract, in excess of 75% of the CRSP power allocated to the Southern Division. IEDA interfaces with Western and with Reclamation on issues involving CRSP, including operation of Glen Canyon Dam, on a regular basis. Additionally, many of our other members take power from other federal resources on the river whose capabilities for delivering that power are affected by the operation of Glen Canyon Dam. Thus, our membership has an abiding interest in any actions taken concerning power operations at Glen Canyon Dam, including the formulation of the LTEMP and development of the associated EIS.

With this perspective in mind, we offer the following comments on alternatives to the LTEMP EIS.

I. The Purpose and Need Statement is Not Broad Enough to Encompass Section 7 of the Colorado River Storage Project Act of 1956

The Council on Environmental Quality (“CEQ”) Regulations require that the purpose and need statement of an EIS state the proposed action, the purpose of the proposed action, and specify the

underlying need to which the agency is responding in proposing the alternatives, including the proposed action. 40 CFR § 1502.13. In addition, the Department of Interior Manual, citing this provision, provides that the purpose and need statement “may introduce a number of factors, including economic and technical considerations.” 516 DM 1-7 (4.9).

Agencies enjoy “considerable discretion” to define the purpose and need of a project. *Friends of Southeast’s Future v. Morrison*, 153 F.3d 1059, 1066 (9th Cir. 1998). However, “an agency cannot define its objectives in unreasonably narrow terms.” *National Parks & Conservation Ass’n v. Bureau of Land Management*, 606 F.3d 1058, 1070 (2009), quoting *City of Carmel-By-The-Sea v. United States Dep’t of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997). As such, “[a]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality.” *Friends*, 153 F.3d at 1066 (quoting *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991), *cert. denied*, 502 U.S. 994, 112 S.Ct. 616, 116 L.Ed.2d 638 (1991) (correction in original)). Utilizing the Adaptive Management Work Group’s “desired future conditions” could lead to this result.

In any event, the purpose and need statement for this EIS, as stated, is too narrowly defined.¹ In particular, it fails to encompass Section 7 of the 1956 CRSP Act, which requires the generation of hydropower to the maximum extent practicable.² It does not propose to explore the hydrologic and environmental conditions under which that Congressional directive could be fully implemented. Section 2 of the Grand Canyon Protection Act allows the Secretary to vary from the legal requirement of Section 7 of the CRSP Act only if there is substantial evidence that doing so meets the objectives of the Gran Canyon Protection Act.³

II. The Proposed LTEMP EIS Will Analyze Both and Experiment and a Management Plan

The LTEMP EIS should clarify that the secretarial decision emanating from this exercise is meant to replace the 1996 Record of Decision (“ROD”) for management of GCD.⁴ The prior decision has been in place for 15 years. This proposal has a 20-year time frame. Logic alone dictates that a Secretarial decision concerning establishing a 20-year plan has the effect of replacing the prior Secretarial decision. That this is apparent is evidenced by the stated intent to continue the High Flow Experiments (“HFEs”) under hydrologic conditions other than those that would allow such releases under the 1996 decisions.

The new decision is likely to continue the use of the existing dam daily operating criteria. While doing so clearly will be analyzed in the EIS, it also needs to examine the 5 daily operating criteria for the dam and evaluate which need adjusting or eliminating. For instance, it was widely known in the scientific community at the time that the change in the Maximum Upumping Criterion from 2500 cfs to 4000 cfs reflected the lack of scientific evidence that

¹ 76 Fed.Reg. 39435 (July 6, 2011).

² P.L. 485, 84th Cong., 70 Stat. 50.

³ Grand Canyon Protection Act, P.L. 102-575.

⁴ http://www.usbr.gov/uc/rm/amp/pdfs/sp_appndxG_ROD.pdf.

upramping had any downstream impacts. With a Maximum Daily Change Criterion of 8000 cfs, the upramping criterion was rendered a nullity. Why should it continue to exist?

Additionally, the EIS needs to explore whether to continue the decision to employ an HFE only when the dam might otherwise spill water. To date, the experiments have not been under those conditions. If no such experiments are to be designed, what conclusions can be drawn from continuing HFE at lesser hydrologic conditions?

III. The LTEMP EIS Must Explain Why the HFEs Would Continue

In 1996, Reclamation conducted HFEs in order to find a way to stabilize beaches and to stabilize and possibly create backwaters with sandbars. The purpose of these floods was to see whether, under relatively low water conditions, sand could be deposited in some places that people could camp on and in other places where, presumably, juvenile fish could hide behind.⁵ From its inception, however, the HFE floods have failed to produce any long-term discernible benefit to the beaches and sandbars.⁶

The LTEMP EIS must explain why it will continue to implement the HFEs through 2020 (and beyond), despite the fact that evidence shows the currently hydrologic conditions vary greatly from those existing in 1996.⁷ It must explain why the experiments, having failed to provide anything but short-term changes to the sedimentology, become an essential part of a LTEMP EIS. Finally, the LTEMP EIS must explain how it will implement and analyze these experiments, in light of the ROD, in the years leading up to 2020 and during the remainder of the time period covered by this EIS.

In other words, by attempting to develop a new management scheme, this LTEMP EIS must examine elements of the prior decision (i.e., the ROD) that are and are not working.

IV. Alternatives That MUST be Considered

The range of alternatives considered is generally at the agency's discretion and is reviewed under a rule of reason that requires an agency to set forth only those alternatives necessary to permit a reasoned choice.⁸ An agency's discussion of alternatives must be bound by some notion of feasibility.⁹ NEPA requires federal agencies to rigorously explore and objectively evaluate all

⁵ Environmental Assessment: Development and Implementation of a Protocol for High Flow Experimental Releases from Glen Canyon Dam, Arizona, 2011 through 2020, U.S. Department of Interior, p. 1, available at <http://www.usbr.gov/uc/envdocs/ea/gc/HFEProtocol/HFE-EA.pdf> (hereafter "HFE EA").

⁶ The sand deposition created by these artificial floods largely disappears within six months. 2008 High-Flow Experiment at Glen Canyon Dam – Morphologic Response of Eddy-Deposited Sandbars and Associated Aquatic Backwater Habitats along the Colorado River in Grand Canyon National Park, U.S. Geological Survey, Open-File Report 2010-1032, pp. 42-3, found at <http://pubs.usgs.gov/of/2010/1032> (hereafter "2008 HFE Report").

⁷ The 2011 water year release volume from Glen Canyon Dam was 12.52 maf and this was the largest water year release volume made since water year 1998. <http://www.usbr.gov/water/crsp/cs/gcd.html>.

⁸ *Navajo Nation v. U.S. Forest Service*, 408 F.Supp.2d 866, 874 (D.Ariz. 2006), rev'd in part and remanded on other grounds, 479 F.3d 1024 (9th Cir. 2007), opinion adopted en banc, 535 F.3d 1058 (9th Cir. 2008); citing *Headwaters, Inc. v. Bureau of Land Management*, 914 F.2d 1174, 1180 (9th Cir. 1990); see also NEPA LAW AND LITIGATION § 10:30 (range of alternatives that must be discussed).

⁹ *Muckleshoot v. United States Forest Service*, 177 F.3d 800, 814 (9th Cir. 1999).

reasonable alternatives.¹⁰ An agency must consider all alternatives reasonably related to the purpose of the project, however few.¹¹ The existence of reasonable but unexamined alternatives renders an EIS inadequate.¹²

An agency's discretion, however, can be limited, or perhaps defined, by statute.¹³ Here, the Colorado River Storage Project Act of 1956 mandates the maximization of power generation revenues, provided that operations do not impinge on the "Law of the River".¹⁴ As a result, Reclamation may diverge from the directive to generate the most power possible only to the extent that peer-reviewed science demonstrates that downstream resources will be improved.

With these NEPA guidelines in mind, careful consideration should be given to recognized technologies, application of proven management strategies, and the development of reasonable alternatives.

A. Study the Full Use of Power Resources at Glen Canyon Dam

The LTEMP EIS must study the full use of power resources at Glen Canyon Dam. The hydrologic experience of the last year¹⁵ at Glen Canyon Dam demonstrates unequivocally that any future study must include studying the effects of releasing water at full power plant capacity on a constant basis as well as using maximum power plant capacity in a fluctuating release regimen beyond that of the Modified Low Fluctuating Flow ("MLFF") regimen.

A future management plan cannot ignore any of the hydrologic mandates that could require Reclamation to full use of the power plant like those that were experienced this past summer. As a management construct, any future management plan must take into account all of the situations with which Reclamation can be faced in the future with regard to operating the Dam. Any EIS which fails to study the full power resource will likely be rendered inadequate.

V. Mitigation

Although NEPA does not require that harm actually be mitigated, it does require that an EIS discuss mitigation measures, with sufficient detail to ensure that environmental consequences have been fairly evaluated. *South Fork Band Council of Western Shoshone of Nevada v. U.S. Dep't of Interior*, 588 F.3d 718 (9th Cir. 2009); *Robertson v. Methow Valley Citizens Council*, *et al.*, 109 S.Ct. 1835 (1989), citing National Environmental Policy Act of 1969, § 102, 42 U.S.C.A.

¹⁰ *Navajo Nation*, 408 F.Supp.2d at 874.

¹¹ *Laguna Greenbelt, Inc. v. U.S. Dept. of Transportation*, 42 F.3d 517, 524 (9th Cir. 1994).

¹² *Navajo Nation*, 408 F.Supp.2d at 874; quoting *Friends of Southeast's Future v. Morrison*, 153 F.3d 1059, 65 (9th Cir. 1998); *Muckleshoot v. United States Forest Service*, 177 F.3d 800, 14 (9th Cir. 1999).

¹³ See generally *County of Trinity v. Andrus*, 438 F.Supp. 1368 (E.D. Cal. 1977). The court considered whether the Bureau's decision to terminate an increased flow release experiment during a drought year violated the Trinity Act, and found that it had not.

¹⁴ Compare: The Colorado River Storage Project Act of 1956, ch. 203 § 7, 43 U.S.C. § 620f with Section 2 of the Grand Canyon Protection Act, 106 Stat. 4669.

¹⁵ The 2011 water year release volume from Glen Canyon Dam was 12.52 maf and this was the largest water year release volume made since water year 1998. <http://www.usbr.gov/uc/water/crsp/cs/gcd.html>.

§ 4332.¹⁶ An essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measure can be effective. *South Fork*, 588 F.3d at 727; compare *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1381 (9th Cir. 1998) (disapproving an EIS that lacked such an assessment) with *Okanogan Highlands Alliance v. Williams*, 236 F.3d 468, 477 (9th Cir. 2000) (upholding an EIS where “each mitigating process was evaluated separately and given an effectiveness rating”). Thus, the LTEMP EIS must analyze mitigation measures including those associated with full power plant capacity use.

A. Mechanical Augmentation

Reclamation should consider, as an alternative to HFEs, mechanical augmentation (a/k/a “dredging”) of sediment and sand to enhance beaches and sandbars. Mechanical augmentation is a proven management strategy that is also economically feasible.

Reclamation routinely dredges sand below Parker Dam to enhance the river’s effects on the Havasu National Wildlife Refuge, a program that benefits both water delivery and the environment.¹⁷ The same program should be utilized at select locations and elevations in Marble Canyon to place beach deposits and protect the shores from nature’s erosive effects. Assuming juvenile humpback chub thrive on backwaters, the same dredging program could also be implemented to provide backwaters of appropriate sizes and locations for the chub.

Mechanical augmentation is also economically feasible. IEDA has researched the costs associated with obtaining and operating dredges and urges Reclamation to solicit bids. The costs associated with dredging pale in comparison to those of these artificial floods. A dredge can be broken down and transported to a dredge-site at minimal expense. Once on location, the dredge can be reassembled and used, taken apart again and floated down the river. The portability and maneuverability of the dredge provide a relatively permanent and infrequent mitigation measure far surpassing artificial floods.

Additionally, mechanical augmentation does not involve certain economic and environmental costs associated with artificial floods. With each artificial flood, Glen Canyon Dam power purchasers are forced to purchase alternative sources of power at much higher cost, usually ranging in the millions of dollars. More often than not, the source of alternative power requires the use of other less environmentally desirable resources. Beaches are cut and rendered less accessible to persons of less than athletic ability and non-native trout are benefited at the expense of the endangered humpback chub.

B. Electrofishing

The threat to the humpback chub is not the lack of backwaters along the river, it is rainbow trout. The trout from Lee Ferry find their way downriver and prey upon the humpback chub. In

¹⁶ The requirement that an EIS contain a detailed discussion of possible mitigation measures flows both from the language of the Act and, more expressly, from CEQ’s implementing regulations. See D. Mandelker, *NEPA Law and Litigation* § 10:38 (1984).

¹⁷ <http://www.usbr.gov/lc/hooverdam/parkerdam.html>.

response, scientists have developed a system known as mechanical harvesting (a/k/a “electrofishing”). Mechanical harvesting is a proven technique that has been successful at controlling non-native fish below Glen Canyon Dam.¹⁸

In response to early Tribal objections to the taking of life near Colorado and Little Colorado River (“LCR”), scientists put forth a solution that allowed for electrofishing to be conducted just below Lee Ferry and down about 17 miles to an area near Soap Creek. Doing this maintains a management barrier to trout going down river and attacking the chub and allows the captured trout to be brought up river to Lee Ferry on motorized boats because there is only one, fortunately navigable, rapid between Lee Ferry and Soap Creek.

Trout removal strategies aimed at the Paria to Badger Rapid reach (“PBR”), with a variety of permutations in deference to cultural values, and with backup removal at the Little Colorado River reach (“LCR”), “were identified as top-ranking portfolios for all agencies and Tribes” and also “outperformed portfolios based on flow manipulations.”¹⁹ Other endangered species, such as the Kanab ambersnail and the razorback sucker, will also be jeopardized by artificial floods, an impact that can be totally avoided by the non-native fish control proposal.²⁰

This is a tried and true control method that adapts to sensitivities. The result is that we have, in effect, zoned the river, leaving the Lee Ferry trout fishery to the ribbon trout fishery it is. This is a common sense solution.

Thank you for the opportunity to comment on this very important matter.

Sincerely,

/s/

Robert S. Lynch
Counsel and Assistant Secretary/Treasurer

cc: Anne Castle, Assistant Secretary for Water and Science, Department of the Interior
Michael Connor, Commissioner, U.S. Bureau of Reclamation
Larry Walkoviak, Regional Director, U.S. Bureau of Reclamation, Salt Lake City, Utah
Tony Montoya, Acting Administrator, Western Area Power Administration
LaVerne Kyriss, Manager, Western Area Power Administration
Leslie James, CREDA
IEDA Members

¹⁸ Non-Native Fish Control below Glen Canyon Dam, USGS Open-File Report 2011-1012, *available at* <http://pubs.usgs.gov/of/2011/1012/pdf/ofr20111012.pdf>.

¹⁹ *Id.* at 1-2.

²⁰ The EA provides, “[t]he proposed action is likely to adversely affect the Kanab ambersnail because of the potential for high flows to inundate and scour habitat and snails at Vasey’s Paradise.” BA, p. 53 (also finding that the razorback sucker will be adversely affected).