

## Glen Canyon Dam Adaptive Management Program

### REPORT OF THE NEPA/ESA ISSUES SUBGROUP TO THE TECHNICAL WORK GROUP

The NEPA/ESA Issues subgroup met on November 18, 1997 to discuss and attempt to reach consensus on answers to the following three questions:

- (1) What does Adaptive Management mean relative to NEPA and the ESA? Do we need new or revised NEPA documents?
- (2) Are Biological Opinion issues/information needs adequately coordinated with the GCMRC?
- (3) Are the Bureau of Reclamation, the Fish & Wildlife Service and the TWG communicating sufficiently to move forward with AMP goals?

In attendance were: Bill Persons, AGFD; Barry Gold, GCMRC; Bill Davis, CREDA; Wayne Cook, UCRC; George Ruffner, CREDA; Debra Bills, USFWS; Clayton Palmer, WAPA; Bruce Moore, USBR; Tony Morton, USBR; Norm Henderson, NPS; Pamela Hyde (chair), American Rivers; and Chris Harris, ADWR.

#### NEPA Issues

We began our discussion by reviewing some of the fundamentals of NEPA, with Tony Morton, Reclamation's compliance officer in Salt Lake, walking us through that discussion and giving us Reclamation's view of NEPA compliance. (The group thought this discussion was extremely helpful and suggested that Tony could do a "NEPA 101" course of this type for the AMWG at its next meeting.) Reclamation is the *action agency* when it comes to environmental compliance.

Reclamation has a working assumption that *everything* they do is subject to NEPA review, including all aspects of the operation of Glen Canyon Dam and the Adaptive Management Program. However, Reclamation believes that the AMP, specifically the activities of the AMWG and the TWG, is "NEPA in action". In other words, since all the stakeholders are represented on those bodies, and they are evaluating the environmental consequences of actions and alternatives, that which NEPA seeks to engender is already occurring. Should an action under the AMP rise to the level of an EIS, Reclamation would seek to involve a broader public. But should it only require an EA, which can involve selective public involvement, or be dealt with through a categorical exclusion (CE), which does not require any public involvement, Reclamation will rely on the workings of the AMWG and the TWG.

Documentation of those processes is critical, and therefore Reclamation must have sign-

in sheets, meeting notes, draft/final work products, etc. which indicate that adequate representation, dialog, and decision-making existed to meet the requirements of NEPA. We therefore concluded that it was important that the operating procedures for both the AMWG and the TWG required the production of some minimal level of meeting documentation (agendas, sign-in sheets, notes, work products, etc.). The minimum should be sufficient for the decision-makers to ensure compliance with NEPA.

We then discussed what actions are already covered by existing NEPA documentation. Reclamation's view is that that which was identified in the FEIS and ROD -- Modified Low Fluctuating Flow alternative and some of the "common elements" of adaptive management -- is covered (certain of the "common elements" will still need separate NEPA compliance and documentation). We asked ourselves whether that "box" which Reclamation had defined could be broadened. We explored the idea of supplementing the existing NEPA documents, or putting together a process which facilitates NEPA review and compliance on a specific case-by-case basis. We ended up gravitating more toward the notion of trying to assist Reclamation (as the action agency) and the other agencies involved in compliance issues with expediting the preparation of the compliance documentation. This might take two forms: (1) ensuring that the details of a proposed action and all the additional information necessary to complete compliance were made available to the agencies in a complete and timely fashion, and (2) assisting with the preparation of some type of "baseline", or programmatic, environment compliance which would facilitate and expedite compliance for future actions that would require review on an individual basis. Reclamation needed some time to evaluate whether a programmatic approach for NEPA (and, potentially, ESA) compliance would be desirable; we asked them to provide an answer at the December 10-11 TWG meeting.

### ESA Issues

Next we turned our attention to ESA issues. Debra Bills, U.S. Fish and Wildlife Service, Arizona Ecological Services Office, attended our meeting, and with Tony Morton clarified for us several aspects of ESA consultations. Reconsultation on the original Biological Opinion is required under conditions which are spelled out in federal regulations as follows:

if (1) the amount or extent of incidental take is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in the opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in the opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

The action agency makes the call on whether reconsultation is necessary.

Much of the discussion on NEPA compliance was then applied to ESA and other

environmental compliance. We agreed that the AMWG and the TWG needed to help expedite compliance, and that the details of all proposed actions or decisions should be forwarded to the compliance officers of the action agency, the Fish and Wildlife Service, and the agencies responsible for cultural resources under the Programmatic Agreement. We discussed the possibility of undertaking a programmatic consultation in order to expedite reconsultation on individual future actions. (It was mentioned that at Flaming Gorge target flows are selected each spring by Reclamation, WAPA and the Service without reconsultation each time, since the original consultation covered a range of flows.) The Service was not clear as to whether a programmatic approach was desirable (or even possible) for consultation on actions under the AMP, since they did not see the need to change the way ESA compliance is currently undertaken for Glen Canyon Dam.

We discussed briefly the coordination with GCMRC on Biological Opinion issues. Reclamation explained that it uses the GCMRC to meet the requirements of the BO. Essentially, Reclamation must be satisfied that the necessary endangered species work is being contracted for in the RFPs. The issue seemed to boil down to a process question, which all parties agreed could be readily addressed.

#### Consensus Answers to the Questions

We agreed on the following answers to the questions we were to address:

**(1) What does Adaptive Management mean relative to NEPA and the ESA? Do we need new or revised NEPA documents?**

Adaptive Management does not preclude the need for environmental compliance. Since it will probably present us with compressed time frames in which to complete the necessary compliance, it forces us to think in advance about what our compliance needs will be.

Depending upon Reclamation's evaluation of the potential benefits of a programmatic NEPA approach, we may want to begin preparation of programmatic NEPA documents for some or all aspects of the AMP.

**(2) Are Biological Opinion issues/information needs adequately coordinated with the GCMRC?**

We believe they are, but there may be a need to spell out more firmly a process for ensuring such coordination. How the BO issues will be addressed by the GCMRC should be described and incorporated into the work plan development. We suggest that those elements of the GCMRC annual plan which address BO issues be specifically flagged as such. We also suggest a BO task group, to include Reclamation, the Service, and the GCMRC, coordinate these BO issues, and appropriate state wildlife agencies (Utah, New Mexico) be asked to sit in on these.

**(3) Are the Bureau of Reclamation, the Fish & Wildlife Service and the TWG communicating sufficiently to move forward with AMP goals?**

Yes, we believe they are, as long as procedures are developed and implemented by the TWG which ensure that recommendations regarding operations of Glen Canyon Dam are clearly articulated with specific details which allow compliance officials to expedite environmental compliance, and that those recommendations are forwarded to the appropriate compliance officials.

AMWG  
1-15-98  
Hyde

**NEPA, NHPA, and ESA compliance UNDER THE ADAPTIVE MANAGEMENT PROGRAM (REVISED JANUARY 15, 1998)**

**Background**

As we proceed with long-term monitoring and research in accordance with the Adaptive Management Program (AMP) for operations of Glen Canyon Dam, it's apparent that long lead times for planning and implementing certain types of research may not always be feasible. Also, given the extensive amount of compliance activities that have taken place to date under the National Historic Preservation Act (NHPA), the Endangered Species Act (ESA) and the National Environmental Policy Act (NEPA), it should be possible to quickly and efficiently facilitate supplemental compliance for future events, both scheduled and unscheduled. The following series of questions & answers seeks to clarify the issues and provide some sense of direction.

**1. WHAT ABOUT FUTURE NEPA COMPLIANCE ASSOCIATED WITH THE OPERATIONS OF GCD?**

In the October 9, 1996 ROD, the section on Adaptive Management states: "This commitment includes the establishment of an Adaptive Management Work group, chartered in accordance with the Federal Advisory Committee Act; and development of a long-term monitoring, research, and experimental program which could result in some additional operational changes. However, *any operational changes will be carried out in compliance with NEPA.*" In the Upper Colorado Regional Director's October 25, 1996 memo forwarding the long-term operating criteria for GCD, adopted per requirements in the GCPA, flood frequency reduction measures by means of raising the spillway gates is discussed and it's stated that "since other methods are available to accomplish the same goal, a final decision about the method would not be made until *additional NEPA compliance is completed to evaluate environmental impacts on Lake Powell shoreline resources.*" In the EIS, under discussion of further study of selective withdrawal, it's stated: "Reclamation would be responsible for design, *NEPA compliance*, permits construction, operation and maintenance," and this commitment is further emphasized in the Service's 1996 biological opinion, under Reasonable and Prudent Alternative item (3), "Elements of the reasonable and prudent alternative that address operations have been reviewed and included in the draft EIS as viable alternatives. *Additional NEPA compliance would be necessary for a selective withdrawal structural element.*" In other words, the GCDEIS and implementing ROD was not all-inclusive and does not represent a one-time NEPA compliance effort.

**DOESN'T THE "BLACK BOX" VIEW OF OPERATIONS APPLY FOR OPERATIONS AT GCD, AND EXEMPT US FROM FURTHER NEPA, AT LEAST FOR EXPERIMENTAL FLOWS?**

Informally, in regards to experimental test flows from Glen Canyon dam, Interior Solicitor Scott Loveless offered the view that NEPA compliance is not required, based on the fact that the Secretary is authorized to conduct tests as needed, and the flows are within normal operating patterns and are covered by case law. This is the historic "black box" theory, that any operations that have occurred post-dam are authorized and exempt from NEPA. However, it's important to note that for GCD in particular, we have a history of required NEPA compliance, including with the 1991 decision by the SOI to do an EIS on operations, and the 1992 GCPA directing completion of an EIS on operations, plus the commitments stated in the preceding question and answer, where Reclamation agreed to provide NEPA compliance for things like selective withdrawal, flood frequency reduction by use of flashboards, and any permanent future changes outside the bounds of the preferred alternative that may be recommended by the AMWG.

The black box justification would seem to offer support for not doing NEPA at GCD for all proposed activities that are strictly directed at research. However, it is always an option to Reclamation to voluntarily do NEPA to facilitate decision-making and should that happen, keep in mind that NEPA compliance at GCD is greatly facilitated by the fact that we have the GCMRC, the AMWG, and the TWG in place, working together under the umbrella of the AMP, and proposed actions, draft reviews, public comments, and agency recommendations are all established processes.

#### **ARE EXPERIMENTS UNDER THE ADAPTIVE MANAGEMENT PROGRAM SUBJECT TO NEPA, ESA, AND NHPA COMPLIANCE?**

Compliance is required for ESA and NHPA for experimental flows temporarily deviate from operations as defined for the preferred alternative (MLFF). NEPA compliance for experimental flows would be voluntary, if it would be helpful in making a decision about the proposed action. In some cases, certain experiments were anticipated, or called for, in the EIS/ROD and therefore, some of the NEPA and ESA compliance groundwork has been established, but the impacts were not specifically addressed, either because the specifics of the experiment were unknown or existing environmental baseline information was not available. For example, for the experimental beach-habitat building flows, the specific timing, duration, and magnitude of the flows were necessarily left to experiment, as were flows for endangered fish. If we had known exactly what was needed to build beaches and recover endangered fish, that would have been part of the analysis of the alternatives in the EIS and part of the decision on what the preferred alternative would be. NEPA, ESA and NHPA compliance would have been complete, for those particular actions, subject only to verification of results through monitoring. It's important to note that it may not be possible to accurately project the impacts of certain flows except through experimentation and monitoring

#### **WHERE ARE WE IN TERMS OF NHPA COMPLIANCE?**

As required by the 1994 Programmatic Agreement (Chapter 5 of the EIS), a Monitoring and Remedial Action Plan (MRAP) was finalized in 1994 and is being implemented. The MRAP is part of the overall Historic Preservation Plan for Cultural Resources, which is in a final draft stage and expected to become final within 4-6 months. Signa Larralde advises that for flows below 60,000 cfs, cultural resources are not threatened, but anything proposed above 60,000 cfs would require development and implementation of mitigation measures (most likely excavation).

#### **WHERE ARE WE IN TERMS OF ESA COMPLIANCE?**

We have received biological opinions for actions associated with the 1994 Operations Environmental Impact Statement, the 1996 Beach-Habitat Building Test Flow Environmental Assessment, and the 1997 Fall Test Flow Categorical Exclusion. We have progressed on some items, while others are proving more challenging. Overall, the progress on achieving compliance with the requirements and recommendations of the opinions is positive.

#### **WHAT ABOUT COMPLIANCE WITH THE ESA FOR FUTURE EXPERIMENTAL FLOWS?**

The Service must first approve of the plans for the experimental low steady flows called for in the 1994 Biological Opinion to facilitate discussions about consequences and any requirements that might be imposed or recommended by the Service in the future. As a term and condition in the Fall 1997 test flow opinion, the Service required that before another beach/habitat building flow 45,000 cfs or greater takes place, Reclamation must enter into informal consultation with the Service to evaluate the test flow studies, the establishment or discovery of a second population of Kanab ambersnail in Arizona, and reinitiate formal consultation with the Service if incidental take exceeds the 10 percent level established

in the 1995 opinion. The Service also recommended as conservation measures that Reclamation should develop a three-to-five year plan on desirable conditions for future test flows and negotiate permitting with the National Park Service and other managing agencies to facilitate the turn around time of future test flow requirements. If Reclamation and the other entities involved in the AMP are to make informed recommendations about operations, and ultimately get to Secretarial approved changes in operations, they need access to good science and to maintain close involvement with the Service because endangered species are currently the driving force in operations. If the changes don't result in benefit, or at least no further harm, to endangered fish, then they won't be implemented. It only makes sense to maintain a both formal and informal dialogue with the Service on experimental flows or other experimental activities affecting endangered species.

### **WHEN IS RECONSULTATION ON THE BIOLOGICAL OPINION REQUIRED? WHAT IS RECLAMATION'S ROLE IN MAKING THAT DETERMINATION?**

Here is what the 1994 Biological Opinion says about reinitiating consultation:

#### **Reinitiation Notice of Formal Consultation**

Section 7 regulations outline four general conditions for reinitiating formal consultation: (a) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (b) the action is modified in a manner causing adverse effects to listed species or critical habitat not previously considered, (c) a new species is listed or critical habitat designated that may be affected by the action, or (d) the amount or extent of incidental take is exceeded. In this section, the Service should identify situations, if any, that meet one or all of these four conditions. For example, the Service may identify studies in progress whose results may cause a reassessment of the biological opinion, or proposed listings or critical habitat designations. The standard closing statement of the formal consultation package is as follows: This concludes formal consultation on the actions outlined in the (request/reinitiation request). As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. (A reinitiation based on a new species listing or critical habitat designation is treated as a new consultation, although data in the original opinion may be referenced when the action has not changed.) In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation."

Maintaining close involvement with the Service doesn't necessarily mean formal reconsultation, but it does suggest an ongoing dialogue, as mentioned earlier. ESA will be approached in the same manner as NEPA compliance, that is, ESA review is required for any proposed changes. Whether or not reconsultation and a revised, or new biological opinion is required for the proposed change, depends on how far any proposal deviates from the MLFF, or whether the proposed action would appear to have potentially significant effects to endangered species. That call is Reclamation's responsibility, as the action agency. We aren't free to proceed with implementation of all the common elements in the EIS/ROD without consideration for potential impacts on resources, particularly endangered species. Reclamation may also choose to formal input from

the Service on research proposals that are considered exempt from NEPA. For example, at the September 1997 AMWG meeting, in discussions about the fall 1997 test flow, although Sam Spiller of the FWS said there would be no need to reconsult under Section 7 for those particular flows, Reclamation chose to submit a biological assessment, in the interest of the endangered species resource, and received a biological opinion in return. Also, as mentioned earlier, the 1994 opinion requires that the Service first approve whatever is proposed for the experimental low steady flows. Such flows are a component of the EIS alternatives common element, Adaptive Management.

**HOW DO BIOLOGICAL OPINION ISSUES/INFORMATION NEEDS MESH WITH ONGOING MONITORING AND RESEARCH BEING CONDUCTED THROUGH THE GCMRC? WHAT ARE THE RELATIVE ROLES FOR RECLAMATION AND GCMRC IN MEETING ENDANGERED SPECIES NEEDS UNDER THE BO?**

Recalling that the purpose of the action leading to the EIS (reevaluation of dam operations) was, "to determine specific options that could be implemented to minimize, consistent with law, adverse impacts on the downstream environmental and cultural resources and Native American interests in Glen and Grand Canyons," and, given the current status of the humpback chub, razorback sucker, and Kanab ambersnail, and the mandate from the Endangered Species Act that, "Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical..." it's apparent that there are strong connections between what's been required or suggested for benefit of endangered species and the direction the research and monitoring effort should be going. If the research and monitoring program is not headed in a direction to help accomplish those ends, then it should be reevaluated. It's not being suggested here that endangered species should be the exclusive resource of focus, but they have got to be a very high priority.

**HOW DO THE TERMS AND CONDITIONS OF THE BIOLOGICAL OPINION FACTOR IN AS FAR AS NEPA?**

The biological opinion calls for research efforts, including testing of steady flows and evaluation of a selective withdrawal capability. In accordance with earlier statements, NEPA is not required for experimental flows but could be done voluntarily to assist in making the decision on how to do the test. A NEPA process is already underway (draft EA) for the selective withdrawal structure. There may need to be some additional ESA compliance to incorporate results of ongoing research and monitoring and NEPA would be required only if the proposed changes represented permanent changes from the preferred alternative.

**ARE THERE WAYS TO FACILITATE COMPLIANCE WITH NEPA AND ESA FOR DEVELOPMENT AND IMPLEMENTATION OF EXPERIMENTS ON VERY SHORT NOTICE, OR IMPLEMENTATION OF EXPERIMENTS THAT HAVE BEEN DESIGNED AND ARE JUST AWAITING THE RIGHT CONDITIONS?**

Yes, and the more specific we can be about the proposed action, and the more advance notice there is, then the better we can plan for and assess it under ESA and NEPA, should a decision be made to do NEPA. In general, we could describe the anticipated research needs and set up a process for drafting a CE or EA, and submitting it for necessary review and comment. Depending on the proposal and what the likely impacts are, in most cases the process can proceed quickly to completion. Potential delays would

be due to consultations entered under ESA or NHPA.

**ARE THERE LIKELY TO BE ANY SPECIAL ADDITIONAL REQUIREMENTS UNDER ESA OTHER THAN WHAT HAS ALREADY BEEN STATED IN THE BIOLOGICAL OPINIONS FOR THE EIS, THE SPRING 1996 BEACH-HABITAT BUILDING FLOW, AND THE FALL 1997 TEST FLOW?**

That depends on what actions we propose to take in the future. There will probably be modifications in terms of what the Service has asked for on behalf of endangered species depending on the results of implementation of the existing RPAs, Terms & Conditions, and Conservation Measures. It's probably reasonable to say that if Reclamation is able to show progress in implementing the requirements of the existing biological opinions, there won't be much in way of any additional requirements. However, if we start entertaining proposals that go beyond the parameters of the MLFF, there could very well be additional requirements imposed.

**WHAT ARE SOME OPTIONS FOR FACILITATING ESA, NHPA AND NEPA COMPLIANCE FOR FUTURE PROPOSED ACTIONS?**

(1) Develop a programmatic approach, defining the proposed action, (i.e., to develop and conduct the following types of research (or other activities), during the following times, with associated monitoring), and present that to the AMWG for review and comment. Complete ESA and NHPA review and consultation on the proposal. Should we decide to do a NEPA process, and find there are no significant issues, we would complete a CE for the proposal. If there are potentially significant issues, we would assess them in an EA. If the issues can't be resolved (i.e., mitigated) to a level below significance, then we'd have to consider abandoning the proposal or doing a supplemental EIS. (2) Continue to address individual research (or other activities) proposals through the appropriate consultation processes for ESA and NHPA compliance. NEPA would be voluntary if at all. Given the extensive ESA, NHPA, and NEPA compliance done to date, we'd rely a lot on tiering from that previous work, and given enough advance notice (say, 2-4 weeks, but the longer the better) we should be able to complete all required compliance rather quickly. Close coordination among Reclamation, the Center, the Service and the AMWG (TWG) will be necessary to facilitate an effective compliance process. A first step may be to identify and confirm critical periods for certain resources (see next question).

**WHAT ARE THE CRITICAL PERIODS OF TIME FOR RESOURCES IN GLEN AND GRAND CANYONS?**

The following tables come from Exhibit C of the Operating Agreement between WAPA and Reclamation:

<b>DEVIATIONS LOWER THAN 5,000 CFS MINIMUM</b>		
<b>RESOURCE</b>	<b>IMPACT</b>	<b>CRITICAL PERIOD</b>
Trout	Stranding adults Stranding eggs	December - March December - March
Cladophora	Freezing Desiccation	December - February June - August
Native Fish	Larval stranding	May - August
Vegetation	Desiccation	May - September

<b>DEVIATIONS HIGHER THAN 25,000 CFS MAXIMUM</b>		
<b>RESOURCE</b>	<b>IMPACT</b>	<b>CRITICAL PERIOD</b>
Vegetation	Flooding	May - June
Insects	Flooding	May - September
Waterfowl	Flooding nests	May - June
Passerine birds	Flooding nests	May - June
Native fish	Washed out of backwaters	March - October
Reptiles	Flooding	May - September

**WHAT COORDINATION AND/OR COMMUNICATION PROBLEMS ARE CREATING STUMBLING BLOCKS FOR AGENCIES/ENTITIES TRYING TO MEET THEIR MANDATES AT THE SAME TIME THEY ARE TRYING TO MOVE ADAPTIVE MANAGEMENT FORWARD? HOW CAN WE ELIMINATE THOSE PROBLEMS?**

Agency/entity representatives can best provide responses here, but I would suggest that if one or more groups decide to doggedly pursue a specific set of optimum management objectives for it's resource of interest, with no attempt at compromise, then there will be unending conflicts, and that includes the objective of recovery and delisting of endangered species. However, I believe there necessarily has to be some attempt at prioritizing efforts so that the most benefit for the most resources is achieved.