Memorandum

To: Regional Director, Bureau of Reclamation, Boulder City, Nevada

From: Regional Director, Region 2

Subject: Amendment No. 2 of the April 20, 1994, Biological Opinion on the Transportation and Delivery of Central Arizona Project Water to the Gila River Basin in Arizona and New Mexico

This responds to your memorandum of October 17, 1997, and subsequent discussions, regarding due dates in the April 20, 1994, biological opinion on the transportation and delivery of Central Arizona Project (CAP) water to the Gila River Basin in Arizona and New Mexico. The opinion concluded the project would jeopardize the continued existence of the spikedace (*Meda fulgida*), loach minnow (*Tiaroga cobitis*), razorback sucker (*Xyrauchen texanus*), and Gila topminnow (*Poeciliopsis occidentalis*), and would adversely affect the critical habitats of the first three species. Species for which the action was not likely to jeopardize their continued existence include the desert pupfish (*Cyprinodon macularius*), Colorado River squawfish (*Ptychocheilus lucius*), and bald eagle (*Haliaeetus leucocephalus*).

The April 20, 1994, biological opinion was first amended on June 22, 1995, to extend dates in the reasonable and prudent alternative regarding monitoring and funding transfer. The purpose of this memorandum is to amend the biological opinion a second time to establish new due dates for a portion of reasonable and prudent alternative element 1. The Service would also like to note in this amendment that the court set aside critical habitats for the spikedace and the loach minnow.

The Service appreciates the detailed update on reasonable and prudent alternative implementation provided in your October 17, 1997, memorandum. In spite of substantial unexpected setbacks, the efforts to place barriers on Aravaipa Creek and the San Pedro River continue to go forward. The Service realizes how difficult this process has been due to factors outside the control of either the Service or the Bureau of Reclamation (Bureau). The Bureau’s persistence is appreciated. The Service understands there have been some positive responses from the recent inquiry to property owners regarding acquisition of property or easements on Aravaipa Creek. This is encouraging. The recent incursion of red shiner into Aravaipa Creek has created new interest in the barriers and may result in increased support from The Nature Conservancy and other interested parties.

The operation and maintenance of the Salt River Project (SRP) and San Carlos Irrigation Project (SCIP) electric barriers has been relatively smooth. The revised Standard Operating
Procedure now in place for the SRP barriers should resolve some of the glitches that have been experienced. The Service hopes a similar revision on the SCIP barrier will do the same.

Although there have been delays and difficulties in the monitoring under the reasonable and prudent alternative, the overall effort is accomplishing the objectives of the biological opinion. The monitoring program implemented by the Bureau is well conceived and comprehensive and goes well beyond the minimum envisioned by the biological opinion. The missteps and omissions of the first years of monitoring are well within what is usually expected in getting a large field project like this up and running.

In August 1997, the first of 25 annual transfers of funding placed the implementation of reasonable and prudent alternative elements 4 and 5 on track. The Service, in cooperation with the Bureau and several other agencies and entities, is presently preparing the scopes of work and paperwork necessary to implement the projects previously identified for these funds. Once the Service completes the arrangements for a system for accruing and storing contingency funds, the implementation of these two elements should operate smoothly through the annual transfers that will occur in 1998 through 2022.

The information and education program required by reasonable and prudent alternative element 5 is underway, however, it still needs expansion and improvement. Although the steps taken so far are valuable and work toward fulfillment of the reasonable and prudent alternative, there is a need for wider outreach. The difficulties in communication with the property owners on Aravaipa Creek in relation to the value of fish barriers illustrate the problem well. There is a continuing need to find ways to improve communications on these issues and to reach a wider portion of the public with the concerns regarding nonnative species.

Although the implementation of the biological opinion has encountered a number of difficulties, the Service recognizes the substantial efforts and persistence of the Bureau in moving forward in spite of setbacks. Even with the setbacks, it is important to recognize that the Service and the Bureau have cooperatively made significant strides forward in the conservation of these fishes through implementation of the biological opinion.

**BIOLOGICAL OPINION AMENDMENT**

This amendment does not change the findings made for the seven species considered in the April 20, 1994, biological opinion or for the finding made for critical habitat for razorback sucker. The findings for critical habitat for spikedace and loach minnow are amended as follows:

*The critical habitats for spikedace and loach minnow have been set aside by order of the federal courts in Catron County Board of Commissioners, New Mexico v. U.S. Fish and Wildlife Service, Civ No. 93-730 HB (D.N.M., Order of October 13, 1994), aff'd by 75 F.3d 1429 (10th Cir. Feb. 2, 1996). The United States District Court for the District of Arizona recognized the effect*
of the Catron County ruling as a matter of comity in Southwest Center for Biological Diversity v. Rogers, CV 96-018-TUC-JMR (D. Ariz., Order of December 28, 1996). Therefore, no finding regarding the effects of delivery of CAP water to users in central Arizona (Gila basin, excluding the Santa Cruz subbasin) on the former critical habitat designations for these two species is required or made.

The Service and the Bureau have previously held an informal discussion regarding the court order which removed critical habitats for spikedace and loach minnow and agreed that this removal would not affect the reasonable and prudent alternative or any other mandatory or advisory recommendations of the biological opinion. The reasonable and prudent alternative was developed prior to the designations of critical habitat for the two fishes and was formulated to remove the threat of jeopardy to spikedace and loach minnow, as well as the other two species. The final rules designating critical habitat for the two species were published on March 8, 1994 (59 FR 19898-10915), about a month before the biological opinion was finalized on April 15, 1994, and delivered on April 20, 1994. Analyses of the effects to the two new critical habitats were included in the final biological opinion, but the reasonable and prudent alternative already formulated for removing the jeopardy was found to be sufficient for also removing the adverse modification of spikedace and loach minnow critical habitat. Therefore, all reasonable and prudent alternative elements are necessary for alleviating jeopardy, and removal of the critical habitat designations does not result in changes to or removal of any requirements or suggested measures of the biological opinion.

EFFECTS OF THE ACTION

This amendment does not change the effects from the CAP to the seven listed species or the critical habitat of the razorback sucker, as analyzed in the April 20, 1994, biological opinion. This amendment does remove all analysis of effects regarding critical habitats of spikedace and loach minnow.

REASONABLE AND PRUDENT ALTERNATIVE

Implementation of the April 20, 1994, reasonable and prudent alternative, as modified by the June 22, 1995, amendment and the following changes, will avoid jeopardizing the continued existence of listed species or the destruction or adverse modification of critical habitat of razorback sucker.

Reasonable and prudent alternative element 1.1

Reasonable and prudent alternative element 1.1 requires the Bureau to complete a set of two barriers on Aravaipa Creek within 3½ years of the date of the biological opinion, which would have been October 20, 1997. Because of difficulties in securing land rights this date was not met. Reasonable and prudent alternative element 1.1 is hereby amended as follows:

A report on the progress toward barrier construction shall be delivered to the
Service in March 1998. A meeting shall be held between the Service and the Bureau in August 1998 to review and evaluate progress and needs. The barriers on Aravaipa Creek shall be completed by December 31, 1999.

All other specifications of reasonable and prudent alternative element 1.1 remain unchanged. No other reasonable and prudent alternatives are changed by this amendment.

These changes to the reasonable and prudent alternative do not alter the type or severity of effects from the implementation of the reasonable and prudent alternative-modified project to the spikedace, loach minnow, Gila topminnow, or the razorback sucker and its critical habitat. Although the actions required by the reasonable and prudent alternative are still expected to alleviate threats from future incursions of nonnative species, the probability of adverse effects is slightly increased by the reasonable and prudent alternative changes. Delay in implementation increases the probability that nonnative species may enter the system undetected and cause adverse impacts to the spikedace, loach minnow, Gila topminnow, or the razorback sucker and its critical habitat. However, the increase in probability is incremental and the additional delay in implementation specified in the above amendment of reasonable and prudent alternative element 1.1 would not result in jeopardy to any listed species.

INCIDENTAL TAKE

No change in anticipated incidental take, reasonable and prudent measures, or terms and conditions is expected as a result of the amendment of the opinion.

SUMMARY

The provisions in the summary section of the April 20, 1994, biological opinion providing for reinitiation of consultation under certain circumstances apply to this amendment.

If we can be of further assistance, please contact Sally Stefferud, or Angie Brooks in the Arizona Ecological Services State Office, (602) 640-2720.

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