United States Department of the Interior

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Cons. # 22420-2006-F-039

Memorandum

To: Area Manager, Albuquerque Area Office, Bureau of Reclamation, Albuquerque, New Mexico

From: Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque, New Mexico

Subject: Reinitiation of Consultation on the Sandia Priority Site Project, River Maintenance Program, Middle Rio Grande Project

Thank you for your memorandum of October 26, 2007, notifying us of the need to reinitiate consultation on the Sandia Priority Site Project under section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. § 1534 et seq.). This request for reinitiation was due to changes in your proposed action that resulted in a higher level of incidental take for the Rio Grande silvery minnow (*Hybognathus amarus*) (minnow) than was authorized by our June 23, 2006, Biological Opinion (BO) (Cons. #22420-2006-F-039). The Sandia Priority Site Project (Project) is located on the Sandia Pueblo, in Bernalillo County New Mexico. In your memorandum, you summarize events that lead to unexpected entrapment of minnows into drying pools at the Project site. You estimate that at least 25,000 minnows were salvaged from isolated pools and released into nearby flowing water. You further estimate that 750 minnows died during handling and transport. This level of take exceeds the incidental take statement provided in the June 2006 BO for direct mortality (211) and harassment (21,500).

The purpose of this reinitiation is to analyze the impact of completing the construction of bendway weirs within the wetted channel and account for the increase of reported and anticipated take. Reclamation has suspended all construction activity on the bendway weirs until this reinitiation is complete. Below, we provide all relevant sections of the June 2006 BO that were updated or amended for this analysis.

Consultation History

On June 23, 2006, the Service issued a BO (Cons. #22420-2006-F-039) on the effects of the proposed action on the minnow. Reinitiation was required because incidental take levels for the Project were exceeded during construction. Reclamation notified the Service of these

circumstances by phone on October 9, 2007, and via email on October 11, 2007. Reclamation formally requested reinitiation on October 26, 2007. On November 1, 2007, personnel from Reclamation, the Service, and the Pueblo of Sandia toured the Project site and discussed options for completing the project with no further loss of minnows.

This BO supplements the June 2006 BO (Cons. #22420-2006-F-039) and is based on information provided in the February 9, 2006 Biological Assessment (BA), the October 26, 2007 letter, emails between our staff, data in our files, and a site visit on November 1, 2007. A complete administrative record of this consultation is on file at the New Mexico Ecological Services Field Office.

DESCRIPTION OF THE PROPOSED ACTION

Reclamation has not changed the proposed action from what was analyzed in the June 2006 BO. The description of the previous proposed action is hereby incorporated by reference.

Reclamation has acknowledged that the proposed action was not implemented in the manner described in the February 2006 BA. Isolated pools containing silvery minnows dried. Reclamation rescued and moved silvery minnow from these pools without notifying the Service. Furthermore, work continued after allowable take limits were exceeded. Reclamation recognizes that procedures were not followed and has since developed protocols to ensure that such oversights do not occur for the remainder of this Project or future projects. Communications between the Service and Reclamation, including your letter of October 26, 2007, provides confidence that errors committed on this Project will not be repeated.

STATUS OF THE SPECIES

The status of the species has not changed substantially since the June 2006 BO. Therefore, this section is incorporated by reference.

ENVIRONMENTAL BASELINE

Under section 7(a)(2) of the ESA, when considering the effects of the action on federally listed species, we are required to take into consideration the environmental baseline. Regulations implementing the ESA (50 FR 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area; the anticipated impacts of all proposed Federal actions in the action area that have undergone formal or early section 7 consultation; and the impacts of State and private actions that are contemporaneous with the consultation in progress. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform to assess the effects of the action now under consultation.

Drought, as an overriding condition of the last decade in the southwest, is an important factor in the environmental baseline. However, stream conditions in 2004 and 2005 improved over

previous years. The United States Geological Survey (USGS) in Albuquerque, New Mexico reported that stream flow conditions in 2005 were well above average to significantly above average statewide leading to a peak of over 6,000 cfs at Albuquerque and sustained high flows (> 3,000 cfs) for more than 2 months. These flows improved conditions for both spawning and recruitment.

The 2006 Spring runoff was well below average because of lower than normal snowpack. In May 2006, year to date precipitation was well below average with the snow pack at 20 percent of average in the Rio Grande Basin. Fortunately, a strong monsoon season led to the wettest period of record in July and August. Consequently, only 26.5 miles of river dried in the summer of 2006, the lowest amount since 2001. Despite this monsoonal precipitation, reservoir levels continued to be below average across the state. It is predicted that at least another year or two of well above average precipitation would be necessary to develop pre-drought reservoir conditions.

The 2007 runoff was above average. Additionally, a one time deviation in Cochiti Reservoir operations (Corps 2007) allowed managed releases of native flow during the spawn. Flows below Cochiti Reservoir exceeded 3,000 cfs for 10 days in May.

Since 1996, Reclamation has relied heavily on leases of San Juan-Chama (SJC) water to provide supplemental water by the Middle Rio Grande Endangered Species Act Collaborative Program to implement the 2003 Middle Rio Grande Water Operations Biological Opinion (2003 BO). Supplemental water has been used to create spawning pulses and recruitment flows for the minnow, and to meet minimum flow requirements for minnows and flycatchers. From 1996-2003, Reclamation leased an average of 46,318 acre-feet/year (afy) of SJC water from willing lessors.

Status of the Species within the Action Area

The population of minnow in the Action Area and throughout the Middle Rio Grande has been highly variable over time (see Status of the Species). The October 2007 sample reported minnow in the Action Area at an estimated density of 30.26 per 100 meters squared (m^2) (Dudley et al. 2007). Major threats to the minnow within the Action Area include changes in hydrology, channel morphology, and reduced water quality. Channel drying does not typically occur in the Angostura Reach.

Other factors that influence the environmental baseline are the release of propagated captive minnows, minnow rescue efforts, on-going research efforts, and past projects in the Middle Rio Grande. Also of importance is the current drought, and how it may affect flow in the Rio Grande. Each of these topics is discussed in the June 2006 BO and is incorporated by reference. An updated amount of permitted and/or authorized take is provided below.

<u>Permitted and/or Authorized Take</u>

Take is authorized by section 10 recovery permits when there is a net conservation benefit to the species. Incidental take is permitted under section 7 of the ESA. These permits and/or

authorizations are issued by the Service. Applicants for section 10 recovery permits must also acquire a permit from the state to "take" or collect minnows. Many of the permits issued under section 10 allow take for the purpose of collection and salvage of minnows and eggs for captive propagation. Eggs, larvae, and adults are also collected for scientific studies to further our knowledge about the species and how best to conserve the minnow. Because of the population decline from 2002-2004, the Service has reduced the amount of take permitted for voucher specimens in the wild.

Incidental take of minnows is authorized through section 7 consultation associated with the 2003 BO, the City of Albuquerque Drinking Water Project (U.S. Fish and Wildlife Service 2004), the Isleta Island Removal Project, the Tiffany Plug Removal Project, and the Interstate Stream Commission's (ISC) Habitat Restoration Project. In 2005 the Service revised the incidental take statement for the 2003 BO using a formula that incorporates October monitoring data, habitat conditions during the spawn (spring runoff), and augmentation. Annual estimated take for the 2003 BO now fluctuates relative to the total number of minnows found in October across 20 population monitoring locations.

Factors Affecting Species Environment within the Action Area

On the Middle Rio Grande, the following past and present Federal, State, private, tribal and other human activities, in addition to those discussed above, have affected the minnow and its designated critical habitat:

1. Release of Carryover Storage from Abiquiu Reservoir to Elephant Butte Reservoir: The Army Corps of Engineers (Corps) consulted with the Service on the release of water during the winter of 1995. Ninety-eight thousand af of water was released from November 1, 1995, to March 31, 1996, at a rate of 325 cfs. This discharge is above the historic winter flow rate. Substantial changes in the flow regime that do not mimic the historic hydrograph can be detrimental to the minnow.

2. Corrales, Albuquerque, and Belen Levees: These levees contribute to floodplain constriction and habitat degradation for the minnow.

3. Santa Ana River Restoration Project: Santa Ana Pueblo is engaged in multiple elements of river restoration in an area where the river channel was incising and eroding into the levee system. The project includes a Gradient Restoration Facility (GRF), channel re-alignment, bioengineering, riverside terrace lowering, and erodible bank lines. The GRFs are designed to: (1) store more sand sediments at a stable slope for the current sediment supply; (2) decrease the velocities and depths and increase the width in the river channel upstream; (3) be hydraulically submerged at higher flows while simultaneously increasing the frequency and duration of overbank flows upstream; (4) provide velocities and depths suitable for passage of the silvery minnow through the structure; and (5) halt or limit further channel degradation upstream of its location. The channel re-alignment involved moving the river away from the levee system and over the grade control structure, and excavation of a new river channel and floodplain. Another significant

component of the Santa Ana Restoration project was riverside terrace lowering for the creation of a wider floodplain. The bioengineering and deformable bank lines also assisted in establishing the new channel bank and regenerating native species vegetation in the floodplain.

4. Creation of a Conservation Pool for Storage of Native Water in Abiquiu and Jemez Canyon Reservoirs and Release of a Spike Flow: The City created space (100,000 af) in Abiquiu Reservoir and the Corps created space in Jemez Canyon Reservoir to store Rio Grande Compact credit water for use in 2001, 2002, and 2003 for the benefit of listed species. The conservation pool was created with the understanding that the management of this water would be decided in later settlement meetings or during water operations conference calls. In addition, a supplemental release (spike) occurred in May 2001 to accommodate movement of sediment as a part of habitat restoration and construction on the Rio Grande and Jemez River on the Santa Ana Pueblo.

5. Programmatic Biological Opinions on the Effects of Actions Associated with the U.S. Bureau of Reclamation's, U.S. Army Corps of Engineers', and non-federal Entities' Discretionary Actions Related to Water Management on the Middle Rio Grande: In 2001 and 2003, the Service issued jeopardy biological opinions on the effects of water operations and management activities in the Middle Rio Grande on the silvery minnow and flycatcher. In 2002, the Service issued a jeopardy biological opinion for the silvery minnow. The opinion analyzing current water operations was issued on March 17, 2003, and contains one RPA with multiple elements. These elements set forth a flow regime in the Middle Rio Grande and describe habitat improvements necessary to alleviate jeopardy to both the minnow and flycatcher. For example, the elements require augmentation in the Rio Grande of an additional million minnows over the life of the project and 1,600 acres of habitat restoration. Approximately 484 acres have been constructed to date.

6. Albuquerque Drinking Water Project: The Drinking Water Project, involves the construction and operation of: (1) A new surface diversion dam north of the Paseo del Norte Bridge, (2), conveyance of raw water from the point of diversion to the new water treatment plant, (3) a new water treatment plant on Chappell Road NE, (4) transmission of treated (potable) water to residential and commercial customers throughout the Albuquerque metropolitan area, and (5) aquifer storage and recovery. This consultation covers through 2060. During typical operations, the project will divert a total of 94,000 afy of raw water from the Rio Grande (47,000 afy of City SJC water and 47,000 afy of Rio Grande native water) at a near constant rate of about 130 cfs. Diversions of native water would be reduced if flows above the new diversion site were less than 260 cfs and all diversions would cease at levels below 195 cfs. Peak diversion operations will consist of up to 103,000 afy being diverted at a rate of up to 142 cfs. Consultation on this project was completed in 2004. Construction is currently underway, with operations likely to begin in 2010.

7. Silvery minnow salvage and relocation: During river drying, the Service's salvage crew captures and relocates the minnows. Since 1996, approximately 770,000 minnows have been rescued and relocated to wet reaches, the majority of which were released in the Angostura Reach. Studies are being conducted to determine survival rates for salvaged minnows and their contribution to the population.

8. Habitat Restoration Projects: Several habitat restoration projects have been completed in the Albuquerque reach through the Collaborative Program. These projects include woody debris installation projects to encourage the development of pools and wintering habitat, and a river bar modification project south of the I-40 Bridge designed to create side and backwater channels on an existing bar as well as modify the top surface of the bar to create habitat over a range of flows. In 2005, the ISC started a multi-year habitat restoration program that implements several island, bar, and bank line modification techniques throughout the Albuquerque Reach. Phase II (Spring 2007) included modifications to a vegetated island channel and braided ephemeral channel complex immediately downstream of the Highway 550 Bridge to create silvery minnow nursery habitat. This project is now in its third Phase.

9. Bernalillo and Sandia Priority Site Projects: Reclamation's Bernalillo and Sandia Priority Site Projects are intended to protect the integrity of the east levee and canal system along the Albuquerque Reach of the Middle Rio Grande between the U.S. Highway 550 bridge and the northern boundary of the Pueblo of Sandia. The banks of the river have shifted close to the east levee and pose a potentially serious threat to project facilities and public health and safety. These projects create a secondary high flow channel, realign the main river channel, and install bendway weirs to reduce bank erosion threatening the levee. The Sandia Priority Site project was not implemented as proposed. Isolated pools that were created during construction did not remain wet. Instead, these isolated pools dried. Approximately 25,000 silvery minnow were moved from these pools to adjacent flowing water. Of these, 750 died. These levels exceeded the amount of incidental take that was issued for the project in 2006 (Cons. #22420-2006-F-039).

10. Middle Rio Grande Conservation District: Improvements to physical and operational components of the irrigation system since 2001 have contributed to a reduction in the total diversion of water from the Rio Grande by the MRGCD. Prior to 2001, average yearly diversions were 630,000 af. They now average 370,000 af. The change was possible because of the considerable efforts of MRGCD to install new gages, automated gates at diversions, and scheduling and rotation of diversions among water users. The new operations reduce the amount of water diverted; however, this also reduces return flows that previously supported flow in the river. The river below Isleta Diversion Dam may be drier than in the past, but small inflows may contribute to maintaining flows.
11. Pilot Water Leasing Project: The City of Albuquerque and Albuquerque Bernalillo County Water Utility Authority, with six conservation groups, established a fund in February 2007 that will provide the opportunity to lease water from Rio Grande farmers and have that water remain in the river channel to support the minnow. This program

supports the need for reliable sources of water to support conservation programs as identified by the Middle Rio Grande Endangered Species Collaborative Program (2004).

Summary

The remaining population of the minnow is restricted to approximately 5 percent of its historic range. The Angostura Reach represents less than 27% of the remaining occupied range. While river drying does not occur regularly in this reach, channelization, water withdrawals from the river and water releases from dams severely limit the survival of the minnow in this area. Augmentation of minnows with captive-reared fish will continue to support the population within the Angostura Reach; however, continued monitoring and evaluation of these fish is necessary to obtain information regarding the survival and movement of these individuals.

The consumption of shallow groundwater and surface water for municipal, industrial, and irrigation uses, in the Angostura Reach, continues to reduce the amount of flow in the Rio Grande and eliminate habitat for the minnow (U.S. Bureau of Reclamation 2003). Under state law, the municipal and industrial users are required to offset the effects of groundwater pumping on the surface water system. The City of Albuquerque, for example, has been offsetting their surface water depletions with 60,000 afy returning to the river from the WWTP (U.S. Bureau of Reclamation 2003). The effect of water withdrawals means that discharge from WWTPs and irrigation return flows will have greater importance to the minnow and a greater impact on water quality. Lethal levels of chlorine and ammonia have been released from the WWTPs in the last several years. In addition, a variety of organic chemicals, heavy metals, nutrients, and pesticides have been documented in storm water channels feeding into the river and contribute to the overall degradation of water quality.

Various conservation efforts have been undertaken in the past and others are currently being carried out in the middle Rio Grande. Minnow abundance has increased over 2002-2003 population levels. However, the threat of extinction for the minnow continues because of increased reliance on captive propagation, the fragmented and isolated nature of currently occupied habitat, and the absence of minnows in other parts of the historic range.

EFFECTS OF THE ACTION

Direct and indirect effects of the action were described in the June 2006 BO. Additional unanticipated effects from the drying of isolated pools in September and October 2007 are described below.

Direct Effects

The drying of isolated pools results in the direct mortality of minnows. The combination of low dissolved oxygen and high water temperatures in drying pools can be lethal to minnows. Changes in pH, salinity, carbon dioxide, and ammonia increase the vulnerability of minnows to changes in dissolved oxygen, or can be lethal on their own. Additionally, fish trapped in isolated

pools may be eaten by predatory fish also trapped in the pool or by terrestrial and avian predators.

The indirect effect of river drying is reduced fitness associated with increased stress. As water quality in isolated pools decreases, minnows trapped in those pools become increasingly susceptible to viral, bacterial, or fungal infections, as well as internal and external parasites. Even if they survive the drying event, minnows may die sooner or experience reduced reproduction (smaller or fewer eggs) as a result of isolation or the stress of handling during salvage.

Cumulative Effects

Cumulative effects include the effects of future state, tribal, local or private actions that are reasonably certain to occur in the action area considered in this BO. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to Section 7 of the Act. Cumulative effects include:

- Increases in development and urbanization in the historic floodplain that result in reduced peak flows because of the flooding threat. Development in the floodplain makes it more difficult, if not impossible, to transport large quantities of water that would overbank and create low velocity habitats that minnows prefer.

- Increased urban use of water, including municipal and private uses. Further use of surface water from the Rio Grande will reduce river flow and decrease available habitat for the minnow.

- Contamination of the water (i.e., sewage treatment plants, runoff from small feed lots and dairies, and residential, industrial, and commercial development). A decrease in water quality and gradual changes in floodplain vegetation from native riparian species to non-native species (i.e., saltcedar) could adversely affect the minnow and its habitat. Minnow larvae require shallow, low velocity habitats for development. Therefore, encroachment of non-native species results in less habitat available for the minnow.

- Human activities that may adversely impact the minnow by decreasing the amount and suitability of habitat include dewatering the river for irrigation; increased water pollution from non-point sources; habitat disturbance from recreational use, suburban development, and removal of large woody debris.

- Wildfires and wildfire suppression in the riparian areas along the Rio Grande may have an adverse affect on the minnow. Wildfires are a fairly common occurrence in the bosque (riparian area) along the Rio Grande. Although fire retardant, which is toxic to aquatic species, is generally not used in close proximity to the Rio Grande, other fire suppression techniques, such as scooping water from the Rio Grande in large buckets, may harm minnows. Minnows could potentially be scooped up along with the water and dropped onto burning areas.

- The effect global warming may have on the minnow is still unpredictable. However, mean annual temperature in Arizona increased by 1 degree per decade beginning in 1970 and 0.6 degrees per decade in New Mexico (Lenart 2005). In both New Mexico and Arizona the warming is greatest in the Spring (Lenart 2005). Higher temperatures lead to higher evaporation rates which may reduce the amount of runoff, groundwater recharge, and consequently spring discharge. Increased temperatures may also increase the extent of area influenced by drought (Lenart 2003). The warming trend appears to have led to insect outbreaks in the Southwest with 1.9 million acres damaged in 2003 in Arizona and 860,000 acres affected in New Mexico (Lenart 2003). Increased numbers of dead trees can increase the risk and intensity of forest fires which could lead to increased impacts to watersheds, streams, and springs.

The Service anticipates that these conditions and types of activities will continue to threaten the survival and recovery of the minnow by reducing the quantity and quality of habitat through the continuation and expansion of habitat degrading actions.

CONCLUSION

After reviewing the current status of the minnow, the environmental baseline for the action area, the effects of the proposed action, and cumulative effects, it is the Service's biological opinion that completing the Project, in a manner that is consistent with the February 2006 BA is not likely to jeopardize the continued existence of the minnow. The Project will create adverse effects to the minnow and its food base, which are assumed to be present in the main channel construction zone, through the use of heavy equipment within the active channel, and placement of fill material in the wetted channel of the Rio Grande.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by Reclamation so that they become binding conditions of any grant or permit issued, as appropriate, for the exemption in section 7(o)(2) to apply. The action agency has a continuing duty to regulate the activity covered by this incidental take statement. If Reclamation (1) fails to assume and implement the terms and conditions or (2) fails to require adherence to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Reclamation must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement. [50 CFR §402.14(i)(3)]

Amount or Extent of Take Anticipated

The Service has developed the following incidental take statement based on the premise that the Project will be implemented as proposed. Take is expected in the form of harm and harass during: (1) the use of heavy equipment within the channel and crossing the active channel of the Rio Grande; and (2) placement of fill materials directly into the wetted channel of the Rio Grande.

Estimates of incidental take in the June 2006 BO were based on Spring 2006 data. Since construction activities occurred in 2007, these numbers should have been revised to reflect increases in catch rates in the action area (Dudley at al. 2006 and 2007). Using October 2007 data, a time that corresponds to the work period during which isolated pools were created, and using the methodology provided in the June 2006 BO, direct take due to the project would be estimated at 539 minnows and an additional 53,853 minnows would be harassed by construction activities. With these more current calculations, isolated pools and transport of fish resulted in levels of harassment consistent with the population status in the project area. The amount of direct mortality, however, has already exceeded anticipated levels of incidental take.

Effect of the Take

The Service has determined that this level of anticipated take is not likely to result in jeopardy to the minnow. Recent sampling data have shown significant increases in numbers of minnows throughout the occupied range. The Project is a small area located within occupied habitat, so overall impacts on the population will be minimal over the long term. Implementation of the measures stated below will ensure no further mortality at the Project.

Reasonable and Prudent Measures

The Service believes the following Reasonable and Prudent Measures (RPMs) are necessary and appropriate to minimize impacts of incidental take of the minnow due to activities associated with the Project.

1. The remaining work in the wet includes filling a 1,000 by 300 foot channel. This channel may only be filled by pushing earth material into the main channel with bulldozers from

the upstream to downstream direction; this may be done from only one side or from both sides simultaneously. Open water downstream of the construction area must be maintained; berms that isolate the wetted channel may not be created.

2. During the period that construction is taking place, Reclamation shall provide weekly updates to the Service and the Pueblo of Sandia (via e-mail) on construction activities for the remainder of the Project. These updates will describe progress toward filling the channel, the schedule for reconnecting the main channel, general observations of fish in the wetted area, and any unanticipated changes in Project implementation.

The amount of direct mortality has already exceeded anticipated levels of incidental take. Therefore, Reclamation shall implement the following additional measures to alleviate the effects of take at the Project.

3. To further improve conditions for the minnow on Pueblo of Sandia land, Reclamation shall work with Pueblo of Sandia staff to develop an appropriate project that supports tribal activities related to minnow conservation.

4. Reclamation shall transfer funding in the amount of $5,000 to the Pueblo of Sandia in support of Measure 3 above. Reclamation may complete construction activities related to the Project, prior to the transfer of funds, but only after approval by the Pueblo of Sandia has been granted to finish work in the wet.

RE-INITIATION NOTICE

This concludes formal Project consultation on the action(s) described. As provided in 50 CFR § 402.16, re-initiation 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 designated critical habitat in a manner or to an extent not considered in this draft biological opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or designated critical habitat not considered in this draft biological opinion; (4) adaptive management that includes additional earth work is needed to repair or maintain the project after the initial construction phase; or (5) a new species is listed or critical habitat designated that may be affected by the action. In instances where the

amount or extent of incidental take is exceeded, any operations causing such take must cease pending re-initiation.

Reclamation has committed to increased communication with the Service and improved onsite monitoring of construction activities to minimize the likelihood of any future stranding of fish in isolated pools. The Service appreciates Reclamation's proactive approach to resolving problems when they arise as well as continued diligence and coordination on all river maintenance projects.

If you have any questions or would like to discuss any part of this biological opinion, please contact Jennifer Parody of my staff at (505) 761-4710.

Wally Murphy

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Environmental Director, Pueblo of Sandia, Bernalillo, New Mexico (Attn: Alex Puglisi)