



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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Cons. # 22420-2009-F-0089-R001

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 *Wally*

Subject: Amendment to the U.S. Fish and Wildlife Service's Biological Opinion on the Effects of the Pueblo de San Felipe Priority Sites Phase I Project, Middle Rio Grande Proposed by the Bureau of Reclamation

This document transmits an amendment to the U.S. Fish and Wildlife Service's (Service) December 17, 2009, biological opinion (2009 BO) on the effects of the action associated with the Pueblo de San Felipe Priority Sites Phase I Project (Project) in the Middle Rio Grande. The project is proposed by the Bureau of Reclamation (Reclamation) as part of its river channel maintenance activities, and includes a proposed redesign at river mile 215.5, compared with the initial design for that site addressed in the 2009 BO. This amendment is pursuant to your request dated July 13, 2012, and evaluates the effects of the revised action at RM 215.5 on the endangered Rio Grande silvery minnow (*Hybognathus amarus*) and its designated critical habitat. This amendment also provides modified language for the Incidental Take Statement (ITS) to address the new effects involved with the redesign.

This amendment to the 2009 BO is based on information submitted by Reclamation via email on July 13, 2012, and the description of the proposed project redesign at RM 215.5 is incorporated here by reference. All content of the 2009 BO continues to apply, except where modified below. A complete administrative record of this consultation, including this amendment, is on file at the Service's New Mexico Ecological Services Field Office (NMESFO).

Effects on Silvery Minnow

In addition to the effects analysis provided in the 2009 BO, the redesign of the project at RM 215.5 requires the following additional analysis to be included, as provided here. The modification to the project at RM 215.5 includes (a) eliminating the six pedestrian access ramps, riprap toe, bioengineering bankline, and riprap bank protection addressed in the 2009 BO, (b) adding a Longitudinal Fill Stone Protection (LFSTP) with tiebacks (keys and vanes) and bioengineering of pole planting and bank re-grading, (c) adding river crossings, and (d) adding additional dewatering and removal of any fish by seining and relocating to the main river channel.

For changes (a) and (b) referenced above, the construction area of disturbance, as well as the staging areas, (footprint) for the redesign are the same as the areas addressed in the 2009 BO. A side-by-side comparison by Reclamation of the original project with the proposed redesign at this site shows that expected and maximum quantities of various activities (where effects to silvery minnow could occur), would be the same or less than what was analyzed in the 2009 BO. The types of effects from these activities where they occur in water or result in in-water disturbance is the same as that addressed in the 2009 BO (e.g., flight response and sustained avoidance resulting in take by harassment; risk of effects from change in water quality by placing materials in river and avoidance response). Conservation measures implemented during the construction and river crossings – including BMPs for equipment operation, re-fueling, and spill prevention measures – are expected to continue to minimize the risk of effects on silvery minnows. In addition, the applicable work window with no in water activities in May and June (runoff) will help minimize adverse effects on pre-spawn and spawning adult silvery minnows, as well as YOY during early growth. Given the mobility of silvery minnows, the limited area affected, and the timing of the proposed in-water activities, we do not expect the avoidance response – or the timing of that response relative to the species' life history – will lead to any long-term significant effects on silvery minnow behaviors such as breeding, feeding, or sheltering.

For change (c) referenced above, according to information provided by Reclamation, the combined acreage of river crossings for the entire action, including the additional river crossings for the RM 215.5 redesign, would not be greater than the amount estimated in the 2009 BO. As a result, the river crossings will not result in a change to the manner or extent of effects on silvery minnow addressed in the 2009 BO, nor the expected extent of incidental take that would occur.

For change (d) referenced above, the effects of seining and relocating silvery minnows from dewatered areas was not addressed in the 2009 BO and is a new effect resulting from the project redesign at RM 215.5. The total area that would be dewatered and seined for silvery minnow and other fish is calculated from the length of the radial gates extending 60 ft (18 m) out from the bank, along approximately 2,100 ft (640 m) of bankline. This results in approximately 2.9 acres (0.01 km²) where silvery minnows would be seined and water pumped out of that location. The pumping of river water out of the dewatered locations has the potential to result in adverse indirect effects to silvery minnows – for example, if it results in a reduction in flows or reduces available habitat. However, based on information from Reclamation, pumped water would be returned back to the river as close to each excluded area as possible, with no impacts on flow levels.

The Service estimates for its seining activities in isolated pools, anywhere from 50 to 99 percent of the silvery minnows that may occur in that pool can be retrieved (U.S. Fish and Wildlife Service 2012), with success rates varying according to pool complexity. As the dewatered areas for the proposed action at RM 215.5 will be small in size and of low complexity, we assume success rates will be on the higher end of this range and that if a silvery minnow is located in the isolated pool, it will be retrieved by seining and relocated to the river. Effects on the silvery minnow from this activity include stress and handling during their capture and translocation to the river. Because of the low density of this species in the action area and the lack of recent data on species presence, it is not possible to estimate the number of individuals that might be affected during seining and relocation. Based upon the proposed project and information provided by Reclamation, it is estimated that harassment and some

harm of silvery minnows will occur during seining and relocation over a footprint of approximately 2.9 acres (0.01 km²). Although we expect a very low likelihood of minnow presence due to very low assumed densities in the action area, we anticipate that some individual silvery minnows may be taken in the form of harassment and harm within this footprint. This seining is conducted to help minimize the effects of the action on silvery minnow. Given that this take is occurring as the intended purpose of the seining activity, this take would be attributed to the applicable ESA section 10(a)(1)(A) permit and not the ITS for this consultation (see *Amendment to ITS* below).

Effects on Critical Habitat

The effects of the action described in the 2009 BO still applies to the project redesign. Some of the primary constituent elements of silvery minnow critical habitat will be adversely affected by the proposed action. Specifically, the proposed action maintains a bankline which has confined the channel, increased water velocities and prevented the formation of backwaters, embayments and other slow velocity habitat in the project area. This habitat is necessary for development and hatching of eggs and the survival of the species from larvae to adult. Low-velocity habitat provides food, shelter, and sites for reproduction, which are essential for the survival and reproduction of Rio Grande silvery minnow. In addition, the proposed action may temporarily affect water quality within the anticipated disturbance zone. Specifically, the proposed action will disturb sediment due to equipment operation, river crossings, and placement of materials in the channel. This may temporarily adversely affect water quality within the anticipated disturbance zone.

However, we continue to find that the effects of the proposed action on the function and conservation role of silvery minnow critical habitat relative to the entire designation are not significant because the effects will be temporary and occur over a very small area relative to the overall critical habitat designation. The area affected is expected to be minimized due to project design and conservation measures in place during the proposed action (e.g., water quality monitoring, construction BMPs) that will restrict this disturbance and minimize the risk to PCEs of critical habitat. Therefore, we conclude that the primary constituent elements of silvery minnow critical habitat will continue to serve the intended conservation role for silvery minnows with implementation of the proposed action.

Conclusion

After reviewing the proposed redesign of the proposed action at RM 215.5, and any relevant changes to the effects on silvery minnow and its designated critical habitat compared to the 2009 BO, the Service's conclusion regarding the proposed action has not changed. It is the Service's biological opinion that the Pueblo de San Felipe Priority Sites Phase I Project in the Cochiti Reach of the Middle Rio Grande, with the redesign as proposed by Reclamation in the July 2012 correspondence, is not likely to jeopardize the continued existence of the silvery minnow. We expect the level and type of take associated with this project is unlikely to appreciably diminish the population in the Cochiti Reach, or the species as a whole. We expect harassment of minnows may occur, but the duration and intensity of this effect will be short-term, with no long-term significant effects on silvery minnow behaviors such as breeding, feeding, or sheltering. Any risk of more serious effects or repeated harassment is minimized due to measures employed during the proposed activities. We expect some

very low level of harm may occur during seining activities whose intent to help minimize the effects of the action on silvery minnow. We expect this to affect a very low number of silvery minnow, if any, and over a small area, with no population-level effects expected.

We found that the proposed action has the potential to cause adverse effects to designated critical habitat for the silvery minnow. However, we anticipate that these effects on critical habitat will be short-term, will not affect the function and intended conservation role of critical habitat relative to the overall designation, and therefore will not result in the adverse modification of silvery minnow critical habitat. The conservation measures included in the BA and provided by Reclamation during consultation with the Service are expected to help minimize adverse effects to the silvery minnow and its designated critical habitat.

Amendment to ITS

The proposed redesign will occur within the footprint assessed in the 2009 BO. In evaluating the new activities to be conducted as part of the RM 215.5 redesign, the only new effects to the silvery minnow come from seining and relocation in dewatered areas. Therefore, the take from seining and removal of any silvery minnows found in areas to be temporarily dewatered during the proposed action is take that is the intended purpose of those actions, and therefore, would be authorized under the applicable ESA section 10(a)(1)(A) permit. Permitted biologists would conduct this work (Y. Paroz, Reclamation, pers. comm. July 17, 2012). The amended ITS will reflect this modification (see attached).

RE-INITIATION NOTICE

This concludes re-initiation of formal consultation on the Pueblo de San Felipe Priority Sites Phase I Project, Middle Rio Grande Proposed by the Bureau of Reclamation, and the modification to the proposed action at RM 215.5 as described in the July 13, 2012, correspondence from Reclamation. 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 critical habitat in a manner or to an extent not considered in this BO; (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 BO; or (4) 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.

In future correspondence on this project, please refer to consultation number 22420-2009-F-0089-R001. If you have any questions or would like to discuss any part of this biological opinion, please contact Jen Bachus of my staff at (505) 761-4714.

Wally Murphy

cc:

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Norman Jojola, Bureau of Indian Affairs, Northern Pueblos Agency, Española, NM

LITERATURE CITED

U.S. Fish and Wildlife Service. 2012. Biological opinion on the effects of the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) North Diversion Channel embayment project. January 3, 2012. U.S. Fish and Wildlife Service, Albuquerque, New Mexico. 83p.

INCIDENTAL TAKE STATEMENT

Section 9 of the ESA and federal regulation pursuant to section 4(d) of the ESA 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 ESA 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 the applicant so that they become binding conditions of any Federal grant or permit issued, as appropriate, for the exemption in section 7(o)(2) to apply. Reclamation 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 Reclamation's Pueblo de San Felipe Priority Sites Phase I Project in the Cochiti Reach will be implemented as proposed. Take of silvery minnows is expected in the form of harassment due to the proposed river maintenance activities, and is restricted to the action as proposed. If actual incidental take meets or exceeds the predicted level, Reclamation must reinitiate consultation.

Based on the best available information concerning the silvery minnow, the habitat needs of this species, the project description, and information furnished by Reclamation, take is considered likely for the silvery minnow during the proposed action. Nevertheless, because of the low density of this species in the action area, the lack of recent data on species presence, the difficulty of detecting harassment of a small fish underwater, and the expectation that no other form of take will occur (e.g., no mortalities or injuries that might be more detectable), it is not possible to estimate the number of individuals that will be taken with implementation of this project. Based upon the proposed project, it is estimated that harassment of silvery minnows will

occur in occupied habitat over a footprint of approximately 63.2 acres (255,761 m²). Although we expect a low likelihood of minnow presence due to low densities in the action area, we anticipate that some individual silvery minnows will be taken in the form of harassment within this footprint.

Adverse effects to silvery minnows associated with localized dewatering in the action area include those from seining and relocating silvery minnow to the main river channel. Because these effects are the intended purpose of those activities, this take is attributed to the applicable ESA section 10(a)(1)(A) permit. Therefore, this aspect of the proposed action is not considered incidental take and is not covered by Reclamation's incidental take statement for the San Felipe Priority Sites Phase I Project.

The Service notes that this represents a best estimate of the extent of take that is likely during the proposed action. Thus, estimated incidental take may be modified from the above should population monitoring information or other research indicate substantial deviations from the estimated extent of incidental take, or if it allows for a calculation of the amount of take that will occur. In this case further consultation may be necessary.

Effect of Take

The Service has determined that this level of anticipated take is not likely to result in jeopardy to the silvery minnow. The river maintenance project is likely to have adverse effects on individual silvery minnows but those effects are not anticipated to result in any long-term consequences on the population. Incidental take will result from harassment of minnows during construction activities.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of the silvery minnow resulting from the proposed action:

1. Minimize take of silvery minnows due to the proposed river maintenance activities.
2. Continue to work collaboratively with the Service on the Middle Rio Grande Endangered Species Act Collaborative Program.

Terms and Conditions

Compliance with the following terms and conditions must be achieved in order to be exempt from the prohibitions of section 9 of the ESA. These terms and conditions implement the Reasonable and Prudent Measures (RPMs) described above. These terms and conditions are non-discretionary.

To implement RPM 1, Reclamation shall:

1. Ensure that all river maintenance work is conducted within the timeframes described in this biological opinion, including no in-water work during spring runoff (May and June).
2. Ensure that conservation measures described in this biological opinion are implemented, including those pertaining to equipment and operations, staging and access, dust abatement, water quality, and others.
3. Monitor presence/absence of silvery minnows at construction sites, and use adaptive management to modify activities and minimize adverse effects.
4. Report to the Service findings of injured or dead silvery minnows.
5. Report to the Service the results of all monitoring efforts, including the results of fisheries and vegetation monitoring.
6. Monitor the implementation of RPM1 and associated Terms and Conditions.

To Implement RPM 2, Reclamation shall:

1. Work to further conduct habitat/ecosystem restoration projects in the Middle Rio Grande to benefit the silvery minnow.