

Our Response: Water rights in the middle Rio Grande are not adjudicated and much of the water uses are not metered (Whitney *et al.* 1996). Adjudicating water rights (*i.e.*, a judicial determination and definition of water rights within a river system that quantifies and establishes the legal right to use water) in the middle Rio Grande would, in conjunction with a metering program, allow for improved administration of water rights and improved water management (Whitney *et al.* 1996). However, an adjudication may not be completed for the middle Rio Grande in the foreseeable future.

The State Engineer of New Mexico has indicated that as water markets begin to develop in the state, there will be a natural tendency to attempt to transfer paper water rights (New Mexico Office of the State Engineer 2001). The State Engineer is charged with water rights adjudications (New Mexico Office of the State Engineer 2001). The existing adjudication system is being examined to allow the entire State to be adjudicated (New Mexico Office of the State Engineer 2001). Moreover, the State Engineer of New Mexico has three criteria that must be met in order for state law water rights to be transferred: (1) The right must be valid, with a valid priority date; (2) the water must be put to beneficial use; and (3) the transferred water right must not impair the rights of others, including compact deliveries. For these reasons, we believe that the sale or lease of water rights will result in the delivery of "wet water."

(73) *Comment:* The prevailing price of water rights in the middle Rio Grande will substantially increase when more than 40,000 af water rights are sold and removed from the water rights market.

Our Response: The price of water rights is significantly affected by the type of buyer (*e.g.*, municipal, private, Federal/State) and has increased in NM over the last several decades (Brookshire *et al.* 1999). However, water markets remain highly localized, with significantly different prices in each market. Nevertheless, the value used in the economic analysis reflects the current price of water rights resulting from the voluntary acquisition of supplemental water. We expect these types of voluntary programs to continue, and do not anticipate that the amount of supplemental water (*i.e.*, demand) in previous consultations (*e.g.*, Service 2001b) will increase because critical habitat is designated. In addition, please see response to comment 57 for information related to this particular issue.

(74) *Comment:* The economic analysis does not explain why a 20-year time period was selected.

Our Response: The economic analysis stated that activities occurring greater than 20 years in the future are difficult to predict, and the outcomes of such activities are even more uncertain. The 20-year time horizon was selected because population forecasts as well as local and regional planning documents use similar time horizons.

(75) *Comment:* The economic analysis does not explicitly address whether the benefits of excluding a particular reach outweigh the benefits of including the reach as critical habitat.

Our Response: We use the economic analysis and other relevant information to conduct analyses under section 4(b)(2) of the Act. If relevant to a particular critical habitat designation, these considerations are included in the final rule (50 CFR 424.19). For a detailed discussion, *see* the "Exclusions Under Section 4(b)(2) of the Act" and "Relationship of Critical Habitat to Pueblo Lands under Section 3(5)(A) and Exclusions Under Section 4(b)(2)" sections below.

Summary of Changes From the Proposed Rule

In the development of this final designation of critical habitat for the silvery minnow we made several changes to the proposed critical habitat designation based on our review of public comments received on the proposed designation, the draft economic analysis, and the draft EIS and further evaluation of lands proposed as critical habitat. As discussed in the "Relationship of Critical Habitat to Pueblo Lands Under Section 3(5)(A) and Exclusions Under Section 4(b)(2)" section of this final rule, we evaluated the lands proposed as critical habitat for the Pueblos of Santo Domingo, Santa Ana, Sandia, and Isleta. Because each of these Pueblos submitted management plans that provide for special management considerations or protections for the silvery minnow and because of other relevant issues, (*see* "Relationship of Critical Habitat to Pueblo Lands Under Section 3(5)(A) and Exclusions Under Section 4(b)(2)" section below), these lands were not included in the final critical habitat designation.

The downstream boundary of critical habitat differs from that described in the proposed rule. In the proposal, the boundary was Elephant Butte Reservoir Dam, with the reservoir specifically excluded by definition (June 6, 2002; 67 FR 39206). However, in this final rule, we selected the utility line crossing the

Rio Grande with UTM coordinates of UTM Zone 13: 311474 E, 3719722 N, just east of the Bosque Well demarcated on USGS Paraje Well 7.5 minute quadrangle (1980). This downstream boundary of critical habitat was selected because it is a permanent identified landmark that is found on a standard topographic map. The area below this boundary (*i.e.*, from the utility line downstream to Elephant Butte Reservoir Dam) has the potential to be inundated by the reservoir and may not provide those physical or biological features essential to the conservation of the species and is therefore not designated as critical habitat.

During the open comment period, the BOR provided GIS maps that identified the utility line crossing the Rio Grande with UTM coordinates of UTM Zone 13: 311474 E, 3719722 N, just east of the Bosque Well demarcated on USGS Paraje Well 7.5 minute quadrangle (1980) (M. Porter, BOR, pers. comm., 2002). Consequently, we revised the boundary for the designation because we find that the area downstream of the utility line is not essential to the conservation of the silvery minnow and we believe that the boundary, as originally proposed, was confusing as evidenced by many commenters, including the Elephant Butte Irrigation District, the NMISC, and others.

We further reviewed existing information (Platanía and Dudley 2001a) to determine if the area from the designated critical habitat boundary to the headwaters of Elephant Butte Reservoir is essential to the conservation of the silvery minnow. For example, the location for the silvery minnow spawning study (Platanía and Dudley 2000, 2001a) is just downstream of the critical habitat boundary. The study location was selected to maximize the potential number of silvery minnow eggs collected by rescuing those eggs destined to drift into Elephant Butte Reservoir. Currently, if silvery minnow spawn in the area from the designated critical habitat boundary to the headwaters of Elephant Butte Reservoir, the floating eggs would enter the reservoir in just a few hours. Once the eggs and larvae enter the reservoir, they would be subjected to predation (Platanía and Dudley 2001a). We find that silvery minnow eggs and larvae in this reach contribute little to the survival or recovery of the species. Consequently, the area from the designated critical habitat boundary to the headwaters of Elephant Butte Reservoir is not essential to the conservation of the silvery minnow. Because of these reasons, we also believe that the exclusion of this area