

and Tribal trust resources within the area we are designating as critical habitat (*e.g.*, see Service 2001b). During consultation, measures taken to avoid destruction or adverse modification of critical habitat will likely be similar if not identical to what is currently required to avoid jeopardizing the silvery minnow. Consequently, we do not believe that critical habitat will result in requirements during consultation, and do not believe critical habitat will affect Indian Trust Assets.

(48) *Comment:* The Service completely omits Pueblos from the analysis under the Regulatory Flexibility Act.

*Our Response:* We are certifying that this final rule will not have a significant effect on a substantial number of small entities, including Indian Tribes and Pueblos (see "Required Determinations" section below).

(49) *Comment:* Critical habitat will require the maintenance of river flows which will adversely affect Pueblos by limiting the amount of water available. Pueblos may have substantial unused water rights. If critical habitat limits depletions, the designation would disproportionately affect Pueblos.

*Our Response:* We do not anticipate that the designation of critical habitat will alter the administration of the supplemental water program. Thus, delivery of water to middle Rio Grande contractors and Pueblos is ensured (BOR 2001c). Environmental justice-related impacts of preferred alternatives for critical habitat designation are discussed in Chapter 4 of the EIS. Nothing in the final rule or the EIS is intended to preclude new depletions resulting from the exercise of senior Indian water rights. In addition, please see response to comment 48 for information related to this particular issue.

#### Issue 4: Other Relevant Issues

(50) *Comment:* The Service has continued to ignore the economic consequences of designating critical habitat for the silvery minnow on the Pecos River.

*Our Response:* The Pecos River is not designated as critical habitat for the silvery minnow.

(51) *Comment:* In the Economic Analysis, why is it assumed that all the water required to meet supplemental flows will all come from NM agriculture? The Rio Grande flows through three states, so why will the burden of ensuring the survival of the silvery minnow be placed upon the water users in the middle Rio Grande? Are interstate water rights transfers (*i.e.*,

sale or lease) possible under existing Federal or State law?

*Our Response:* The Economic Analysis assumed that water resources in NM are limited, which is demonstrated by an active market in which water rights move between willing buyers and sellers within the confines of State and Federal regulations. From 1976 to 2000, the purchasers of water rights in the middle Rio Grande were generally municipalities (61 percent of purchasers); however, other sectors participate as buyers in this market as well. During the same time frame, the sellers of water rights in the middle Rio Grande were primarily agriculture (90 percent of sellers) reflecting the fact that the majority of the water rights (as measured by total volume of water reflected in these rights) are currently held in the agriculture sector. Given these data, it was assumed that any water provided to the silvery minnow by supplementing present water flow conditions would come from currently held irrigation water rights because these tend to have greater flexibility than water rights for municipal or commercial uses. Thus, the economic analysis focused on the area within the middle Rio Grande for providing supplemental water, and did not consider interstate transfers of water. In general, our economic analyses consider the impacts within the geographic area being proposed as critical habitat. For example, in this case the economic analysis considered the area proposed as critical habitat in the middle Rio Grande, as well as the other two areas found to be essential to the conservation of the minnow (*i.e.*, middle Pecos River and Lower Rio Grande). While interstate water rights transfers (*i.e.*, sale or lease) may be possible under existing Federal or State law, we concluded that such transfers were beyond the scope of our economic analysis.

(52) *Comment:* The Economic Analysis severely underestimates the costs associated with providing 40,000 af of supplemental water because it did not estimate transaction costs associated with the purchase or lease of water rights.

*Our Response:* Easter *et al.* (1999) found that transaction costs associated with purchase or lease of water rights must be kept low for an effective water market. For example, they estimated that transaction costs range from about \$17 to \$190 per af. Another example indicates that a 10 percent commission is common for completing the sale or lease of a water right in NM (Turner 2002a; <http://www.waterbank.com/Agreements/>

[Agency%20Agreement.htm](#)). Based on these and other data, the final Economic Analysis estimates that the average transaction cost is likely \$333 and \$183 for the Rio Grande and Pecos, respectively. Consequently, the estimated transaction costs would be approximately 7 to 10 percent of the total price of an acre-foot. These estimates do not change our required determinations below.

(53) *Comment:* The Service should have used the Upper Rio Grande Water Operations Model (URGWOM) to determine the amount of supplemental water to meet the target flow of 50 cfs at the San Marcial Floodway gage. The Service did not use the best scientific and commercial data available because you failed to engage the State of New Mexico and use their expertise, data, and models.

*Our Response:* On September 5, 2001, we invited the NMISC to participate in the development of the EIS as a cooperating agency. On October 3, 2001, the NMISC accepted our invitation. On April 9, 2002, the Service requested the expert review of the preliminary predecisional draft EIS and preliminary predecisional draft economic analysis from the NMISC, as a cooperating agency. We requested the review because the NMISC has jurisdiction by law or special expertise over water resources and environmental impacts involved with the Service's action of designating critical habitat. We specifically requested that the review focus on the accuracy of information and analyses as described in the draft documents. On April 25, 2002, the NMISC requested additional information from the Service and our contractors. During the open comment period for the proposed rule, we met on July 2 and 22, 2002, with the NMISC to further coordinate the designation of critical habitat and clarify the additional information requested. Nevertheless, we could not rely on data from URGWOM to develop the final rule because the information has yet to be submitted.

A focal point of discussions with the NMISC was the use of URGWOM for estimating the amount of supplemental water needed to maintain flows in the middle Rio Grande. During these meetings and in a July 16, 2002, letter, we indicated that on the basis of discussions between our contractor and the NMISC, and according to the May 9, 2002, notes from the URGWOM Steering Committee meeting, we understood that URGWOM was still being calibrated and validated. It was also our understanding that URGWOM and the relevant input and output data have not been tested by all the cooperating agencies for the