

Chapter IV

ENVIRONMENTAL COMMITMENTS AND MITIGATION MEASURES



I. Environmental Commitments and Mitigation Measures

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This chapter discusses potential environmental commitments associated with modifying the operations of Navajo Dam and Reservoir to implement the 250/5000 Alternative (Flow Recommendations) (Preferred Alternative). It also includes a discussion of mitigation measures that have been developed or discussed in consultation with cooperating agencies.

Reservoir Operations

Under the Preferred Alternative, releases would range from 250 cfs to 5,000 cfs. A spring peak release of 5,000 cfs is planned for most years. The summer, fall, and winter releases could be as low as 250 cfs to support a target flow in the San Juan River downstream of Farmington of at least 500 cfs for endangered fish habitat and to conserve water for spring releases and for water development. Minimum releases would not be less than 250 cfs.

These releases would also help maintain a minimum 500 cfs flow downstream of Bluff, Utah, benefitting river rafting. All releases would be made within the operational limitations/constraints of Navajo Dam. Release changes would be limited to increments of 200 cfs or 10 percent of flow, whichever is higher, every 2 hours. Reclamation would continue a program to keep the public informed of release rates from Navajo Dam.

Some flexibility in reservoir releases exists because water committed for present or future development is not currently used. This may be a significant amount of water in any given year and would be released downstream until used for development. The release of this

water could be incorporated into operations to augment a 250 cfs minimum release while maintaining a target flow of at least 500 cfs downstream of Farmington. It also could be used to extend the duration of the spring peak release. The use of this additional water would be determined through the Navajo Unit operation meetings and discussions with the U.S. Fish and Wildlife Service (Service).

Fish and Wildlife

The Service's official recommendations will be contained in their Fish and Wildlife Coordination Act Report which will be included in the final environmental impact statement (FEIS). Preliminary input has been received from the Service. The Service has requested that Reclamation investigate enhancing trout habitat within the Special Regulation Waters downstream from Navajo Dam by creating pools and/or establishing in-stream structures. Other initial ideas involve monitoring of riparian and fishery resources, supporting the trout stocking program, and reducing impacts of future water developments.

The New Mexico Department of Game and Fish (NMDGF) has provided written recommendations for fish and wildlife resources including funding and assisting NMDGF in monitoring the trout fishery and its recreational use. Monitoring of native fishes downstream from the Citizens Ditch was recommended. Also, it was recommended by the NMDGF that Reclamation conduct detailed geomorphic studies of the trout fishery area and the native fish area to identify appropriate mitigation actions to reduce habitat losses. NMDGF also recommended that Reclamation work with both the Hammond Project water users and the Citizens Ditch to investigate fish passage at those diversions. It was suggested that Reclamation work with State agencies on a roundtail chub augmentation program for the San Juan River and its tributaries.

For riparian habitat, NMDGF suggested that cottonwoods be planted and protected in the trout fishery area and that flood plain modification be investigated in downstream areas to help restore cottonwoods. NMDGF expressed concerns with water quality impacts in the river reach upstream from Farmington and suggested comprehensive water quality monitoring studies designed to identify factors that may be impacting fish.

Reclamation has recognized in this draft environmental impact statement (DEIS) that the Preferred Alternative would have adverse impacts on certain resources including the trout fishery, recreation, water quality, and some riparian resources. The Preferred Alternative, however, is designed to help conserve endangered fish species and their habitat and has an overall effect of creating a more natural ecosystem.

Reclamation will commit to working with the resource agencies responsible for management of particular resources to implement measures to reduce adverse impacts of

implementing the Preferred Alternative; however, Reclamation will not take a lead responsibility in terms of funding or implementation. Reclamation believes that any mitigation measures that require funding and that are in response to implementing the Preferred Alternative should be shared by all parties that benefit from implementation of the Preferred Alternative. These parties would include participants in the San Juan River Basin Recovery Implementation Program (SJRBRIP) and other beneficiaries.

Indian Trust Assets

The Preferred Alternative would facilitate development of Indian trust water resources more than other alternatives considered. Positive impacts would occur for water projects which have received environmental clearance; potential negative impacts could exist for some future projects that have not received environmental clearance. However, this alternative has the best potential for future water development. As indicated in chapters II and III, Reclamation will continue active participation in the SJRBRIP. This program is key to facilitating additional water development by the Tribes/Nations.

Cultural Resources

The operation of Navajo Reservoir would have impacts on cultural resources under all alternatives. Reclamation is committed to including cultural resource impacts and programs in the resource management planning for the Navajo Unit. The initial goal in the resource management planning will be to prepare a Cultural Resource Management Plan to address impacts within the reservoir area.

Water Diversion Structures

Reclamation has a Technical Assistance to the States Program under which assistance can be provided in evaluating diversion structure designs in relation to river flow changes. For example, assistance has been provided to the Turley-Manzanaras Ditch in developing a preliminary design for its intake structure.
