

**Appendix N**

MEMORANDUM FROM THE SAN JUAN  
RIVER BASIN RECOVERY IMPLEMENTATION  
PROGRAM BIOLOGY COMMITTEE

**MILLER  
ECOLOGICAL  
CONSULTANTS  
INC.**

**MEMORANDUM**

Date: February 21, 2002

From: San Juan River Basin Recovery Implementation Program Biology Committee  
Bill Miller, Chairman *WJM*

To: Ed Warner  
Bureau of Reclamation

CC: SJR Biology, Hydrology, and Coordination Committees

Subject: Flexibility in San Juan Flow Recommendations during the irrigation season

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The flow recommendations developed by the San Juan River Basin Recovery Implementation Program (SJRIP) to aid the recovery of the endangered Colorado Pikeminnow and razorback sucker include a recommendation to maintain non-runoff flows in the San Juan River below the confluence with the Animas River between 500 and 1,000 cfs. The recommendations anticipated that this would be accomplished by adjusting flows from Navajo dam, including lowering releases to as low as 250 cfs, throughout the non-runoff flow period. Lowering flows to this level not only assists in maintaining optimum conditions for low velocity habitat, but conserves water, allowing water development to proceed while keeping sufficient water available in the reservoir to meet the flow recommendations during the runoff period.

Since water development in the basin is not yet at the level that requires the extra water derived by lowering flows below 500 cfs during the April – October irrigation season, the only reason to lower flows to 250 cfs during this period for the next several years is to maintain flows in the San Juan River below 1,000 cfs. At the request of Fish and Wildlife Service, the Biology Committee has evaluated the efficacy of adjusting releases from Navajo Dam to maintain flows below 1,000 cfs during the irrigation season.

A review of the hydrology during the irrigation season indicates that the times that flows would need to be reduced to maintain flow below 1,000 cfs occur only periodically, often due to storm-induced increases in flows in the Animas River and lower San Juan Rivers. These flow increases often occur for only a few days at a time. Since the lag time in the San Juan River from the dam to the habitat range is from 1.5 to 3.0 days and some response time is needed to adjust flows, it would be impractical to respond on a day-by-

day basis. Any period less than 5 days would be impossible to respond to and periods as long as 10 days may be impractical.

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With the unpredictable nature of the flow changes, the short duration of the events and the problems with response time, it appears that there would be a nearly negligible positive benefit to habitat improvement below the Animas confluence, requiring substantial extra effort in dam operation. The Biology Committee therefore acknowledges that some flexibility exists in meeting this upper limit of the non-runoff flow recommendation during the irrigation season. It may not be effective or necessary to lower releases below 500 cfs until water use in the basin increases to the point that the water is needed to meet runoff period recommendations.

This flexibility is extended only to the irrigation season as defined above and only until water development reaches the level that the additional water is needed for spring releases. The winter releases should be lowered to as low as 250 cfs during the non-irrigation months when necessary to maintain optimum low-velocity habit and conserve water for runoff period releases. When the non-runoff period flow target moves closer to 500 cfs, as is the case during increased water use in the basin, then it becomes practical to adjust flows during summer months as well as the winter months. We expect that Reclamation and the SJRIP Hydrology Committee will carefully monitor depletions in the basin in the future and implement flow reductions as the need arises to assure that the flow recommendations can be met.

