season to help determine which elevations within the storage space of Brantley Reservoir would be suitable for habitat creation. A site visit would also occur prior to the 2006 tern breeding season to view the operating pool of the reservoir and the 2004 tern nesting area location, and locate potential areas for habitat creation above the operation pool.

On January 5, 2006, subsequent to receiving Reclamation's amendment, NMESFO staff met with Reclamation to request additional information for this consultation. Reclamation was requested to provide the historic dates when block releases were received at Brantley Reservoir during the tern breeding season. There was also discussion about predictive information available on the number and timing of upstream block releases, and about the salt cedar clearing that was conducted on the shoreline of Brantley Reservoir in the vicinity of the 2004 tern nesting area. On January 19, 2006, NMESFO received a supplement to the amendment to the biological assessment for Pecos River Water Operations that addressed these additional requests for information on issues related to the terns at Brantley Reservoir.

BIOLOGICAL OPINION

I. Description of the Proposed Action

Reclamation's proposed action is storing and releasing water. The activities of Fort Sumner Irrigation District (FSID) are not part of the proposed action. Reclamation cannot store natural flow water that FSID is entitled to receive under its senior State water rights permit. Reclamation will not store any natural inflow that is needed to target a downstream objective of avoiding river intermittency (defined as 0 to 5 cubic feet per second (cfs)) as stated below. Therefore, Reclamation will only store natural flow water when such storage is allowed by State permit and when it is not needed to avoid intermittency. Reclamation's proposed action includes operating Sumner Dam in a manner that not only seeks to avoid jeopardizing the shiner, but also to conserve and protect the species under section 7(a)(1).

Consistent with these goals, Reclamation proposes the following:

A) Criteria for Diverting Water to Storage

1) Water needed to satisfy FSID's senior water right cannot be stored at Sumner or Santa Rosa Reservoirs.

2) When FSID requests water, as allowed under its water right, water needed to meet the downstream target of avoiding river intermittency will not be stored at Sumner or Santa Rosa Reservoirs if there is water available under the two-week flow calculation.

3) At all other times than those listed above, water will not be stored at Sumner or Santa Rosa Reservoirs if there is water available on a real-time basis as determined at the Puerto de Luna gage (PDL), and that water is needed to meet the downstream target of avoiding river intermittency.

B) Releasing Water from Storage

1) Releasing stored water for the beneficial purpose of irrigation in CID in a manner that does not constitute a wasteful use due to excessive losses through seepage and evaporation.

2) Manage the block release schedule from Sumner Reservoir to alleviate any river intermittency.

3) Targeting a minimum of 14 days between block releases from Sumner Reservoir.

C) Supplemental Water

There are two major criteria associated with Reclamation's Pecos River operations that supplement river base flows and avoid river intermittency. These are: a) Reclamation will not store water if it is needed downstream for shiner flows, and b) Reclamation will utilize its flexibilities to make block releases in a manner that will help avoid intermittency. For example, Reclamation will schedule block releases that will meet irrigation demand and will also alleviate the lowest of river flows. River intermittency has not occurred historically when the April 1 upstream reservoir storage has been at existing levels (Figure 3). The available water storage in 2006 is greater than 80,000 acre-feet (af) in both Santa Rosa and Sumner Reservoirs, whereas in 2002 through 2004 the available storage was less than 40,000 af. The relatively high storage in the upstream reservoirs this year provides more flexibility to manage block releases for shiners. In addition, Reclamation has and is undertaking numerous proactive supplemental water activities.

Reclamation first entered into a lease agreement with FSID in 2000 which provided for land fallowing. The current agreement, executed in 2002 and expiring in 2007, has resulted in an average of 930 acres (ac) of fallowed land over the past four years, which represents 15 percent of the average of the historically irrigated acreage of 6,100 ac. The 12 percent currently leased will therefore result in an estimated 12 cfs bypassed water for the shiner when the diversion is 100 cfs. Under optimal conditions this is anticipated to provide approximately 5 cfs at the Acme gage.

Additionally, Reclamation has established a fish conservation pool in Sumner and Santa Rosa Reservoirs, through a permit obtained from the New Mexico State Engineer. The Fish Conservation Pool is water stored in one or more reservoirs that is set aside to aid in the conservation of the shiner. The purpose of the water is to help maintain a continuous river. Five hundred acre-feet of Carlsbad Project water is stored in Sumner and/or Santa Rosa Reservoirs and replaced with 375 af pumped into Brantley Reservoir from wells located at Seven Rivers. Depending upon antecedent conditions and the amount of water released, approximately 1 to 6 cfs of the released water arrives at the Acme gage. The stored water can then be released downstream at any time of the year to maintain instream flows and avoid intermittency. Reclamation will pursue expanding the conservation pool into a water banking concept which would supply additional water from Sumner or Santa Rosa Reservoirs at critical times to avoid

intermittency and protect designated shiner critical habitat. Reclamation has already begun discussions of this option with irrigation districts and the State.

Since 2001, Reclamation has fallowed land leases with a variety of Pecos River water users totaling approximately 4,280 af, some with direct diversion water rights, and other with artesian well water rights. Additionally, one fallowed land lease for 1,180 af provides for delivery of water pumped from artesian wells directly to the Pecos River through a pipeline. This water is exchanged for surface water released upstream to provide instream flows to the critical habitat.

Reclamation provided supplemental information on March 8, 2006, in an electronic message to modify their proposed action to include the following:

1. "ESA 7(a)(1) activities that will be implemented to avoid river intermittency.
2. Coordination with the U.S. Fish and Wildlife Service and the New Mexico Department of Game and Fish to capture and hold Pecos bluntnose shiner in facilities at Dexter National Fish Hatchery."

With the existing upstream reservoir storage being greater than twice the three previous years and the activities described above (i.e., fish conservation pool and bypass flows), including managing block release schedules, Reclamation has sufficient resources to avoid river intermittency. In addition, if efforts to obtain lease agreements and groundwater exchange are successful there will be more flexibility to manage water operations and maintain continuous flows.

Reclamation is also proposing to fund and assist in the capture and holding of shiner in refugia. The refugia would provide a second shiner population should any unforeseen circumstances (e.g., disease, parasites) impact the wild population. It would also provide an opportunity to refine handling or develop propagation methodologies for shiners in captivity should future conditions warrant the need to expand the refugial population. The NMFRO would coordinate with the NMESFO the collection and transfer of approximately 250 shiners to the Dexter National Fish Hatchery and approximately 250 to the NMFRO. Using experienced crews supervised by the NMFRO, healthy shiners would be collected in spring 2006 when water quality (e.g., water temperature) is optimal and transferred to the Dexter facility and the NMFRO. Dexter and NMFRO would provide care and handling to maximize the survival of the translocated fish.

As part of the proposed action described in the amendment, Reclamation will continue to: 1) Monitor endangered terns to estimate the population size, nesting activity, and identify threats to the colony; 2) coordinate with the New Mexico Department of Game and Fish, New Mexico State Parks, and Eddy County officials to help prevent public access to the colony; 3) erect signs to restrict public access to the area; 4) discuss water management options with the Carlsbad Irrigation District to avoid flooding nests; and 5) informally consult with NMESFO on Reclamation's actions and the tern colony.