

to unoccupied river reaches must fully analyze and consider a variety of habitat management techniques, including the control or management of non-native fish. Consequently, we invited comments or information relating to the status of the plains minnow in the Pecos River and this area not being proposed as critical habitat. We were especially interested in observations of related species of *Hybognathus* and any behavioral or reproductive mechanisms that might provide for ecological separation in areas where two or more species of *Hybognathus* co-occur. We did not receive any additional information concerning this aspect of the designation.

Portions of the Pecos River include designated critical habitat for the Pecos bluntnose shiner (52 FR 5295). The Pecos bluntnose shiner critical habitat includes a 64 mi (103 km) reach of the Pecos River extending from a point 10 mi (16 km) south of Fort Sumner, NM, downstream to the De Baca and Chaves County line and a 37 mi (60 km) reach from near Hagerman, NM, to near Artesia, NM (52 FR 5295). There are current protections in place for the Pecos bluntnose shiner in the river reach from Sumner to Brantley Reservoirs on the Pecos River; consequently, we believe that the designation of critical habitat would provide little additional benefit for the silvery minnow above the current jeopardy and adverse modifications standards for the Pecos bluntnose shiner (see "Exclusions Under Section 4(b)(2) of the Act" section above).

The Pecos bluntnose shiner inhabits main-channel habitats with sandy substrates, low-velocity flows, and depths from 17 to 41 cm (7 to 16 in) (Hatch *et al.* 1985). Adult Pecos bluntnose shiners use main-channel habitats, with larger individuals found mainly in more rapidly flowing water (greater than 40 cm/sec, 1.25 ft/sec), but preferences for particular depths were not found (Hoagstrom *et al.* 1995). Young of the year use the upstream reaches between Sumner and Brantley Reservoirs, which provide shallow, low-velocity habitat. These reaches also maintain such habitat at high (bankfull) discharge, providing refugia from swift, deep water. Pecos bluntnose shiner and related mainstream cyprinids (e.g., silvery minnow) are adapted to exploit features of Great Plains rivers (Hoagstrom 2000). These fish species belong to the same guild of broadcast spawners with semibuoyant eggs and also spawn during high flow events in the Pecos River, with eggs and larvae being distributed downstream to colonize new areas (Bestgen *et al.* 1989).

The habitat features used by the Pecos bluntnose shiner are largely affected by ongoing Sumner Dam operations (e.g., block releases). Nevertheless, any flow regime operations in this reach that benefit the Pecos bluntnose shiner would also benefit the silvery minnow. We believe they could both occupy the same river reach in the future with little to no interspecific competition, in part because these species historically coexisted (Bestgen and Platania 1991) and microhabitat partitioning has been documented for related species of southwestern fish (Matthews and Hill 1980). Therefore, we believe that the primary constituent elements for the Pecos bluntnose shiner critical habitat (e.g., clean permanent water; a main river channel habitat with sandy substrate; and a low velocity flow (February 20, 1987; 52 FR 5295)) are compatible with our conservation strategy for repatriating the silvery minnow.

Lateral Extent of Critical Habitat

The critical habitat designation defines the lateral extent as those areas bounded by existing levees, or in areas without levees, the lateral extent of critical habitat is defined as 300 ft (91.4 m) of riparian zone adjacent to each side of the middle Rio Grande. Thus, the lateral extent of critical habitat does not include areas adjacent to the existing levees but within the 300-ft (91.4-m) lateral width outside the existing levees (*i.e.*, these areas are not designated as critical habitat, even though they may be within the 300-ft lateral width). This designation of critical habitat will not remove existing levees. We recognize that these areas can be important for the overall health of river ecosystems, but these areas have almost no potential for containing the primary constituent elements because they are separated from the river by the levees and are rarely inundated by water. Therefore, they are not included in the designation because we conclude they are not essential to the conservation of the silvery minnow. Nevertheless, these and other areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) of the Act, the regulatory protections afforded by the jeopardy standard in section 7(a)(2) of the Act, and take prohibitions in section 9 of the Act.

For each river reach within the middle Rio Grande, the upstream and downstream boundaries are described below. Critical habitat includes the river channels within the identified reaches and areas within these reaches potentially inundated during high-flow

events. Critical habitat includes the area of bankfull width plus 300 ft (91.4 m) on either side of the banks. The bankfull width is the width of the stream or river at bankfull stage (*i.e.*, the flow at which water begins to leave the channel and move into the floodplain (Rosgen 1996)). Bankfull stage, while a function of the size of the stream, is a fairly consistent feature related to the formation, maintenance, and dimensions of the stream channel (Rosgen 1996). This 300-ft (91.4-m) width defines the lateral extent of those areas we believe are essential to the species' conservation. Although the silvery minnow cannot be found in these areas when they are dry, these areas likely provided backwater habitat and were sometimes flooded in the past (Middle Rio Grande Biological Interagency Team 1993); therefore, they may provide habitat during high-water periods. As discussed in this section, we determined that the areas within the 300-ft (91.4-m) lateral width are essential to the conservation of the silvery minnow.

We determined the 300-ft (91.4-m) lateral extent for several reasons. First, the implementing regulations of the Act require that critical habitat be defined by reference points and lines as found on standard topographic maps of the area (50 CFR 424.12). Although we considered using the 100-year floodplain, as defined by the Federal Emergency Management Agency (FEMA), we found that it was not included on standard topographic maps, and the information was not readily available from FEMA or from the Corps for the areas we are designating. We suspect this is related to the remoteness of various river reaches. We received comments in relation to other sources of information (e.g., National Wetlands Inventory maps) to refine the lateral extent of critical habitat (see comments section above). After evaluating this information, we concluded that our designation accurately delineates the boundary of critical habitat. We selected the 300-ft (91.4-m) lateral extent, rather than some other delineation, for three reasons: (1) The biological integrity and natural dynamics of the river system are maintained within this area (*i.e.*, the floodplain and its riparian vegetation provide space for natural flooding patterns and latitude for necessary natural channel adjustments to maintain appropriate channel morphology and geometry, store water for slow release to maintain base flows, provide protected side channels and other protected areas for larval and juvenile silvery minnow, allow the river to meander within its