

New Mexico from the upper reaches of Avalon Reservoir north to 1 mile (mi.) (1.6 kilometers) (km.) above Santa Rosa. The Pecos River subspecies, *Notropis simus pecosensis*, is still extant in much of the Pecos River, but has severely declined in numbers. A 1982 study by the New Mexico Department of Game and Fish reported this fish in the Pecos River only from Fort Sumner to Artesia 175 mi. (282 km.). The largest collections were made from 22 mi. (35 km.) south of Fort Sumner to Roswell. Population estimates were not made, but the abundance of this species appeared to be substantially lower than in previous years. No specimens were found in the northern and southern regions of the historic range. The most important factor in the species' decline is reduced flow in the main channel of the river due to water storage, irrigation, and water diversion. Some stretches of the Pecos River are frequently dry downstream from impoundments. This rule will implement Federal protection provided by the Endangered Species Act of 1973, as amended, for *Notropis simus pecosensis*.

**EFFECTIVE DATE:** The effective date of this rule is March 23, 1987.

**ADDRESSES:** The complete file for this rule is available for inspection, by appointment, during normal business hours at the Regional Office of Endangered Species, U.S. Fish and Wildlife Service, 500 Gold Avenue, SW., Room 4000, Albuquerque, New Mexico 87103.

**FOR FURTHER INFORMATION CONTACT:** Mr. Gerald Burton, Endangered Species Biologist, U.S. Fish and Wildlife Service, Albuquerque, New Mexico (505/766-3972 or FTS 474-3972).

**SUPPLEMENTARY INFORMATION:**

**Background**

*Notropis simus* was first collected in 1874 in the Rio Grande near San Ildefonso, New Mexico, and was first described by Cope in 1875 (Cope and Yarrow 1875). It was originally thought that *Notropis simus* was a single species whose range extended throughout the entire Rio Grande to its mouth, and that there was an undescribed species of *Notropis* which occupied the Pecos River. However, in 1982, Chernoff *et al.* did extensive taxonomic analyses of the species and determined that *Notropis simus* actually consists of two subspecies. The first of these, *Notropis simus simus*, was historically found in the Rio Grande drainage from the Chama River, north of Santa Fe, New Mexico, downstream in the Rio Grande to El Paso, Texas. The other subspecies, *Notropis simus pecosensis*, was

historically found in the Pecos River from just north of the town of Santa Rosa, New Mexico, downstream to the town of Carlsbad, New Mexico. A third form, which was originally thought to be *Notropis simus*, was determined to be a related species, *Notropis orca* (phantom shiner), whose range historically overlapped with that of *Notropis simus* from near Isleta, New Mexico, downstream to El Paso. Additionally, *Notropis orca* occupied the remainder of the Rio Grande from El Paso downstream to its mouth. However, *Notropis orca* has been collected only once in the past 30 years, when a single specimen was taken in 1975 from the lower Rio Grande, and the species may now be extinct.

Because of various alterations to the Rio Grande and Pecos River systems, primarily the diversion of water from the streams and the construction of impoundments, both subspecies of *Notropis simus* have undergone significant decline. *Notropis simus simus*, which was common in the mainstream Rio Grande throughout the 1930's and 1940's and was sufficiently common in the 1940's to be used as a bait fish (Koster 1957), has not been collected since 1964. *Notropis simus pecosensis* is still extant throughout a large portion of its range, and is now known to occupy the mainstream Pecos River from near the town of Fort Sumner, New Mexico, downstream to the town of Artesia, New Mexico, a distance of 175 mi. (282 km.). However, habitat for the species in this stretch is spotty and often marginal, and the present numbers of *Notropis simus pecosensis* are much reduced. A 1982 survey done by the New Mexico Department of Game and Fish in the Pecos River found only 76 specimens of this subspecies in their single largest collection. This is in contrast to single collections of 1,482 specimens in 1939 and 818 specimens in 1944.

Lands along the Pecos River are primarily privately owned, with small areas of Bureau of Land Management (BLM) lands scattered along the Pecos River between Fort Sumner and Roswell, New Mexico. A small portion of the Pecos River flows through the Bitter Lakes National Wildlife Refuge. The water of the Pecos River is administered by the States of New Mexico and Texas through the Pecos River Compact. The U.S. Bureau of Reclamation (BR) and the Army Corps of Engineers (COE) operate dams on the river in accordance with the Compact.

*Notropis simus pecosensis* is a moderately large-sized shiner (adults reach lengths of up to 3.5 in. (9 cm.) of

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**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**Endangered and Threatened Wildlife and Plants; *Notropis simus pecosensis* (Pecos Bluntnose Shiner)**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** The Service determines a fish, *Notropis simus pecosensis* (Pecos bluntnose shiner), to be a threatened species and designates critical habitat for it under the authority contained in the Endangered Species Act of 1973, as amended. A special rule is established to allow take of this subspecies in accordance with applicable State laws and regulations. *Notropis simus* historically occurred in the Rio Grande in New Mexico from El Paso, Texas north to near Abiquiu Reservoir on the Chama River, and in the Pecos River in

the family Cyprinidae. It has a deep, spindle-shaped, silvery body, and a fairly large mouth which is overhung by a bluntly rounded snout (Koster 1957). In 1982, *Notropis simus pecosensis* was collected most frequently in the main stream channel, over a sandy substrate with low velocity flow, and at depths between 7 in. and 16 in. (17 and 41 cm.). Backwaters, riffles, and pools were also used by younger individuals. Natural springs, such as those in the Santa Rosa and Lake McMillan areas, also serve as habitat for *Notropis simus pecosensis*, and are sources of continuous water flow (New Mexico Department of Game and Fish 1982).

Threats to the continued survival and recovery of *Notropis simus pecosensis* include restricted flow from reservoirs, water diversions for irrigation, siltation, and pollution from agricultural activities along the river. These habitat modifications have been detrimental to all fish species in the Pecos River, including *Notropis simus pecosensis*.

The Rio Grande Fishes Recovery Team (RGFRT), whose responsibilities include *Notropis simus*, has been concerned about its status since 1978. The team believed at that time that *Notropis simus* was found only in the Rio Grande and that its range extended from near Santa Fe, New Mexico, to Brownsville, Texas. Since the last collection of *Notropis simus* known at the time was from 1964 near Santa Fe, New Mexico, it was feared that the species was likely already extinct. Efforts to list *Notropis simus* were then dropped until recent work determined that the species still existed. It has been determined recently that a previously unnamed form in the Pecos River is in fact a valid subspecies of *Notropis simus* (Chernoff *et al.* 1982), and that it is still extant in the Pecos River (New Mexico Department of Game and Fish 1982). Therefore, the RGFRT feels that sufficient information was available, and in November 1980 recommended listing of *Notropis simus pecosensis*.

A 1982 status report by the New Mexico Department of Game and Fish (NMGF) also provided new biological and distribution data on the Pecos subspecies, recommended listing *Notropis simus pecosensis* as a threatened species, and recommended areas of critical habitat in the Pecos River, if such habitat was to be designated.

*Notropis simus pecosensis* is presently listed by the State of New Mexico as an endangered species, Group 2 (N.M. State Game Commission, Reg. No. 624). It was included (as *Notropis simus*) in the Service's December 30, 1982, Vertebrate Notice of

Review (47 FR 58454) in category 1. Category 1 indicates that the Service has substantial information on hand to support listing the species as endangered or threatened. The Service was petitioned on April 12, 1983, by the Desert Fishes Council to list *Notropis simus pecosensis*. Evaluation of this petition by the Service revealed that substantial information was presented indicating that the petitioned action might be warranted. A notice of this finding was published in the *Federal Register* on June 14, 1983 (48 FR 27273). Subsequently, finding that the petitioned action was warranted, the Service published a proposed rule to list this subspecies on May 11, 1984 (49 FR 20031).

#### Summary of Comments and Recommendations

In the May 11, 1984, proposed rule (49 FR 20031) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices were published in the *De Baca County News* in Fort Sumner, New Mexico, on June 7, 1984, and in the *Daily Record* in Roswell, New Mexico, on June 6, 1984, which invited general public comment. Thirteen comments were received and are discussed below. Five requests for a public hearing were received from local water development and irrigation groups and from the State of New Mexico. Public meetings were held in Artesia and Albuquerque, New Mexico, on August 7 and 20, 1984, respectively. Interested parties were contacted and notified of those meetings, and notices of the meetings were published in the *Daily Press* in Artesia, New Mexico, the *Daily Record* in Roswell, New Mexico, and the *Current Argus* in Carlsbad, New Mexico on July 19, 23, and 24, 1984, respectively, and in the *Federal Register* on August 3, 1984. A press release for the Artesia meeting was sent out on July 19, 1984.

Six letters were received in support of the proposal. One letter was received in opposition to the proposal. Two letters were received in opposition to acquisition of water rights for the proposed species by any manner other than purchase, and four letters expressed neither support nor opposition. Summaries of the comments and questions in these letters and the Service's response to those comments follow:

Support for the proposal was received from the American Society of Ichthyologists and Herpetologists, the Desert Fishes Council, and the International Union for Conservation of Nature and Natural Resources. The Texas Parks and Wildlife Department stated that it has no additional information on *Notropis simus* and that it presumes the species to be extirpated from Texas. Dr. Carter Gilbert of The Florida State Museum supported the proposal, and commented that propagating *Notropis simus pecosensis* in captivity has been unsuccessful, making it more vital that the subspecies natural habitat be preserved, and that the special rule will reduce onerous permit burdens. Dr. Clark Hubbs, of the University of Texas at Austin and a member of the Rio Grande Fishes Recovery Team, supported the proposal, and pointed out that the statement in the proposal, that the bluntnose shiner was "sufficiently common to be used as a bait fish (Koster 1957)," is misleading, since the decline of the species occurred earlier than 1957.

The COE submitted the following comments (C=Comment, R=Service response): C. The COE responsibility on the Pecos River is strictly limited to flood control. All other flow is administered by the State of New Mexico in accordance to the Pecos River Compact. R. The Service did not mean to imply that the Corps had control over the water rights in the Pecos River. The statement in question was intended to indicate that the flow of the Pecos River was controlled by dams and other structures, such structures having been built and maintained by the Corps and the BR. The rule has been changed to more accurately state the administration of the water of the Pecos River. C. The Corps pointed out that its 1982 search for the Rio Grande subspecies also included a verification of the identification of over 27,000 fish specimens that were collected in 1977 from the Rio Grande between Cochiti Lake and Bosque del Apache National Wildlife Refuge. Thus the 1982 survey covered a much larger area than was indicated in the rule. R. Mention of this survey has been removed from the rule since it is irrelevant to the listing of the Pecos subspecies. C. The Corps noted that it supports the Endangered Species Act in planning and construction responsibilities, as well as on lands and waters administered by it. R. This was noted in the rule. C. The Corps did not foresee any significant consequences of the proposal on its activities, and feels that any future flood control measures they might undertake in the Pecos

drainage could benefit *Notropis simus pecosensis*. C. The State of New Mexico is attempting to acquire water rights to establish a permanent pool at Santa Rosa Lake, upstream from the proposed critical habitat. This could be affected by the listing of the Pecos bluntnose shiner. R. This has been added to the rule.

The BR submitted the following comments: C. The information on the Brantley Dam project is outdated, construction having commenced in 1983. In addition, the references to the possible adverse effects of Brantley Dam on the Pecos bluntnose shiner are erroneous since no bluntnose shiner are found in the Brantley Dam area. The Major Johnson Springs population of bluntnose shiner, which the rule indicates will be affected by the dam, was not found in the 1982 New Mexico Department of Game and Fish study. In addition, information should be included on BR's plans to maintain a minimum flow below the dam and construct a channel which will simulate preferred habitat for *Notropis simus pecosensis*. R. The rule has been changed to remove references to adverse effects from Brantley Dam, and to the apparently now extirpated Major Johnson Springs population of bluntnose shiner. The plans for minimum flow and habitat simulation below the dam have been added. C. The waters of the Pecos River are not controlled by the BR, but by the States of New Mexico and Texas through the Pecos River Compact. R. The Service's response to this is the same as to the Corps' similar comment—see response to COE. C. The Bureau objected to the statement in the rule that natural springs serve as good habitat for *Notropis simus pecosensis*. R. Although the 1982 New Mexico Department of Game and Fish study did not confirm that such springs are good habitat for this fish, the study did indicate that past surveys have found such springs occupied by the bluntnose shiner. It is reasonable to assume that since the flows in the Pecos River become very low to nonexistent, the continuous spring flow is used by the bluntnose shiner to survive through periods of no flow in the river. C. BR requested that the final rule outline specifically how present water deliveries and diversions, as well as ground and river water pumping, will be affected by critical habitat designation. R. This information has been briefly outlined in the final rule. Further information is found in the economic analysis of this critical habitat designation. C. The authorized Pecos River Water Salvage Project and the

McMillan Delta Project should be mentioned in the final rule. R. These projects have been included in the final rule. C. BR suggested that the location of Brantley Dam be included in the critical habitat map. R. Brantley Dam is located about 15 mi. (24 km.) below the lower critical habitat boundary and does not affect the designated critical habitat. Therefore, it was not included on the critical habitat map. C. BR requested that the critical habitat southernmost boundary be moved 0.8 mi. (1.25 km.) upstream to the U.S. Highway 82 bridge. R. The Service agrees that this would make a more easily definable boundary and has made this change in the final rule.

The BLM stated that it can mitigate the impacts resulting from oil and gas development along the river, and that although this critical habitat designation will affect BLM planning and resource activities in the area it will continue to cooperate in the protection of listed species. It provided maps showing BLM lands in the area and also noted that there are significant areas of private lands with Federal subsurface mineral estate located in the critical habitat area.

The U.S. Soil Conservation Service (SCS) requested the deletion of the 50 ft. (15 m.) riparian zone from the proposed critical habitat designation. This zone contains ranching and farming lands on which the SCS has involvement. The Service has reconsidered the critical habitat designation in light of this request and other biological information received during the comment period. Consideration of several biological factors resulted in the removal of the 50 ft. (15 m.) riparian zone from the proposed critical habitat for the bluntnose shiner. Stream banks of the Pecos River have been highly modified by human activities and native riparian vegetation is virtually nonexistent along most of the critical habitat. In some areas croplands reach to the river's edge. Erosion has eliminated other areas of riparian vegetation resulting in denuded and eroded stream banks. While there is close correlation between quality of riparian vegetation and quality of fish habitat in cold clear water streams, this does not appear to be the case for warm water streams in the arid southwestern U.S. Although many activities along the stream banks of the Pecos River may have adverse impacts on the bluntnose shiner, the Service did not think that riparian areas as a whole were critical to the survival of the species. Therefore the Service has deleted the 50 feet (15 m.) riparian zone

from the final critical habitat designation for biological reasons.

The NMGF supported the proposal and submitted the following comments: C. Brantley Dam is not proposed, it is now under construction. In addition, the statements as to the possible adverse effects to the Pecos bluntnose shiner from Brantley Dam are incorrect. R. See response to BR. C. *Notropis simus pecosensis* is not presently known to occur in Major Johnson Springs. R. See response to BR. C. There is no evidence that feedlot operations are a contributing adverse factor to the portion of the Pecos River containing *Notropis simus pecosensis*. R. Statements of adverse effects to this species from feedlots were removed from the final rule. C. The 1982 NMGF report did not recommend designating critical habitat in the Pecos River as the proposal states. Instead, that report identified portions of the river as "essential" to the Pecos bluntnose shiner. R. The 1982 report identified "essential" portions of the river and recommended those as appropriate for critical habitat designation if such designation were to be made. These portions were used as the critical habitat designation; however, the NMGF recommendation was made clear in the final rule. C. The State listing for *Notropis simus pecosensis* is as Group 2, not as Group 1 as was stated in the proposal. R. This was corrected in the final rule. C. Reduced flooding has not been shown to have detrimental effects on *Notropis simus pecosensis* spawning, as was stated in the proposed rule. R. The Service agrees that such detrimental effects on spawning are strictly conjectural and the statement in question has been removed. C. Two fish species mentioned as exotic predators in the proposed rule are probably native to the Pecos River and the 1982 NMGF report showed no association between the black bullhead and the Pecos bluntnose shiner. The black bullhead was mentioned in the proposed rule as a possible exotic predator on the bluntnose shiner. R. The portion of the rule pertaining to the threat of predation was revised to reflect this information. C. The New Mexico Habitat Protection Act (17-6-1 through 17-6-11) gives the State a mechanism for limited habitat protection, Statute 30-8-2 makes pollution of water illegal, and Statute 17-4-14 makes it illegal to dewater areas used by game fish. R. The final rule has been changed to reflect the fact that the State has certain limited habitat protection powers. C. The proposed rule does not mention the proposed recreation pool at Santa Rosa Reservoir

or the possible changes in irrigation practices being considered by the Ft. Sumner Irrigation District and their possible effects on the Pecos bluntnose shiner. *R.* These projects have been included in the final rule. *C.* The NMGF is concerned about the possibility of inadvertent taking of *Notropis simus pecosensis* by bait seiners in the portions of the Pecos River open for bait taking. It feels that a program for the education of the people of the Pecos Valley, and for the reasonable prosecution of violations needs to be worked out. *R.* The Service agrees that these actions will be needed, and will work closely with the State to develop such programs. However, these actions cannot occur until *Notropis simus pecosensis* is legally recognized as a federally threatened species. *C.* NMGF also outlined what it sees as various possibilities for the protection and enhancement of Pecos bluntnose shiner habitat in the Pecos River through work with the existing water rights and/or changes in those existing rights.

The law firm of McCormick and Forbes submitted comments for the Carlsbad Irrigation District. The firm suggested that proper administration of existing Pecos River water rights would alleviate some of the threats to the Pecos bluntnose shiner, and recommended that any waters of the Pecos River determined to be necessary to augment or maintain critical habitat for the Pecos bluntnose shiner be purchased under New Mexico law, and that funds be appropriated to pay for any required water releases and monitoring.

A Pecos Valley farm submitted comments in opposition to the acquisition of water rights in the area, by any manner except purchase from willing sellers, for the purpose of maintaining minimum flow as outlined in the proposal for the Brantley Dam project.

The public hearing held in Artesia, New Mexico was attended by 25 people, including representatives of the Carlsbad Irrigation District (CID), the New Mexico Interstate Stream Commission (NMISC), the Pecos River Pumpers Association (PRPA), the BR, the NMGF, and several local bait businesses. Nine people made oral statements and three written statements were submitted.

Many of the comments submitted at the hearing repeated those presented as written comments and are discussed above. Many comments represented the concern by local bait dealers that the proposed action would affect their livelihood. They were also concerned about the existing pollution and

dewatering of the Pecos River and the resultant depletion of the bait fishes. The Service responded that the listing of the Pecos bluntnose shiner and ensuing action to assure its recovery may result in better habitat conditions in the river for all minnows. The NMISC noted that the Brantley Dam is now under construction, and the population of *Notropis simus pecosensis* at Major Johnson Springs apparently no longer exists which were both discussed above. NMISC hopes that the Service does not intend to require maintenance of minimum flows in the Pecos River. *R.* The Service does not address the maintenance and recovery needs of a species during the listing process. These needs will be addressed in the recovery plan which will be written for this species following listing. The Service feels that the problems of water allocation in the Pecos River can be worked out to meet existing agricultural, municipal and industrial needs as well as the needs of the Pecos bluntnose shiner. *C.* The proposal failed to mention the possible creation of a permanent recreation pool at Santa Rosa Reservoir and its effects on the proposed critical habitat. *R.* This has been addressed in the COE comments and response above. *C.* Water flow in the river channel below Fort Sumner could be changed substantially by changes being considered in irrigation practices from gravity (flood) to sprinklers. *R.* This was noted in the final rule. *C.* NMISC feels the Service should reconsider its determination that no Environmental Assessment is needed for this action. *R.* The Service's position on this is given in this rule in the National Environmental Policy Act section. An economic analysis has been prepared to address the economic issues of the critical habitat designation. *C.* The area proposed as critical habitat from Hagerman to Artesia is often dry according to records from gauges located near Hagerman and Artesia. NMISC is concerned that the Service will require draconian measures to maintain a flow in this section via releases from reservoir storage. *R.* While the gauges located at Hagerman and Artesia often record no flow in the river, the U.S. Geological Survey (USGS) records cumulative groundwater seepage in this stretch of river averaging 50 cubic feet per second (cfs.) (1.4 cubic meters per second) (cms.) (Welder 1973). *C.* The Service may wish to consider propagating the Pecos bluntnose shiner at Dexter National Fish Hatchery in Dexter, New Mexico for use in restocking ephemeral reaches of the critical habitat, the river and perhaps other stream systems. *R.* The Service

has attempted to propagate this species at the Dexter hatchery, but has been unsuccessful so far. Successful propagation may be possible with new techniques, and further attempts may be made. Such stock will be used in recovery of this species within its historic range.

The public hearing held at Albuquerque, New Mexico was attended by one person, a representative of the U.S. Soil Conservation Service. The comments made were essentially the same as those submitted by letter and are addressed above.

#### Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Notropis simus pecosensis* should be classified as a threatened species. Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Notropis simus pecosensis* (bluntnose shiner) are as follows:

*A. The present or threatened destruction, modification, or curtailment of its habitat or range.* Water diversion and impoundment, primarily for irrigation purposes, have resulted in drastic modification and destruction of *Notropis simus pecosensis* habitat in the Pecos River, and in a resulting decline in the range and abundance of this species. *Notropis simus pecosensis* was recently collected only in the middle portion of its historic range and its presence in recent collections is notably less than in previous years. Irrigational use of water determines the volume and timing of the Pecos River flow between April and October, and releases of water from Lake Sumner fluctuate greatly during this time. In addition, flow downstream of the lake is also decreased by diversion from the main channel and by pumping of ground and river water. Average monthly flows between April and October may fluctuate from 814 cfs. to 15 cfs. (23.0 to 0.42 cms.). Within any given month, daily flows may fluctuate from 1505 cfs. to 5 cfs. (42.5 to 0.14 cms.) or less. In contrast, flows from November to March are consistently low, with the average monthly flow between 80 cfs. and 10 cfs. (2.26 and 0.28 cms.).

Another factor detrimental to *Notropis simus pecosensis* is the contribution of pollutants to the river by agricultural operations along the Pecos River. Runoff from cultivated fields and livestock operations, and irrigation water returns have adverse effects on the water quality in the river.

Several water projects and changes in irrigational practices being considered in the Pecos Valley may potentially affect *Notropis simus pecosensis* and its habitat. The New Mexico Parks and Recreation Commission has recently been granted a permit to establish and maintain a permanent recreation pool in Santa Rosa Reservoir. The granting of this permit is presently under appeal. Establishment of this permanent pool would reduce flow in the Pecos River below Alamogordo Reservoir by approximately 1,500 acre-feet per year. This reduction would further deplete the water available to sustain *Notropis simus pecosensis*.

The Fort Sumner Irrigation District is considering changes in its current irrigation practices, involving conversion from flood irrigation to sprinkler irrigation. This would result in changes in the flow in the river downstream and may impact the Pecos bluntnose shiner. The BR's Pecos River Basin Water Salvage Project is a continuing program to reduce the consumptive use of water in the Pecos River basin by removal of phreatophytic vegetation. Activity on this project began in 1967 and continued until 1971, resulting in the clearing of about 53,000 acres (21,458 hectares) (ha.), including stretches of the Pecos River flood plain from Lake Sumner to about 14 mi. (23 km.) downstream, between Acme and Artesia, and downstream from Lake McMillan. A 50 ft. (15 m.) wide riparian zone was left on either side of the river and such activity probably has only minor effect on bluntnose shiner and its habitat.

In connection with the BR's construction of Brantley Dam, three projects are planned in the Pecos River nearby *Notropis simus pecosensis* habitat. One of these is the transfer of approximately 2,200 acres (890 ha.) of land and water rights near Artesia to the NMDCF for development into a waterfowl management area as mitigation for losses associated with the Brantley Dam project. This area is downstream from the designated critical habitat for the Pecos bluntnose shiner, and should have little or no effect on that species.

The second project is the McMillan Delta project which originally included a water salvage channel and floodway extending from about 3.5 mi. (5.8 km.)

upstream of the U.S. Highway 82 bridge downstream to Lake McMillan. The scope of this project has changed with the construction of Brantley Dam and plans for breaching McMillan Dam. The Delta Project is not likely to involve any work upstream from the U.S. Highway 82 bridge, and therefore, will not affect the critical habitat area.

The third project includes plans to maintain a minimum flow of 20 cfs. (.56 cms.) below Brantley Dam, and to construct a special channel below the dam to simulate previously existing conditions at Major Johnson Springs, thereby providing habitat for several species of fish including, potentially, *Notropis simus pecosensis*. This project may provide significant potential for improvement of the status of this species.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* There is no evidence to suggest overutilization of this fish for any of these purposes.

C. *Disease or predation.* Although it is unlikely that predation is a major factor in the decline of *Notropis simus pecosensis*, it has probably played a minor role with increasing importance as the populations have come under greater stress from other factors. The presence of some exotic predators in the same collections as *Notropis simus pecosensis* would indicate that at least some predation is occurring. Predation, particularly by exotic fishes, has been shown to be a factor in the decline of other native fishes of the American Southwest.

D. *The inadequacy of existing regulatory mechanisms.* *Notropis simus pecosensis* is listed by the State of New Mexico as an endangered species, Group 2. Group 2 includes those species ". . . whose prospects of survival or recruitment in New Mexico are likely to be in jeopardy within the foreseeable future." This provides the protection of the New Mexico Wildlife Conservation Act (Section 17-2-37 through 17-2-46 NMSA 1978), and prohibits taking of any State listed species except under the issuance of a scientific collecting permit. The State also has a limited ability to protect the habitat of this species through the Habitat Protection Act (Section 17-6-1 through 17-6-11), through water pollution legislation, and tangentially through a provision which makes it illegal to dewater areas used by game fish (Section 17-4-14). U.S. COE and BR regulations protect species that are listed as threatened or endangered under the Act on lands and waters administered by them and in their planning and construction activities. The Endangered Species Act

offers needed protection for this species and its habitat through section 7 (interagency cooperation) and section 9 (prohibited acts) requirements.

There are presently no provisions in New Mexico's water law for the acquisition and protection of instream water rights for the preservation of fish and wildlife and their habitat. This deficiency has been a major factor in the decline of many native fishes, and has made it difficult to protect such species as *Notropis simus pecosensis* against the habitat losses caused by water diversions and impoundments.

E. *Other natural or manmade factors affecting its continued existence.* The reduced numbers of populations and individuals make this species more susceptible to extinction due to fluctuations in the populations caused by continued habitat modification.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species. Based on this evaluation, the preferred action is to list *Notropis simus pecosensis* as threatened. Threatened status seems appropriate because of the severely reduced range of the species, and because of the continually increasing threats to the species' habitat. Not to propose this species could reasonably be expected to cause it to become endangered within the foreseeable future. *Notropis simus pecosensis* is known to be extant over a fairly large area, although with severely reduced numbers. In addition, there are no major imminent threats to its existence; therefore, the species does not appear to be in danger of extinction. Thus, endangered status is not appropriate.

#### Critical Habitat

Critical habitat, as defined by section 3 of the Act means: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection, and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Section 4(a)(3) of the Act requires that critical habitat be designated to the maximum extent prudent and determinable concurrently with the determination that a species is endangered or threatened. Critical

habitat is being designated for *Notropis simus pecosensis* to include two sections of the Pecos River in New Mexico. The first section begins approximately 10 mi. (16 km.) south of Fort Sumner, De Baca County, and extends approximately 64 mi. (103 km.) downstream into Chaves County. The second area is approximately 37 mi. (60 km.) long, between Hagerman and Artesia in Chaves and Eddy Counties.

These areas were chosen for critical habitat designation because they presently support relatively abundant, self-perpetuating populations of *Notropis simus pecosensis*. Both sections contain permanent flow sustained by substantial local groundwater seepage, and thus are not dependent on irrigation and dam water releases. Although *Notropis simus pecosensis* is also present outside these areas, habitat there is marginal and it is thought that only inside these areas is reproduction occurring. The areas chosen for critical habitat designation provide all the ecological, behavioral, and physiological requirements necessary for the survival of *Notropis simus pecosensis*, and no smaller or alternative area would allow for the species' long term survival and recovery.

Section 4(b)(8) requires, for any proposed or final regulation that designates critical habitat, a brief description and evaluation of those activities (public and private) which may adversely modify such habitat or may be affected by such designation. All of the water in the Pecos River is legally allocated and is used for municipal and irrigational uses. Irrigational uses greatly affect the volume of the river, with the heaviest demand from April to October. The volume of water released from storage areas varies greatly and, at times, can result in little or no downstream flow. Water is also removed by diversion from the main channel and by ground and river water pumping (New Mexico Department of Game and Fish 1982). The sporadic water supply is the greatest threat to *Notropis simus pecosensis* and its habitat. The section of the river between Acme and Dexter has been affected greatly by the lack of water; no flows have been recorded for 10 percent of each year (New Mexico Department of Game and Fish 1982). Other threats to the critical habitat include water pollution from municipal sewage, agriculture areas, and fish toxicants.

Section 4(b)(2) of the Act requires the Service to consider economic and other impacts of designating a particular area as critical habitat. The Service has

considered the critical habitat designation in light of relevant additional information obtained during the public comment period and public hearing.

The boundaries of the proposed critical habitat have been adjusted to remove the riparian zone and to relocate the extreme southern boundary of critical habitat about .75 mi. (1.25 km.) upstream to the U.S. Highway 82 crossing. These changes were based on new biological information concerning the critical habitat and to facilitate identification of the critical habitat area (see Summary of Comments and Recommendations).

The estimated lengths of the proposed critical habitat have also been recalculated using more accurate measurement techniques. The recalculated lengths are stream lengths that reflect the meandering character of the river and provide a more exact estimate of the actual stream miles (kilometers) proposed as critical habitat. The legal description of the upper boundary of the southern section of critical habitat has also been corrected. The Pecos River enters on the west boundary of section 7 in Chaves County, New Mexico, not on the north boundary as incorrectly stated in the proposed rule. These recalculations and the boundary correction do not change the actual area originally proposed as critical habitat.

The critical habitat designation in the final rule consists of about 64 mi. (103 km.) from a point about 10 mi. (16 km.) south of Fort Sumner in De Baca County. The second section consists of about 36 mi. (60 km.) from a point near the town of Hagerman in Chaves County downstream to near the town of Artesia in Eddy County. The areas fronting the Pecos River critical habitat consists of about 101 mi. (163 km.) of land, Federal 14.5 mi. (23.5 km.), State 8 mi. (13.0 km.), and private 78.5 (126.5 km.).

The Service has prepared an economic analysis of this critical habitat designation. No significant economic or other impacts are expected from the critical habitat designation for the Pecos bluntnose shiner. This conclusion is based on current management of grazing and oil and gas leasing in the vicinity of the proposed critical habitat; the absence of ongoing or planned SCS or COE projects within or in the vicinity of critical habitat; BR's current management objectives, water projects, and operational procedures within or near the proposed critical habitat areas; Federal Highway Administration (FHWA) erosion control and other policies for road and bridge

construction; current uses and management of the water in the Pecos River basin by the Forest Service, National Park Service (NPS), Environmental Protection Agency (EPA), BR, COE, USGS, Office of Water Research and Technology (OWRT), Postal Service, and the Service; NMDGF's management of the BR acquisition area that fronts the critical habitat; and the unquantifiable benefits that may result from the designation. In addition, no State or private activities involving Federal funds or permits are expected to affect or be affected by the proposed critical habitat designation.

#### Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by other Federal, State, and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with States, and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 (see revision at 51 FR 19926, June 3, 1986). Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

The water of the Pecos River is administered by the States of New Mexico and Texas through the Pecos River Compact. However, the COE and the BR operate dams on the river in accordance with the Compact, and regulation of the flow in the river is through these dams. Most of the lands along the river are privately owned,

with small portions of land under BLM and Fish and Wildlife Service administration. In addition, other activities along the Pecos River involving Federal funds or permits include administration of National Pollution Discharge Elimination System (NPDES) permits by the EPA, maintenance of phreatophytic vegetation clearing by the BR, road and bridge construction and maintenance by the FHWA, grazing and mineral (oil and gas) leasing by BLM, approval of Section 404 permits for oil, gas, and water pipelines by COE, and provision of technical assistance by the SCS. Currently, Federal involvement in these activities is apparently compatible with the critical habitat designation. Therefore, no economic or other impacts are expected to result from the critical habitat designation.

The Act and its implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of a commercial activity, or sell or offer for sale in interstate or foreign commerce listed species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that had been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

The above discussion generally applies to threatened species of fish and wildlife. However, the Secretary has discretion under section 4(d) of the Act to issue such special regulations as are necessary and advisable for the conservation of threatened species. The Pecos bluntnose shiner is threatened primarily by habitat disturbance or

alteration, not by intentional, direct taking of the species or by commercialization. Given this fact and the fact that the State regulates direct taking of the species through the requirement of State collecting permits, the Service has concluded that the State's collection permit system is more than adequate to protect the species from excessive taking, so long as such takes are limited to: Educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other conservation purposes consistent with the Endangered Species Act. Therefore, the special rule allows takes to occur for the above-stated purposes without the need for a Federal permit if a State collection permit is obtained and all other State wildlife conservation laws and regulations are satisfied. It should be recognized that any activities involving the taking of this species not otherwise enumerated in the special rule are prohibited. Without this special rule all of the prohibitions under 50 CFR 17.31 would apply. The Service believes that this special rule will allow for more efficient management of the species, thereby facilitating its conservation. For these reasons, the Service has concluded that this regulatory proposal is necessary and advisable for the conservation of *Notropis simus pecosensis*.

#### National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined by the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the *Federal Register* on October 25, 1983 (48 FR 49244).

#### Regulatory Flexibility Act and Executive Order 12291

The Department of the Interior has determined that designation of critical habitat for this species will not constitute a major action under Executive Order 12291 and certifies that this designation will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

The critical habitat of the Pecos bluntnose shiner is administered by the States of New Mexico and Texas. Approximately 101 mi. (163 km.) of Federal (14.5 mi.—23.5 km.), State (8 mi.—13.0 km.), and private (78 mi.—126.5 km.) land front the portions of the

Pecos River proposed as critical habitat. Currently, Federal involvement in activities along the Pecos River is apparently compatible with the designation of critical habitat. Therefore, no significant economic impacts are expected to result from the critical habitat designation. In addition, no direct costs, enforcement costs, or information collection or recordkeeping requirements are imposed on small entities by the designation. These determinations are based on a Determination of Effects of Rules that is available at the Region 2 Office of Endangered Species, U.S. Fish and Wildlife Service, 500 Gold Avenue SW., Room 4000, Albuquerque, New Mexico 87103.

#### Literature Cited

- Chernoff, B., R.R. Miller, and C.R. Gilbert. 1982. *Notropis orca* and *Notropis simus*, Cyprinid fishes from the American Southwest, with description of a new subspecies. Occasional Papers of the Museum of Zoology, University of Michigan, Ann Arbor, 698:1-49.
- Cope, E.D., and H.C. Yarrow. 1875. Report upon the collections of fishes made in portions of Nevada, Utah, California, Colorado, New Mexico, and Arizona, during the years 1871, 1872, 1873, and 1874. Report of the Geographical and Geological Survey West of the 100th Meridian (Wheeler Survey) 5:635-703.
- Koster, W.J. 1957. Guide to fishes of New Mexico. University of New Mexico Press, Albuquerque, New Mexico. 116 pp.
- Molles, M.M., Jr. 1982. Survey of the middle Rio Grande for *Notropis simus simus* (Cope). Final Report to the Army Corps of Engineers, Albuquerque, New Mexico. 12 pp.
- New Mexico Department of Game and Fish. 1982. The status of *Notropis simus pecosensis* in the Pecos River of New Mexico, with notes on life history and ecology. Report to the U.S. Fish and Wildlife Service, Office of Endangered Species, Albuquerque, New Mexico. 53 pp.
- New Mexico State Game Commission. 1983. Regulation No. 624. New Mexico Department of Game and Fish, Santa Fe.
- Welder, G.E. 1973. Base flow in the Acme-Artesia reach of the Pecos River, New Mexico. 1957-1971. USDI Geological Survey, Albuquerque.

#### Author

This rule was prepared by S.E. Stefferud, Endangered Species staff, Region 2, Albuquerque, New Mexico (505/766-3972 or FTS 474-3974).

#### List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

**Regulations Promulgation**

**PART 17—[AMENDED]**

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat.

3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. Amend § 17.11(h) by adding the following, in alphabetical order under "FISHES," to the List of Endangered and Threatened Wildlife:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
(h) \* \* \*

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Fishes:							
Shiner, Pecos bluntnose	<i>Notropis simus pecosensis</i>	U.S.A. (NM).	Entire	T	258	17.95(e)...	17.44(r)

3. Add the following as a special rule to § 17.44(r):

**§ 17.44 Special rules—fishes.**

\* \* \* \* \*

Pecos bluntnose shiner, *Notropis simus pecosensis*.

(1) No person shall take the species, except in accordance with applicable State fish and wildlife conservation laws and regulations in the following instances:

(i) For educational purposes, scientific purposes, the enhancement of propagation or survival of the species, zoological exhibition, and other conservation purposes consistent with the Act; or,

(ii) Incidental to State permitted recreational fishing activities, provided that the individual fish taken is immediately returned to its habitat.

(2) Any violation of applicable State fish and wildlife conservation laws or regulations with respect to taking of this species will also be a violation of the Endangered Species Act.

(3) No person shall possess, sell, deliver, carry, transport, ship, import, or

export, by any means whatsoever any such species taken in violation of these regulations or in violation of applicable State fish and wildlife conservation laws or regulations.

(4) It is unlawful for any person to attempt to commit, solicit another to commit, or cause to be committed, any offense defined in paragraphs (1) through (3) above.

\* \* \* \* \*

4. Amend § 17.95(e) by adding critical habitat of the Pecos bluntnose shiner in the same sequence as the species appears in the list at § 17.11 as follows:

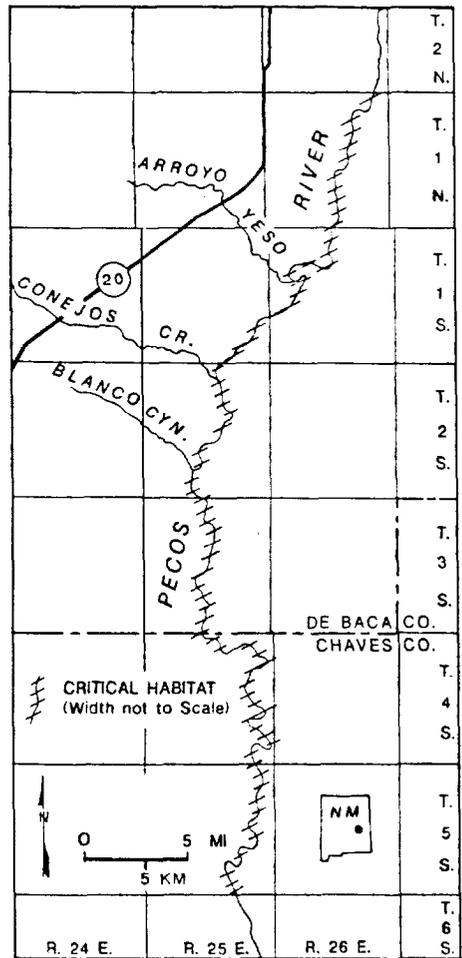
**§ 17.95 Critical habitat—fish and wildlife.**

(e) \* \* \* \* \*

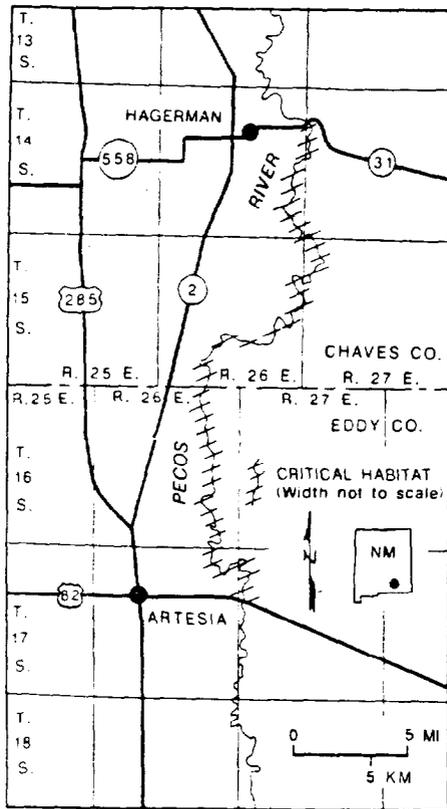
Pecos bluntnose shiner (*Notropis simus pecosensis*).

1. New Mexico: De Baca and Chaves Counties. Pecos River from point at the north boundary of NE ¼ Sec. 2; T1N; R26E (approximately 10 mi. (16 km.) south of Fort Sumner) extending downstream approximately 64 mi. (103

km.) to a point at the south boundary SW ¼ Sec. 35; T5S; R25E.



2. New Mexico. Chaves and Eddy Counties. Pecos River from the west boundary NW ¼ Sec. 7; T14S; R27E, extending downstream approximately 37 mi. (60 km.) to the NW ¼ Sec. 18; T17S; R27E (to the U.S. highway 82 bridge near Artesia).



Constituent elements include clean, permanent water; a main river channel habitat with sandy substrate; and a low velocity flow.

Dated: November 28, 1986.

**P. Daniel Smith,**  
*Acting Assistant Secretary for Fish and Wildlife and Parks.*

[FR Doc. 87-3507 Filed 2-19-87; 8:45 am]

**BILLING CODE 4310-55-M**