

CONSERVATION AGREEMENT
FOR THE
PECOS PUFFISH
BETWEEN
TEXAS PARKS AND WILDLIFE DEPARTMENT
NEW MEXICO DEPARTMENT OF GAME AND FISH
NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT
NEW MEXICO DEPARTMENT OF AGRICULTURE
NEW MEXICO INTERSTATE STREAM COMMISSION
NEW MEXICO STATE LAND OFFICE
U.S. BUREAU OF LAND MANAGEMENT
AND
U.S. FISH AND WILDLIFE SERVICE

I. Purpose

This Conservation Agreement (Agreement) is formulated to affirm the mutual goal of the above agencies (Signatories) of securing and protecting the Pecos pupfish (*Cyprinodon pecosensis*) within its currently occupied and known historical range in the States of New Mexico and Texas. To attain this goal, the Signatories further agree to implement the measures outlined below to conserve the species and its habitat in the Pecos River Basin.

II. Authorities

Texas Parks and Wildlife Department Code Sections 11.0171 and 12.0011

New Mexico Wildlife Conservation Act [NMSA 1978, §§ 17-2-37 to 17-2-46]

Energy, Minerals and Natural Resources Department [NMSA 1978, §§16-2-1 to 16-2-32]

New Mexico Department of Agriculture [NMSA 1978, § 76-1-2-F]

New Mexico Interstate Streams Commission [NMSA 1978, §§ 72-14-1 to 72-14-44]

Bureau of Land Management - Federal Land Policy and Management Act of 1976 [43 U.S.C. 1711 et seq., 90 Stat. 2743]

Fish and Wildlife Coordination Act (as amended) [16 U.S.C. 16 et seq.]

Endangered Species Act of 1973 (as amended) [16 U.S.C. 1531 et seq., 32 Stat. 388]

III. Background

The Pecos pupfish was included as a category 2 species in both the December 30, 1982, Review of Vertebrate Wildlife, Notice of Review [47 FR 58454]; and the September 18, 1985, Review of Vertebrate Wildlife, Notice of Review [50 FR 37958]. Category 2 comprised taxa for which the U.S. Fish and Wildlife Service (Service) had information indicating protection under the Endangered Species Act may be warranted, but for which available biological information in possession of the Service was insufficient to support listing the species as endangered or threatened. When additional information from surveys provided a substantial basis for a proposed determination of endangered status, the January 6, 1989 Animal Notice of Review [54 FR 554] and the November 21, 1991 Candidate Animal Notice of Review [56 FR 225] included the Pecos pupfish as a Category 1 species, indicating that the Service had enough information to list the species. On January 30, 1998, the Service proposed to list the Pecos pupfish as an endangered species, without critical habitat [63 FR 4608]. Within the ensuing year between the proposal of the species for listing and the required final determination by the Service to either list or withdraw the proposal, the Service worked with public and private interests to implement all measures that would remove or alleviate the identified threats to that species. In 1999, *The Conservation Agreement For The Pecos Pupfish Between And Among Texas Parks And Wildlife Department, New Mexico Department Of Game And Fish, New Mexico Energy, Minerals & Natural Resources Department, New Mexico Department Of Agriculture, New Mexico Environment Department, New Mexico Office Of The State Engineer, U.S. Bureau Of Land Management And U.S. Fish And Wildlife Service* was signed and implementation began. The Conservation Agreement and the commitments therein, initiated during that period, was cited in the 2000 withdrawal of the proposed rule to list [65 FR 14513] as sufficient to assure the viability of the Pecos pupfish. This document serves as an Amendment to the 1999 Agreement.

In 2007, the Service was petitioned to list the Pecos pupfish as endangered as part of a multi-species petition to list 475 species in the Service's Southwest Region. In 2009, the Service made a positive 90-day finding that the petition presented substantial information indicating that the listing of the Pecos pupfish may be warranted [74 FR 66866]. As a result, the Service has begun a status review for the species and will complete a 12-month finding to determine whether the listing of Pecos pupfish is warranted under section 4 of the Endangered Species Act.

IV. Status and Distribution of the Pecos Pupfish

The historical range of the Pecos pupfish included the Pecos River from Bitter Lake National Wildlife Refuge and Bottomless Lakes State Park near Roswell, New Mexico, downstream approximately 650 km (404 miles) to the mouth of Independence Creek, southeast of Sheffield, Terrell County, Texas (Wilde and Echelle 1992). It was also found in off-channel springs and playas in Chaves and Eddy counties, New Mexico (Brooks and Woods 1988), and in Salt Creek in Culberson and Reeves counties, Texas.

The current distribution of Pecos pupfish is greatly reduced (Figure 1). In Texas, genetically pure populations of the Pecos pupfish are known only from the upper reaches of Salt Creek in Culberson and Reeves counties, Texas (Wilde and Echelle 1992). In New Mexico, the species still occurs irregularly in the Pecos River from north of Loving upstream to Bitter Lake National

Wildlife Refuge (Hoagstrom and Brooks 1999). It continues to survive in the Salt Creek Wilderness Area, Bitter Lake National Wildlife Refuge, Bottomless Lakes State Park, and the Bureau of Land Management Overflow Wetlands Area of Critical Environmental Concern (ACEC) in New Mexico where it is found in over 27 sinkholes, springs and wetland areas (Brooks and Woods 1988, Hoagstrom and Brooks 1999). This current range represents a reduction of more than half the species' former range (Echelle and Connor 1989, Echelle et al. 1997) (Figure 1).

Pecos pupfish distribution was declining through the 1980s, primarily from habitat degradation and loss (Hoagstrom and Brooks 1998, Minckley et al. 1991). Groundwater depletion dried up several marshes, playas, and spring ponds formerly occupied by Pecos pupfish adjacent to the Pecos River in New Mexico and Texas (see Hoagstrom and Brooks 1999 for a summary).

The suspected primary cause for the recent (post 1980) range reduction of Pecos pupfish has been the introduction of sheepshead minnow (*C. variegatus*), a species once confined to shallow, brackish, coastal waters of the Gulf and Atlantic coasts of the continental United States. The two *Cyprinodon* species appear to have little premating isolating mechanisms and readily hybridize (Cokendolpher 1980, Kodric-Brown and Rosenfield 2004). The sheepshead minnow was introduced into the Pecos River, probably in the vicinity of Pecos, Texas, sometime between 1980 and 1984, and Pecos pupfish x sheepshead minnow hybrids have moved upstream and downstream at a relatively rapid pace, despite the presence of six irrigation diversion dams. The spread of hybrids occurred both naturally and presumably through "bait bucket" introductions. By 1984, surveys at four sites along the Pecos River below Red Bluff Reservoir, Texas, revealed evidence of hybridization between the Pecos pupfish and sheepshead minnow (Echelle 1985, Echelle and Echelle 1994, Echelle et al. 1997). By 1989, in the vicinity of Pecos, Texas, Pecos pupfish had been entirely replaced by Pecos pupfish x sheepshead minnow hybrids (Echelle and Connor 1989). As of 1997, the hybrid swarm had expanded upstream to Malaga, Eddy County, New Mexico but not into Chaves County; a 2007 investigation verified that the hybrid swarm is still limited to this area in New Mexico (Echelle and Echelle 2007). Recent investigations found that Pecos pupfish in off-channel sites in Texas, where pure Pecos pupfish were formerly known, such as the water-filled gravel pits owned by Phipps Gravel Company and ponds at the Permian Sea Shrimp Company in Pecos County, Texas, were contaminated with sheepshead minnows from the mainstem Pecos River during high flow events.

Currently much occupied Pecos pupfish habitat has the potential to be impacted by golden alga *Prymnesium parvum*. Large-scale fish kills attributed to toxins produced by this alga have occurred in the Pecos River in New Mexico and Texas, most recently (2002 through 2009) from Brantley Reservoir downstream into Texas (Rhodes and Hubbs 1992, Watson 2001, Denny 2006, Barkoh and Fries 2010). Although no Pecos pupfish kills have been reported, fish kills in nearby habitats, including Cottonwood and Devil's Inkwel lakes at Bottomless Lakes State Park, have occurred. Toxic golden alga blooms in occupied off-channel Pecos pupfish habitats would be detrimental to surviving populations. Current habitat is also subject to impacts by groundwater pumping and ground and surface water contamination, primarily from oil and gas activities.

V. Conservation Needs

In 1998, several factors then existing were identified as affecting the survival of Pecos pupfish in the Proposal to Determine the Pecos Pupfish to Be an Endangered Species [63 FR 4608]. The primary threats identified in 1998 included:

- The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range
 - o Alteration or destruction of historical habitat has been drastically altered or destroyed by human uses of the Pecos River and activities in its watershed.
 - o Loss of low velocity floodplain habitats adjacent to the main channel of the Pecos River which provide refugia for the Pecos pupfish.
 - o Decline in water levels and connectivity of sinkhole and spring habitats where Pecos pupfish live because of groundwater depletion.
- The Inadequacy of Existing Regulatory Mechanisms
 - o Texas and New Mexico state laws do not protect the habitat of listed species, including Pecos pupfish.
 - o Neither Texas nor New Mexico prohibits the introduction or spread of detrimental species such as sheepshead minnow.
- Other Natural or Manmade Factors Affects Its Continued Existence
 - o Hybridization with and/or replacement by the sheepshead minnow poses a significant threat to Pecos pupfish throughout the mainstem Pecos River.
 - o Sinkhole, lake, and spring populations may be susceptible to introductions of exotic fish species, including sheepshead minnow, during periods of river flooding.

The 1999 Conservation Agreement sought to address these threats through cooperative conservation measures. In addition to commitments for long-term protective and enhancement actions for the species, the 1999 Conservation Agreement set forth immediate measures for survival of the species. Specific measures that were identified and completed under the 1999 Conservation Agreement include:

- Construction of an adequate concrete fish barrier to protect populations on Bitter Lake National Wildlife Refuge from ingress of sheepshead minnow or hybrids (U.S. Fish and Wildlife Service, 1999).
- Updated New Mexico's bait harvest and use program in the Pecos River basin within the historical range of Pecos pupfish to prevent the spread of sheepshead minnow – new regulations prohibiting the use of any fish except the native fathead minnow or red shiner were approved by the New Mexico State Game Commission in 1999 [19.31.10.18 NMAC].
- Incorporated the management and protection of Pecos pupfish into the Bottomless Lakes State Park Management Plan (New Mexico Energy, Mineral, and Natural Resources Department, 1999).
- Construction of fish barriers in the Overflow Wetlands ACEC at the two lower outflow sites to protect populations from ingress of sheepshead minnow or hybrids (Bureau of Land Management, 1999).

- Establish additional off-channel secure populations of Pecos pupfish within the known historical range (Texas Parks and Wildlife Department, 1999).
- Update Texas' bait harvest and use program in the Pecos River basin within the historic range of Pecos pupfish to prevent the spread of sheepshead minnow (Texas Parks and Wildlife Department, 1999).

This Agreement seeks to address as much as possible the above impacts, as well as those currently identified by the Signatories (as listed in the document title), and provide measures to secure populations of Pecos pupfish as discussed below.

Hybridization

Due to the presence of sheepshead minnow and Pecos pupfish x sheepshead hybrids the majority of the pupfish's mainstem Pecos River habitat is unable to maintain a genetically pure population of Pecos pupfish. However, the scarce, but persistent occurrence of pure Pecos pupfish in the mainstem above Brantley Dam should be protected. Where possible and feasible, sheepshead minnow and Pecos pupfish x sheepshead minnow populations in New Mexico should be eradicated to prevent their spread to uncontaminated populations, both in the mainstem and in off-channel habitats. Structures, such as fish barriers, should be constructed and maintained in areas where hybrids may potentially interact with pure Pecos pupfish populations, such as in Salt Creek, Texas and the Bureau of Land Management Overflow Wetlands Area of Critical Environmental Concern, New Mexico.

Enforcement of state rules is needed to ensure that further encroachment through baitfish transfer of the sheepshead minnow into the range of Pecos pupfish is eliminated. Both Texas and New Mexico have enacted rules concerning the capture, sale, and distribution of bait fish within the Pecos River Basin [§65.72(a)(8). TAC] [19.31.10 NMAC]. Enforcement of these rules does not eradicate the sheepshead minnow or the hybrids from their occupied areas of the Pecos River, but aids in protecting remaining mainstem Pecos pupfish habitat and decreases the risk to populations on Bottomless Lakes State Park and the Bureau of Land Management Overflow Wetlands ACEC, where angling is allowed.

Golden Alga

Fish kills resulting from toxic golden alga blooms currently have the potential to impact all Pecos pupfish populations. Although no fish kill has occurred in occupied Pecos pupfish habitat, golden alga fish kills have been documented in the Pecos River mainstem and its presence has been verified in neighboring habitats. As golden alga is easily spread via waterfowl or wind, it is likely present throughout the current range of Pecos pupfish. To address this, golden alga spread prevention and bloom response protocols need to be developed. These will include, at a minimum, decontaminating all equipment and clothing among sites, notification of blooms or fish kills, and regular testing of Pecos pupfish waters for golden alga presence.

Limited Distribution and Populations

Secure off-channel habitats, both those existing and known to support Pecos pupfish historically,

are needed to establish additional populations of Pecos pupfish. Managed populations not only ensure the survival of the species through protection from hybridization, but also serve as sources for restoration to historical locations. In New Mexico, three off-channel habitats are known to support Pecos pupfish: Bitter Lake National Wildlife Refuge, Bottomless Lakes State Park, and BLM Overflow Wetlands ACEC. In Texas, only one off-channel habitat is thought to support Pecos pupfish: Salt Creek. In 2000, Pecos pupfish were established at Permian Sea Shrimp Company, in Imperial, Pecos County, Texas as part of a Cooperative Agreement with the private landowner, but the population has since been lost to hybridization. Efforts to reestablish pure Pecos pupfish at the Permian Sea Shrimp Company are continuing. Field assessment of the viability of these populations is needed, as are additional habitats, secure from the potential threat of hybridization, throughout the range of the Pecos pupfish.

Golden alga-induced fish kills have the potential to impact Pecos pupfish throughout New Mexico and Texas. Additional managed populations, as referenced above, reduce the potential of a catastrophic loss of the species, but not entirely. To better address the potential impacts from golden alga, establishment and long-term maintenance of Pecos pupfish refuge populations outside the reach of golden alga is necessary. Likely, these populations will need to be established in a controlled environment, such as an aquarium or research facility. Genetic and population maintenance plans will be necessary to guide management.

The conservation needs and the commitment to address those needs are on two temporal scales. Immediate action is needed to address the potential imminent impacts to the species - hybridization with sheepshead minnow and loss of small and isolated populations. Long term commitment is also essential for conservation and management of the species – management of refuge populations in case of a catastrophic event and commitment of expertise and resources to long term habitat rehabilitation within the Pecos River basin. Additional conservation needs will be identified in a Pecos Pupfish Conservation Plan, to be completed under this Agreement, and will be incorporated into future amendments of this Agreement.

In order to address these conservation needs of the Pecos pupfish, the Signatories hereby agree that:

- A. The Texas Parks and Wildlife Department will:
 1. enforce bait harvest and use regulations as described in 31 Texas Administrative Code §65.72(a)(8);
 2. annually monitor the population status and genetic purity of Pecos pupfish at all sites in Texas and determine actions needed to assure security of the population;
 3. seek to establish additional off-channel secure populations of the Pecos pupfish within the known historical range of the species that will support populations greater than 500 individuals in each location;
 4. work with local communities to restore natural riparian and aquatic habitat

conditions in the Pecos River basin; and

5. maintain a file of literature relevant to Pecos pupfish, update the Conservation Team contact information, and prepare an annual summary of activities accomplished under this Agreement.

B. The New Mexico Department of Game and Fish will:

1. enforce bait programs as defined in rule 19.31.10.18 NMAC, for the Pecos River and prohibition of the use of live bait on Bottomless Lakes State Park;
2. with assistance of the cooperating agencies, draft the Pecos pupfish collaboratively-designed monitoring plan, including information on population, habitat, and genetic monitoring by 2011;
3. annually monitor the population status and genetic purity of Pecos pupfish at all sites in New Mexico as described in the collaboratively-designed monitoring plan and determine actions needed to assure security of the population;
4. with cooperation of other agencies, evaluate potential refuges for Pecos pupfish and additional introductions;
5. with cooperation of other agencies, establish and maintain refuge populations of Pecos pupfish to guard against stochastic events, such as fish kills resulting from golden alga blooms, and develop a population and genetic management plan; and
6. in biennial rotation with U.S. Fish and Wildlife Service, coordinate the Pecos Pupfish Conservation Team, including maintaining a file of literature relevant to Pecos pupfish, updating the Conservation Team contact information, and preparing an annual summary of activities accomplished under this Agreement.

C. The New Mexico Energy, Minerals and Natural Resources Department will:

1. recognize and maintain the management and protection of the Pecos pupfish in the Bottomless Lakes State Park Management Plan;
2. in cooperation with the New Mexico Department of Game and Fish and U.S. Fish and Wildlife Service, conduct aquatic faunal surveys according to the collaboratively-designed monitoring plan;
3. in cooperation with the New Mexico Department of Game and Fish and

U.S. Fish and Wildlife Service, investigate removal and control of undesirable aquatic species and conservation of nontarget species;

4. in cooperation New Mexico Department of Game and Fish and U.S. Fish and Wildlife Service, establish, when necessary, and maintain Pecos pupfish in Mirror, Figure Eight, Pasture, Lost, and Lea lakes and Lazy Lagoon; and
5. prohibit sport fishing in south Figure Eight, Lost, and Lea lakes, ponds 1, 2, and 3 in the Lea Lake wetland area, and Lazy Lagoon to promote Pecos pupfish conservation.

D. The New Mexico Department of Agriculture will:

1. identify and act as intermediaries with private landowners as needed to establish Pecos pupfish refuge populations; and
2. support legislative and political initiatives that will enhance the conservation of Pecos pupfish.

E. The New Mexico Interstate Stream Commission will:

1. upon notification by Signatories of proposed activities to conserve the Pecos pupfish under this Agreement, including, but not limited to, water acquisition and leasing, and habitat restoration, in cooperation with signatory agencies, evaluate the hydrologic impacts of such proposed activities to New Mexico waters; and
2. assist in the identification and acquisition of water rights that may be utilized to offset all water depletions resulting from implementation of proposed activities; and
3. The Signatories acknowledge that NMISC's participation in this Agreement is expressly made contingent upon sufficient appropriation and authorization for appropriation being granted by the Legislature of New Mexico and the State of New Mexico for performance of this Agreement. Absence of appropriation or allotment of funds shall relieve the NMISC from any obligations under this Agreement. No liability shall accrue to NMISC should funds not be appropriated or allotted.

F. The New Mexico State Land Office will:

1. work with other agencies to evaluate potential refugia for Pecos pupfish on state trust lands, and evaluate the efficacy of additional introductions;

2. continue a program of salt cedar eradication and extend to state trust lands where Pecos pupfish may occur; and
3. facilitate access to New Mexico state trust lands for research and monitoring of Pecos pupfish populations.

G. The Bureau of Land Management will:

1. work with the New Mexico Department of Game and Fish to identify management actions that will protect and enhance Pecos pupfish populations in the Overflow Wetlands ACEC;
2. continue implementation of management and protection measures for Pecos pupfish in accordance with the Overflow Wetlands ACEC Plan;
3. in cooperation with the New Mexico Department of Game and Fish and U.S. Fish and Wildlife Service, monitor populations of Pecos pupfish at the Overflow Wetlands ACEC as described in the collaboratively-designed monitoring plan;
4. in cooperation with the New Mexico Department of Game and Fish and U.S. Fish and Wildlife Service, identify off-channel sites such as perennial springs (e.g., Cottonwood Spring) for potential introduction of Pecos pupfish;
5. continue implementation of the Overflow Wetlands Area of Critical Environmental Concern Activity Plan and management prescriptions found in the Roswell Approved Resource Management Plan (page 65), which include:
 - a) application of No Surface Occupancy restrictions to future oil and gas leases within the buffer area around the wetlands and escarpment;
 - b) application of Surface Use and Occupancy Requirements to other future oil and gas leases;
 - c) closure of 1,040 acres to the disposal of salable minerals and to the leasing of solid minerals, withdraw the area from entry under the land laws (including the 1872 Mining Law);
 - d) exclusion of major rights-of-way on approximately 3,000 acres;
 - e) acquisition of about 1,700 acres of State land and 1,600 acres of private land with riparian/wetland values when opportunities arise;
 - f) designation of Off-Highway Vehicle (OHV) closures on 1,040 acres; limitation of OHVs to designated roads and trails on 2,100 acres;
 - g) re-recommend to the New Mexico Department of Game and Fish for "No Minnow Seining Area"; and
 - h) implementation of habitat improvement projects as found in the

Overflow Wetlands ACEC plan as recommended through studies and reports.

6. provide study sites in support of conservation research on the Pecos pupfish.

H. U.S. Fish and Wildlife Service will:

1. provide funding as available to support genetic, habitat, and other needed research on the Pecos pupfish;
2. lead Pecos pupfish monitoring as described in the collaboratively-designed monitoring plan, including at points of ingress of sheepshead minnow on Bitter Lake National Wildlife Refuge;
3. incorporate the management and protection of the Pecos pupfish in the Bitter Lake National Wildlife Refuge Comprehensive Conservation Plan and Habitat Management Plan through the following actions:
 - a) provide study sites in support of conservation research;
 - b) enforce the current fishing prohibition in refuge waters;
 - c) maintain an adequate concrete fish barrier at the South Weir of the refuge;
 - d) monitor other potential sites of ingress and construct barriers as necessary;
 - e) monitor populations of Pecos pupfish at points of ingress of sheepshead minnow, particularly Hunter Marsh and Oxbow and Unit Three, as outlined in the collaboratively-designed monitoring plan;
 - f) evaluate isolated refuge wetlands and sinkholes as potential refugia for Pecos pupfish and pursue additional introductions; and
 - g) provide recommendations and assess alternatives for applications involving oil and gas exploration (or development) that are adjacent to or otherwise effect Pecos pupfish and their habitat before drilling or construction occurs in coordination with New Mexico Energy, Minerals and Natural Resources Department (Oil Conservation Division) and U.S. Bureau of Land Management.
4. assess the feasibility of using, with modifications if necessary, constructed wetlands at the Dexter National Fish Hatchery and Technical Center or other appropriate site, as a refugium population site for the Pecos pupfish; and
5. in biennial rotation with New Mexico Department of Game and Fish, coordinate the Pecos Pupfish Conservation Team, including maintaining a file of literature relevant to Pecos pupfish, updating the Conservation

Team contact information, and preparing an annual summary of activities accomplished under this Agreement.

- I. All Signatories will:
 1. provide representation to the Pecos Pupfish Conservation Team, established by this Cooperative Agreement;
 2. participate in all necessary meetings to discuss progress toward achieving the conservation goals for the Pecos pupfish and the resulting status of the species with respect to the threats outlined here, in the 16 December 2009 proposal to list the species, and in the Conservation Plan (described in Section VIII);
 3. provide in-kind contributions of personnel, field equipment, supplies, etc., to assist in investigations and re-establishment efforts, subject to appropriations;
 4. monitor as described in the collaboratively-designed monitoring protocol the status of Pecos pupfish and nonnative fish species, particularly sheepshead minnow and Pecos pupfish x sheepshead minnow hybrids, in the mainstem Pecos River and take immediate appropriate action toward localized eradication and reintroduction of Pecos pupfish in the river where and when appropriate;
 5. support, through expertise and available resources, efforts to replace invasive salt cedar habitats with native vegetation, as described in the New Mexico State Phreatophyte Plan/Watershed Management Plan, in Pecos pupfish habitats; and
 6. annually provide information and review the written report of the Pecos Pupfish Conservation Team documenting the status of accomplishments under this Agreement and the proposed conservation plan (see Section VIII). This assessment will determine the effectiveness of the Agreement and whether revisions are warranted and will be provided to the Conservation Team by 30 June of each year.

VI. Other Provisions

- A. The Signatories will strive to anticipate and avoid conflicts and seek to resolve conflicts in as expeditious manner as possible at the lowest level.
- B. The Signatories acknowledge that federal funding will be provided subject to availability as provided by Congress in each appropriation year; and this Conservation Agreement does not commit any signatory to spend resources

beyond its jurisdiction.

- C. This is not a funding agreement and does not commit any signatory to spend resources.
- D. The Signatories agree that any action taken under this Agreement will be in compliance with all applicable state and federal laws, regulations or rules, and interstate compacts, including but not limited to, the Pecos River Compact.

VII. Duration and Amendment of Agreement

The term of this Agreement shall be indefinite with formal review by the Signatories every five years. Any party may withdraw from this Agreement upon 60 days written notice to the other parties. Changes to the Agreement may be made upon agreement in writing of all the Signatories.

VIII. Administration

The Pecos Pupfish Conservation Team, composed of a representative from each of the signatories, will be led by a coordinator. The coordinator position will cycle between U.S. Fish and Wildlife Service and New Mexico Department of Game and Fish biannually. Activities completed under this Agreement and described in the conservation plan will be summarized by 30 June annually by the coordinator. The coordinator will also be responsible for maintaining a current list of signatory and representative contact information and the list of Pecos pupfish literature.

IX. National Environmental Policy Act (NEPA) Compliance

Signing of this Agreement is covered under authorities outlined in Section II above. It is anticipated that any survey, collection, or research activities for implementation and maintenance of the Agreement will not entail significant federal action under NEPA and will be given a categorical exclusion designation. All other actions will be evaluated prior to implementation and will comply with NEPA regulations.

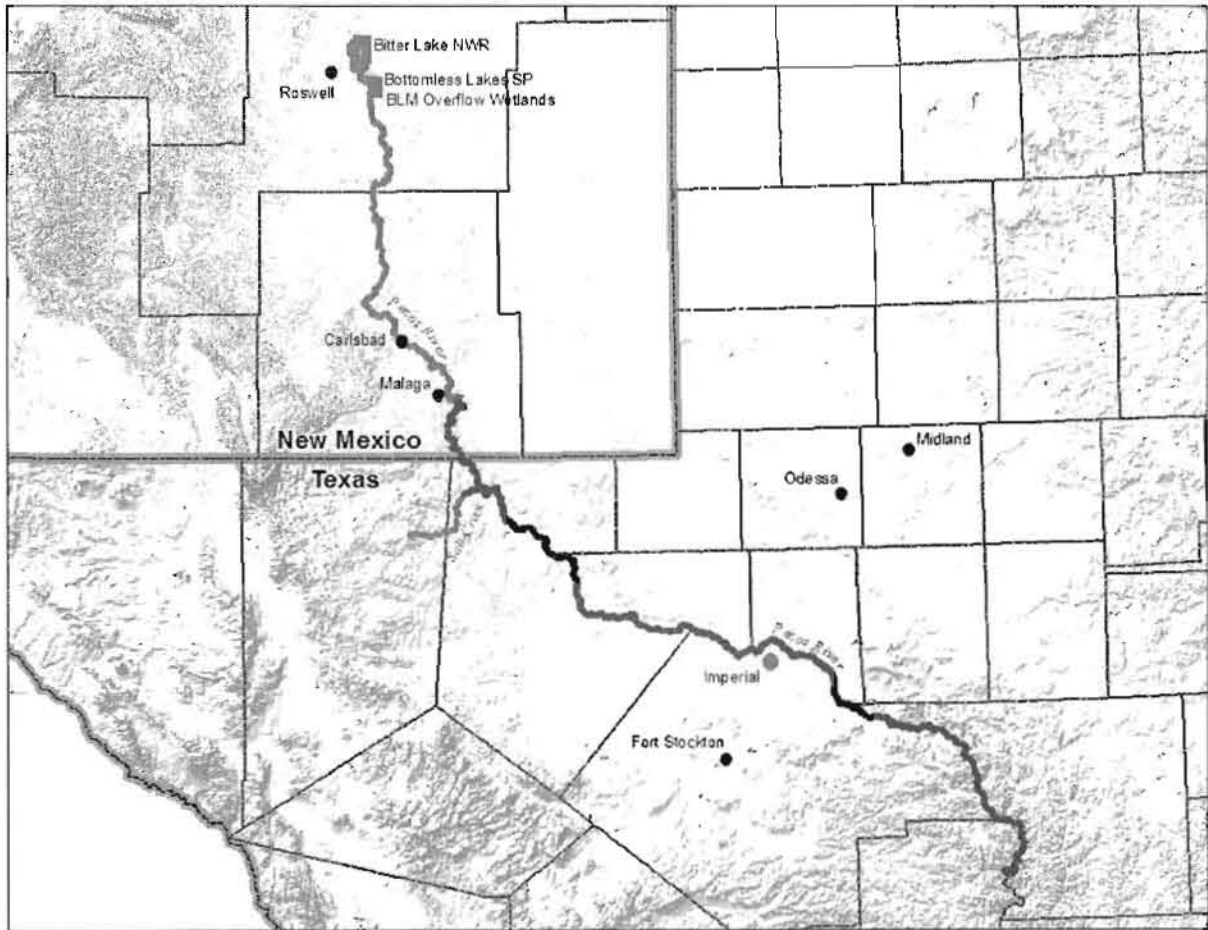


Figure 1. Historical (red) and current (green) distribution of Pecos pupfish.

NEW MEXICO INTERSTATE STREAM COMMISSION

By: _____ Date _____
Estevan R. López, P.E., Director

NEW MEXICO STATE LAND OFFICE

By: _____ Date _____
Ray Powell, M.S., D.V.M., Commissioner of Public Lands

U.S. BUREAU OF LAND MANAGEMENT

By: *Jesse Juan* Date 2/7/13
Jesse Juan, State Director

U.S. FISH AND WILDLIFE SERVICE

By: *Benjamin Tuggle* Date 6/4/2012
Benjamin Tuggle, Regional Director

X. Signatories

The parties identified herein have caused this Conservation Agreement to be executed as of the date of the last signature shown. This document will be signed in counterparts and all signatures deemed part of one document.

TEXAS PARKS AND WILDLIFE DEPARTMENT

By: _____
Carter Smith, Director

_____ Date

NEW MEXICO DEPARTMENT OF GAME AND FISH

By: _____
James S. Lane, Jr., Director

_____ Date

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

By:  _____
Brett F. Woods, Ph.D.
Deputy Cabinet Secretary
New Mexico Energy, Minerals and Natural Resources Department
~~David Martin, Cabinet Secretary~~

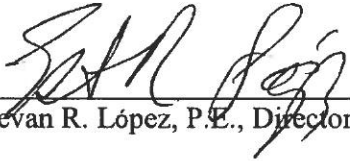
7-9-13
_____ Date

NEW MEXICO DEPARTMENT OF AGRICULTURE

By: _____
Tom Bagwell, Acting Secretary

_____ Date

NEW MEXICO INTERSTATE STREAM COMMISSION

By: 
Estevan R. López, P.E., Director

8/9/12
Date

NEW MEXICO STATE LAND OFFICE

By: _____
Ray Powell, M.S., D.V.M., Commissioner of Public Lands Date

U.S. BUREAU OF LAND MANAGEMENT

By: _____
Jesse Juan, State Director Date

U.S. FISH AND WILDLIFE SERVICE

By: _____
Benjamin Tuggle, Regional Director Date

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TEXAS PARKS AND WILDLIFE DEPARTMENT

By: _____ Date _____
Carter Smith, Director

NEW MEXICO DEPARTMENT OF GAME AND FISH

By: James S. Lane, Jr. Date 5/16/13
James S. Lane, Jr., Director

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

By: _____ Date _____
David Martin, Cabinet Secretary

NEW MEXICO DEPARTMENT OF AGRICULTURE

By: _____ Date _____
Tom Bagwell, Acting Secretary

NEW MEXICO INTERSTATE STREAM COMMISSION

By: _____ Date _____
Estevan R. López, P.E., Director

NEW MEXICO STATE LAND OFFICE

By:  _____ Date 8/6/13
Ray Powell, M.S., D.V.M., Commissioner of Public Lands

U.S. BUREAU OF LAND MANAGEMENT

By: _____ Date _____
Jesse Juan, State Director

U.S. FISH AND WILDLIFE SERVICE

By: _____ Date _____
Benjamin Tuggle, Regional Director