



## United States Department of the Interior

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August 30, 2005

### Memorandum

**To:** Regional Director, Region 2, Albuquerque, New Mexico  
 (ARD-ES) (Attn: Luella Roberts)

**From:** Field Supervisor, Arizona Ecological Services Field Office, Phoenix, Arizona

**Subject:** Findings and Recommendation on Issuance of an Incidental Take Permit for Endangered Gila Topminnow (*Poeciliopsis occidentalis occidentalis*) and Endangered Desert Pupfish (*Cyprinodon macularius*) in Pinal and Graham County, Arizona (TE-099809-0).

### I. DESCRIPTION OF PROPOSAL

The Nature Conservancy (TNC) has developed a Safe Harbor Agreement (Agreement) and has applied to the U.S. Fish and Wildlife Service (FWS) for an incidental take permit pursuant to Section 10(a)(1)(A) of the Endangered Species Act, as amended (16 USC §1531-1544)(Act). The requested permit, which is for a period of 20 years, would authorize incidental take of endangered Gila topminnow (*Poeciliopsis occidentalis occidentalis*) and endangered desert pupfish (*Cyprinodon macularius*) resulting from land-treatment activities for watershed improvements, ongoing recreation and land management activities, implementation of conservation activities, and taking the Gila topminnow and desert pupfish populations back to baseline conditions. The area covered by the Agreement and associated permit would be approximately 2,175 acres within the Aravaipa Creek watershed under the Agreement. TNC will hold the Agreement's associated section 10(a)(1)(A) Permit.

The Agreement identifies four perennial aquatic sites within the covered lands for reestablishment of Gila topminnow and desert pupfish into south rim tributaries of Aravaipa Creek. TNC will notify the FWS 60 days before any activity (grazing activities, prescribed fire, or other landscape level impact) is undertaken that could result in substantial take of either species, and allow FWS personnel or their representatives access to temporarily relocate or hold individuals until they may be placed back into the reestablishment sites. TNC will also coordinate with participating agencies in reestablishment efforts in this watershed and determine ways to minimize take associated with these activities. Measures are more fully described within the Agreement, but include: allowing appropriate agencies to collect and hold Gila topminnow and desert pupfish during land-management activities; managing livestock grazing in and around

riparian areas at reestablishment sites; preventing or controlling the introduction of non-native aquatic predators into Gila topminnow and desert pupfish habitat; and, for land treatments that alter vegetation or change runoff characteristics, including measures such as buffers around drainages, erosion control structures, and buffers around the enrolled sites.

### Analysis of Effects

## II. PUBLIC COMMENT

A Notice of Availability of the Agreement and Receipt of the Application for a Section 10(a)(1)(A) Enhancement of Survival Permit for Gila topminnow and desert pupfish on 2,175 acres of TNC owned lands within the 343,680-acre Aravaipa Creek watershed in Pinal and Graham counties, Arizona, was published in the Federal Register on February 24, 2005. Publication of the notice initiated a 30-day comment period, which closed on March 28, 2005. Letters with a copy of the Federal Register notice were mailed to approximately 231 interested parties. The Agreement was available on the FWS - Arizona Ecological Services Office website and by request at the Phoenix and Tucson Offices. We received a total of three responses, including Arizona Game and Fish Department (AGFD), Environmental Defense, and a retired USFWS biologist, Sally Stefferud. All comments on the Agreement were positive.

## III. ENHANCEMENT OF SURVIVAL PERMIT CRITERIA - ANALYSIS AND FINDINGS

1. The taking of the above listed species will be incidental to an otherwise lawful activity and will be in accordance with the terms of the Agreement.

Incidental take of Gila topminnow and desert pupfish may occur under the Agreement primarily as a result of eight activities: 1) prescribed burns for watershed improvement; 2) livestock grazing on adjacent uplands; 3) contamination of water due to run-off from a closed two-track road; 4) recreational activities including hiking, camping, horseback riding, and hunting; 5) monitoring of Gila topminnow and desert pupfish populations; 6) management actions to remove non-native aquatic species; 7) reestablishment of vegetation within these aquatic sites or in terrestrial habitat within TNC lands; and 8) a decision by the Permittee to return the covered lands to baseline conditions. Any take of Gila topminnow or desert pupfish will be incidental to these otherwise legal activities.

2. Implementation of the terms of the Agreement is reasonably expected to provide a net conservation benefit to the affected listed species and the Agreement otherwise complies with the Safe Harbor policy (May 3, 2004).

The Agreement is reasonably expected to provide a net conservation benefit to the above listed species, as required by the FWS's Final Safe Harbor Policy as revised, 69 FR 24084 (May 3, 2004). The Agreement's purpose is to reestablish Gila topminnow and desert pupfish within the historical range of these species as identified within the recovery plans for each species. Populated sites will be created through translocation from existing captive or wild populations in accordance with established protocols, by AGFD under their separate section 10(a)(1)(A) scientific research permit. For as long as these populated sites and

habitats persist, they will aid in the conservation of Gila topminnow and desert pupfish as identified in their recovery plans. This effort is also part of a larger reestablishment effort on Federal lands within the Aravaipa Creek watershed, being implemented by AGFD with the Bureau of Land Management (BLM).

The Gila topminnow and desert pupfish will benefit directly from reestablishment within the Aravaipa Creek watershed at the aquatic sites on TNC's lands covered by the Agreement.

A net conservation benefit to the Gila topminnow and desert pupfish would be gained through an increase in level 3 populations (those in need of continued management) of topminnow and pupfish. These can serve as sources of fish for other reestablishment efforts. The topminnow and pupfish can be used in genetic exchange between level 2 (populations that are self-sustaining) and level 3 populations. The proposed action is compatible with step-down objectives 1.1, 2.1, 2.2, 2.4, 2.6, 5, and 6 of the Draft Revised Gila topminnow Recovery Plan (Weedman 1998) and 2, 5, and 7 of the Desert Pupfish Recovery Plan (USFWS 1993). Even if there are no additional sites that are added to the existing agreement, this Agreement will provide an example of how coordinated efforts on private and Federal lands can occur and provide regulatory assurances for landowners who participate in such efforts.

3. The probable direct and indirect effects of any authorized take will not appreciably reduce the likelihood of survival and recovery in the wild of any listed species.

The Act's legislative history establishes the intent of Congress that issuance criteria be based on a finding of "not likely to jeopardize" under section 7(a)(2) [see 50 CFR 402.02]. As a result, we have also reviewed approval of the Applicant's permit application under section 7 of the Act. In the Biological Opinion, which is attached hereto and incorporated by reference, we concluded that issuance of the permit to the Applicant will not likely jeopardize the continued existence of the Gila topminnow or desert pupfish. Although the Applicant will be reestablishing Gila topminnow and desert pupfish in four sites, the fish at these new sites will be considered "taken" in the analysis of the species' current status and baseline, unless there are provisions for their long-term persistence (i.e. beyond the 20-year period of the Agreement). Therefore, in evaluating subsequent Federal projects, Habitat Conservation Plan proposals, and any other proposed Safe Harbors, the FWS will not "overestimate" the number of occupied sites for these two species under a jeopardy analysis.

4. Implementation of the terms of the Safe Harbor Agreement is consistent with applicable Federal, State, and Tribal laws and regulations.

The Agreement complies with all other applicable Federal, State, and Tribal laws and regulations as outlined in the Safe Harbor Agreement and Categorical Exclusion.

5. Implementation of the terms of the Safe Harbor Agreement will not be in conflict with any ongoing conservation or recovery programs for listed species covered by the permit.

Implementation of the Agreement is consistent with step-down objectives 1.1, 2.1, 2.2, 2.4, 2.6, 5, and 6 of the Draft Revised Gila topminnow Recovery Plan (Weedman 1998) and 2, 5, and 7 of the Desert Pupfish Recovery Plan (USFWS 1993). The implementation of this Agreement will be reliant on AGFD, who has helped develop the Agreement and is working with BLM for the larger reestablishment efforts in this watershed. The plan's short-term goal is to prevent extirpation of the species from their natural ranges in the U.S. and to reestablish them into suitable habitat within their historical ranges. The Agreement will also demonstrate incentives for private landowners to establish populations of listed species on non-Federal property, which could stimulate more interest in these species for mosquito control and recovery efforts on non-Federal lands.

6. The applicant has shown capability for, and commitment to, implementing all of the terms of the Agreement.

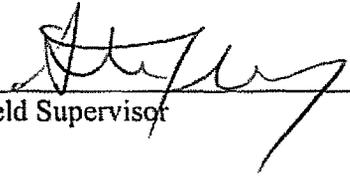
The conservation program established by the Agreement is intended to be a collaborative process between the FWS and TNC, with the cooperation of AGFD and BLM. The actual translocation of these fish has been planned for by AGFD and is not the responsibility of the Applicant. In addition, these translocations are being done concurrently on BLM-managed Federal lands within the same tributaries in the Aravaipa Creek watershed. Therefore, the Applicant is providing sites to reestablish these populations and will continue to monitor watershed level impacts and assist AGFD and BLM in monitoring these populations and potential take related to activities described above and in the Intra-Service section 7 Biological Opinion on the issuance of the section 10(a)(1)(A) enhancement of survival permit.

#### IV. GENERAL CRITERIA AND DISQUALIFYING FACTORS – ANALYSIS AND FINDINGS

We have no evidence that the permit should be denied on the basis of the criteria and conditions set forth in 50 CFR 13.21 (b)-(c). The Applicant has met the criteria for the issuance of the permit and does not have any disqualifying factor that would prevent the permit from being issued under current regulations.

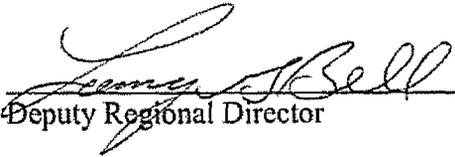
#### V. RECOMMENDATION ON PERMIT ISSUANCE

Based on the foregoing findings with respect to the proposed action, we recommend issuance of a permit to authorize the incidental taking of Gila topminnow and desert pupfish in accordance with the Agreement.

  
Field Supervisor

8/30/05  
Date

Concur:

**ACTING**   
Deputy Regional Director

9/13/05  
Date

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