PROPOSED FISH BARRIER
HOT SPRINGS CANYON

Hot Springs
Area of Critical Environmental Concern
Cochise County, Arizona

Scoping Information
and
Opportunity to Comment

U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Region
Phoenix Area Office

U.S. Department of the Interior
Bureau of Land Management
Safford Field Office

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Introduction

This Scoping Notice/Opportunity to Comment is being offered to the public to allow early and meaningful participation in the National Environmental Policy Act (NEPA) review of a Federal action proposed by the Bureau of Reclamation (Reclamation) and Bureau of Land Management (BLM). After the public scoping period has ended, the agencies will prepare an Environmental Assessment (EA) to evaluate the potential environmental consequences of the proposed project.

Reclamation and BLM are proposing construction of a fish barrier in a remote area of Hot Springs Canyon within the BLM-administered Hot Springs Area of Critical Environmental Concern (ACEC). The Hot Springs ACEC forms the southern portion of the Muleshoe Ranch Cooperative Management Area (CMA) located in Cochise County, Arizona (Figure 1). The proposed fish barrier is intended to prevent the upstream invasion of nonnative fishes into portions of Hot Springs Canyon occupied by threatened and endangered fish species.

Background

The proposed Hot Springs Canyon fish barrier project is part of a larger program being implemented by Reclamation to construct a series of barriers within the Gila River basin to prevent nonnative fishes and other aquatic organisms from invading high-priority streams occupied by native fishes. This program is mandated by three U.S. Fish and Wildlife Service (FWS) biological opinions on impacts of Central Arizona Project water transfers to the Gila River basin. The fish barrier construction program is one of several Reclamation conservation measures intended to assist with recovery of federally listed fishes.

Habitat destruction and alteration were the principal causes for declines of native fishes in the American southwest prior to the mid-1900s; however, in the past several decades, it has become apparent that the presence of nonnative fishes precludes or negates benefits from habitat protection and restoration. Introduction and spread of nonnative competitive and predatory fishes now are considered the most consequential factors preventing sustenance and recovery of imperiled native fishes in the Gila River basin and other drainages of the southwest.

Highest priority streams under Reclamation's fish barrier construction program are those that can be secured to prevent extinction and stabilize rare stocks of native fishes, or that can be protected and renovated to replicate rare stocks of native fishes. Hot Springs Canyon sustains populations of five native fish species: longfin dace (*Agosia chrysogaster*), speckled dace (*Rhinichthys osculus*), Sonora sucker (*Catostomus insignis*), desert sucker (*Pantosteus clarki*), and endangered Gila chub (*Gila intermedia*). Suitable habitat also exists for threatened loach minnow (*Tiaroga cobitis*), threatened spikedace (*Media fulgida*), endangered desert pupfish (*Cyprinodon macularius*), and endangered Gila topminnow (*Poeciliopsis occidentalis*).

In October 2007, the BLM, working in conjunction with FWS, Arizona Game and Fish Department, Arizona State University, Arizona State Land Department, Reclamation, The Nature Conservancy, and U.S. Forest Service, stocked loach minnow, spikedace, desert pupfish, and Gila topminnow into perennial waters of Hot Springs Canyon. The objective of the stocking program is to assist in the recovery of each of these species and to restore historical species diversity to the area.

Purpose and Need

The purpose of the proposed fish barrier is to obviate the threat to existing and newly reintroduced native fish populations in Hot Springs Canyon posed by nonnative fishes that inhabit the San Pedro River. Nonnative species are capable of moving upstream into perennial waters of Hot Springs Canyon during periods when high seasonal flows or floods provide connectivity with the San Pedro River. There are currently no nonnative fishes present within the stream.

Proposed Action

The proposed barrier would be a steel-reinforced, poured-concrete drop structure anchored to abutment bedrock and keyed into the channel alluvium. The barrier would consist of four primary features: (1) a 5-foot-high, 24-foot-long vertical drop structure; (2) a concrete splash apron spanning the length of the drop structure to prevent streambed scour and plunge pool development; (3) upstream and downstream keys (subsurface scour walls) to help anchor the barrier and prevent scour from undermining the structure; and, (4) buried gabion armoring across the entire width of the streambed along the downstream key to further reduce scour. The proposed barrier site is approximately 5.1 linear miles (5.6 stream miles) upstream of the San Pedro River on BLM land (Figure 2).

Because of the absence of roads, construction material would be transported to the site by helicopter. However, Reclamation will consider the option of walking a backhoe, which is needed for construction, up the stream channel to avoid the significant expense of aerial transport of heavy equipment. The impacts of this option will be fully explored during the NEPA process.

Alternative Actions to the Proposed Action

In accordance with Council of Environmental Quality regulations at 40 CFR 1502.14 (d), no action must be considered as an alternative to the proposed action in each NEPA review. No action also provides the baseline for comparison of environmental effects of the proposed action. If no action is taken, Reclamation would not construct the barrier.

Other action alternatives to meet the purpose and need will be considered during scoping.

Preliminary Issues

To comply with NEPA, Reclamation and BLM have determined that an EA needs to be prepared to evaluate the significance of environmental impacts that could result from implementation of the proposal.

NEPA applies to Federal actions; therefore, the first step in determining the scope of the EA is identification of key issues related to the effect of the proposed Federal action on the existing environment. Public input during this initial scoping process will help us focus the EA on relevant environmental issues.

We anticipate the following issues will be addressed in the EA:

- effects to biological resources, including special status species,
- effects to cultural resources,
- effects to water resources,
- effects to soils and sediment transport,
- effects to land use,
- effects to the ACEC.

Decision to be Made

Reclamation and BLM must decide which alternative to implement. If the proposed action is implemented, Reclamation would construct the barrier and implement any required environmental mitigation. Authority for approving construction on BLM land within the Hot Springs ACEC is held by the Field Manager of the Safford Field Office.

Consistency with Resource Management Plans

The Safford Field Office manages BLM land in the Hot Springs ACEC in accordance with the *Safford District Resource Management Plan (RMP)* (RMP; Part I 1992, and Part II 1994), the *Muleshoe Ecosystem Management Plan (EMP)* (EMP, 1998), and other national policies such as the Endangered Species Act. The Safford District RMP designated the 16,763-acre Hot Springs ACEC to protect riparian, cultural, fish and wildlife (including federally listed species), and scenic land use values. The RMP prescribes management guidance, and the EMP serves as the activity plan for the ACEC.

The proposed project would conform to the following management objectives of the RMP and EMP:

- Protect populations of sensitive, threatened, and endangered fish species and their habitats (RMP)

- Maintain the diversity of native fish populations by removing threats to them (EMP)

How to Comment and Timeframe

You are encouraged to offer comments on the scope of the upcoming EA, including potential issues, concerns, and alternatives to the proposed project. Reclamation and BLM will accept comments until July 10, 2008. Please include your full name and address and project title (Hot Springs Canyon Fish Barrier) with your comments. Comments should be submitted to Mr. John McGlothlen, Bureau of Reclamation, 6150 West Thunderbird Road, Glendale, Arizona 85306. Facsimiles may be sent to Mr. McGlothlen at 623-773-6486. Hand-delivered written comments may be submitted to the above address, Monday through Friday, between 7:30 a.m. and 4:00 p.m., excluding Federal holidays. Electronic (e-mail) comments may be submitted to jwmcglothlen@lc.usbr.gov. Please include your full name and address with your e-mail.

By law, the names and addresses of those providing comments are available for public review. However, individuals may request that their name and/or address be withheld from the record. These requests will be honored to the extent allowable by law. If you wish your name and/or address withheld, you must state this prominently at the beginning of your comment letter. All comments from organizations or businesses will be available for public inspection in their entirety.

For additional information concerning the proposed project, please contact Mr. McGlothlen at the address above, by telephone at 623-773-6256, or by e-mail at jwmcglothlen@lc.usbr.gov.

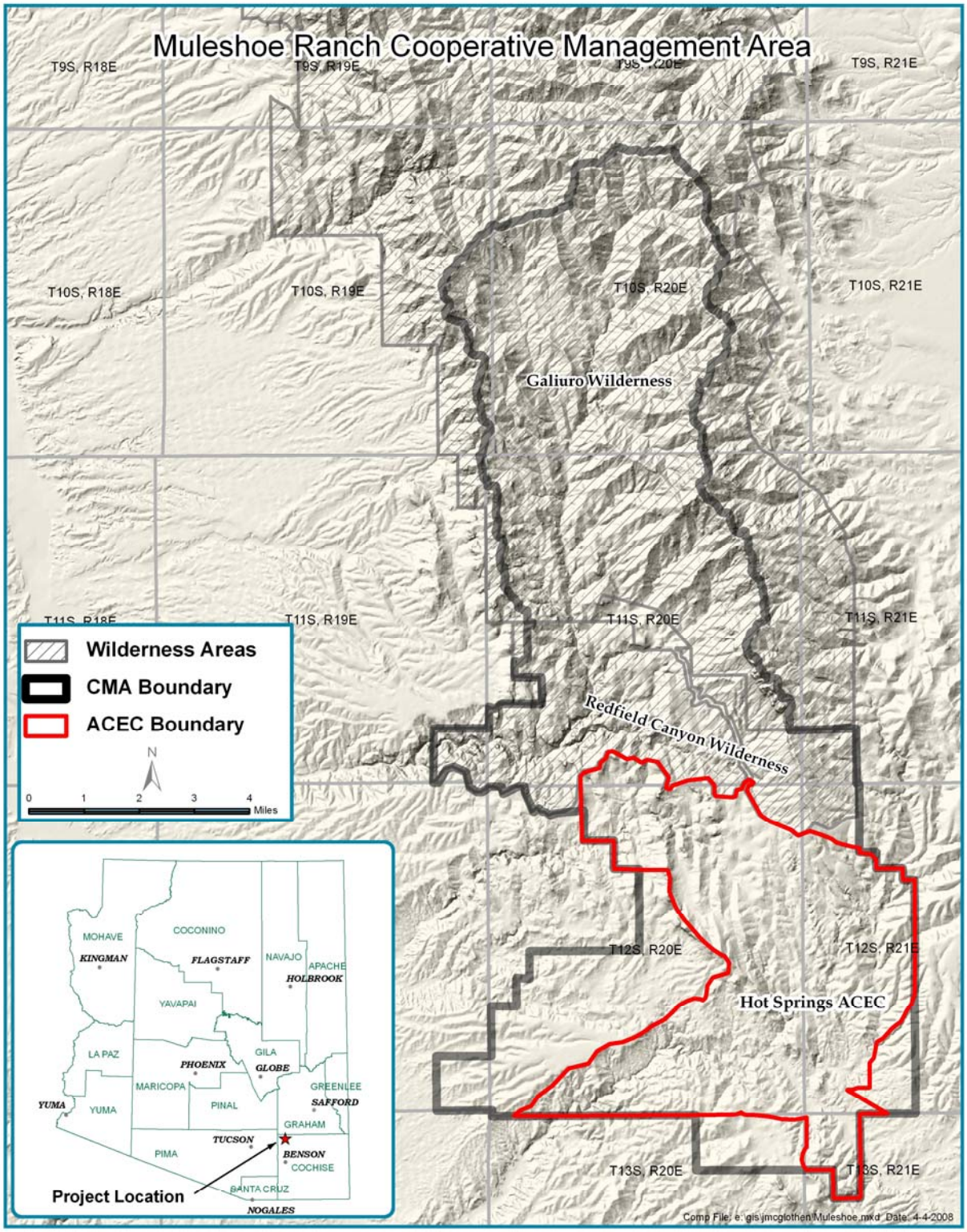

Figure 1. Muleshoe Ranch CMA

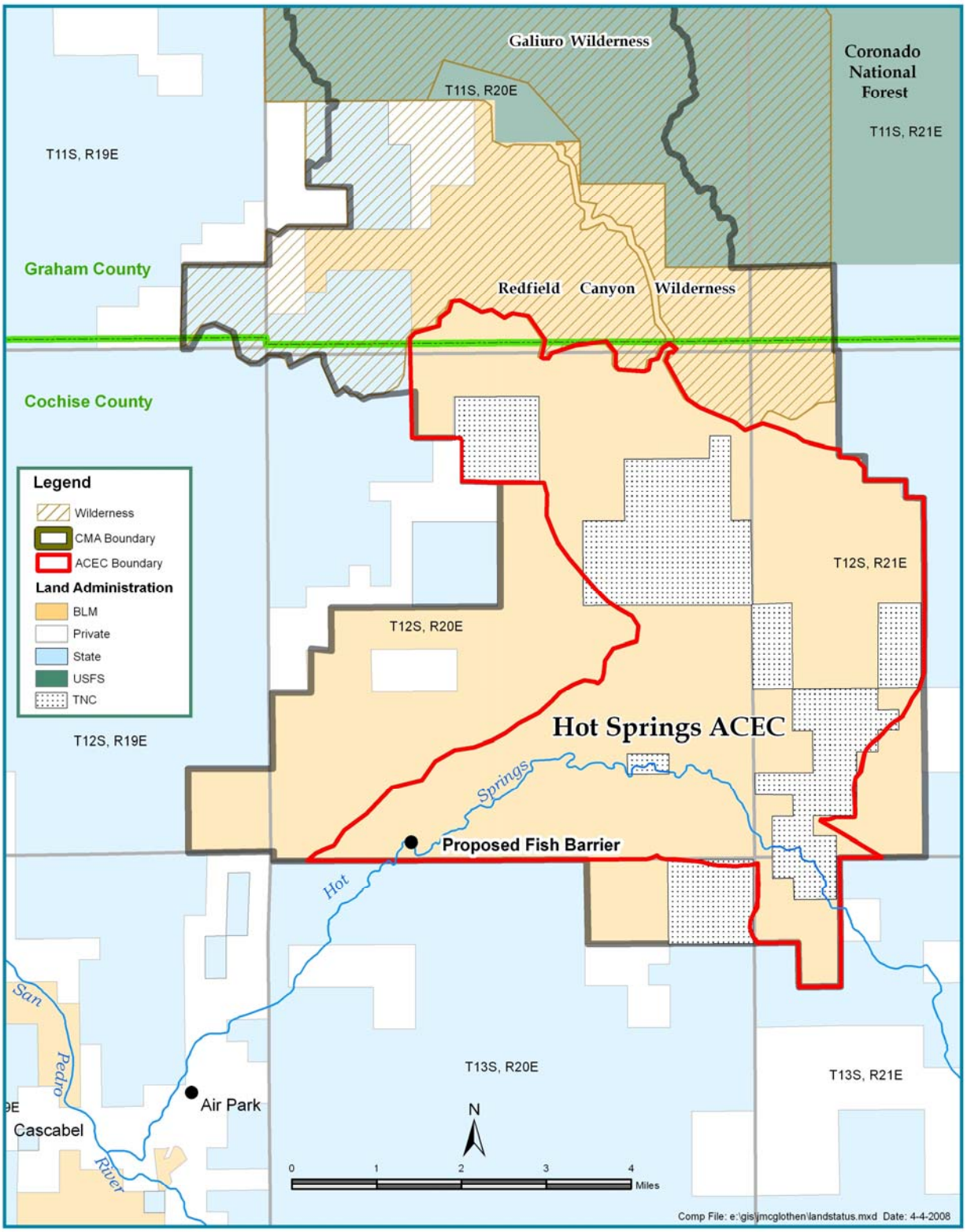

Figure 2. Fish Barrier Location