



United States Department of the Interior

U.S. Fish and Wildlife Service

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In Reply Refer to:

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E-Mail Transmission
Memorandum

To: Project Leader, Arizona Fish and Wildlife Conservation Office, Fish and Wildlife Service, Pinetop, Arizona (Attn: Stewart Jacks)

From: Field Supervisor

Subject: Stillman Lake Native Fish Renovation

Thank you for your request for informal consultation with our office pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended. The proposed action is to remove non-native fishes with a chemical piscicide and stock native fish in Stillman Lake, Yavapai County, Arizona. This is a cooperative project between the Arizona Fish and Wildlife Conservation Office (AZFWCO), the Arizona Ecological Services Office, and the Arizona Game and Fish Department (AGFD) and is funded through Central Arizona Project Water Transfer Funds (Task 4-50). AZFWCO requests our concurrence that the proposed action "may affect, but would not likely adversely affect" the threatened spikedace (*Meda fulgida*) and its designated critical habitat, endangered razorback sucker (*Xyrauchen texanus*), petitioned roundtail chub (*Gila robusta*), and threatened bald eagle (*Haliaeetus leucocephalus*). We concur with your determinations as discussed below.

Project Description

A complete description of the proposed action is found in the Fish and Wildlife Service's (FWS) environmental assessment for the project. That information is included herein by reference.

The project area is located at the headwaters of the Verde River, south of Paulden and north of Chino Valley in Yavapai County (Township 17 North, Range 2 West, southern portion of section 11 and north portion of section 14, Figure 2). Perennial flow of the Verde River begins upstream of its confluence with Granite Creek in an area called Stillman Lake. Stillman Lake is a relatively secluded area that has limited access because it is surrounded by private lands. The area is not a true "lake," but is a long, narrow body of water (approximately 20 surface acres) that originates from a spring complex approximately 0.25 miles downstream of Sullivan Dam. Stillman Lake is a semi-impoundment of the Verde River formed by an alluvial fan that

originates from Granite Creek. Although Stillman Lake does have hydrologic connection to the Verde River during runoff events, normally all the flow to downstream areas is subsurface.

The purpose of the proposed action is to restore and enhance the native fish community in Stillman Lake. In order to do this, the Fish and Wildlife Service, in cooperation with the AGFD, is proposing to remove all non-native fish and reduce crayfish and non-native amphibians. A fish toxicant (likely rotenone) effective in killing most species and life stages of gill-breathing animals will be used to remove non-native fishes from Stillman Lake. Sodium or potassium permanganate will be used as detoxifying agent at the downstream end of the treatment zone. During chemical application baited minnow traps would be deployed in order to expose crayfish to the piscicide and increase mortality. Bullfrog tadpoles would be killed by the fish toxicant, but adult animals would be manually removed in order to reduce the number of animals in the area. Stillman Lake is conducive for native fish restoration because of its isolation and the retention of the berm which hydrologically separates the area from the rest of the Verde River. Optimal time for the initial renovation of Stillman Lake would be late summer (August-September) in order to maximize the number of crayfish captured. Following the eradication of non-native fishes from Stillman Lake, it would be gradually restocked over a three-year period to restore the native fish community that was historically found in the area. Native fish that would be stocked into Stillman Lake include razorback sucker, desert sucker (*Pantosteus clarkii*), Sonora sucker (*Catostomus insignis*), roundtail chub, and speckled dace (*Rhinichthys osculus*).

The Fish and Wildlife Service will conduct comprehensive post-treatment survey for any remaining fish following treatment and will re-treat the area if fish are found on these surveys. Post-treatment monitoring will determine if non-native fish removal was complete and, if non-native fishes are detected during the post-treatment survey, the water will be re-treated. In addition, periodic follow-up monitoring will be completed.

DETERMINATION OF EFFECTS

Spikedace

We concur with your determination that the proposed action may affect, but will not likely adversely affect, the spikedace and its designated critical habitat. We base our determination on the following:

- Based upon many years of survey, we do not believe that there are spikedace in Stillman Lake. Therefore, the use of a chemical piscicide in Stillman Lake will not directly affect spikedace. By removing non-native fishes, the proposed action would aid in decreasing the population of predatory and competitive non-native fish above some historical spikedace locations in the Verde River. The removal of non-native fish may aid successful reproduction and survival of downstream spikedace populations.
- The final spikedace critical habitat rule lists “Habitat devoid of nonnative aquatic species or habitat in which nonnative aquatic species are at levels that allow

persistence of spinedace” as a primary constituent element of critical habitat. This alternative would assist in moving designated critical habitat towards this end.

Razorback sucker

We concur with your determination that the proposed action may affect, but will not likely adversely affect, the razorback sucker. We base our determination on the following:

- Razorback suckers are not currently present in Stillman Lake. However, this action would result in a net positive effect on the razorback sucker. Following removal of non-native fish from Stillman Lake, the preferred action would stock razorback suckers in Stillman Lake which would provide a source population that could disperse downstream in high-flow events.

Roundtail chub

We concur with your determination that the proposed action may affect, but will not likely adversely affect, the roundtail chub. We base our determination on the following:

- Roundtail chub are not currently present in Stillman Lake. However, this action would result in a net positive effect on the roundtail chub. Following removal of non-native fish from Stillman Lake, the preferred action would stock roundtail chub in Stillman Lake which would provide a source population that could disperse downstream in high-flow events.

Bald eagle

We concur with your determination that the proposed action may affect, but will not likely adversely affect, the bald eagle. We base our determination on the following:

- No suitable nesting and only limited foraging habitat occurs in Stillman Lake, therefore the potential for disturbance from the proposed action would be insignificant and discountable.
- Consumption of rotenone-killed fish would not be expected to harm foraging bald eagles. However, the FWS will remove exposed fish carcasses that may be available for foraging, which would further reduce the potential for any effects.
- There are nesting eagles in Sullivan Lake, approximately 4 miles southwest of Stillman Lake. However, the nest is far enough away that project activities would not impact eagles on the nest and should not interfere with foraging.

We appreciate your continued cooperation in implementation of important native aquatic species conservation projects. No further section 7 consultation is required for this project at this time.

Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered. If you have any questions or concerns about this consultation, or the consultation process in general, please contact Shaula Hedwall (x103) or Brenda Smith (x101) of our Flagstaff Suboffice at (928) 226-0614.



Steven L. Spangle

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
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