

September 12, 2013

Memorandum

To: Industrial Economics, Inc.

From: Acting Field Supervisor, Arlington, Texas, Ecological Services Field Office

Subject: Incremental Effects Memorandum for the Economic Analysis of the Proposed Rule to Designate Critical Habitat for Sharpnose and Smalleye Shiners

Introduction

The purpose of this document is to provide information to serve as a basis for conducting an economic analysis of the proposed critical habitat designation for sharpnose (*Notropis oxyrhynchus*) and smalleye (*N. buccula*) shiners.

Section 4(b)(2) of the Endangered Species Act (Act) requires the U.S. Fish and Wildlife Service (Service) to consider the economic, national security, and other impacts of designating critical habitat. The Service may exclude an area from critical habitat if it determines that the benefits of exclusion outweigh the benefits of including the area as critical habitat, unless the exclusion will result in the extinction of the species. To support its weighing of the benefits of excluding versus including an area as critical habitat, the Service prepares an economic analysis for each proposed critical habitat designation, which describes and monetizes where possible, the economic impacts (costs and benefits) of the proposed designation.

Determining the economic impacts of critical habitat designation involves evaluating the "without critical habitat" baseline versus the "with critical habitat" scenario. Impacts of a designation equal the difference, or the increment, between these two scenarios. Measured differences between the baseline (the world without critical habitat) and the designated critical habitat (world with critical habitat) may include, but are not limited to, changes in land or resource use, environmental quality, or time and effort expended on administrative and other activities by Federal landowners, Federal action agencies, and in some instances, State and local governments or private third parties. These are the "incremental effects" that serve as the basis for the economic analysis.

One important function of this memorandum is to provide detailed information about the differences between actions required to avoid jeopardy versus actions that may be required to avoid adverse modification. The Service is in the process of updating the regulatory definition of adverse modification since it was invalidated by a prior court ruling. In the meantime, we will rely on guidance provided by the Director's December 9, 2004, Memorandum, *Application of the "Destruction or Adverse Modification" Standard under Section 7(a)(2) of the Endangered Species Act*. This memo explains that the goal of a section 7 analysis of a Federal action is to determine if the "critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role of the species..." (p. 3). The information provided below is intended to identify the incremental effects of critical habitat designation for the sharpnose and smalleye shiner under the different section 7 standards.

Background

Sharpnose and smalleye shiners are small minnows native to arid prairie streams of Texas originating from the Brazos River, live less than three years, and typically survive through only one or two breeding seasons. Sharpnose and smalleye shiners are broadcast spawners with semi-buoyant eggs and larvae requiring sufficient river flow to keep their developmental stages afloat and viable. As such, these species also require unobstructed river segments currently believed to be at least 275 km (171 mi) in length to support successful reproduction. Due to their short lifespan, threats that preclude successful reproduction during two consecutive breeding seasons (such as severe drought) are likely to cause species extinction. Based on historical (1930s to current) and current (from 2008 to 2012) data, sharpnose and smalleye shiners have been extirpated from greater than 70 percent and 50 percent of their ranges, respectively. The primary threats to the species are river fragmentation by fish barriers and alterations of flow regime resulting from drought (exacerbated by climate change), groundwater withdrawal, reservoir construction, and saltcedar encroachment. Secondary threats such as water quality degradation and commercial harvesting are impacting these species to a lesser extent. The last remaining populations of sharpnose and smalleye shiners are each restricted to approximately 1,002 river km (623 mi) of the upper Brazos River above Possum Kingdom Lake. Additional information on the species and their threats are available in the August 6, 2013, proposed listing rule (78 FR 47582) and the draft Species Status Assessment (available online at <http://www.fws.gov/southwest/es/ArlingtonTexas/Shiner.htm>).

In total, approximately 1,002 river kilometers (623 river miles) in six subunits of the upper Brazos River basin are being proposed for designation as critical habitat. A 30-meter (98-foot) lateral extent beyond the river channel (i.e. 30 meters each direction from the bankfull width of the river channel) is also proposed for designation as critical habitat. The six subunits proposed as critical habitat make up the contiguous, unobstructed section of the upper Brazos River system consisting of portions of the Brazos River main stem, Salt Fork of the Brazos River, White River, Double Mountain Fork of the Brazos River, North Fork Double Mountain Fork of the Brazos River, and South Fork Double Mountain Fork of the Brazos River (see TABLE 1). All six subunits proposed for designation as critical habitat are considered occupied by both species. In Texas, river channels are held in public trust and managed by the State, therefore the river channels proposed as critical habitat are considered State-owned, while nearly all of the proposed area extending laterally from the river channel is privately owned. Specific unit descriptions are available in the proposed critical habitat rule published on August 6, 2013 (78 FR 47612).

TABLE 1.—Proposed critical habitat subunits for the sharpnose shiner and smalleye shiner.

Critical Habitat Subunit	Length of Subunit in River Kilometers (River Miles)
Subunit 1. Upper Brazos River Main Stem	326.8 (203.1)
Subunit 2. Salt Fork of the Brazos River	275.1 (171.0)
Subunit 3. White River	40.3 (25.1)
Subunit 4. Double Mountain Fork of the Brazos River	239.8 (149.0)
Subunit 5. North Fork Double Mountain Fork of the Brazos River	108.6 (67.5)
Subunit 6. South Fork Double Mountain Fork of the Brazos River	11.1 (6.9)
Total	1,001.9 (622.5)

Note: Area sizes may not sum due to rounding.

As described in the proposed rule, the intended conservation role of critical habitat for sharpnose and smalleye shiners is the protection of river segments containing the only remaining sustainable populations of these species. The designation of critical habitat for these species also provides focus areas for conservation, education, and management.

No proposed areas are being considered for exclusion from designation under section 4(b)(2) at this time.

Baseline Analysis

The following discussion describes the existing regulatory circumstances that are anticipated without critical habitat being designated for sharpnose and smalleye shiners. These species are being proposed for listing concurrently with the proposed critical habitat designation; therefore, they have no prior section 7 consultation history. In the baseline scenario, section 7 of the Endangered Species Act requires Federal agencies to consult with the Service to ensure that any action authorized, funded, or carried out by a Federal agency will not likely jeopardize the continued existence of the species.

A jeopardy analysis for these species would evaluate the magnitude of a project's impacts relevant to the population(s) across the species' entire range. Furthermore, the jeopardy analysis would focus on effects to the species' reproduction, numbers, or distribution.

There are no other endangered species or designated critical habitat within the areas being proposed for critical habitat for these two fish.

Conservation plans and regulatory mechanisms that provide protection to the species and its habitat without critical habitat designation

Listing of these fish as endangered will provide an opportunity for conservation and protection under sections 5, 6, 7, 9, and 10 of the Act. These include cooperative actions with the State, consultation with Federal agencies for actions that may affect the species, prohibition against taking listed wildlife without special permits, and cooperative habitat protections with other entities and landowners.

Texas state law does not provide protection for either species because they are not currently state listed as endangered or threatened. The Texas Commission on Environmental Quality regulates point and non-point sources of pollution, as required by the Clean Water Act although occasional accidental and unlawful discharges likely occur.

There are no conservation plans in place that specifically address sharpnose or smalleye shiners, although several regulations and programs are in place that influence identified threats to these species. The Texas Environmental Flows Program is tasked with balancing the demands on the water resources of the state resulting from a growing population and the requirements of the riverine, bay, and estuary systems. However, no protections of upper Brazos River flows are in place and the environmental flow standards currently proposed as part of the Texas Environmental Flows Program are not likely adequate to conserve sharpnose or smalleye shiner habitat. Ongoing saltcedar control programs in Texas such as those supported by the U.S. Department of Agriculture and by the Brazos River Authority occasionally occur in areas that support sharpnose and smalleye shiners but they are not currently performed for the expressed purpose of reducing impacts of saltcedar on these species. Groundwater conservation districts manage groundwater resources to ensure it will be available for future users; however, despite some management, many areas of Texas are not governed by conservation districts and groundwater depletion continues to occur. In addition, conservation goals set by groundwater districts tend to focus on meeting future consumptive uses, not meeting biological needs specific to wildlife. These conservation efforts will continue with or without critical habitat designation, although the designation of critical habitat may help focus these efforts in areas where they will provide the most benefit to sharpnose and smalleye shiners. Within the area proposed as critical habitat for the sharpnose shiner and smalleye shiner there are three conservation districts: the Garza County Underwater Conservation District (Garza County), the Clear Fork Groundwater Conservation District (Fisher County), and the Rolling Plains Groundwater Conservation District (Haskell, Knox, and Baylor County). Although critical habitat does not occur within its administrative boundary, the High Plains Underground Water Conservation District manages groundwater resources of the Brazos River basin upstream of designated critical habitat.

Federal agencies and other project proponents that are likely to consult with the Service under section 7 without Critical Habitat

There are currently no other listed species or designated critical habitat that requires Federal agencies to consult with the Service under section 7 for proposed actions in the areas where the shiners occur. There are no federally owned or operated reservoirs in the upper Brazos River that would require section 7 consultation if the shiners were listed. Federal agencies and projects that would likely go through the section 7 consultation process if no critical habitat is designated include the following:

1. U.S. Army Corps of Engineers (Clean Water Act 404 permitting for bridge projects, stream restoration, reservoir construction, in-stream mining, water diversions).
2. U.S. Department of Transportation (highway and bridge construction and maintenance, railroad bridge construction and maintenance).

3. U.S. Fish and Wildlife Service (intraservice consultations for issuance of section 10 permits for enhancement of survival, habitat conservation plans, and safe harbor agreements; Partners for Fish and Wildlife program projects benefiting sharpnose and smalleye shiners; Wildlife and Sportfish Restoration program sportfish stocking and traditional section 6 grants).
4. U.S. Department of Agriculture (Farm Bill programs, saltcedar control projects).
5. U.S. Environmental Protection Agency (EPA; discharge permits, pesticide permitting, Texas Water Development Board (TWDB) water supply projects).
6. Federal Energy Regulatory Commission (FERC; natural gas pipeline and associated projects).

Service administrative effort for section 7 consultations without critical habitat

To date, no formal section 7 consultations have occurred for either species because these species have not been listed under the Act. However, from FY 2008 to present (5.5 years), the Service has reviewed 105 projects that occurred within the county-based section 7 range of the sharpnose shiner and 99 have been reviewed within the section 7 range of the smalleye shiner (the two species have not had identical section 7 ranges, although future section 7 ranges will likely be identical). "Section 7 range" is the geographical area within which we indicate Federal agencies should consider impacts to listed species. "Section 7 range" is not a legal area but is a reference used as a recommendation to consider the species for actions being taken. Consultations and technical assistance requests are recorded and tracked using an online database. It was determined records from 2008 to present are of reasonable quantity and quality to adequately assess consultation trends in the area proposed as critical habitat for these species. Although candidate species are not afforded protection under the Act, it is customary to include a section 7 range for these species to alert Federal agencies of their presence and to provide technical assistance to avoid further impacting these species. The smalleye shiner was extirpated from the lower Brazos River before extirpation of the sharpnose shiner, hence there was a period of time when the sharpnose shiner's section range included more area than the smalleye shiner. Currently the occupied ranges of both species overlap and occur in the upper Brazos River upstream of Possum Kingdom Lake.

Of the projects reviewed, all were either informal consultations or the Arlington, Texas, Ecological Services Field Office provided technical assistance. Based on the description of project actions and their locations it is expected that only a small number of these might have required formal consultation even if these species had been listed under the Act. Generally speaking, Federal projects that require in-channel work, fragment occupied habitat, or affect water flow within occupied habitat may require formal consultation. After a brief review of our consultation history using our online consultation database, there appears to be only two projects since 2008 that may have required formal consultation. One of these was a FERC project involving in-channel work to stabilize an exposed gas pipeline and the other was a TWDB project (with an EPA Federal nexus) involving the diversion and removal of additional water (for municipal use) from an upper Brazos River reservoir that feeds a tributary connected to occupied habitat in the main stem of the Brazos River. It is likely we would have requested the exposed pipeline be replaced with a directionally drilled pipe or that the pipeline be repaired in a manner that did not alter river morphology during periods when the river was lacking flow (if possible). We would

likely have required the water diversion project to include an analysis of how the project would affect flows within occupied shiner habitat.

What types of project modifications are currently recommended or will likely be recommended by the Service to avoid jeopardy (i.e., the continued existence of the species)?

Because these two species are not listed, we do not have a history of section 7 consultations so there are no extensive lists or descriptions of associated project modifications to guide our incremental effects analysis. We can predict to some extent what these modifications and measures may be based on section 7 consultations for similar species and using our knowledge of the life history of sharpnose and smalleye shiners. Given the mobility and abundance of sharpnose and smalleye shiners in the areas proposed as critical habitat it is assumed these fish are present when the river channels contain enough water to support fish. Surveys may be recommended (though not required) for projects occurring on tributaries hydrologically connected to occupied habitat but not otherwise known to be inhabited by sharpnose or smalleye shiners.

If we determine that a proposed Federal action may jeopardize the continued existence of the sharpnose or smalleye shiners, recommended conservation measures or project modifications could include one or more of the measures below, depending on the nature of the proposed action. This is not an exhaustive list.

1. For projects containing groundwater withdrawal:
 - a. Develop water conservation measures to reduce the need for groundwater withdrawal;
 - b. Design groundwater withdrawal systems to be located away from occupied fish habitat to the extent practicable;
2. For reservoir projects:
 - a. For existing reservoirs, develop and incorporate water release strategies to provide the necessary flow to meet the life history needs of these species;
 - b. For new reservoirs, site reservoirs downstream of occupied habitat to avoid fragmenting habitat;
 - i. When not feasible to avoid the upper Brazos River, site reservoirs off-channel or on unoccupied tributaries in the downstream portion of the upper Brazos River to minimize unnecessarily habitat fragmentation and alteration of flow regime;
 - ii. When siting of reservoirs downstream of the upper Brazos River basin or within the extreme downstream portion of the upper Brazos River is not feasible, site reservoirs upstream of occupied habitat to avoid fragmenting habitat and incorporate a water release strategy to provide the necessary flow to meet the life history needs of these species;
 - iii. Design new reservoirs with releases that do not come entirely from the cool water of the hypolimnion if feasible;
3. For linear utility projects:
 - a. Avoid crossing occupied habitat if feasible;
 - b. Completely span or directionally drill under occupied habitat and the riparian corridor;
 - c. Ensure channel contours are not altered or are returned to previous, natural conditions;
 - d. Revegetate with native vegetation near riparian corridors if necessary
4. For highway and railroad projects:
 - a. Minimize in-channel work by completely spanning occupied habitat;

- b. If in-channel work must be performed, reduce time spent in channel, maintain bypass flow, and transfer individual fish before any dewatering occurs;
 - c. Ensure channel contours are not altered or are returned to previous, natural conditions;
 - d. Revegetate with native plants following construction if riparian vegetation is impacted;
5. For saltcedar control projects:
 - a. Incorporate integrated pest management methodology, including application of herbicides per label instructions and using the minimum amount of herbicide needed to achieve the desired result;
 - b. Target dense, monotypic stands of saltcedar;
 - c. Revegetate with native plants while avoiding the creation of dense stands
 6. For in-stream mining/dredging projects:
 - a. Avoid occupied habitat to the greatest extent possible;
 - b. Use fish exclusion devices on all equipment to avoid mortality from physical contact;
 - c. Return the river channel to previous contours and flow conditions following activity;
 7. For projects likely to increase pollutant discharge:
 - a. Develop and incorporate into the project design, best management practices to minimize the likelihood of discharge to waters of occupied habitat;
 - b. Site projects as far from occupied surface waters as is feasible
 8. For water diversion projects:
 - a. Develop water conservation measures to reduce the need for water diversion;
 - b. Avoid diversion projects in the upper Brazos River basin
 - i. If not feasible to avoid the upper Brazos River basin entirely, divert water from unoccupied, smaller tributaries, as far downstream of the main Brazos River channel as possible.

Adverse Modification Analysis

The following discussion describes the regulatory circumstances that are anticipated with designation of critical habitat, as proposed, for sharpnose and smalleye shiners. Once critical habitat is designated, along with an analysis of project impacts to listed species, section 7 of the Endangered Species Act also requires Federal agencies to ensure that their actions will not result in the destruction or adverse modification of critical habitat. The key factor related to adverse modification is whether, with implementation of the proposed Federal action, the affected critical habitat will continue to have the capability to serve its intended conservation role for the species. From section 3(3) of the Endangered Species Act: The terms "conserve," "conserving," and "conservation" mean to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided under the Endangered Species Act are no longer necessary. Thus, designation of critical habitat helps ensure that proposed project actions will not result in the adverse modification of habitat to the point that the species will not achieve recovery, meaning they will not be capable of being removed from the threatened or endangered species list.

Currently, there are no known proposed Federal projects reasonably certain to occur within the next few years within areas proposed or designation as critical habitat for sharpnose shiners and smalleye shiners. However, there are a number of water planning projects designated in the 2012 State Water Plan and additional feasible projects in the regional water plans that could occur within areas designated as proposed critical habitat (see Chapter 3A of the Service (2013) Species Status Assessment for additional details). Given the nature of reservoir permitting, design, and construction it is not reasonable to assume these projects are probable to occur.

The same six Federal agencies listed above under the baseline analysis are anticipated to be the primary agencies that might consult with the Service under section 7 if critical habitat is designated as proposed. We expect consultations to primarily involve actions occurring within critical habitat for both shiner species that could disturb, degrade, fragment, or eliminate their habitat. Avoidance and minimization recommendations made during section 7 consultation for either species, both within and outside critical habitat, are expected to be the same; however, there may be an additional analysis needed to determine adverse modification.

One possible source of incremental effects of the designation would be when Federal agencies are not aware of the need to consult on proposed actions in areas not continuously occupied by the species. All proposed critical habitat subunits for both species are considered occupied at the time of listing. As a result Federal agencies should be consulting on any proposed actions that may affect the species regardless of whether or not critical habitat was designated. However, there may be times during drought conditions that portions of critical habitat streams lose continuous flow and may be temporarily unoccupied by either species. In these instances where some areas are temporarily unoccupied, if critical habitat were not designated, Federal agencies may not consult with the Service based on their perception of a lack of effect to the species. Although indirect effects of actions (effects that occur later, for instance, after fish return to the area) should still require consultation even in temporarily unoccupied habitat, Federal agencies may not consider these effects and choose not to consult on proposed actions in temporarily unoccupied habitats. As a result, the designation of critical habitat will draw attention to these areas and ensure Federal agencies are aware of the need for section 7 consultation. Similarly, the designation of critical habitat would also draw attention to the need to consult for actions that may occur along the lateral extent of occupied habitat, where such a need might otherwise not be immediately obvious to the Federal agencies.

Once Federal agencies are engaged in formal consultations for effects of a proposed action, we anticipate no differences in the conservation measures or project modifications that would be required to avoid adverse modification of critical habitat compared to those required to avoid jeopardizing sharpnose and smalleye shiners (see the list of conservation measures above). This is due to the fact that all the proposed critical habitat areas are occupied by the species, and the species is very closely tied to its habitat. These fish are restricted to their aquatic riverine environment and have specific habitat conditions needed for their survival and reproduction. Therefore, it is difficult to envision an action that would adversely modify critical habitat without also jeopardizing the species because the needs of the species are so closely tied to the need for appropriate habitat conditions.

Although there appear to be no known substantial incremental effects to designating critical habitat for sharpnose and smalleye shiners, there are several potential benefits including: (1) Ensuring consultation under section 7 of the Act occurs by drawing attention to the occupied range of the species; (2) focusing conservation activities on the most essential features and areas; (3) providing educational benefits to State or county governments or private entities; and (4) preventing people from causing inadvertent harm to the species.

How much administrative effort does or will the Service expend to address adverse modification in its section 7 consultations with critical habitat? Estimate the difference compared to baseline.

To address adverse modification in section 7 consultations with critical habitat, the Service will not need to reinitiate any formal consultations because none have been performed in areas where critical habitat is proposed for designation. In addition, because all of the proposed critical habitat subunits are

currently occupied, increased workload over that required for jeopardy analyses are expected to be limited to additional administrative costs. In addition, assuming the historical section 7 workload outlined previously will continue as expected, over the next 20 years we project there will be an estimated 400 informal consultations and an estimated 8 formal consultations within the section 7 range of the shiners. However, the majority of Federal projects in the upper Brazos River basin are not related to activities expected to affect these species or their habitats, so only a very few of the informal consultations are likely to result in formal consultations. The section 7 range of sharpnose and smalleye shiners falls completely within the Arlington, Texas Ecological Services Field Office's area of responsibility.

What project proponents are likely to pursue HCPs under section 10 after the designation of critical habitat?

Few non-Federal agencies or private project proponents are expected to pursue HCPs under section 10 after designation of critical habitat. A majority of the key threats would likely have a Federal nexus or have no link to private/non-Federal actions. Although private landowners may withdraw groundwater for personal use, it is unlikely a majority of those cases would reach the level of take or adverse modification of critical habitat, suggesting no section 10 permit would be required. It is difficult to predict if major water operators of the upper Brazos River basin such as the Brazos River Authority or City of Lubbock, would pursue an HCP to cover their operations. However, any HCPs would require intra-Service consultation to determine if the HCP would jeopardize the species and would also include an adverse modification analysis. As previously discussed, the adverse modification analysis is not expected to substantially increase cost or effort of the consultation over that required to determine if the permitting of the HCP would jeopardize the species.

What types of project modifications might the Service make during a section 7 consultation to avoid destruction or adverse modification of critical habitat that are different than those for avoiding jeopardy?

An adverse modification analysis would focus on a project's impacts to the physical features (primary constituent elements; for example, flowing water), or other habitat characteristics in areas designated as critical habitat and analyze impacts to the capability of the critical habitat unit to maintain its conservation role and function for survival and recovery of the species. Pursuant to the current framework under which section 7 consultations without critical habitat are conducted and the fact that the species are so closely associated with their aquatic habitats, it is unlikely future section 7 analyses would identify a difference between measures needed to avoid the destruction or adverse modification of critical habitat from measures needed to avoid jeopardizing the continued existence of the species in areas of occupied habitat. These measures are listed above under the section discussing project modifications currently recommended or that will likely be recommended by the Service to avoid jeopardy. Also, the physical and biological features (PBFs) of critical habitat are so closely tied to the survival of the species that actions that degrade or alter the PBFs will also result in adverse effects to the species.

For the sharpnose and smalleye shiner's proposed critical habitat, most proposed actions that would adversely affect the PBFs would also likely constitute take of the species. For example, activities that fragment occupied riverine habitat or substantially alter its flow regime to the extent that critical habitat would be adversely affected would also result in the decline of sharpnose and smalleye shiner populations. The impoundment of new reservoirs is the most obvious threat that would likely result in

river fragmentation and loss of flow, and be subjected to section 7 consultation. Project modifications that minimize effects to sharpnose and smalleye shiners (constructing reservoirs downstream of occupied habitat, minimizing groundwater withdrawal, minimizing surface water diversions, returning channel morphology to previous conditions after construction activities, adopting water release strategies to aid shiner recovery for existing reservoirs, minimizing pollutant discharge) would also minimize effects to the PBFs associated with their proposed critical habitat.

We anticipate there would be minimal economic incremental effects from critical habitat adverse modification analyses for these projects because consultation to determine if the projects would jeopardize these species would be required regardless of critical habitat designation, and the outcome under either standard is not expected to be different. We anticipate the most substantially affected economic activity from critical habitat designation may be those involved with the management and creation of new reservoirs for maintaining adequate water quantity and supply. Other economic activities that may be affected to a less substantial degree include: agriculture, flood control, in-water construction, mining, oil and gas, transportation, and water quality. As before, we expect there would be minimal economic incremental effects from critical habitat adverse modification analyses for these Federal projects because consultation to determine if the projects would jeopardize the continued existence and recovery of these species would be required regardless of critical habitat designation, and we do not expect a different outcome to be likely under either the jeopardy or adverse modification standards.

Therefore, in proposed critical habitat, all of which is occupied, it would be unlikely an analysis would identify a substantial difference between measures needed to avoid adverse modification of critical habitat and measures needed to avoid jeopardizing the species. Both of these species are adapted to survive in the upper Brazos River basin, and it is difficult to envision a scenario where the effects to the species would not be similar to the effects on critical habitat.

Conclusion

In summary, the incremental effects of the designated critical habitat for the sharpnose and smalleye shiner are anticipated to be limited because all of the areas proposed for designation as critical habitat are occupied by the species and any measures to avoid adverse modification of critical habitat are anticipated to be the same as any measures to avoid jeopardy. We anticipate the following incremental effects: (1) a minor increase in administrative costs associated with workload for action agencies and the Service to analyze effects to critical habitat, in addition to jeopardy analyses, for future actions, and (2) consultations from project proponents that previously would not have consulted (but should have) due to lack of awareness of the potential effects to the species.