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Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Sharpnose Shiner and Smalleye Shiner; Final Rule

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2013–0008; 4500030113]

RIN 1018–AZ34

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Sharpnose Shiner and Smalleye Shiner

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service, designate critical habitat for the sharpnose shiner (*Notropis oxyrhynchus*) and smalleye shiner (*N. buccula*) under the Endangered Species Act. In total, approximately 1,002 river kilometers (623 river miles) of river segments occupied by the species in Baylor, Crosby, Fisher, Garza, Haskell, Kent, King, Knox, Stonewall, Throckmorton, and Young Counties, in the upper Brazos River basin of Texas, fall within the boundaries of the critical habitat designation. The effect of this regulation is to designate critical habitat for sharpnose shiner and smalleye shiner under the Endangered Species Act.

DATES: This rule becomes effective on September 3, 2014.

ADDRESSES: This final rule is available on the Internet at *http://www.regulations.gov* and *http://www.fws.gov/southwest/es/Arlington Texas.* Comments and materials we received, as well as some supporting documentation we used in preparing this rule, are available for public inspection at *http://www.regulations.gov.* All of the comments, materials, and documentation that we considered in this rulemaking are available by appointment, during normal business hours at: U.S. Fish and Wildlife Service, Arlington, Texas Ecological Services Field Office, 2005 NE Green Oaks Blvd., Suite 140, Arlington, TX 76006; by telephone 817–277–1100; or by facsimile 817–277–1129.

The coordinates or plot points or both from which the maps are generated are included in the administrative record for this critical habitat designation and are available at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0008, and at the Arlington, Texas Ecological Services Field Office (*http://www.fws.gov/southwest/es/ArlingtonTexas*) (see **FOR FURTHER INFORMATION CONTACT**). Any additional tools or supporting information that we developed for this critical habitat designation will also be available at the Fish and Wildlife Service Web site and Field Office set out above, and may also be included in the preamble and at *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Debra Bills, Field Supervisor, U.S. Fish and Wildlife Service, Arlington, Texas Ecological Services Field Office, 2005 NE Green Oaks Blvd., Suite 140, Arlington, TX 76006; by telephone 817–277–1100; or by facsimile 817–277–1129. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. This is a final rule to designate critical habitat for the sharpnose shiner and smalleye shiner. Under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act), any species that is determined to be an endangered or threatened species requires critical habitat to be designated, to the maximum extent prudent and determinable. Designations and revisions of critical habitat can only be completed by issuing a rule.

Elsewhere in today's **Federal Register** we, the U.S. Fish and Wildlife Service (Service), listed the sharpnose shiner and smalleye shiner as endangered species. On August 6, 2013, we published in the **Federal Register** a proposed critical habitat designation for sharpnose shiner and smalleye shiner (78 FR 47612). Section 4(b)(2) of the Act states that the Secretary shall designate critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat.

The critical habitat areas we are designating in this rule constitute our current best assessment of the areas that meet the definition of critical habitat for sharpnose shiner and smalleye shiner. We are designating approximately 1,002 river kilometers (km) (623 miles (mi)) of the upper Brazos River basin and the upland areas extending beyond the bankfull river channel by 30 meters (m) (98 feet (ft)) on each side as critical habitat for the species.

This rule consists of a final rule to designate critical habitat for the sharpnose shiner and smalleye shiner.

We have prepared an economic analysis of the designation of critical habitat. In order to consider economic impacts, we have prepared an analysis of the economic impacts of the critical habitat designations and related factors. We announced the availability of the draft economic analysis (DEA) in the **Federal Register** on March 4, 2014 (79 FR 12138), allowing the public to provide comments on our analysis. We have incorporated the comments and have completed the final economic analysis (FEA) for this final determination.

Peer review and public comment. We sought comments from independent specialists to ensure that our designation is based on scientifically sound data and analyses. We obtained opinions from three knowledgeable individuals with scientific expertise to review our technical assumptions, analysis, and whether or not we had used the best available information. These peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve this final rule. Information we received from peer review is incorporated in this final revised designation and the Species Status Assessment (SSA) Report. We also considered all comments and information received from the public during the comment period.

Previous Federal Actions

On August 6, 2013 (78 FR 47582; 78 FR 47612), we proposed to list the sharpnose shiner and smalleye shiner as endangered species and proposed to designate critical habitat under the Act. We held a public hearing on September 4, 2013, in Abilene, Texas. On March 4, 2014 (79 FR 12138), we published a notice of availability that requested comments on the draft economic analysis of critical habitat, as well as the proposed critical habitat designation. This comment period closed on April 3, 2014 (79 FR 12138).

All previous Federal actions are described in the August 6, 2013, proposed rule (78 FR 47612) and the final rule listing the sharpnose shiner and smalleye shiner as endangered species under the Act, which is published elsewhere in today's **Federal Register**.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the sharpnose shiner and smalleye shiner during two comment periods. The first comment

period associated with the publication of the proposed rules (78 FR 47612; 78 FR 47582) opened on August 6, 2013, and closed on October 7, 2013. We also requested comments on the proposed critical habitat designation and associated draft economic analysis during a comment period that opened March 4, 2014, and closed on April 3, 2014 (79 FR 12138). We received requests for additional public hearings after we held a public hearing on September 4, 2013. We also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule and draft economic analysis during these comment periods.

During the first comment period, we received 72 comment letters directly addressing the proposed critical habitat designation. During the second comment period, we received 34 additional comment letters addressing the proposed critical habitat designation or the draft economic analysis. During the September 4, 2013, public hearing, nine individuals or organizations made comments, although not all specifically on the designation of critical habitat for the sharpnose shiner or smalleye shiner. All substantive information provided during comment periods has either been incorporated directly into this final rule, incorporated in the SSA Report, or addressed below. Comments received regarding critical habitat are addressed in the following summary and incorporated into the final rule as appropriate. Comments regarding the SSA Report are incorporated in Appendix B of the SSA Report.

Peer Reviewers

In accordance with our peer review policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from four knowledgeable individuals with scientific expertise that included familiarity with the sharpnose and smalleye shiners or their habitats, biological needs, threats, general fish biology, and aquatic ecology. We received responses from three of the peer reviewers.

We reviewed all comments received from the peer reviewers for substantive issues and new information regarding critical habitat for the sharpnose and smalleye shiner. The peer reviewers generally concurred with our methods and our assessment of the current status of these species. They provided additional information, clarifications, and suggestions to improve the SSA Report. Peer reviewer comments were all specific to the SSA Report and are addressed in Appendix B of the SSA Report. Although changes were made to the SSA Report, generally the peer reviewers further supported our science and analysis.

Comments From Federal Agencies

(1) *Comment:* The U.S. Department of Agriculture's Natural Resources Conservation Service works with landowners on a voluntary basis to apply conservation measures, some of which may benefit sharpnose and smalleye shiners, and the Natural Resources Conservation Service welcomes the opportunity to consult with the Service to determine the effects of their actions on the habitat of these two species.

Our Response: The Service appreciates the work of the Natural Resources Conservation Service and looks forward to working with them as conservation partners regarding sharpnose and smalleye shiner habitat.

Comments From States

Section 4(i) of the Act states, ''the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition.'' Comments received from the State regarding the proposal to designate critical habitat for the sharpnose shiner and smalleye shiner are addressed below.

(2) *Comment:* The Service received one request from a State agency and multiple requests from the public for more public hearings in addition to the one held September 4, 2013, in Abilene, Texas. Several requests contended the Service provided inadequate notification, that having a hearing for the proposed listing rule and proposed critical habitat rule at the same time did not follow the requirements outlined in the Act, and that the meeting was not located close to proposed critical habitat.

Our Response: Section 4(b)(5) of the Act states that the Service shall promptly hold one public hearing on the proposed regulation if any person files a request for such a hearing within 45 days after the date of the publication of the general notices. The Service received a request for a public hearing, and one was held on September 4, 2013, in Abilene, Texas.

The notification of the public hearing was clearly stated in both the proposed rule to list the sharpnose shiner and smalleye shiner as endangered species and in the proposed rule to designate critical habitat for these species on August 6, 2013 (78 FR 47582; 78 FR 47612). A notification of the public hearing was also published in the Lubbock Avalanche on Sunday, August 18th; the Abilene Reporter News on Sunday, August 18th; the Waco Tribune Herald on Sunday, August 25th; and the Baylor County Banner from August 15th through the 22nd. These newspapers have relatively large distributions with one located immediately upstream of designated critical habitat, one downstream of designated critical habitat, and two having distributions in or around designated critical habitat.

The Service mailed letters, which included information regarding the public hearing, to over 100 recipients shortly after the proposed rules published on August 6, 2013. Letter recipients included Federal agencies, State agencies, city offices, county courthouses, and numerous nongovernmental organizations. Service staff also contacted approximately 56 local media outlets and posted a news release containing the public hearing announcement on both the Arlington, Texas, Ecological Services Field Office and Service's Southwest Region Web pages.

The Act does not require the Service to hold multiple public hearings in multiple locations. The Act also does not indicate a necessary proximity to proposed designated critical habitat within which to hold a public hearing. The Service chose Abilene, Texas, because it is the largest city centrally located to the proposed designated critical habitat that contained a venue of appropriate size and with reasonable access by major roads and highways. The Service also held the public hearing in the evening to provide adequate time for attendees to travel after normal work hours. To provide additional opportunity to provide comments, the Service reopened the comment period on the proposed rule to designate critical habitat for these species for 30 days to coincide with the availability of the draft economic analysis of the proposed designation of critical habitat for sharpnose and smalleye shiners on March 4, 2014 (79 FR 12138).

(3) *Comment:* The 30-m (98-ft) lateral buffer area on each side of the stream width at bankfull discharge appears to be arbitrary.

Our Response: The 30-m (98-ft) lateral buffer strips are based on the best scientific information available. Fischer and Fischenich (2000, p. 8) suggest a riparian width of 5 to 30 m (16.4 to 98.4 ft) is generally sufficient to protect the water quality of adjacent streams. The ability of riparian buffers to filter surface runoff is largely dependent on vegetation density, type, and slope, with dense, grassy vegetation and gentle slopes facilitating filtration. Due to a

lack of dense, grassy vegetation in much of the proposed critical habitat, we find that a 30-m (98-ft) buffer is most appropriate to maintain proper runoff filtration. Fischer and Fischenich (2000, p. 8) suggest a riparian width of 30 to 500 m (98 to 1,640 ft) to provide wildlife habitat. However, the riparian zone of the upper Brazos River may never have been extensively or diversely vegetated due to the aridity of the area (Busby and Schuster 1973, entire), and the terrestrial insect prey base of the shiners would likely persist at even the thinnest recommended width. A riparian width of 30 m (98 ft) beyond the bankfull width of the river should be sufficient to provide the water quality and food base required by sharpnose and smalleye shiners. This is further explained in the SSA Report in section ''6.E. Conserve native Vegetation Adjacent to Occupied Habitat''.

(4) *Comment:* Manmade structures and transportation rights-of-way (ROWs) should be excluded from the lateral extent of critical habitat and mapped in detail.

Our Response: When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, existing maintained transportation rights-of-way within the lateral extent buffers, and other structures because such lands lack physical or biological features for sharpnose shiner and smalleye shiner. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

(5) *Comment:* Critical habitat designations are not relevant to private landowners unless a Federal permit or action affects their property. The proposed designation would likely affect the development of future water supplies critical to local communities and their economic livelihood.

Our Response: It is accurate that critical habitat designation affects private landowners only if there is a Federal nexus. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with the Service. Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation. Future water supply projects in the upper Brazos River basin will likely require Federal funding or permits and will likely require consultation regardless of critical habitat designation because these species are listed as endangered throughout their range and this range is the upper Brazos River (see the final listing rule, published elsewhere in today's **Federal Register**). See *Section 7 Consultation* below in this final rule.

(6) *Comment:* Several commenters suggest there may be a discrepancy between the Service's proposed listing rule (and the SSA Report) and the incremental effects memorandum. The proposed listing rule and SSA Report suggest the threat from future impoundments and reservoir developments will continue and possibly increase in the future; however, the incremental effects memorandum suggests there are no known Federal projects certain to occur in proposed critical habitat within the next few years, and, given the nature of reservoir permitting, design, and construction, it is not reasonable to assume specific reservoir projects are probable to occur.

Our Response: The SSA Report (section 3.A. ''Impoundments'') and listing rule both indicate that existing impoundments are currently affecting sharpnose and smalleye shiners. Further, additional reservoir construction is likely given that there are inadequate water supplies to meet future water needs in the upper Brazos River basin. The incremental effects memorandum states that 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. While it is likely that additional reservoir projects will be implemented in the upper Brazos River basin, it is not clear when or where these reservoirs will be constructed and it is not reasonable to assume that the projects are probable to occur within the next few years. The perceived discrepancy between the projection of additional impoundments in the listing rule and the SSA Report as compared to the economic analysis is based on the different standards used in those analyses. For example, the 2012 Texas State Water Plan proposes multiple reservoirs in this basin, but the specific locations and time of construction are unclear. The SSA Report, therefore, considered these unspecified projects as likely threats to the species in the foreseeable future.

In contrast, the economic effects memo is tied to a projection of costs to specific projects that may require consultation. Only two specific potential reservoirs were identified by a Federal agency in the economic analysis process. The U.S. Army Corps of Engineers and the City of Lubbock, Texas, identified specific dam and reservoir projects in Subunit 1 (the Cedar Creek Reservoir) and Subunit 6 (Lake Alan Henry Reservoir). As such, the Service's incremental effects memorandum and listing rule are not contradictory. The economic cost associated with critical habitat consultation through section 7 of the Act will most likely be limited to additional administrative effort to consider adverse modification because all proposed critical habitat units are considered occupied. Thus, the presence of the shiner would trigger section 7 consultation with the Service even if critical habitat was not designated.

(7) *Comment:* The economic screening analysis significantly underestimates the economic impacts of the proposed critical habitat designation.

Our Response: This screening memorandum analyzes whether the designation of critical habitat would trigger project modifications to avoid adverse modification of critical habitat that would be above and beyond any modifications triggered by adverse effects to the species itself as an endangered species. As stated in the screening memorandum, any activities with a Federal nexus will be subject to section 7 consultation requirements regardless of critical habitat designation because all proposed critical habitat units are occupied by the species. Therefore, significant baseline protection exists and incremental economic impacts are expected to be limited to administrative costs associated with section 7 consultations.

We considered three primary data sources in this evaluation: (1) The historical consultation rate within the counties containing proposed shiner critical habitat, (2) information Federal agencies provided to the Service regarding specific projects that may require future consultation, and (3) public comments. As summarized in Exhibit 3 of the screening memorandum, extremely low levels of section 7 consultations have occurred in the past in counties containing proposed critical habitat. Further, the

Service considered the potential for incremental costs to occur outside of the section 7 consultation process, including triggering additional requirements or project modifications under State laws or regulations, and perceptional effects on markets. Based on this information, the total incremental impacts are expected to be minimal.

(8) *Comment:* The Service's reliance upon human population as an indicator of economic activity is unfounded.

Our Response: The economic screening memorandum states that the amount of economic activity generated in the relatively populated Young County may be larger than in less populated counties. In general, there is greater development pressure and demand for infrastructure in areas with higher populations. These activities are more likely to have a Federal nexus and are therefore subject to section 7 consultation with the Service. While economic activity such as agriculture may occur in areas of low human population, these activities are less likely to result in section 7 consultation and incremental economic impacts because they typically lack a Federal nexus. Further, the Service has not relied on human population alone. We also considered (1) the historical consultation rate within the counties containing proposed shiner critical habitat, (2) information Federal agencies provided to the Service regarding specific projects that may require future consultation, and (3) public comments.

(9) *Comment:* The economic screening analysis of the proposed critical habitat designation does not address the obstacles that are likely to be incurred at all types of river crossings, including but not limited to roads, transmission lines, and pipelines.

Our Response: Exhibit 3 of the screening memorandum summarizes the consultation history in the counties containing proposed critical habitat. As this exhibit shows, these projects include water line, sewer line, transmission, telecommunication infrastructure, and transportation projects. The Service expects that the types of projects represented in the consultation history will require consultation in the future, even absent critical habitat designation, due to the presence of the listed species. As explained in the economic screening memorandum, project modifications recommended by the Service during section 7 consultation are unlikely to change due to the designation of critical habitat for the shiners. Therefore, the incremental cost to projects that require consultation with the Service, including river crossing projects, is expected to be limited to additional administrative costs.

(10) *Comment:* The commenter asserts that because the estimated value of agricultural production in the 11-county area containing proposed critical habitat for the shiners was $344 million in 2012, and since this value exceeds $100 million, the Service should conduct a quantitative assessment of the proposed critical habitat designation.

Our Response: The Act requires the Service to designate critical habitat on the basis of the best scientific data available after taking into consideration, among other factors, the ''economic impact'' of specifying any particular area as critical habitat. This economic impact of designating critical habitat is different than the economic value of agricultural production in the areas proposed as critical habitat. While the economic value of agricultural production in the proposed critical habitat area is $344 million, this is not the economic impact to agricultural production as a result of proposed critical habitat. The economic screening memorandum provides information on the potential for the proposed critical habitat to result in economic impacts exceeding $100 million in a single year. As stated in the economic screening memorandum, because all proposed critical habitat units are occupied by the species, significant baseline protection exists, and incremental economic impacts are expected to be limited to administrative costs associated with section 7 consultations. The Service does not expect economic losses to agricultural production due to the designation of critical habitat for the species.

(11) *Comment:* Two commenters disagree with the economic screening memorandum's assumption that agriculture will not be affected by the stigma of critical habitat designation, stating that in the worst-case scenario businesses will let their land lie fallow in response to the regulation.

Our Response: In general, agricultural activities do not require consultation with the Service. Further, a low level of consultation is anticipated because critical habitat for these species is in areas that are remote. Incremental costs associated with section 7 consultations for the shiners are likely limited to administrative costs incurred by Federal agencies because all units are considered occupied and project modifications to avoid adverse modification are likely to be the same as those needed to avoid jeopardy. Furthermore, because current agricultural uses are likely to continue unaffected in the future, it is unlikely that the agriculture community will perceive that the final rule has had an effect on the highest and best use, and therefore market value, of designated agricultural parcels.

Public Comments

(12) *Comment:* There is no need to restrict cattle or people's access to the river by designating critical habitat. This designation will require me to travel many more miles between my facilities on either side of the river when I can travel much shorter distances now by crossing the river when it is dry. If the proposed rule would require fencing the river to keep livestock away it would impose a financial burden on landowners. If the government takes control of landowner groundwater rights it will lead to severe economic impacts to these individuals.

Our Response: Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not restrict cattle or human access, and does not affect water or property rights or land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. A critical habitat designation does not allow the government or public to access private lands. A critical habitat designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners.

The Service welcomes the opportunity to provide technical assistance to landowners on a river crossing design that would meet the needs of the landowner (structural stability and effectiveness) while also allowing for unobstructed water flow and fish passage. The Service firmly believes well-designed river crossings would benefit both landowners and sharpnose and smalleye shiners.

(13) *Comment:* The public should know who has been chosen as peer reviewers or have input in choosing who peer reviews the listing rules and species status assessment.

Our Response: Peer reviewer names can be made available to the public when their comments are officially submitted and posted on *www.regulations.gov* as with any public commenter. Release of peer reviewer names prior to the submission of their review can subject them to public and political pressures. The Service relies on peer review to provide a thorough and

expert opinion on the science used to make listing decisions, and the process should be guarded against outside influences that could affect the subjectivity of that review.

In selecting peer reviewers we followed the guidelines for Federal agencies spelled out in the Office of Management and Budget (OMB) ''Final Information Quality Bulletin for Peer Review,'' released December 16, 2004, and the Service's ''Information Quality Guidelines and Peer Review'', revised June 2012. Part of the peer review process is to provide information online about how each peer review is to be conducted. Prior to publishing the proposed listing and critical habitat rules for the shiners, we posted a peer review plan on our Web site at *http://www.fws.gov/southwest/science/peerreview.html,* which included information about the process and criteria used for selecting peer reviewers.

(14) *Comment:* Given the importance of voluntary actions (primarily saltcedar control) by farmers and ranchers in the recovery of the species, lands managed for farming and ranching should be excluded from the designated critical habitat outside of the bankfull river channel. Conservation partnerships would be encouraged by such exclusions.

Our Response: Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factors to use and how much weight to give to any factor. See our response to comment (12) above. Federal cost-share saltcedar control programs often include benefits to listed species as part of their project ranking criteria; thus, the listing and designation of critical habitat for these species may facilitate participation in these programs.

(15) *Comment:* The Service has not presented a clear understanding of the population, range, reproductive requirements, and threats to the species. As a result it is not possible for the Service to delineate areas essential to the conservation of the species and that may require special considerations. The Service has not provided any evidence to show a stream length of 275 km (171 mi) is necessary for the continued existence of sharpnose and smalleye shiners, nor how an expanded 1,002-km (623-mi) area designated as critical habitat is necessary.

Our Response: The SSA Report presents the best available scientific and commercial data on sharpnose and smalleye shiners, and their historical and current range, their reproductive requirements and the threats to these species. Section ''2.C.3. Stream Reach Length Requirements'' of the SSA Report outlines our reasoning for a minimum stream reach length of 171 miles (275 km) to support development of the early life-history stages of sharpnose and smalleye shiners. We recognize in the SSA Report that stream length requirements may vary with flow rates, water temperature, and channel morphology. However, modeling of population status and stream reach length indicate that extirpation of eight different Great Plains broadcast-spawning minnow species occurred in fragments less than 115 km (71 mi; Perkin *et al.* 2010, p. 7) and that no extirpations were recorded in reaches greater than 275 km (171 mi). The minimum reach for successful reproduction of the sharpnose and smalleye shiners may be similar to that of the congeneric Arkansas River shiner at approximately 217 km (135 mi) (Perkin and Gido 2011, p. 374). However, until more specific information is experimentally assessed for sharpnose and smalleye shiners, a reach length of greater than 275 km (171 mi) is more appropriate for long-term survival of these species considering Perkin *et al.* (2010, p. 7) observed no extirpations of broadcast-spawning minnows in river reaches greater than this length. Further, a single 275-km (171-mi) river segment would not be sufficient in providing the redundancy and resiliency required to keep these species viable or to provide sufficient recovery and conservation. If the species were limited to a single 275-km (171-mi) stretch of river, ongoing threats such as drought could more easily lead to catastrophic extinction of these species. The designation of critical habitat is informed by the information within the SSA Report and delineates the specific areas within the geographical area occupied by the species, at the time it is listed, on which are found those physical or biological features essential to the conservation of the species, and which may require special management considerations or protection.

(16) *Comment:* Additional studies regarding critical habitat should be conducted prior to designation including meso-habitat studies, migration studies, fish survival studies in fragmented river reaches, reproductive success studies in response to flow conditions, groundwater-surface water interaction studies, and saltcedar control studies.

Our Response: The Service agrees that additional data in many of these areas would add to the growing body of scientific knowledge of these species and the upper Brazos River basin in general. However, the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. In addition, we sought comments from independent peer reviewers to ensure that our designation is based on scientifically sound data, assumptions, and analysis. We solicited information from the general public, nongovernmental conservation organizations, State and Federal agencies that are familiar with the species and their habitats, academic institutions, and groups and individuals who might have information that would contribute to an update of our knowledge of the species, as well as the activities and natural processes that are likely contributing to the decline of either species. While some uncertainty will always exist, the existing body of literature on sharpnose shiners, smalleye shiners, and similar broadcast-spawning minnows provides the best available information upon which to make a critical habitat desgination for these species. See the SSA Report for more detailed information about these species.

(17) *Comment:* The Service's argument that incremental section 7 benefits may accrue if a portion of critical habitat becomes unoccupied is unrealistic in riverine habitat because it is highly unlikely that a portion of contiguous river segment would become unoccupied by fish that move freely throughout the system. None of the other benefits the Service claims from critical habitat designation exists and therefore critical habitat designation is not prudent.

Our Response: The primary intended benefit of critical habitat is to support the conservation of threatened and endangered species, such as the shiners. 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.

Portions of the occupied upper Brazos River basin where critical habitat has been designated periodically dry out during arid summer months. During these dry periods sections of critical habitat may be completely dry and therefore be temporarily unoccupied. The designation of critical habitat will help ensure Federal agencies consult on projects during dry seasons when fish may be temporarily absent. The Service would consider these dry areas occupied for the purpose of consultation although fish may not be physically present at all times. This process is similar to how the Service has historically treated seasonal habitat for migratory birds and other animals.

(18) *Comment:* The designation of critical habitat is taking our property.

Our Response: Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Critical habitat designation also does not establish specific land management standards or prescriptions, although Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. The promulgation of a regulation, such as a designation of critical habitat under the Act, does not take private property, unless the regulation on its face denies the property owner all economically beneficial or productive use of their land. The Service has concluded that the designation of critical habitat does not rise to the level of a taking of private property. A critical habitat designation only affects private property where there is a proposed action that would be authorized, funded, or carried out by a Federal agency. See our response to comment 12 above. Further, programs are available to private landowners for managing habitat for listed species, as well as permits that can be obtained to protect private landowners from the take prohibition when such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Private landowners may contact their local Service field office to obtain information about these programs and permits.

(19) *Comment:* In the incremental effects memorandum the Service discounted groundwater withdrawals, reasoning that a majority of private landowner withdrawals are unlikely to reach the level of take or adverse modification of critical habitat. However, the proposed listing rule indicates groundwater withdrawal is a threat to the species.

Our Response: As stated in the proposed rule, the incremental effects memorandum, and the SSA Report, groundwater withdrawal is identified as a primary threat to these species. The language in the incremental effects memo referenced by the commenter is specific to project proponents that are likely to pursue HCPs under section 10 after the designation of critical habitat. In the incremental effects memorandum we acknowledge that private landowners may withdraw groundwater for personal use; however, it is unlikely that a majority of those cases would reach the level of take or adverse modification of critical habitat, and therefore a section 10 permit would not be required. This language is specific to private actions that may need a section 10 permit. The scale of groundwater withdrawal for crop irrigation and city or regional water use is greater than that for individual private wells. Further, larger scale groundwater withdrawals close to the river or active springs may reach the level of take or adverse modification of critical habitat, and, therefore, a section 10 permit would be appropriate. The magnitude and location of groundwater withdrawal will be important factors in determining the potential for impact to the shiner species and the need for a section 10 permit. As such, the Service's incremental effects memorandum and listing rule are not contradictory. For more information on the effects of groundwater withdrawal on sharpnose and smalleye shiners, see section ''3.B. Groundwater Withdrawal'' of the SSA Report.

(20) *Comment:* The proposed critical habitat designation fails to provide information sufficient to analyze the designation in accordance with the statute because the Service has yet to evaluate the economic impacts of the critical habitat designation. Consequently, critical habitat is not determinable.

Our Response: The Service has conducted an analysis of the economic impacts of the critical habitat designations and related factors. We announced the availability of the draft economic analysis in the **Federal Register** on March 4, 2014 (79 FR 12138), allowing the public to provide comments on our analysis. We have incorporated the comments and have completed the final economic analysis for this final determination.

(21) *Comment:* The Service should gather additional data and conduct a quantitative analysis of economic impacts. The assumptive determinations stated in the draft economic analysis were not supported by adequate factual basis.

Our Response: Section 4(b)(2) of the Act requires the Service to use the best available scientific data, after taking into consideration, among other factors, the economic impacts of specifying any particular areas as critical habitat. To prepare the economic impacts screening memo, we relied on: (1) The proposed rule and associated geographic information systems (GIS) data layers; (2) our incremental effects memorandum; (3) the results of our outreach efforts to other Federal agencies concerning the likely effects of critical habitat; and (4) public comments submitted on the proposed rule. We considered three primary data sources in our evaluation of the magnitude of administrative costs: (1) The historical consultation rate within the counties containing proposed shiner critical habitat, (2) information Federal agencies provided to the Service regarding specific projects that may require future consultation, and (3) public comments. When data was sufficient to provide quantification of impacts or benefits, we provided this information. See Section 3 ''Section 7 Costs of the Critical Habitat Rule'' of the screening memo for additional information.

(22) *Comment:* Based on past experience in the region with the Rio Grande silvery minnow (*Hybognathus amarus*), the designation of critical habitat for the shiners is likely to result in significant costs associated with litigation surrounding the designation of critical habitat. As a result, the section 7 costs reported in the screening analysis are drastically understated.

Our Response: The Service's current understanding of the requirements under the Regulatory Flexibility Act, as amended, and following recent court decisions, is that Federal agencies are required to evaluate the potential incremental impacts of rulemaking only on those entities directly regulated by the rulemaking itself, and therefore, not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or

carried out by the Agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7, only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation.

The evaluation of the impacts of a given rulemaking such as critical habitat is based on the direct and indirect impacts that are probable or reasonably likely to occur. These generally include direct impacts to Federal action agencies consulting with the Service on actions that they undertake that may affect critical habitat. Indirect effects generally include impacts associated with project modifications, delays, and conservation recommendations that a project proponent may incur as a result of the designation. The impact analysis does not and should not evaluate the potential costs associated with third-party litigation that could result from the rulemaking or project as that litigation is too speculative. This assertion is further supported by the fact that, based on our history of designating critical habitat for more than 650 federally listed species across the nation, we have found that proportionately very few designations have been litigated or resulted in third-party litigation on projects. As a consequence, we disagree with the commenter that our impact analysis should evaluate potential litigation costs that could result from a designation as a cost of the designation itself.

(23) *Comment:* The economic screening analysis ignores the dependence and interconnection that many State and local governments and private businesses have with federally funded actions, even if they do not directly receive Federal funding. The commenter asserts that effects on non-federally funded entities of critical habitat are real and should have been considered in the analysis.

Our Response: The Service's current understanding of the requirements under the Regulatory Flexibility Act, and following recent court decisions, is that Federal agencies are required to evaluate the potential incremental impacts of a rulemaking only on directly regulated entities, and therefore, not required to evaluate the potential impacts to indirectly regulated entities. See our response to comment (22) above and *Regulatory Flexibility Act (5 U.S.C. 601 et seq.)* section, below. Further, as stated in the economic screening memorandum, incremental impacts are expected to be limited to the administrative cost of section 7 consultation to consider adverse modification during the consultation process because all proposed units are considered occupied. Therefore, entities that are not involved in section 7 consultations (i.e., those entities not proposing activity affecting the shiners and those entities lacking a Federal nexus) are unlikely to experience impacts related to the designation of critical habitat.

(24) *Comment:* The economic screening analysis does not appear to consider the upstream or downstream impacts of the regulation on the portions of the Brazos River included in the 11 counties that are part of the critical habitat area.

Our Response: Projects upstream and downstream of proposed critical habitat that have a Federal nexus and may affect the shiners will be required to consult with the Service regardless of whether critical habitat is designated. As stated in the economic screening memorandum, incremental impacts are expected to be limited to the administrative cost of section 7 consultation. Therefore, although we are unaware of any such planned projects at this time, any incremental impacts are expected to be minor.

(25) *Comment:* The economic screening analysis does not adequately analyze the economic impacts of the proposed critical habitat designations on oil and gas development.

Our Response: While oil and gas exploration and development may occur in the counties containing proposed critical habitat, we project that these activities are unlikely to result in section 7 consultation because these activities do not have an identified Federal nexus. Additionally, as all proposed critical habitat units are occupied, any impacts associated with oil and gas projects with a Federal nexus would result from the presence of the species and not from the designation of critical habitat. Therefore, the incremental cost to projects that necessitate consultation with the Service is expected to be limited to additional administrative costs.

(26) *Comment:* The commenters assert that the listing of the shiners as endangered will decrease future access to water, which will have a negative economic impact on property values, small businesses, farms, and ranches in the region.

Our Response: The Act requires the Service to make a determination of whether any species is an endangered or threatened species solely on the basis of the best scientific and commercial data available. The Act does not allow the Service to consider the economic or other impacts of ''listing''. However, section 4(b)(2) of the Act requires the Service to consider economic impacts prior to finalizing a ''critical habitat designation''. Consequently, the economic screening memorandum focuses on the incremental impacts of the proposed designation of critical habitat for the shiners, not the listing of the species as endangered. Changes in water access due to the listing of the species are considered baseline impacts. Baseline impacts are those that would occur due to the listing of the species, these are not the focus of the economic analysis. Impacts above the baseline resulting from the designation of critical habitat are incremental impacts. These incremental impacts are analysized in the economic screening memorandum. Designation of critical habitat for the species is not expected to decrease access to water. Therefore, the economic screening memorandum does not forecast costs associated with such decreases.

(27) *Comment:* The commenter provides clarification on water management projects considered in the economic analysis. In particular, the commenter notes that the Cedar Ridge Reservoir was mistakenly called the Cedar Creek Reservoir, Lake Alan Henry was completed in 1993, and the Post Reservoir project should be included in the economic analysis.

Our Response: We recognize the correction to the name of the Cedar Ridge Reservoir. This correction does not change the economic impacts estimated in the screening memorandum. In regards to the completion date of Lake Alan Henry, the economic screening analysis includes costs associated with possible consultation on continuing water management activities at Lake Alan Henry, not on the creation of this reservoir. The Service recognizes that a number of water planning projects outlined in the 2012 State Water Plan, including the Post Reservoir project, may occur within areas designated as proposed critical habitat for the shiners. However, while it is likely that additional reservoir projects will be implemented in the upper Brazos River basin, it is not clear when or where these reservoirs will be constructed, and, therefore, they were not included in the economic analysis. However, the entirety of proposed critical habitat is considered occupied by the species, and project modifications necessary to avoid a jeopardy determination will likely be sufficient to avoid adverse modification. Therefore, incremental impacts

associated with such water management actions are likely to be limited to administrative costs of consultation.

(28) *Comment:* The economic screening analysis did not conduct a rigorous analysis of the perceived effect that the proposed critical habitat will have on investment and development in the region.

Our Response: The commenter does not specify what type of investment or development. However, the proposed critical habitat for the shiners is located in remote, sparsely populated areas where development pressure is low and perceptional effects related to the value of land are likely to be minimal. In the process of developing the proposed rule, the Service requested information from Federal agencies that may have activities within the proposed designation regarding ongoing and planned activities. No investment or development projects were identified, with the exception of two reservoirs. Further, the economic cost of implementing the rule through section 7 of the Act will most likely be limited to additional administrative effort to consider adverse modification. This finding is based on the fact that the proposed designation occurs in extremely remote areas supporting little economic activity, and all proposed units are considered occupied; thus, the presence of the shiner, when the listing is finalized, provides significant baseline protection.

(29) *Comment:* The commenter claims that the Service has identified only marginal benefit to the species from the designation of the proposed area as critical habitat, and, therefore, the Service should not designate critical habitat.

Our Response: Section 4(a)(3) of the Act requires that, to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time the species is listed. Because the Service has found that the designation of critical habitat for these species is both prudent and determinable, we are required to do so. Consequently, we are not able to forego the process of designating critical habitat when doing so is prudent and critical habitat is determinable. See also our response to comment (17) where we discuss the anticipated conservation benefits of the designation of critical habitat.

(30) *Comment:* The commenter states that the shiners would gain additional benefits from the designation of critical habitat, including: The ecological value of protecting the Brazos River basin habitat; increasing public awareness of the rare species and other wildlife; greater protection of freshwater resources; and protection of the natural heritage of the State of Texas.

Our Response: We agree that the designation will increase public awareness of the shiners.

(31) *Comment:* Two commenters state that, rather than categorically determining it does not need to prepare a regulatory flexibility analysis for critical habitat determinations, the Service must evaluate whether the impact of the proposed critical habitat on small entities is significant and, if so, must prepare a regulatory flexibility analysis.

Our Response: Under the Regulatory Flexibility Act, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The Small Business Regulatory Enforcement Fairness Act amended the Regulatory Flexibility Act to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. The incremental impacts of a rule must be both significant and substantial to prevent certification of the rule under the Regulatory Flexibility Act and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify. The discussion (below) in the *Regulatory Flexibility Act (5 U.S.C. 601 et seq.)* of this final rule explains our rationale.

Summary of Changes From Proposed Rule

Only minor changes and clarifications were made to this final rule designating critical habitat based on comments received. The SSA Report was updated, clarified, and expanded based on several peer review and public comments. However, these changes did not modify our assessment of the critical habitat designation.

Critical Habitat

Background

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species, and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring an endangered or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the requirement that Federal agencies ensure, in consultation with the Service, that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by non-Federal landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) of the Act would apply, but even in the event of a destruction or adverse modification finding, the obligation of the Federal action agency and the landowner is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

Under the first prong of the Act's definition of critical habitat, areas within the geographical area occupied by the species at the time it was listed are included in a critical habitat designation if they contain physical or

biological features (1) which are essential to the conservation of the species and (2) which may require special management considerations or protection. For these areas, critical habitat designations identify, to the extent known using the best scientific and commercial data available, those physical or biological features that are essential to the conservation of the species (such as space, food, cover, and protected habitat). In identifying those physical or biological features within an area, we focus on the principal biological or physical constituent elements (primary constituent elements such as roost sites, nesting grounds, seasonal wetlands, water quality, tide, soil type) that are essential to the conservation of the species. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Under the second prong of the Act's definition of critical habitat, we can designate critical habitat in areas outside the geographical area occupied by the species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. For example, an area currently occupied by the species but that was not occupied at the time of listing may be essential to the conservation of the species and may be included in the critical habitat designation. We designate critical habitat in areas outside the geographical area occupied by a species only when a designation limited to its range would be inadequate to ensure the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions are based on the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, other unpublished materials, or experts' opinions or personal knowledge.

Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be needed for recovery of the species. Areas that are important to the conservation of the species, both inside and outside the critical habitat designation, will continue to be subject to: (1) Conservation actions implemented under section 7(a)(1) of the Act, (2) regulatory protections afforded by the requirement in section 7(a)(2) of the Act for Federal agencies to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) section 9 of the Act's prohibitions on taking any individual of the species, including taking caused by actions that affect habitat. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. These protections and conservation tools will continue to contribute to recovery of this species. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available at the time of these planning efforts calls for a different outcome.

Physical or Biological Features

In accordance with section 3(5)(A)(i) and 4(b)(1)(A) of the Act and regulations at 50 CFR 424.12, in determining which areas within the geographical area occupied by the species at the time of listing to designate as critical habitat, we consider the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historical, geographical, and ecological distributions of a species.

Sharpnose Shiner

We derive the specific physical or biological features essential for the sharpnose shiner from studies of this species' habitat, ecology, and life history as described in the Critical Habitat section of the proposed rule to designate critical habitat published in the **Federal Register** on August 6, 2013 (78 FR 47612), and in the information presented below. We have used the best available information, as described in the March 2014 SSA Report (Service 2014, Chapter 2). To identify the physical and biological needs of the sharpnose shiner, we have relied on conditions at currently occupied locations where the sharpnose shiner has been observed during surveys and the best information available on the species. Below, we summarize the physical and biological features needed by foraging and breeding sharpnose shiners. For a complete review of the physical and biological features required by the sharpnose shiner, see Chapter 2 of the March 2014 SSA Report (Service 2014, Chapter 2). We have determined that the following physical or biological features are essential to the sharpnose shiner.

Space for Individual and Population Growth and for Normal Behavior

Sharpnose shiners occur in fairly shallow, flowing water, often less than 0.5 m (1.6 ft) deep with sandy substrates. They broadcast spawn semi-buoyant eggs and larvae that may remain suspended in the water column for several days before they are capable of independent swimming, indicating there is a minimum river segment length necessary to support successful reproduction and survival. A comparison of minimum estimated reach length requirements for similar species and current modeling efforts for this species indicate an unobstructed reach length of greater than 275 km (171 mi) is likely required to complete the species' life history. Lengths greater

than 275 km (171 mi) would also provide migratory pathways to refugia in which sharpnose shiners may survive drought conditions.

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify flowing water of sufficient unobstructed length (275 km (171 mi)) to be a physical or biological feature essential to the conservation of the sharpnose shiner.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Sharpnose shiners are generalist feeders consuming aquatic and terrestrial invertebrates (mostly insects), plant material, and detritus. The presence of terrestrial insects in its diet suggests native riparian vegetation along the stream banks where the sharpnose shiners occur is important in providing food availability. The prevalence of sand-silt in the gut contents of sharpnose shiners indicates they likely forage among the sediments when food availability is low, suggesting river segments containing sandy substrates may be preferred by this species.

Flowing water of sufficient quality (minimal pollution, lacking golden alga toxicity, and within physiological tolerances) is required for the survival of these species. Sharpnose shiners can tolerate temperatures of 39.2 degrees Celsius (°C) (102.6 degrees Fahrenheit (°F)) only briefly and generally require oxygen concentrations above 2.66 milligrams per liter (mg/L) (2.66 parts per million (ppm)). Sharpnose shiners experience significant mortality at salinities greater than 25 millisiemens per centimeter (mS/cm) (15 parts per thousand (ppt)). The susceptibility of sharpnose shiners to environmental pollutants is not well understood; however, it has been observed that petroleum contamination, and possibly other pollutants, are capable of killing this species. Although the effects of golden alga on sharpnose shiners have not been documented, toxic blooms in occupied habitat are certain to cause mortality.

Native riparian vegetation adjacent to the river channel where the sharpnose shiner occurs is important as a source of food (terrestrial insects) and in maintaining physical habitat conditions in the stream channel. Riparian areas are essential for energy and nutrient cycling, filtering runoff, absorbing and gradually releasing floodwaters, recharging groundwater, and maintaining stream flows. Healthy riparian corridors help ensure aquatic resources maintain the ecological integrity essential to stream fishes, including the sharpnose shiner. A riparian width of 30 m (98 ft) is generally sufficient to protect the water quality of adjacent streams and is expected to provide the necessary prey base for sharpnose shiners (Service 2014, Chapter 6).

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify river segments containing flowing water of sufficient quality (i.e., within physiological tolerances, low in toxic pollutants, and lacking toxic golden alga blooms) with sandy substrates, and their associated native riparian vegetation, to be physical or biological features essential to the conservation of the sharpnose shiner.

Cover or Shelter

Specific cover or sheltering requirements for sharpnose shiners within the aquatic ecosystem have not been identified and may not be pertinent to their conservation because these fish mostly occur in open water. Therefore, we have not identified any specific cover or shelter habitat requirements to be physical or biological features essential to the conservation of the sharpnose shiner.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

Successful reproduction by sharpnose shiners requires minimum levels of flowing water through the summer breeding season. Cyprinid eggs spawned into the pelagic zone (open water not near the river bottom) become semi-buoyant within 10 to 30 minutes, allowing them to drift through the water column for approximately 1 or 2 days prior to hatching. Larval stages (before fish reach the free-swimming juvenile stage) may drift in the water column for an additional 2 to 3 days post-hatching.

Spawning occurs from April through September asynchronously (fish not spawning at the same time) during periods of no and low flow, and synchronously (many fish spawning at the same time) during elevated streamflow events. Successful recruitment (survival to the juvenile fish stage) does not occur during periods completely lacking flow. This is because in no-flow conditions, the floating eggs, zygotes, and larval fish of broadcast spawners sink and suffocate in the anoxic sediments and are more susceptible to predation. Modeling studies have estimated minimum mean summer discharge of 2.61 cubic meters per second (m^3s^{-1}) (92 cubic feet per second (cfs)) is necessary to sustain a population of sharpnose shiners.

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify river segments with a minimum mean summer discharge of approximately 2.61 m^3s^{-1} (92 cfs) to be physical or biological features essential to the conservation of the sharpnose shiner.

Habitats That Are Protected From Disturbance or Are Representative of the Historic, Geographical, and Ecological Distributions of a Species

Sharpnose shiner habitat is subject to dynamic changes resulting from flooding and drying of occupied waterways. Consequently, fluctuating water levels create circumstances in which the extent of the sharpnose shiner's range varies over time, and may be periodically contracted or expanded depending on water availability. Worsening drought conditions are increasing the intensity and duration of river drying in the upper Brazos River basin. As a result of these dynamic changes, particularly during intense droughts, sharpnose shiners require unobstructed river segments through which they can migrate to find refuge from river drying. These fish can later emigrate from these refugia (spring-fed pools, isolated pools, and reservoirs) and recolonize normally occupied areas when suitable conditions return.

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify unobstructed river segments of at least 275 km (171 mi) to be a physical or biological feature essential to the conservation of the sharpnose shiner because these unobstructed river segments will allow this species to recolonize previously occupied areas following river drying. If arid climate fish refugia are separated from one another by fish migration barriers recolonization of the currently occupied range of the species will not be possible following severe drought.

Smalleye Shiner

We derive the specific physical or biological features essential for the smalleye shiner from studies of this species' habitat, ecology, and life history as described in the Critical Habitat section of the proposed rule to designate critical habitat published in the **Federal Register** on August 6, 2013 (78 FR 47612), and in the information presented below. We have used the best available information, as described in the March 2014 SSA Report (Service 2014, Chapter 2). To identify the

physical and biological needs of the smalleye shiner, we have relied on conditions at currently occupied locations where the shiner has been observed during surveys and the best information available on the species. Below, we summarize the physical and biological features needed by foraging and breeding smalleye shiners. For a complete review of the physical and biological features required by the smalleye shiner, see Chapter 2 of the March 2014 SSA Report (Service 2014, Chapter 2). We have determined that the following physical or biological features are essential to the smalleye shiner.

Space for Individual and Population Growth and for Normal Behavior

Smalleye shiners occur in fairly shallow, flowing water, often less than 0.5 m (1.6 ft) deep with sandy substrates. They broadcast spawn semi-buoyant eggs and larvae that may remain suspended in the water column for several days before larval fish are capable of independent swimming, indicating there is a minimum stream reach length necessary to support successful reproduction and survival. A comparison of minimum estimated reach length requirements for similar species and current modeling efforts for this species indicate that an unobstructed reach length of greater than 275 km (171 mi) is likely required to complete the species' life history. Lengths greater than 275 km (171 mi) would also provide migratory pathways to refugia in which smalleye shiners may survive drought conditions.

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify flowing water of sufficient unobstructed length (275 km (171 mi)) to be a physical or biological feature essential to the conservation of the smalleye shiner.

Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements

Smalleye shiners are generalist feeders consuming aquatic and terrestrial invertebrates (mostly insects), plant material, and detritus. The presence of terrestrial insects in the smalleye shiner's diet suggests native riparian vegetation along the banks of inhabited rivers is important in providing food availability, as well as the general health of the aquatic riverine ecosystem. The prevalence of sand-silt in the gut contents of smalleye shiners indicate they likely forage among the sediments when food availability is low, suggesting river segments containing sandy substrates may be preferred by this species.

Water of sufficient quality (minimal pollution, lacking golden alga toxicity, and within physiological tolerances) is required for the survival of these species. Smalleye shiners can tolerate temperatures of 40.6 °C (105.1 °F) only briefly and generally require oxygen concentrations above 2.11 mg/L (2.11 ppm). Smalleye shiners experience significant mortality at salinities greater than 30 mS/cm (18 ppt). The susceptibility of smalleye shiners to environmental pollutants is not well understood; however, it has been observed that petroleum contamination, and possibly other pollutants, are capable of killing this species. Although the effects of golden alga on smalleye shiners have not been documented, blooms in occupied habitat are certain to cause mortality in this species.

Native riparian vegetation adjacent to the river channel where the smalleye shiner occurs is important as a source of food (terrestrial insects) and in maintaining physical habitat conditions in the stream channel. Riparian areas are essential for energy and nutrient cycling, filtering runoff, absorbing and gradually releasing floodwaters, recharging groundwater, and maintaining stream flows. Healthy riparian corridors help ensure aquatic resources maintain the ecological integrity essential to stream fishes, including the smalleye shiner. A riparian width of 30 m (98 ft) is generally sufficient to protect the water quality of adjacent streams and is expected to provide the necessary prey base for smalleye shiners (Service 2014, Chapter 6).

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify sandy-bottomed river segments containing flowing water of sufficient quality (i.e., within physiological tolerance, low in toxic pollutants, and lacking toxic golden algal blooms), and their associated native riparian vegetation, to be physical or biological features essential to the conservation of the smalleye shiner.

Cover or Shelter

Specific cover or sheltering requirements for smalleye shiners within the aquatic ecosystem have not been identified and may not be pertinent to their conservation because these fish mostly occur in open water. Therefore, we have not identified any specific cover or shelter habitat requirements to be physical or biological features essential to the conservation of the smalleye shiner.

Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring

Successful reproduction by smalleye shiners requires minimum levels of flowing water through the summer breeding season. Cyprinid eggs spawned into the pelagic zone (open water not near the river bottom) become semi-buoyant within 10 to 30 minutes, allowing them to drift through the water column for approximately 1 or 2 days prior to hatching. Larval stages may drift in the water column for an additional 2 to 3 days post-hatching.

Spawning occurs from April through September asynchronously during periods of no and low flow, and synchronously during elevated streamflow events. Successful recruitment (survival to the juvenile fish stage) does not occur during periods completely lacking flow. This is because in no-flow conditions, the floating eggs, zygotes, and larval fish of broadcast spawners sink and suffocate in the anoxic sediments and are more susceptible to predation. Modeling studies have estimated minimum mean summer discharge of 6.43 m^3s^{-1} (227 cfs) is necessary to sustain a population of the smalleye shiner.

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify river segments with a minimum mean summer discharge of approximately 6.43 m^3s^{-1} (227 cfs) to be physical or biological features essential to the conservation of the smalleye shiner.

Habitats That Are Protected From Disturbance or Are Representative of the Historic, Geographical, and Ecological Distributions of a Species

Smalleye shiner habitat is subject to dynamic changes resulting from flooding and drying of occupied waterways. Consequently, fluctuating water levels create circumstances in which the extent of the sharpnose and smalleye shiner's range vary over time, and may be periodically contracted or expanded depending on water availability. Worsening drought conditions are increasing the intensity and duration of river drying in the upper Brazos River basin. As a result of these dynamic changes, particularly during intense droughts, smalleye shiners require unobstructed river segments through which they can migrate to find refuge from river drying. These fish can later emigrate from these refugia (spring-fed pools, isolated pools, and reservoirs) and recolonize normally

occupied areas when suitable conditions return.

Therefore, based on the information above and additional analysis in the March 2014 SSA Report (Service 2014, Chapter 2), we identify unobstructed river segments of at least 275 km (171 mi) to be a physical or biological feature essential to the conservation of the sharpnose shiner because these unobstructed river segments will allow this species to recolonize previously occupied areas following river drying. If arid climate fish refugia are separated from one another by fish migration barriers, recolonization of the currently occupied range of the species will not be possible following severe drought.

Summary of Physical or Biological Features

In summary, the sharpnose shiner and smalleye shiner need specific vital resources for survival and completion of their life histories. One of the most important aspects of their life histories is that their broadcast-spawn eggs and developing larvae require flowing water of sufficient length within which they develop into free-swimming juvenile fish. In addition, sharpnose shiners and smalleye shiners typically live for no more than two breeding seasons. As a result, if resources are not available in a single spawning season, their populations would be greatly impacted, and if resources are not available through two consecutive breeding seasons, the impacts would be catastrophic.

The sharpnose shiner and smalleye shiner have exceptionally specialized habitat requirements to support these life-history needs and maintain adequate population sizes. Habitat requirements are characterized by river segments of greater than 275 km (171 mi) with estimated average spawning season flows greater than 2.61 m^3s^{-1} (92 cfs) for the sharpnose shiner and of 6.43 m^3s^{-1} (227 cfs) for the smalleye shiner. River segment lengths of 275 km (171 mi) or greater also aid in providing sharpnose and smalleye shiners refugia from river drying during severe drought. In addition, individual shiners also need sandy substrates to support foraging, water quality within their physiological and toxicological tolerances, and intact upland vegetation capable of supporting their prey base. Intact upland vegetation is also important in providing adequate filtration of surface water runoff to maintain a healthy aquatic ecosystem.

Populations of sharpnose shiners and smalleye shiners with a high likelihood of long-term viability require contiguous river segments containing the physical and biological features that are essential to the conservation of these species. This contiguous suitable habitat is necessary to retain the reproductive success of these species in the face of natural and manmade seasonal fluctuations of water availability. Sharpnose shiner and smalleye shiner habitat is subject to dynamic changes resulting from flooding and drying of occupied waterways. Consequently, fluctuating water levels create circumstances in which the extent of the sharpnose and smalleye shiner's range varies over time, and may be periodically contracted or expanded depending on water availability.

Primary Constituent Elements for Sharpnose Shiner and Smalleye Shiner

Under the Act and its implementing regulations, we are required to identify the physical or biological features essential to the conservation of sharpnose shiner and smalleye shiner in areas occupied at the time of listing, focusing on the features' primary constituent elements. Primary constituent elements are those specific elements of the physical or biological features that provide for a species' life-history processes and are essential to the conservation of the species.

Sharpnose Shiner

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes (Service 2014, Chapter 2), we determine that the primary constituent element (PCE) specific to the sharpnose shiner consists of a riverine system with habitat to support all life stages of sharpnose shiners, which includes:

(1) Unobstructed, sandy-bottomed river segments greater than 275 km (171 mi) in length.

(2) Flowing water of greater than approximately 2.61 m^3s^{-1} (92 cfs) averaged over the shiner spawning season (April through September).

(3) Water of sufficient quality to support survival and reproduction, characterized by:

a. Temperatures generally less than 39.2 °C (102.6 °F);

b. Dissolved oxygen concentrations generally greater than 2.66 mg/L (2.66 ppm);

c. Salinities generally less than 25 mS/cm (15 ppt); and

d. Sufficiently low petroleum and other pollutant concentrations such that mortality does not occur.

(4) Native riparian vegetation capable of maintaining river water quality, providing a terrestrial prey base, and maintaining a healthy riparian ecosystem.

Smalleye Shiner

Based on our current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes (Service 2014, Chapter 2), we determine that the primary constituent element (PCEs) specific to the smalleye shiner consists of a riverine system with habitat to support all life-history stages of smalleye shiners, which includes:

(1) Unobstructed, sandy-bottomed river segments greater than 275 km (171 mi) in length.

(2) Flowing water of greater than approximately 6.43 m^3s^{-1} (227 cfs) averaged over the shiner spawning season (April through September).

(3) Water of sufficient quality to support survival and reproduction, characterized by:

a. Temperatures generally less than 40.6 °C (105.1 °F);

b. Dissolved oxygen concentrations generally greater than 2.11 mg/L;

c. Salinities less than 30 mS/cm (18 ppt); and

d. Sufficiently low petroleum and other pollutant concentrations such that mortality does not occur.

(4) Native riparian vegetation capable of maintaining river water quality, providing a terrestrial prey base, and maintaining a healthy riparian ecosystem.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the specific areas within the geographical area occupied by the species at the time of listing contain features that are essential to the conservation of the species and which may require special management considerations or protection. The features essential to the conservation of these species may require special management considerations or protection to reduce the following threats: Habitat loss and modification from fragmentation of river segments; alteration to natural flow regimes by impoundment, groundwater withdrawal, and drought; water quality degradation; and invasive saltcedar encroachment.

River fragmentation decreases the unobstructed river length required for successful reproduction in these species. Impoundments, groundwater withdrawal, saltcedar encroachment, and drought have the potential to reduce river flow below the minimum requirement to keep the eggs and larvae of these species afloat and ultimately for

sustainment of sharpnose and smalleye shiner populations. Water quality degradation resulting from pollution sources; lack of flows maintaining adequate temperatures, oxygen concentrations, and salinities; and the destruction of adjacent riparian vegetation's run-off filtering abilities may result in water quality parameters beyond which sharpnose and smalleye shiners are capable of surviving. As such, the features essential to the conservation of these species may require special management from these threats.

For sharpnose shiners and smalleye shiners, special management considerations or protection may be needed to address threats. Management activities that could ameliorate threats include, but are not limited to: (1) Removing or modifying existing minor fish barriers to allow fish passage; (2) managing existing reservoirs to allow sufficient river flow to support shiner reproduction and population growth; (3) protecting groundwater, surface water, and spring flow quantity; (4) protecting water quality by implementing comprehensive programs to control and reduce point sources and non-point sources of pollution; and (5) protecting and managing native riparian vegetation. A more complete discussion of the threats to the sharpnose shiner and smalleye shiner and their habitats can be found in the March 2014 SSA Report (Service 2014, Chapter 3).

Criteria Used To Identify Critical Habitat

As required by section 4(b)(2) of the Act, we use the best scientific data available to designate critical habitat. For this rule, we rely heavily on the analysis of biological information reviewed in the March 2014 SSA Report (Service 2014). In accordance with the Act and our implementing regulations at 50 CFR 424.12(b), we review available information pertaining to the habitat requirements of the species and identify occupied areas at the time of listing that contain the features essential to the conservation of the species. If, after identifying currently occupied areas, we determine that those areas are inadequate to ensure conservation of the species, in accordance with the Act and our implementing regulations at 50 CFR 424.12(e) we then consider whether designating additional areas—outside those currently occupied—are essential for the conservation of the species. We are not designating any areas outside the geographical area occupied by the species because occupied areas are sufficient for the conservation of the species.

Areas Occupied at the Time of Listing

For the purpose of designating critical habitat for the sharpnose and smalleye shiners, we defined occupancy based on several criteria. First, we defined occupancy to include areas with confirmed persistence of both species within the Brazos River basin of Texas upstream of Possum Kingdom Lake in the Brazos River main stem, Salt Fork of the Brazos River, Double Mountain Fork of the Brazos River, and North Fork Double Mountain Fork of the Brazos River (Service 2014, Chapter 4) based on survey results since 2008. We chose to use survey results since 2008 because these data are relatively consistent from year to year and represent the best available information for what areas should be considered occupied at the time of listing. Second, we defined occupancy to include tributaries once known to be historically occupied by one or both species that lack sufficient fish sampling but are contiguous (i.e., lacking fish migration barriers) with areas in the upper Brazos River confirmed to be occupied by both species. The sharpnose and smalleye shiner are similar in their biology, and they are both capable of colonizing river segments when conditions are favorable. Therefore, we considered tributary streams to be occupied at the time of listing if they were previously occupied by either species. Third, tributaries for which we had no information that either species recently or historically occurred were not considered occupied, even if they were contiguous with areas that are currently occupied.

Segments considered to be occupied at the time of listing were then assessed to determine if they contained the physical or biological features for the species and whether they may require special management considerations or protection. River segments not exceeding 275 km (171 mi) upstream of the lentic waters of Possum Kingdom Lake were not included because they lack the necessary physical or biological features for successful reproduction. Segments that do not typically maintain suitable water quality conditions (i.e., within physiological tolerances, minimal pollution, lacking regular golden alga blooms) were not included because they would not likely support a viable population of shiners. Segments not likely to maintain minimum mean spawning season flows capable of sustaining populations of either species, even during favorable climatic conditions, were also not included because they would not support successful reproduction.

The lower Brazos River, where shiners were released in 2012, is considered unoccupied for the purposes of determining critical habitat because prior to their 2012 release, both species had become extirpated or were functionally extirpated from this area as no fish had been collected since 2006. The release effort in 2012 was likely insufficient to restart a population of these species in the lower Brazos River. Therefore, given the old age, small number of fish released in 2012, and the inability to detect these species in subsequent surveys, it is likely they are extirpated from this reach of the Brazos River (Service 2014, Chapter 4).

Areas Unoccupied at the Time of Listing

To determine if any areas not considered occupied at the time of listing are essential for the conservation of the species, we considered: (1) Whether the area was historically occupied; (2) the potential contribution of the area to the conservation of each species based on our March 2014 SSA Report (Service 2014, Chapter 2); (3) whether the area could be restored to contain the habitat conditions needed to support the species; and (4) whether a viable population of the species could be reestablished at the site. We recognize that both species likely need additional areas beyond those currently occupied in order to have sufficient redundancy and resiliency for long-term viability. However, our review of the areas within the historical range found that none of them have all four of these necessary characteristics to be considered essential for the conservation of either species.

We considered but did not include four areas that were historically occupied by one or both species as possible critical habitat: The Colorado River, Wichita River, middle Brazos River (between Possum Kingdom Lake and the low water crossing near the City of Marlin, Falls County, Texas), and lower Brazos River (downstream of Marlin to the Gulf of Mexico). The smalleye shiner is not known to have naturally occurred outside of the Brazos River basin, so neither the Colorado nor Wichita Rivers were considered essential for the conservation of that species. For the sharpnose shiner, our review found that neither the Colorado nor Wichita Rivers were considered necessary to maintain viability of either species because of the limited abundance and distribution of this shiner historically in these rivers. In addition, both of these rivers have extensive impoundments such that the unfragmented stream length needed for reproduction by these species is lacking.

These impoundments are expected to continue to exist into the future with no apparent potential for their removal, thereby eliminating the ability of the Colorado or Wichita Rivers to contain the necessary habitat conditions to support either species. Therefore, the Colorado and Wichita Rivers were not proposed as critical habitat for either species because of limited importance to the conservation of the species and the inability for the necessary habitat conditions for the species to be restored.

The middle Brazos River also lacks the necessary unimpounded river length required to support sharpnose and smalleye shiner reproduction (Service 2014, Chapter 4). Existing impoundments are expected to exist into the future with no apparent potential for their removal. As a result, these areas cannot be restored to contain the necessary habitat conditions to support the species. Therefore, since this area of the middle Brazos River cannot be restored to appropriate habitat conditions, we find it is not essential for the conservation of either species, and we did not propose it as critical habitat.

The lower Brazos River was also found likely to have limited importance to the overall viability for both species (Service 2014, Chapter 2). The lower Brazos River does contain an unimpounded stream length long enough to support reproduction of sharpnose and smalleye shiners; however, their populations in this segment have already declined to the point that we presume they are extirpated from this reach. We expect the extirpation was the result of poor habitat conditions. Both the flow regime and river channel morphology of the lower Brazos River are considerably different (higher flow and deeper, wider channel) than the upper Brazos River, so this segment may never have supported populations of either species independent of the upper Brazos River populations. As a result, it is unlikely that sharpnose and smalleye shiners are capable of sustaining populations in the lower Brazos River without constant emigration (downstream dispersal) from the upstream source population in the upper Brazos River, which is now isolated by impoundments in the middle Brazos River. Therefore, with limited importance and the inability to support populations, we find the lower Brazos River is not essential for the conservation of either species, and we did not propose this area for critical habitat.

In conclusion, based on the best available information, we conclude that the areas within the historical range of one or both species, but not occupied by either species at the time of listing, are not essential for the conservation of either species. The Colorado and Wichita Rivers do not contribute substantially to the conservation of the sharpnose shiner and are unlikely to be restored to contain the necessary habitat conditions to support either species. The middle Brazos River cannot be restored to contain the necessary habitat conditions to support either species. The lower Brazos River may not be important for the conservation of either species and is not likely able to support a viable population of either species. Therefore, we have not desginated any areas as critical habitat beyond what is occupied at the time of listing.

Lateral Extent

In determining the lateral extent (overbank areas adjacent to the river channel) of critical habitat along proposed riverine segments, we considered the definition of critical habitat under the Act. Under the Act, critical habitat must contain the physical or biological features essential to a species' conservation and which may require special management considerations or protection. Conservation of the river channel alone is not sufficient to conserve sharpnose and smalleye shiners because the nearby native riparian vegetation areas adjacent to the river channel where the shiners occur are important components of the critical habitat for the shiners as a source of food (terrestrial insects) and to maintain physical habitat conditions in the stream channel. Riparian areas are essential for energy and nutrient cycling, filtering runoff, absorbing and gradually releasing floodwaters, recharging groundwater, and maintaining stream flows. Healthy riparian corridors help ensure aquatic resources maintain the ecological integrity essential to stream fishes, including the sharpnose shiner and smalleye shiner.

A riparian width of 5 to 30 m (16 to 98 ft) on each side of the stream is generally sufficient to protect the water quality of adjacent streams (Fischer and Fischenich 2000, p. 8). The ability of riparian buffers to filter surface runoff is largely dependent on vegetation density, type, and slope, with dense, grassy vegetation and gentle slopes facilitating filtration. A riparian buffer width of 30 to 500 m (98 to 1,640 ft) should be sufficient to provide wildlife habitat; however, the riparian zone of the upper Brazos River may never have been extensive due to the aridity of the area, and the terrestrial insect prey base of the shiners would likely persist at even the thinnest recommended width. A riparian width of 30 m (98 ft) beyond the bankfull width of the river should be sufficient to maintain proper runoff filtration and provide the water quality and food base required by sharpnose and smalleye shiners (Service 2014, Chapter 6). As such, the final critical habitat includes the stream and river segments identified below and an area extending 30 m (98 ft) on each side perpendicularly to the stream channel beyond bankfull width. The bankfull width is the width of the stream or river at bankfull discharge and often corresponds to the edge of the riparian vegetation. Bankfull discharge is significant because it is the flow at which water begins to leave the active channel and move into the floodplain and serves to identify the point at which the active channel ceases and the floodplain begins.

Mapping

For each species, we are desginating one critical habitat unit, divided into six subunits. These subunits are derived from the most recent USGS high-resolution National Hydrological Flowline Dataset. Although river channels migrate naturally, it is assumed the segment lengths and locations will remain reasonably accurate over an extended period of time. All mapping was performed using ArcMap version 10 (Environmental Systems Research Institute, Inc.), a computer Geographic Information System (GIS) program.

We set the limits of each critical habitat subunit by identifying landmarks (reservoirs and dams) that clearly act as barriers to fish migration. Partial barriers to fish migration that impede fish movement only during low river flow are not used to identify segment endpoints because it is presumed fish may occasionally be capable of traversing these impediments. Stream confluences are also used to delineate the boundaries of subunits contiguous with other critical habitat subunits because they are logical and recognizable termini.

When determining critical habitat boundaries within this final rule, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, existing maintained transportation rights-of-way within the lateral extent buffers, and other structures because such lands lack physical or biological features for sharpnose shiner and smalleye shiner. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed lands. Any such lands

inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, a Federal action involving these lands will not trigger section 7 consultation with respect to critical habitat and the requirement of no adverse modification unless the specific action would affect the physical or biological features in the adjacent critical habitat.

The critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document in the rule portion. We include more detailed information on the boundaries of the critical habitat designation in the preamble of this document. We will make the coordinates or plot points or both on which each map is based available to the public on *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0008, on our Internet sites *http://www.fws.gov/southwest/es/ArlingtonTexas,* and at the field office responsible for the designation (see **FOR FURTHER INFORMATION CONTACT** above).

We are designating as critical habitat lands that we have determined are occupied at the time of listing and contain sufficient physical or biological features to support life-history processes essential for the conservation of the species.

Subunits were designated based on sufficient elements of physical or biological features being present to support sharpnose shiner and smalleye shiner life processes. Some subunits contained all of the identified elements of physical or biological features and supported multiple life processes. Some segments contained only some elements of the physical or biological features necessary to support the sharpnose shiner and smalleye shiner's particular use of that habitat.

Final Critical Habitat Designation

We are designating a single critical habitat unit divided into six subunits in Texas of approximately 1,002 river km (623 mi) of the upper Brazos River basin and the upland areas extending beyond the bankfull river channel by 30 m (98 ft) on each side. The critical habitat areas described below constitute our best assessment at this time of areas that meet the definition of critical habitat. Those six subunits are: (1) Upper Brazos River main stem, (2) Salt Fork of the Brazos River, (3) White River, (4) Double Mountain Fork of the Brazos River, (5) North Fork Double Mountain Fork of the Brazos River, and (6) South Fork Double Mountain Fork of the Brazos River. Table 1 shows the occupied units.

TABLE 1—OCCUPANCY OF SHARPNOSE SHINER AND SMALLEYE SHINER BY DESIGNATED CRITICAL HABITAT UNITS

Critical habitat subunit	Occupied at time of listing?	Currently occupied?
1. Brazos River Main Stem Subunit	Y	Y
2. Salt Fork of the Brazos River Subunit	Y	Y
3. White River Subunit	Y	Y
4. Double Mountain Fork of the Brazos River Subunit	Y	Y
5. North Fork Double Mountain Fork of the Brazos River Subunit	Y	Y
6. South Fork Double Mountain Fork of the Brazos River Subunit	Y	Y

The approximate length of each critical habitat unit is shown in Table 2.

TABLE 2—DESIGNATED CRITICAL HABITAT UNITS FOR SHARPNOSE SHINER AND SMALLEYE SHINER

[Area estimates reflect all land within critical habitat unit boundaries]

Critical habitat subunit	River ownership by type	Length of subunit in river kilometers (river miles)
1. Brazos River Main Stem Subunit	State	327 (203)
2. Salt Fork of the Brazos River Subunit	State	275 (171)
3. White River Subunit	State	40 (25)
4. Double Mountain Fork of the Brazos River Subunit	State	240 (149)
5. North Fork Double Mountain Fork of the Brazos River Subunit	State	109 (68)
6. South Fork Double Mountain Fork of the Brazos River Subunit	State	11 (7)
Total		1,002 (623)

Note: Area sizes may not sum due to rounding.

The critical habitat areas include the river channels within the identified stream segments. The stream beds of navigable waters (stream beds maintaining an average width of at least 9 m (30 ft) wide from the mouth up) in Texas are generally owned by the State, in trust for the public, while the lands alongside the streams can be privately owned. Therefore, for all stream subunits included in the critical habitat, the stream beds, including the small, seasonally dry portion of the stream beds between the bankfull width where vegetation occurs, and the wetted channel are owned by the State for the purposes of this rule. To the best of our knowledge, all adjacent riparian areas are privately owned.

Unit Description

We determined the unit of the upper Brazos River basin and its subunits are occupied by both species at the time of listing (Service 2014, Chapter 4). The upper Brazos River critical habitat unit, when considered in its entirety, exhibits all four of the primary constituent elements of critical habitat for both species. Some individual subunits may

not contain all of the physical or biological features of critical habitat under all climatic conditions. For example, the elements of physical and biological features supporting the life-history processes of sharpnose and smalleye shiners are highly dependent on the naturally variable climatic conditions and river flow characteristics of the upper Brazos River basin and may not be present in all critical habitat subunits at all times (i.e., during severe droughts). However, each subunit likely contains suitable habitat during wet climatic conditions and will exhibit one or more of the essential physical or biological features that may require special management considerations or protection and are therefore included in the designation under section 3(5)(A)(i) of the Act.

Subunits are designated based on sufficient elements of physical or biological features being present to support life-history processes of the sharpnose and smalleye shiners. Some subunits contain all of the identified elements of physical or biological features and support multiple life-history processes, while other subunits contain only some elements of the physical or biological features necessary to support each species' particular use of that habitat. The following subunit descriptions briefly describe each of the proposed critical habitat subunits and the reasons why they meet the definition of critical habitat for the sharpnose shiner and smalleye shiner. The subunits are generally numbered from downstream to upstream.

Subunit 1: Upper Brazos River Main Stem

Subunit 1 is 326.8 river km (203.1 mi) long in Young, Throckmorton, Baylor, Knox, King, and Stonewall Counties. The downstream extent of the Upper Brazos River Main Stem Subunit is approximately 15 river km (9.3 mi) upstream of the eastern border of Young County where it intersects the upper portion of Possum Kingdom Lake. The upstream extent of this subunit is at the confluence of the Double Mountain Fork of the Brazos River and the Salt Fork of the Brazos River where they form the Brazos River main stem.

Subunit 1 provides an adequate length of unobstructed, sandy bottomed river (PCE 1) often with sufficient flow (PCE 2) and water quality (PCE 3) to support sharpnose and smalleye shiner survival and reproduction. However, during periods of severe drought, sufficient flow may not be maintained. Many upland areas adjacent to this subunit are encroached by saltcedar, although it generally contains the native riparian vegetation capable of maintaining river water quality and an adequate prey base for both shiner species (PCE 4).

Habitat features in this subunit are primarily threatened by groundwater withdrawal, saltcedar invasion, water quality degradation, drought, and impoundment. The South Bend Reservoir, identified as a feasible water management strategy by the Brazos G Regional Water Planning Group, would occur on this subunit if constructed, while the Throckmorton Reservoir and Millers Creek Reservoir Augmentation would occur on tributaries that discharge into this subunit (Service 2014, Chapter 3). The physical or biological features in this subunit may require special management considerations or protection to minimize impacts from these threats.

Subunit 2: Salt Fork of the Brazos River

Subunit 2 is 275.1 km (171 mi) long in Stonewall, Kent, and Garza Counties. The downstream extent of the Salt Fork of the Brazos River Subunit is at the confluence of the Double Mountain Fork of the Brazos River and the Salt Fork of the Brazos River where they form the Brazos River main stem. The upstream extent of this subunit is on the Salt Fork of the Brazos River at the McDonald Road crossing in Garza County, which acts as a barrier to fish passage.

Subunit 2 provides an adequate length of unobstructed, sandy bottomed river (PCE 1) often with sufficient flow (PCE 2) and water quality (PCE 3) to support sharpnose and smalleye shiner survival and reproduction. However, during periods of severe drought, sufficient flow may not be maintained, and naturally occurring salt plumes may occasionally result in inadequate water quality. Many upland areas adjacent to this subunit are encroached by saltcedar, although it generally contains the native riparian vegetation capable of maintaining river water quality and an adequate prey base for both shiner species (PCE 4).

Habitat features in this subunit are primarily threatened by groundwater withdrawal, saltcedar invasion, desalination projects, water quality degradation, and drought. Several of these threats have the potential to decrease surface water volume available for fish use. The threat of reservoir impoundment is minimized because the highly saline water of this subunit is generally of little use for industrial, agricultural, and municipal needs. The physical or biological features in this subunit may require special management considerations or protection to minimize impacts from these threats.

Subunit 3: White River

Subunit 3 is 40.3 km (25.1 mi) long in Kent, Garza, and Crosby Counties. The downstream extent of the White River Subunit is at the confluence of the White River with the Salt Fork of the Brazos River. The upstream extent is immediately downstream of the White River Lake impoundment on the White River.

Given the lack of adequate sampling from this area, records of the smalleye shiner from the White River are old and rare, and sharpnose shiners have never been recorded from this subunit (Service 2014, Chapter 2). However, records of both species have been documented within the last 5 years from the Salt Fork of the Brazos River less than 1 km (0.6 mi) downstream of the confluence of this subunit. Therefore, the White River Subunit is contiguous with areas currently occupied by both species, and there are no fish barriers to prevent them from migrating into this area. Given the information above and the biological similarity between these species, we consider this subunit within the geographic range occupied by both species. Furthermore, the White River provides surface water flow of relatively low salinity into the Salt Fork of the Brazos River, which may be important in maintaining the water quality of this downstream subunit.

Subunit 3 provides an adequate length of unobstructed, sandy bottomed river (PCE 1) when considered as part of the contiguous critical habitat unit as a whole. This subunit likely contains only sufficient flow (PCE 2) and water quality (PCE 3) to support sharpnose and smalleye shiner survival and reproduction under wet climatic conditions or when water is being released from upstream impoundments. During periods of severe drought, sufficient flow may not be maintained. Upland areas adjacent to this subunit are likely encroached by saltcedar, although it generally contains the native riparian vegetation capable of maintaining river water quality and an adequate prey base for both shiner species (PCE 4).

Habitat features in this subunit are primarily threatened by groundwater withdrawal, saltcedar invasion, water quality degradation, drought, and impoundment. Flow is normally available in this subunit only as a result of water release from White River Lake upstream of this subunit. Therefore, the physical or biological features in this subunit may require special management considerations or

protection to minimize impacts from these threats.

Subunit 4: Double Mountain Fork of the Brazos River

Subunit 4 is 239.8 km (149 mi) long in Stonewall, Haskell, Fisher, and Kent Counties. The downstream extent of the Double Mountain Fork of the Brazos River Subunit is at the confluence of the Double Mountain Fork of the Brazos River and the Salt Fork of the Brazos River where they form the Brazos River main stem. The upstream extent of this subunit is at the confluence of the South Fork Double Mountain Fork of the Brazos River and the North Fork Double Mountain Fork of the Brazos River where they form the Double Mountain Fork of the Brazos River.

Subunit 4 provides an adequate length of unobstructed, sandy bottomed river (PCE 1) when considered as part of the contiguous critical habitat unit as a whole. This subunit likely contains sufficient flow (PCE 2) and water quality (PCE 3) to support sharpnose and smalleye shiner survival and reproduction most of the time although during periods of severe drought, sufficient flow may not be maintained. Upland areas adjacent to this subunit are likely encroached by saltcedar, but it generally contains the native riparian vegetation capable of maintaining river water quality and an adequate prey base for both shiner species (PCE 4).

Habitat features in this subunit are primarily threatened by groundwater withdrawal, saltcedar invasion, water quality degradation, drought, and impoundment. The Double Mountain Fork East and West Reservoirs, identified as feasible water management strategies by the Brazos G Regional Water Planning Group, would occur in this subunit if constructed (Service 2014, Chapter 3). Therefore, the physical or biological features in this subunit may require special management considerations or protection to minimize impacts from these threats.

Subunit 5: North Fork Double Mountain Fork of the Brazos River

Subunit 5 is 108.6 km (67.5 mi) long in Kent, Garza, and Crosby Counties. The downstream extent of the North Fork Double Mountain Fork Subunit is at the confluence of the South Fork Double Mountain Fork of the Brazos River and the North Fork Double Mountain Fork of the Brazos River where they form the Double Mountain Fork of the Brazos River. The upstream extent of this subunit is the earthen impoundment near Janes-Prentice Lake in Crosby County, Texas.

Subunit 5 provides an adequate length of unobstructed, sandy bottomed river (PCE 1) when considered as part of the contiguous critical habitat unit as a whole. This subunit likely contains sufficient flow (PCE 2) and water quality (PCE 3) to support sharpnose and smalleye shiner survival and reproduction much of the time, but during periods of severe drought, sufficient flow may not be maintained. Upland areas adjacent to this subunit are likely encroached by saltcedar, although it generally contains the native riparian vegetation capable of maintaining river water quality and an adequate prey base for both shiner species (PCE 4).

Habitat features in this subunit are primarily threatened by groundwater withdrawal, saltcedar invasion, water quality degradation, drought, and impoundment. Post Reservoir and the North Fork Diversion Reservoir, identified as feasible water management strategies by the Brazos G Regional Water Planning Group, would occur in this subunit if constructed (Service 2014, Chapter 3). Therefore, the physical or biological features in this subunit may require special management considerations or protection to minimize impacts from these threats.

Subunit 6: South Fork Double Mountain Fork of the Brazos River

Subunit 6 is 11.1 km (6.9 mi) long in Kent and Garza Counties. The downstream extent of the South Fork Double Mountain Fork Subunit is at the confluence of the South Fork Double Mountain Fork of the Brazos River and the North Fork Double Mountain Fork of the Brazos River where they form the Double Mountain Fork of the Brazos River. The upstream extent of this subunit is immediately downstream of the John T. Montford Dam of Lake Alan Henry. Although there is a lack of recent records (smalleye shiner last observed in 1992) in this subunit, it is contiguous with areas currently occupied by both species, and there are no known fish barriers to prevent them from migrating into this area. The subunit does not have public access, and researchers have few opportunities to survey for fish in this river segment. However, given the information above and the biological similarity between these species, we consider this subunit within the geographic range occupied by both sharpnose and smalleye shiners.

Subunit 6 provides an adequate length of unobstructed, sandy bottomed river (PCE 1) when considered as part of the contiguous critical habitat unit as a whole. This subunit likely contains only sufficient flow (PCE 2) and water quality (PCE 3) to support sharpnose and smalleye shiner survival and reproduction under wet climatic conditions or when water is being actively released from upstream impoundments. During periods of severe drought, sufficient flow may not be maintained. Upland areas adjacent to this subunit may be encroached by saltcedar, although it generally contains the native riparian vegetation capable of maintaining river water quality and an adequate prey base for both shiner species (PCE 4).

Habitat features in this subunit are primarily threatened by drought and impoundment. Flow is normally present in this subunit only as a result of water released from Lake Alan Henry. Flow from this subunit directly affects surface water volume in the Double Mountain Fork of the Brazos River Subunit available for fish use. Therefore, the physical or biological features in this subunit may require special management considerations or protection to minimize impacts from these threats.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that any action they fund, authorize, or carry out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of designated critical habitat of such species. In addition, section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any agency action which is likely to jeopardize the continued existence of any species proposed to be listed under the Act or result in the destruction or adverse modification of proposed critical habitat.

Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our regulatory definition of ''destruction or adverse modification'' (50 CFR 402.02) (see *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service,* 378 F. 3d 1059 (9th Cir. 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service et al.,* 245 F.3d 434, 434 (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve

its intended conservation role for the species.

If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. Examples of actions that are subject to the section 7 consultation process are actions on State, tribal, local, or private lands that require a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from the Service under section 10 of the Act) or that involve some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency). Federal actions not affecting listed species or critical habitat, and actions on State, tribal, local, or private lands that are not federally funded or authorized, do not require section 7 consultation.

As a result of section 7 consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species and/or destroy or adversely modify critical habitat, we provide reasonable and prudent alternatives to the project, if any are identifiable, that would avoid the likelihood of jeopardy and/or destruction or adverse modification of critical habitat. We define ''reasonable and prudent alternatives'' (at 50 CFR 402.02) as alternative actions identified during consultation that:

(1) Can be implemented in a manner consistent with the intended purpose of the action,

(2) Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,

(3) Are economically and technologically feasible, and

(4) Would, in the Director's opinion, avoid the likelihood of jeopardizing the continued existence of the listed species and/or avoid the likelihood of destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies sometimes may need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Application of the ''Adverse Modification'' Standard

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical or biological features to an extent that appreciably reduces the conservation value of critical habitat for the sharpnose shiner and smalleye shiner. As discussed above, the role of critical habitat is to support life-history needs of the species and provide for the conservation of the species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that may affect critical habitat, when carried out, funded, or authorized by a Federal agency, should result in consultation for the sharpnose shiner and smalleye shiner. These activities include, but are not limited to:

(1) Activities physically disturbing the riverine habitat upon which these shiner species depend, particularly by decreasing surface water flows or altering channel morphology. Such activities could include, but are not limited to, impoundment, in-stream mining, channelization, and dewatering. These activities could result in the physical destruction of habitat or the modification of habitat such that it no longer supports the reproduction of these species.

(2) Activities increasing the concentration of pollutants in surface water within areas designated as critical habitat. Such activities could include, but are not limited to, increases in impervious cover in the surface watershed, destruction of the adjacent upland areas by land uses incompatible with maintaining a healthy riverine system, and release of pollutants into the surface water or connected groundwater. These activities could alter water conditions to levels that are beyond the tolerances of the shiner species and result in direct or cumulative adverse effects to these individuals and their life cycles.

(3) Activities depleting the underlying groundwater or otherwise diverting water to an extent that decreases or stops the flow of surface waters within areas designated as critical habitat. Such activities could include, but are not limited to, excessive water withdrawals from aquifers and diversion of natural discharge features. These activities could dewater habitat or reduce water quality to levels that are beyond the tolerances of the sharpnose and smalleye shiner, and result in direct or cumulative adverse effects to these individuals and their life cycles.

(4) Activities leading to the introduction, expansion, or increased density of a nonnative plant or animal species that is detrimental to the sharpnose shiner or smalleye shiner or their habitat.

Exemptions

Application of Section 4(a)(3) of the Act

Section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) provides that: ''The Secretary shall not designate as critical habitat any lands or other geographic areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan [INRMP] prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation.'' There are no Department of Defense lands within the critical habitat designation.

Consideration of Impacts Under Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary shall designate and make revisions to critical habitat on the basis of the best available scientific data after taking into consideration the economic

impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if she determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless she determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factors to use and how much weight to give to any factor.

Consideration of Economic Impacts

Under section 4(b)(2) of the Act, we consider the economic impacts of specifying any particular area as critical habitat. In order to consider economic impacts, we prepared an incremental effects memorandum (IEM) and screening analysis, which, together with our narrative and interpretation of effects, we consider our draft economic analysis of the proposed critical habitat designation and related factors (IEc 2014a, entire). The analysis, dated January 23, 2014, was made available for public review from March 4, 2014, through April 3, 2014 (79 FR 12138). Following the close of the comment period, we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Additional information relevant to the probable incremental economic impacts of critical habitat designation for the sharpnose shiner and smalleye shiner is summarized below and available in the screening analysis for the sharpnose shiner and smalleye shiner (IEc 2014b, entire), available at *http://www.regulations.gov*.

Review of the Service's incremental effects memorandum and discussion within the Service identified the following economic activities that may affect the shiners and their habitat: (1) Water management, including flood control and drought protection operations; (2) in-stream projects; (3) transportation activities, including bridge construction; (4) oil and natural gas exploration and development; and (5) utilities projects, including water and sewer lines. The sharpnose shiner and smalleye shiner were not previously listed under the Act; therefore, no previous consultation history exists for these shiner species. The final economic analysis looks retrospectively at costs that may have been incurred since 2007 based on the incidence of technical assistances that have historically occurred in or near designated critical habitat since that time. As explained in our IEM, we believe 2007 presents an accurate starting point to assess the trends of section 7 consultation history in the area to be designated as critical habitat.

The economic cost of implementing the rule through section 7 of the Act will most likely be limited to additional administrative effort to consider adverse modification during consultation because: (1) Project modifications requested to avoid adverse modification are likely to be the same as those needed to avoid jeopardy in occupied habitat, and (2) all critical habitat subunits are considered occupied; thus, the presence of the shiners, when the listing is finalized, provides significant baseline protection. The additional administrative cost of addressing adverse modification during the section 7 consultation process ranges from approximately $410 to $5,000 per consultation, depending upon the type of consultation. Based on a review of the technical assistance history for the shiners, no more than 2 formal consultations, 28 informal consultations, and 16 technical assistances are expected annually. Thus, the incremental administrative burden resulting from critical habitat designation is expected to be less than $84,000 per year (in 2013 dollars). Because we use high-end estimates of consultations and technical assistances, this estimate is more likely to overstate than understate actual incremental costs.

Due to data availability limitations, we are unable to assign costs to specific subunits. Rather, we provide estimates of potential costs across the entire proposed critical habitat designation. We note that, of the 11 counties where critical habitat is located, Young County contains more than one-third of the overall human population. Thus, the amount of economic activity generated in this area may be larger than in the more remote counties. In addition, the U.S. Army Corps of Engineers and the City of Lubbock, TX, identified specific dam and reservoir projects that may affect surface flows in Subunit 1 (the Cedar Ridge Reservoir) and Subunit 6 (diversions from Lake Alan Henry Reservoir for the City of Lubbock's municipal needs).

In some cases, designation of critical habitat may provide new information to project proponents who otherwise would not have consulted with the Service, thus resulting in incremental economic impacts. We cannot predict where or when these situations may occur, but anticipate that consultations of this nature will be infrequent. The designation of critical habitat is not expected to trigger additional requirements under State or local regulations, nor is the designation expected to have perceptional effects on markets. Additional section 7 efforts to conserve the species are not predicted to result from the designation of critical habitat. Thus, it is unlikely that the critical habitat designation will result in cost exceeding $100 million in a given year.

Exclusions Based on Economic Impacts

Our economic analysis did not identify any disproportionate costs that are likely to result from the designation. There is no evidence that the potential economic benefits of exclusion outweigh the benefits of inclusion as critical habitat. Consequently, the Secretary is not exercising her discretion to exclude any areas from this designation of critical habitat for the sharpnose shiner and smalleye shiner based on economic impacts.

A copy of the IEM and screening analysis with supporting documents may be obtained by contacting the Arlington, Texas, Ecological Services Field Office (see **ADDRESSES**) or by downloading from the Internet at *http://www.regulations.gov* or *http://www.fws.gov/southwest/es/ArlingtonTexas*.

Exclusions Based on National Security Impacts

Under section 4(b)(2) of the Act, we consider whether a national or homeland security impact might exist on potential critical habitat. In preparing this final rule, we have determined that no lands within the designation of critical habitat for the sharpnose shiner or smalleye shiner are owned or managed by the Department of Defense or Department of Homeland Security, and, therefore, we anticipate no impact on national or homeland security. Consequently, the Secretary is not exercising her discretion to exclude any areas from this final designation based on impacts on national or homeland security.

Exclusions Based on Other Relevant Impacts

Under section 4(b)(2) of the Act, we consider any other relevant impacts resulting from the designation of critical habitat. We consider a number of factors, including whether the landowners have developed any HCPs or other management plans for the area,

or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this final rule, we have determined that there are currently no permitted HCPs or other approved management plans for the sharpnose shiner or smalleye shiner, and the final designation does not include any tribal lands or trust resources. We anticipate no impact on tribal lands, partnerships, or HCPs from this critical habitat designation. Accordingly, the Secretary is not exercising her discretion to exclude any areas from this final designation based on other relevant impacts.

Required Determinations

Regulatory Planning and Review (Executive Orders 12866 and 13563)

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) will review all significant rules. The Office of Information and Regulatory Affairs has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling for improvements in the nation's regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this rule in a manner consistent with these requirements.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 (5 U.S.C 801 *et seq.*), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the RFA to require Federal agencies to provide a certification statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

In this final rule, we are certifying that the critical habitat designation for the sharpnose shiner and smalleye shiner will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration, small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; and small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than $5 million in annual sales, general and heavy construction businesses with less than $27.5 million in annual business, special trade contractors doing less than $11.5 million in annual business, and agricultural businesses with annual sales less than $750,000. To determine if potential economic impacts on these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In general, the term ''significant economic impact'' is meant to apply to a typical small business firm's business operations.

Importantly, the incremental impacts of a rule must be *both* significant and substantial to prevent certification of the rule under the RFA and to require the preparation of an initial regulatory flexibility analysis. If a substantial number of small entities are affected by the proposed critical habitat designation, but the per-entity economic impact is not significant, the Service may certify. Likewise, if the per-entity economic impact is likely to be significant, but the number of affected entities is not substantial, the Service may also certify.

The Service's current understanding of the requirements under the RFA, as amended, and following recent court decisions, is that Federal agencies are required to evaluate the potential incremental impacts of rulemaking only on those entities directly regulated by the rulemaking itself and, therefore, not required to evaluate the potential impacts to indirectly regulated entities. The regulatory mechanism through which critical habitat protections are realized is section 7 of the Act, which requires Federal agencies, in consultation with the Service, to ensure that any action authorized, funded, or carried by the Agency is not likely to destroy or adversely modify critical habitat. Therefore, under section 7 only Federal action agencies are directly subject to the specific regulatory requirement (avoiding destruction and adverse modification) imposed by critical habitat designation. Consequently, it is our position that only Federal action agencies will be directly regulated by this designation. There is no requirement under RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities are directly regulated by this rulemaking, the Service certifies that, if promulgated, the final critical habitat designation will not have a significant economic impact on a substantial number of small entities.

During the development of this final rule we reviewed and evaluated all information submitted during the comment period that may pertain to our consideration of the probable incremental economic impacts of this critical habitat designation. Based on this information, we affirm our certification that this final critical habitat designation will not have a significant economic impact on a substantial number of small entities, and a regulatory flexibility analysis is not required.

Energy Supply, Distribution, or Use—Executive Order 13211

Executive Order 13211 (Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this Executive Order that outlines nine outcomes that may constitute ''a significant adverse effect'' when compared to not taking the regulatory action under consideration.

The economic analysis finds that none of these criteria are relevant to this analysis. Thus, based on information in the economic analysis, energy-related

impacts associated with sharpnose shiner and smalleye shiner conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(1) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or tribal governments'' with two exceptions. It excludes ''a condition of Federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority,'' if the provision would ''increase the stringency of conditions of assistance'' or ''place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding,'' and the State, local, or tribal governments ''lack authority'' to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. ''Federal private sector mandate'' includes a regulation that ''would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.''

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(2) We do not believe that this rule will significantly or uniquely affect small governments because the lands adjacent to the river channel designated as critical habitat are primarily owned by private landowners, which do not fit the definition of ''small governmental jurisdiction.'' Therefore a Small Government Agency Plan is not required.

Takings—Executive Order 12630

In accordance with Executive Order 12630 (''Government Actions and Interference with Constitutionally Protected Private Property Rights''), we have analyzed the potential takings implications of designating critical habitat for the sharpnose shiner and smalleye shiner in a takings implications assessment. Based on the best available information, the takings implications assessment concludes that this designation of critical habitat for the sharpnose shiner and smalleye shiner does not pose significant takings implications.

Federalism—Executive Order 13132

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of this proposed critical habitat designation with, appropriate State resource agencies in Texas. We received comments from the Texas Department of Transportation and the Texas Comptroller of Public Accounts and have addressed them in the Summary of Comments and Recommendations section of the rule. From a federalism perspective, the designation of critical habitat directly affects only the responsibilities of Federal agencies. The Act imposes no other duties with respect to critical habitat, either for States and local governments, or for anyone else. As a result, the rule does not have substantial direct effects either on the States, or on the relationship between the Federal Government and the States, or on the distribution of powers and responsibilities among the various levels of government. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the physical and biological features of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist these local governments in long-range planning (because these local governments no longer have to wait for case-by-case section 7 consultations to occur).

Where State and local governments require approval or authorization from a Federal agency for actions that may affect critical habitat, consultation under section 7(a)(2) would be required. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency.

Civil Justice Reform—Executive Order 12988

In accordance with Executive Order 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, the rule identifies the elements of physical or biological features essential to the conservation of the sharpnose shiner and smalleye shiner. The designated areas of critical habitat are presented on maps, and the rule provides several options for the interested public to obtain more detailed location information, if desired.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This rule does not contain any new collections of information that require approval by OMB under the Paperwork

Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

It is our position that, outside the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994 (Government-to-Government Relations With Native American Tribal Governments; 59 FR 22951), Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments), and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We determined that there are no tribal lands occupied by the sharpnose shiner or smalleye shiner at the time of listing that contain the physical or biological features essential to conservation of the species, and no tribal lands unoccupied by the sharpnose shiner or smalleye shiner that are essential for the conservation of the species. Therefore, we are not designating critical habitat for the sharpnose shiner or smalleye shiner on tribal lands.

References Cited

A complete list of all references cited is available on the Internet at *http://www.regulations.gov* and upon request from the Arlington, Texas, Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this rulemaking are the staff members of the Arlington, Texas, Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245; unless otherwise noted.

■ 2. In § 17.95, amend paragraph (e) by adding entries for ''Sharpnose Shiner *(Notropis oxyrhynchus)*'' and ''Smalleye Shiner *(Notropis buccula)*'' in alphabetical order after the entry for ''Pecos Bluntnose Shiner *(Notropis simus pecosensis)*'' to read as follows:

§ 17.95 Critical habitat—fish and wildlife

* * * * *

(e) *Fishes.*

* * * * *

Sharpnose Shiner (*Notropis oxyrhynchus*)

(1) Critical habitat units are depicted for Baylor, Crosby, Fisher, Garza, Haskell, Kent, King, Knox, Stonewall, Throckmorton, and Young Counties, Texas, on the maps below.

(2) Critical habitat includes the bankfull width of the river channel within the identified river segments indicated on the maps below, and includes a lateral distance of 30 meters (98 feet) on each side of the stream width at bankfull discharge. Bankfull discharge is the flow at which water begins to leave the channel and move into the floodplain, and generally occurs every 1 to 2 years.

(3) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the sharpnose shiner consist of a riverine system with habitat to support all life-history stages of the sharpnose shiner, which includes:

(i) Unobstructed, sandy-bottomed river segments greater than 275 kilometers (171 miles) in length.

(ii) Flowing water of greater than 2.61 cubic meters per second (m^3s^{-1}) (92 cubic feet per second (cfs)) averaged over the shiner spawning season (April through September).

(iii) Water of sufficient quality to support survival and reproduction, characterized by:

(A) Temperatures generally less than 39.2 °C (102.6 °F);

(B) Dissolved oxygen concentrations generally greater than 2.66 milligrams per liter (mg/L);

(C) Salinities generally less than 15 parts per thousand (ppt) (25 millisiemens per centimeter (mS/cm)); and

(D) Sufficiently low petroleum and other pollutant concentrations such that mortality does not occur.

(iv) Native riparian vegetation capable of maintaining river water quality, providing a terrestrial prey base, and maintaining a healthy riparian ecosystem.

(4) Critical habitat does not include manmade structures (such as buildings, railroads, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on September 3, 2014.

(5) *Critical habitat map units.* Data layers defining map units were created using the U.S. Geological Survey National Hydrography Dataset's flowline data in ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system program. The 30-meter (98-feet) lateral extent adjacent to each segment's active channel is not displayed in the included figures because it is not appropriate at these map scales. Segments were mapped using the NAD 1983 UTM Zone 14 projection. Endpoints of stream segments for each critical habitat subunit are reported as latitude, longitude in decimal degrees. The maps in this entry, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site (*http://www.fws.gov/southwest/es/ArlingtonTexas/*), at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0008, and at the Arlington, Texas, Ecological Services Field Office. You may obtain field office location information by contacting one of the Service regional offices, the

addresses of which are listed at 50 CFR 2.2.

(6) Index map of critical habitat for the sharpnose shiner and smalleye shiner follows:

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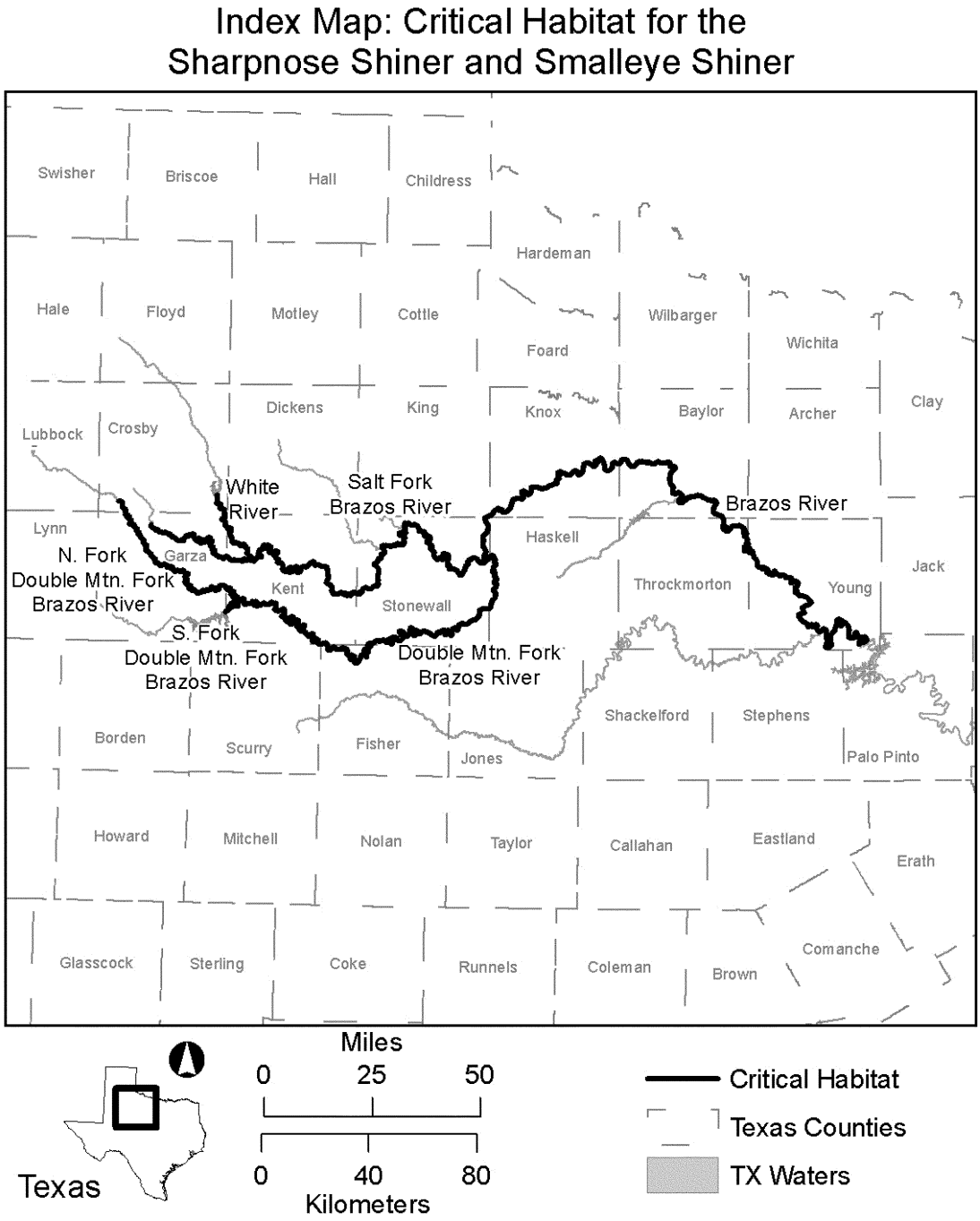
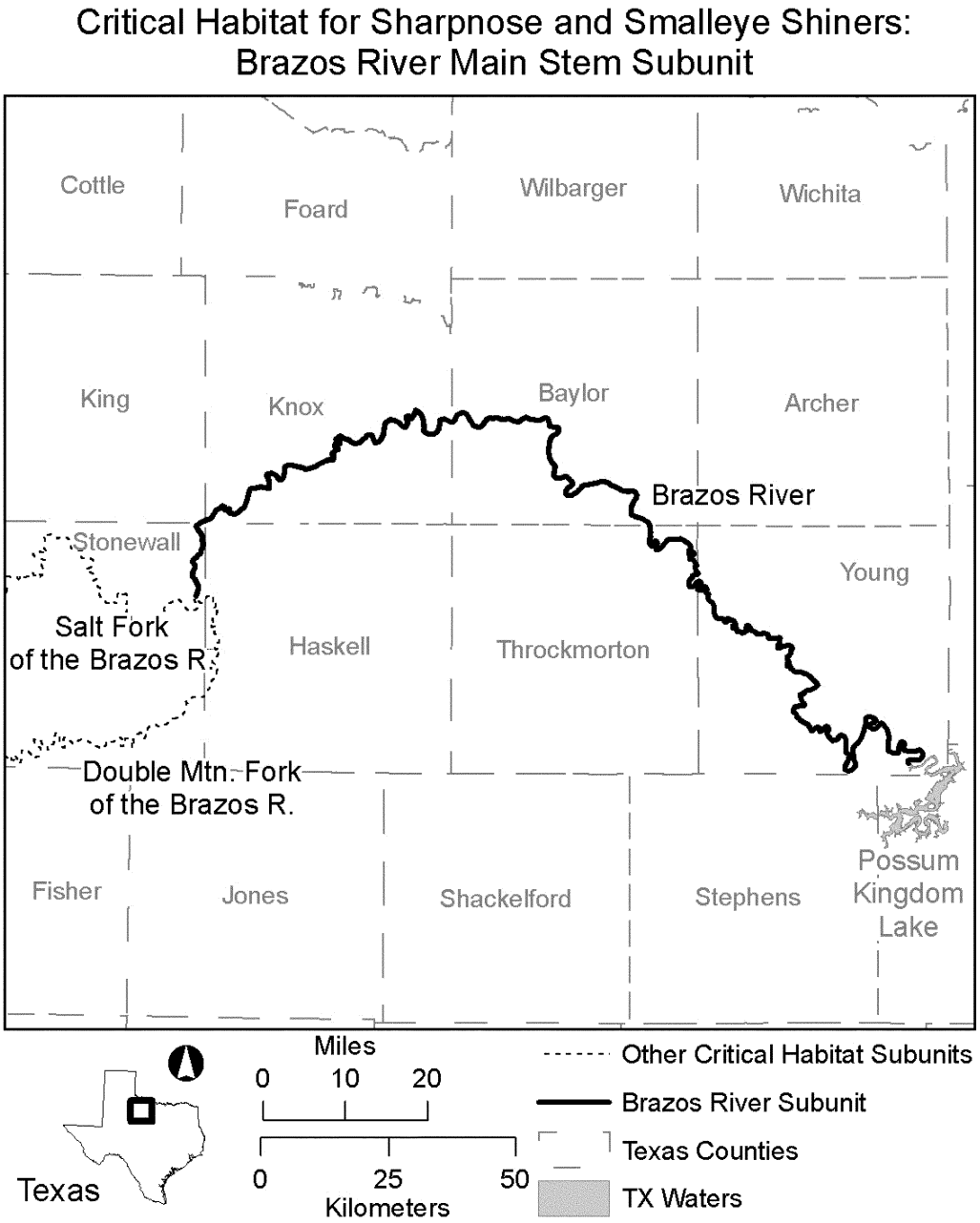


(7) Subunit 1: Brazos River Main Stem; Baylor, King, Knox, Stonewall, Throckmorton, and Young Counties, Texas.

(i) Brazos River Main Stem from approximately 15 river km (9.3 miles) upstream of the eastern border of Young County where it intersects the upper portion of Possum Kingdom Lake (32.974302, −98.509880) upstream to the confluence of the Double Mountain Fork of the Brazos River and the Salt Fork of the Brazos River where they form the Brazos River main stem (33.268404, −100.010209)

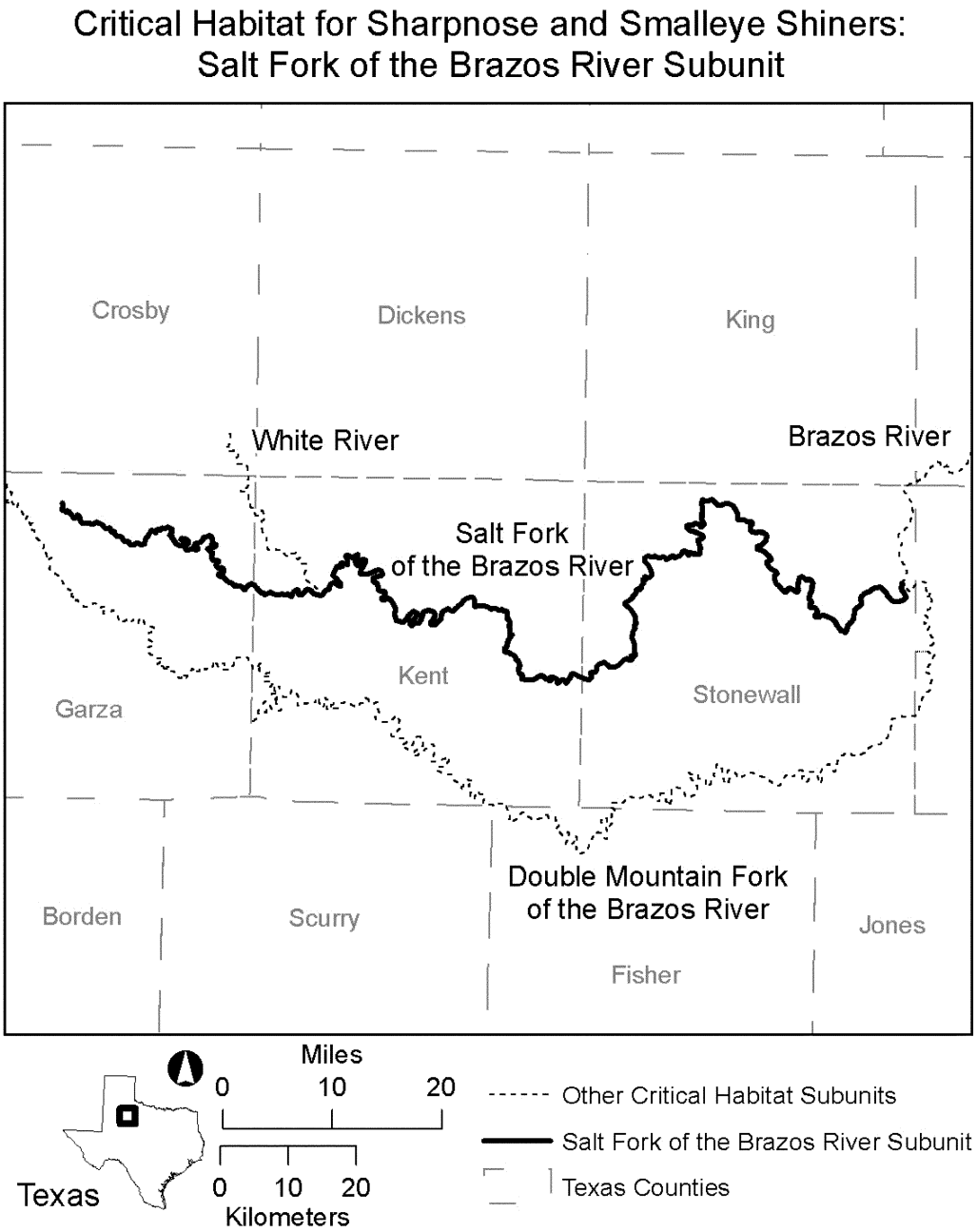
(ii) Note: Map of Subunit 1, Brazos River Main Stem, follows:



(8) Subunit 2: Salt Fork of the Brazos River; Garza, Kent, and Stonewall Counties, Texas.

(i) Salt Fork of the Brazos River from its confluence with the Double Mountain Fork of the Brazos River (33.268404, −100.010209) upstream to the McDonald Road crossing (33.356258, −101.345890).

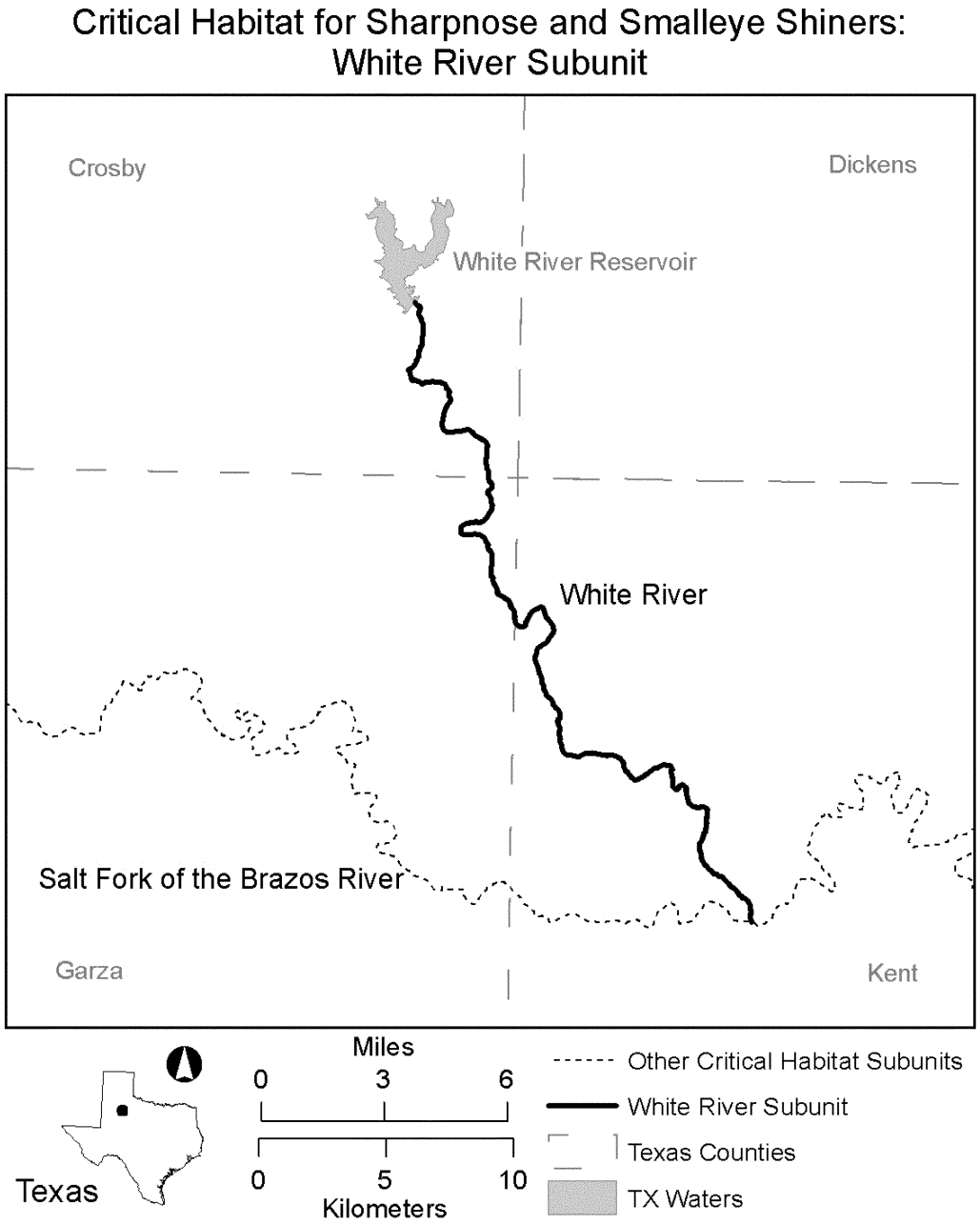
(ii) Note: Map of Subunit 2, Salt Fork of the Brazos River, follows:



(9) Subunit 3: White River; Crosby, Garza, and Kent Counties, Texas.

(i) White River from its confluence with the Salt Fork of the Brazos River (33.241172, −100.936181) upstream to the White River Lake impoundment (33.457240, −101.084546).

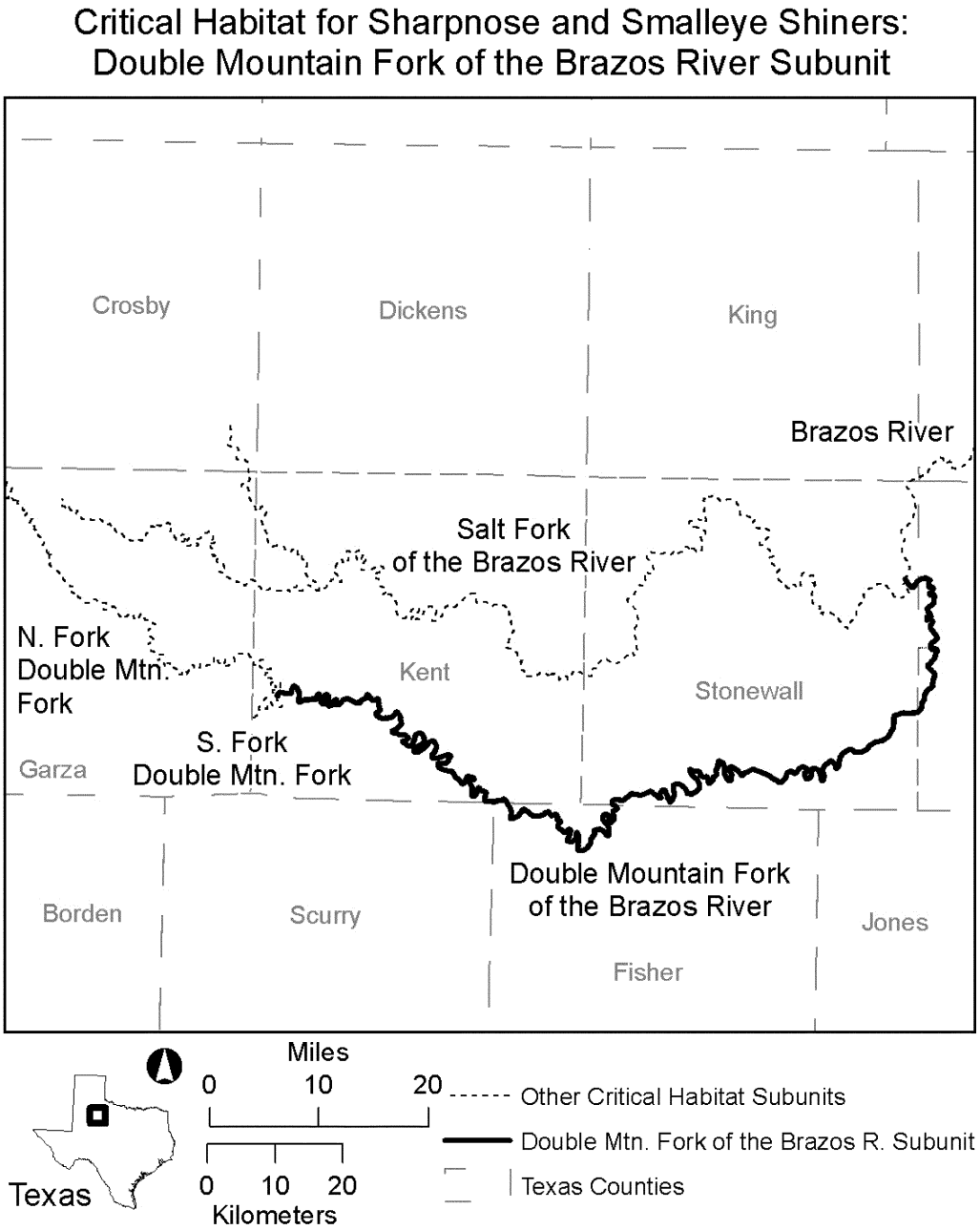
(ii) Note: Map of Subunit 3, White River, follows:



(10) Subunit 4: Double Mountain Fork of the Brazos River; Fisher, Haskell, Kent, and Stonewall Counties, Texas.

(i) Double Mountain Fork of the Brazos River from its confluence with the Salt Fork of the Brazos River (33.268404, −100.010209) upstream to the confluence of the South Fork Double Mountain Fork of the Brazos River and the North Fork Double Mountain Fork of the Brazos River where they form the Double Mountain Fork of the Brazos River (33.100269, −100.999803).

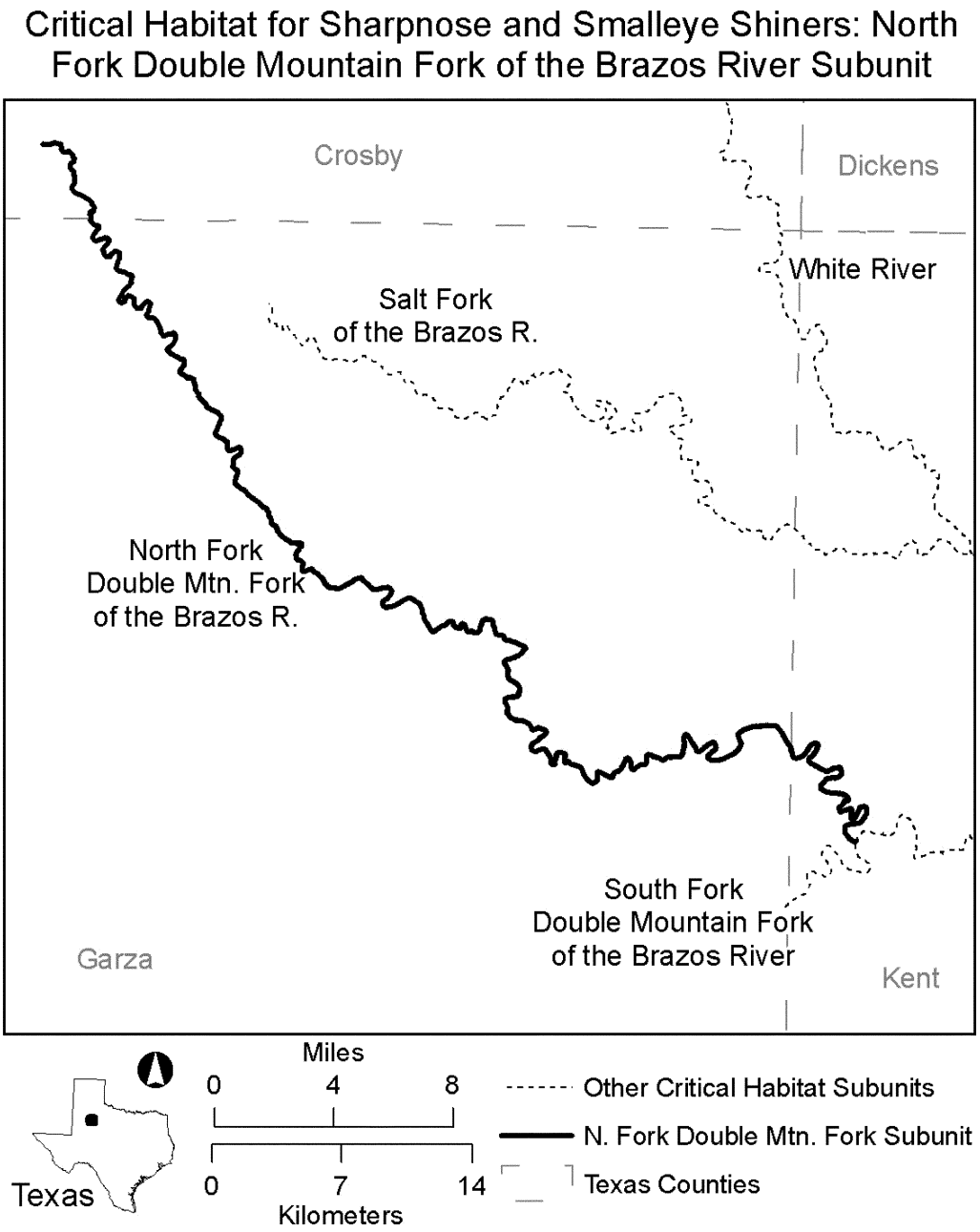
(ii) Note: Map of Subunit 4, Double Mountain Fork of the Brazos River, follows:



(11) Subunit 5: North Fork Double Mountain Fork of the Brazos River; Crosby, Garza, and Kent Counties, Texas.

(i) North Fork Double Mountain Fork of the Brazos River from its confluence with the South Fork Double Mountain Fork of the Brazos River (33.100269, −100.999803) upstream to the earthen impoundment near Janes-Prentice Lake (33.431515, −101.479610).

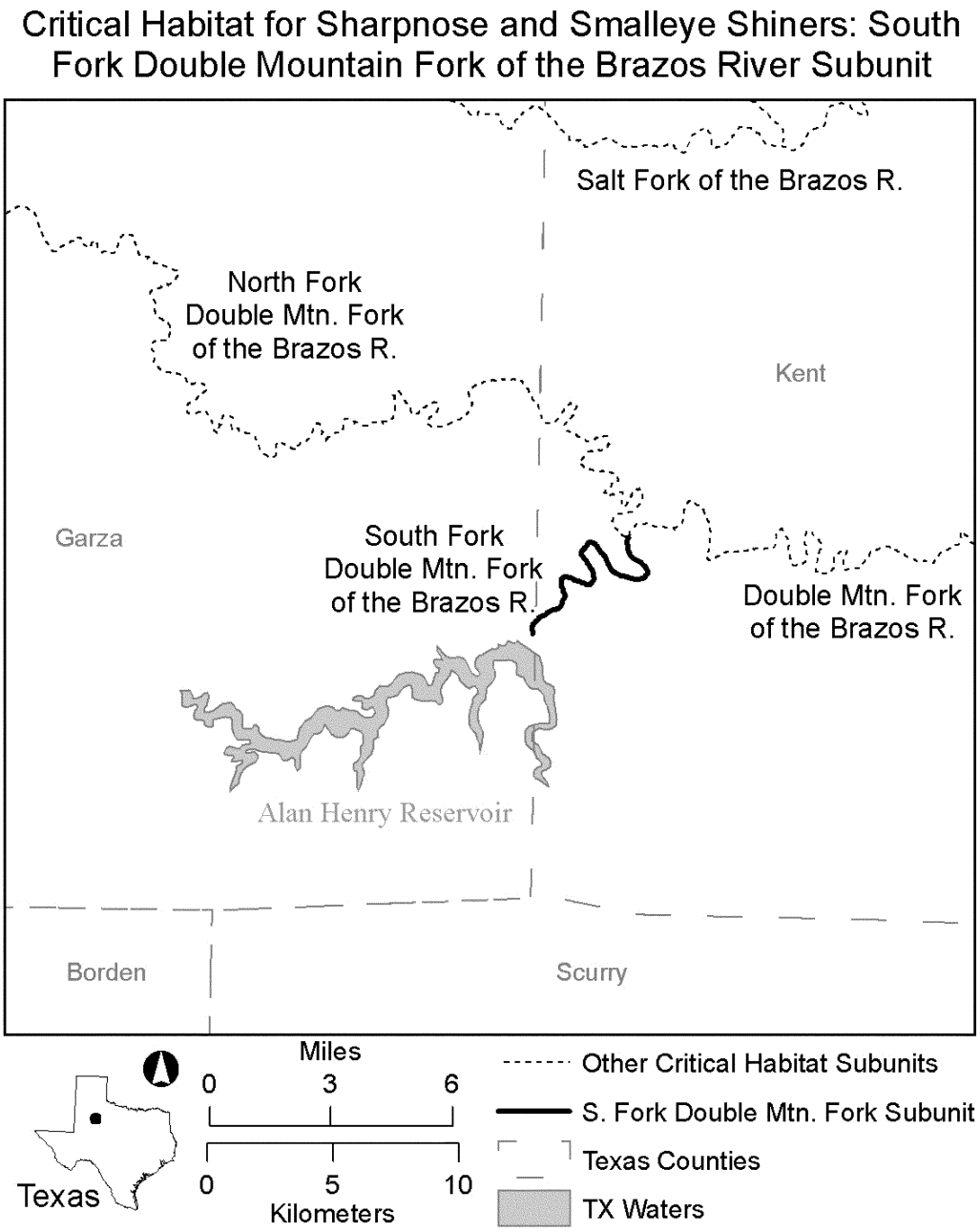
(ii) Note: Map of Subunit 5, North Fork Double Mountain Fork of the Brazos River, follows:



(12) Subunit 6: South Fork Double Mountain Fork of the Brazos River; Garza and Kent Counties, Texas.

(i) South Fork Double Mountain Fork of the Brazos River from its confluence with the North Fork Double Mountain Fork of the Brazos River (33.100269, −100.999803) upstream to the John T. Montford Dam of Lake Alan Henry (33.065008, −101.039780).

(ii) Note: Map of Subunit 6, South Fork Double Mountain Fork of the Brazos River, follows:



BILLING CODE 4310–55–C

Smalleye Shiner (*Notropis buccula*)

(1) Critical habitat units are depicted for Baylor, Crosby, Fisher, Garza, Haskell, Kent, King, Knox, Stonewall, Throckmorton, and Young Counties, Texas, on the maps.

(2) Critical habitat includes the bankfull width of the river channel within the identified river segments indicated on the maps, and includes a lateral distance of 30 meters (98 feet) on each side of the stream width at bankfull discharge. Bankfull discharge is the flow at which water begins to leave the channel and move into the floodplain and generally occurs every 1 to 2 years.

(3) Within these areas, the primary constituent elements of the physical or biological features essential to the conservation of the smalleye shiner consist of a riverine system with habitat to support all life-history stages of the smalleye shiner, which includes:

(i) Unobstructed, sandy-bottomed river segments greater than 275 kilometers (171 miles) in length.

(ii) Flowing water of greater than 6.43 cubic meters per second (m^3s^{-1}) (227 cubic feet per second (cfs)) averaged over the shiner spawning season (April through September).

(iii) Water of sufficient quality to support survival and reproduction, characterized by:

(A) Temperatures generally less than 40.6 °C (105.1 °F);

(B) Dissolved oxygen concentrations generally greater than 2.11 milligrams per liter (mg/L);

(C) Salinities generally less than 18 parts per thousand (ppt) (30 millisiemens per centimeter (mS/cm)); and

(D) Sufficiently low petroleum and other pollutant concentrations such that mortality does not occur.

(iv) Native riparian vegetation capable of maintaining river water quality, providing a terrestrial prey base, and maintaining a healthy riparian ecosystem.

(4) Critical habitat does not include manmade structures (such as buildings, railroads, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(5) *Critical habitat map units.* Data layers defining map units were created using the USGS National Hydrography Dataset's flowline data in ArcMap (Environmental Systems Research Institute, Inc.), a computer geographic information system program. The 30-m (98-ft) lateral extent adjacent to each segment's active channel is not displayed in the figures because it is not appropriate at these map scales. Segments were mapped using the NAD 1983 UTM Zone 14 projection. Endpoints of stream segments for each critical habitat subunit are reported as latitude, longitude in decimal degrees. The maps, as modified by any accompanying regulatory text, establish the boundaries of the critical habitat designation. The coordinates or plot points or both on which each map is based are available to the public at the Service's Internet site (*http://www.fws.gov/southwest/es/ArlingtonTexas/*), at *http://www.regulations.gov* at Docket No. FWS–R2–ES–2013–0008, and at the Arlington, Texas, Ecological Services Field Office. You may obtain field office location information by contacting one of the Service regional offices, the addresses of which are listed at 50 CFR 2.2.

(6) Index map of critical habitat units for the smalleye shiner is provided at paragraph (6) of the entry for the sharpnose shiner in this paragraph (e).

(7) Subunit 1: Brazos River Main Stem from approximately 15 river km (9.3 miles) upstream of the eastern border of Young County where it intersects the upper portion of Possum Kingdom Lake (32.974302, −98.509880) upstream to the confluence of the Double Mountain Fork of the Brazos River and the Salt Fork of the Brazos River where they form the Brazos River main stem (33.268404, −100.010209); Baylor, King, Knox, Stonewall, Throckmorton, and Young Counties, Texas. Map of Upper Brazos River Main Stem Subunit is provided at paragraph (7) of the entry for the sharpnose shiner in this paragraph (e).

(8) Subunit 2: Salt Fork of the Brazos River from its confluence with the Double Mountain Fork of the Brazos River (33.268404, −100.010209) upstream to the McDonald Road crossing (33.356258, −101.345890); Garza, Kent, and Stonewall Counties, Texas. Map of Salt Fork of the Brazos River Subunit is provided at paragraph (8) of the entry for the sharpnose shiner in this paragraph (e).

(9) Subunit 3: White River from its confluence with the Salt Fork of the Brazos River (33.241172, −100.936181) upstream to the White River Lake impoundment (33.457240, −101.084546); Crosby, Garza, and Kent Counties, Texas. Map of White River Subunit is provided at paragraph (9) of the entry for the sharpnose shiner in this paragraph (e).

(10) Subunit 4: Double Mountain Fork of the Brazos River from its confluence with the Salt Fork of the Brazos River (33.268404, −100.010209) upstream to the confluence of the South Fork Double Mountain Fork of the Brazos River and the North Fork Double Mountain Fork of the Brazos River where they form the Double Mountain Fork of the Brazos River (33.100269, −100.999803); Fisher, Haskell, Kent, and Stonewall Counties, Texas. Map of Double Mountain Fork of the Brazos River Subunit is provided at paragraph (10) of the entry for the sharpnose shiner in this paragraph (e).

(11) Subunit 5: North Fork Double Mountain Fork of the Brazos River from its confluence with the South Fork Double Mountain Fork of the Brazos River (33.100269, −100.999803) upstream to the earthen impoundment near Janes-Prentice Lake (33.431515, −101.479610); Crosby, Garza, and Kent Counties, Texas. Map of North Fork Double Mountain Fork of the Brazos River Subunit is provided at paragraph (11) of the entry for the sharpnose shiner in this paragraph (e).

(12) Subunit 6: South Fork Double Mountain Fork of the Brazos River from its confluence with the North Fork Double Mountain Fork of the Brazos River (33.100269, −100.999803) upstream to the John T. Montford Dam of Lake Alan Henry (33.065008, −101.039780); Garza and Kent Counties, Texas. Map of South Fork Double Mountain Fork of the Brazos River Subunit is provided at paragraph (12) of the entry for the sharpnose shiner in this paragraph (e).

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Dated: July 21, 2014.

Rachel Jacobson,

Principal Deputy Assistant Secretary for Fish and Wildlife and Parks.

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