

Billing Code 4333–15

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**[Docket No. FWS–R4–ES–2020–0062; FF09E21000 FXES11110900000 212]**

**RIN 1018–BE55**

**Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat  
for Pearl Darter**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the pearl darter (*Percina aurora*) under the Endangered Species Act of 1973 (Act), as amended. In total, approximately 517 river miles (832 river kilometers) in Clarke, Covington, Forrest, George, Greene, Lauderdale, Jackson, Jones, Newton, Perry, Simpson, Stone, and Wayne Counties, Mississippi, fall within the boundaries of the proposed critical habitat designation. If we finalize this rule as proposed, it would extend the Act’s protections to this species’ critical habitat. We also announce the availability of a draft economic analysis of the proposed designation.

**DATES:** We will accept comments on the proposed rule or draft economic analysis that are received or postmarked on or before September 13, 2021. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION**

**CONTACT** by August 27, 2021.

**ADDRESSES:** You may submit comments on the proposed rule or draft economic analysis by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter FWS–R4–ES–2020–0062, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, check the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R4–ES–2020–0062, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments only by the methods described above. We will post all comments on <http://www.regulations.gov>. This generally means that we will post any personal information you provide us (see **Information Requested**, below, for more information).

*Document availability:* The draft economic analysis is available at <http://www.fws.gov/mississippiES/>, at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2020–0062.

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.fws.gov/mississippiES/>, at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2020–0062. Any additional tools or supporting information that we may

develop for this critical habitat designation will also be available at the Service website and Field Office set out above, and may also be included in the preamble and/or at <http://www.regulations.gov>.

**FOR FURTHER INFORMATION CONTACT:** Stephen Ricks, Field Supervisor, U.S. Fish and Wildlife Service, Mississippi Ecological Services Field Office, 6578 Dogwood View Parkway, Jackson, MS 39213; telephone 601–321–1122. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800–877–8339.

## **SUPPLEMENTARY INFORMATION:**

### **Executive Summary**

*Why we need to publish a rule.* To the maximum extent prudent and determinable, we must designate critical habitat for any species that we determine to be an endangered or threatened species under the Act. Designations of critical habitat can only be completed by issuing a rule.

*What this document does.* This document proposes to designate critical habitat for the pearl darter in the Pascagoula River and Pearl River basins in Mississippi. We listed the pearl darter as a threatened species under the Act on September 20, 2017 (82 FR 43885).

*The basis for our action.* Section 4(a)(3) of the Act requires the Secretary of the Interior (Secretary) to designate critical habitat to the maximum extent prudent and determinable for species listed as endangered or threatened species. Section 3(5)(A) of the Act defines critical habitat as (i) 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 (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed, upon a determination by the Secretary that such areas are essential for the conservation of the species. Section 4(b)(2) of the Act states that the Secretary must make the designation on the basis of the best available scientific data after taking into consideration the economic impact, the impact on national security, and any other relevant impacts of specifying any particular area as critical habitat.

*Economic impacts.* In accordance with section 4(b)(2) of the Act, we prepared an analysis of the economic impacts of the proposed critical habitat designation. In this document, we announce the availability of the draft economic analysis for public review and comment.

*Peer review.* In accordance with our joint policy on peer review published in the *Federal Register* on July 1, 1994 (59 FR 34270), and our August 22, 2016, memorandum updating and clarifying the role of peer review of listing actions under the Act, we will seek peer review of this proposed rule. We are seeking comments from independent specialists to ensure that our critical habitat proposal is based on scientifically sound data and analyses. We have invited these peer reviewers to comment on our specific assumptions and conclusions in this critical habitat proposal during the public comment period for this proposed rule (see **DATES**, above).

### **Information Requested**

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as

possible. Therefore, we request comments or information from other concerned government agencies, Native American tribes, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including information to inform the following factors that the regulations identify as reasons why designation of critical habitat may not be prudent:

(a) The species is threatened by taking or other human activity and identification of critical habitat can be expected to increase the degree of such threat to the species;

(b) The present or threatened destruction, modification, or curtailment of a species’ habitat or range is not a threat to the species, or threats to the species’ habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

(c) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States; or

(d) No areas meet the definition of critical habitat.

(2) Specific information on:

(a) The amount and distribution of the pearl darter’s habitat;

(b) What areas that were occupied at the time of listing and that contain the physical or biological features essential to the conservation of the species should be included in the designation and why;

(c) Any additional areas occurring within the range of the species, i.e., rivers and streams within the Pearl River and Pascagoula River drainages in Mississippi and Louisiana, that should be included in the designation because they (1) are occupied at the time of listing and contain the physical or biological features that are essential to the conservation of the species and that may require special management considerations, or (2) are unoccupied at the time of listing and are essential for the conservation of the species;

(d) Special management considerations or protection that may be needed in occupied critical habitat areas we are proposing, including managing for the potential effects of climate change; and

(e) What areas not occupied at the time of listing are essential for the conservation of the species. We particularly seek comments:

(i) Regarding whether occupied areas are inadequate for the conservation of the species;

(ii) Providing specific information regarding whether or not unoccupied areas would, with reasonable certainty, contribute to the conservation of the species and contain at least one physical or biological feature essential to the conservation of the species;

(iii) Explaining whether or not unoccupied areas fall within the definition of “habitat” at 50 CFR 424.02 and why.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Information on the projected and reasonably likely impacts of climate change on the pearl darter and proposed critical habitat.

(5) Any probable economic, national security, or other relevant impacts of designating any area that may be included in the final designation, and the benefits of including or excluding areas that may be impacted.

(6) Information on the extent to which the description of probable economic impacts in the draft economic analysis is a reasonable estimate of those impacts.

(7) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that area under section 4(b)(2) of the Act. For any additional areas that you may request be excluded from the designation, we will undertake an exclusion analysis if you provide credible information regarding the existence of a meaningful economic or other relevant impact supporting a benefit of inclusion or if we otherwise decide to exercise the discretion to evaluate the areas for possible exclusion.

(8) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

You may submit your comments and materials concerning this proposed rule by one of the methods listed in **ADDRESSES**. We request that you send comments only by the methods described in **ADDRESSES**.

If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov>.

Because we will consider all comments and information we receive during the comment period, our final critical habitat designation may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that some additional areas meet the definition of critical habitat, and some areas proposed as critical habitat may not meet the definition of critical habitat. In addition, we may find that the benefit of excluding some areas outweigh the benefits of including those areas pursuant to section 4(b)(2) of the Act, and we may exclude them from the final designation unless we determine that exclusion would result in extinction of the pearl darter.

*Public Hearing*



Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received by the date specified in **DATES**. Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the *Federal Register* and local newspapers at least 15 days before the hearing. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the *Federal Register*. The use of these virtual public hearings is consistent with our regulations at 50 CFR 424.16(c)(3).

### **Previous Federal Actions**

Please refer to the final listing rule for the pearl darter, which published in the *Federal Register* on September 20, 2017 (82 FR 43885), for a detailed description of previous Federal actions concerning this species.

### **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.

Our regulations at 50 CFR 424.02 define the geographical area occupied by the species as an area that may generally be delineated around species' occurrences, as determined by the Secretary (*i.e.*, range). Such areas may include those areas used throughout all or part of the species' life cycle, even if not used on a regular basis (*e.g.*, migratory corridors, seasonal habitats, and habitats used periodically, but not solely by vagrant individuals). Additionally, our regulations at 50 CFR 424.02 define the word "habitat" as follows: "for the purposes of designating critical habitat only, habitat is the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a 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. Designation also does not allow the government or public to access private lands. 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 Federal agency would be required to consult with the Service under section 7(a)(2) of the Act. However, even if the Service were to conclude that the proposed activity would result in destruction or adverse modification of the critical habitat, the Federal action agency and the landowner are not required to abandon the proposed activity, or to restore or recover the species; instead, they must 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 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 that occur in specific occupied areas, we focus on the specific features that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or

other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

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. When designating critical habitat, the Secretary will first evaluate areas occupied by the species. The Secretary will only consider unoccupied areas to be essential where a critical habitat designation limited to geographical areas occupied by the species would be inadequate to ensure the conservation of the species. In addition, for an unoccupied area to be considered essential, the Secretary must determine that there is a reasonable certainty both that the area will contribute to the conservation of the species and that the area contains one or more of those physical or biological features essential to the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific 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 any generalized conservation strategy, criteria, or outline that may have been developed for the species; 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 ensure their actions are not likely to jeopardize the continued existence of any endangered or threatened species, and (3) the prohibitions found in section 9 of the Act. 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.

### **Prudency Determination**

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, the Secretary shall designate critical habitat at the time the species is determined to be an endangered or threatened species. Our regulations (50 CFR 424.12(a)(1)) state that the Secretary may, but is not required to, determine that a designation would not be prudent in the following circumstances:

- (i) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of such threat to the species;

- (ii) The present or threatened destruction, modification, or curtailment of a species' habitat or range is not a threat to the species, or threats to the species' habitat stem solely from causes that cannot be addressed through management actions resulting from consultations under section 7(a)(2) of the Act;

- (iii) Areas within the jurisdiction of the United States provide no more than negligible conservation value, if any, for a species occurring primarily outside the jurisdiction of the United States;

- (iv) No areas meet the definition of critical habitat; or

- (v) The Secretary otherwise determines that designation of critical habitat would

not be prudent based on the best scientific data available.

No imminent threat of take attributed to collection or vandalism under Factor B was identified in the final listing rule for the pearl darter, and identification and mapping of critical habitat is not expected to initiate any such threat. In our final listing determination for the pearl darter, we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to this species and that those threats in some way can be addressed by section 7(a)(2) consultation measures. The species occurs wholly in the jurisdiction of the United States, and we are able to identify areas that meet the definition of critical habitat. Therefore, because none of the circumstances set forth in our regulations at 50 CFR 424.12(a)(1) has been met and because there are no other circumstances the Secretary has identified for which this designation of critical habitat would be not prudent, we have determined that the designation of critical habitat is prudent for the pearl darter.

#### **Critical Habitat Determinability**

Having determined that designation is prudent, under section 4(a)(3) of the Act we must find whether critical habitat for the pearl darter is determinable. Our regulations at 50 CFR 424.12(a)(2) state that critical habitat is not determinable when one or both of the following situations exist:

- (i) Data sufficient to perform required analyses are lacking, or
- (ii) The biological needs of the species are not sufficiently well known to identify any area that meets the definition of “critical habitat.”

When we published the proposed listing rule (81 FR 64857; September 21, 2016) and then the final listing rule (82 FR 43885; September 20, 2017) for the pearl darter, a

careful assessment of the economic impacts of an associated critical habitat designation was incomplete, leading us to find that critical habitat was not determinable. We continued to review the available information related to the draft economic analysis, as well as newly acquired biological information necessary to perform this assessment. This and other information represent the best scientific data available, and we now find the data are sufficient for us to analyze the impacts of critical habitat designation. Accordingly, we conclude that the designation of critical habitat is determinable for the pearl darter.

### **Physical or Biological Features Essential to the Conservation of the Species**

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12(b), in determining which areas we will designate as critical habitat within the geographical area occupied by the species at the time of listing, we consider the physical or biological features that are essential to the conservation of the species and which may require special management considerations or protection. The regulations at 50 CFR 424.02 define “physical or biological features essential to the conservation of the species” as the features that occur in specific areas and that are essential to support the life-history needs of the species, including, but not limited to, water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity. For example, physical features essential to the conservation of the species



might include gravel of a particular size required for spawning, alkaline soil for seed germination, protective cover for migration, or susceptibility to flooding or fire that maintains necessary early-successional habitat characteristics. Biological features might include prey species, forage grasses, specific kinds or ages of trees for roosting or nesting, symbiotic fungi, or a particular level of nonnative species consistent with conservation needs of the listed species. The features may also be combinations of habitat characteristics and may encompass the relationship between characteristics or the necessary amount of a characteristic essential to support the life history of the species.

In considering whether features are essential to the conservation of the species, the Service may consider an appropriate quality, quantity, and spatial and temporal arrangement of habitat characteristics in the context of the life-history needs, condition, and status of the species. These characteristics include, but are not limited to, space for individual and population growth and for normal behavior; food, water, air, light, minerals, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing (or development) of offspring; and habitats that are protected from disturbance.

*Habitats Representative of the Historical, Geographical, and Ecological Distributions of the Species*

The pearl darter is historically known from rivers and streams within the Pearl River and Pascagoula River drainages in Mississippi and Louisiana, and the species was described from the lower Strong River within the Pearl River drainage of Mississippi (Suttkus *et al.* 1994, pp. 15–20). The darter has been extirpated from the Pearl River drainage for several decades, apparently due to system-wide channel and water quality

degradation occurring in the late 1960s to early 1970s (Wagner *et al.* 2017, entire). With this extirpation, at least half of the historical, geographical, and ecological habitats of the pearl darter are no longer occupied. Channel integrity and water quality within the Pearl River drainage has since improved due to the enactment of State and Federal laws and regulations addressing water pollution and in-channel sand and gravel mining. In the lower Strong River, channel integrity is controlled and protected by natural bedrock outcrops, and water quality has improved, as indicated by the resurgence of other benthic fish species that historically co-occurred with the pearl darter (Piller *et al.* 2004, pp. 1007–1011; Tipton *et al.* 2004, pp. 57–60; Wagner *et al.* 2018, entire).

Within the Pascagoula River drainage, the pearl darter occurs within the Pascagoula, Chickasawhay, Leaf, Chunky, and Bouie Rivers and the Okatoma and Black Creeks (Wagner *et al.* 2017, pp. 3–10, 12; Clark *et al.* 2018, pp. 100–103; Schaefer *et al.* 2020, pp. 26–27, 43–44).

The lower Strong River within the Pearl River drainage and the rivers and streams identified above within the Pascagoula River drainage are representative of the historical, geographical, and ecological distribution of the species.

#### *Space for Individual and Population Growth and for Normal Behavior*

The pearl darter is found in free-flowing, low-gradient streams and rivers with pools and scour holes associated with channel bends and runs (Slack *et al.* 2002, p. 10; Bart *et al.* 2001, p. 13). Presence of the darter is associated with coarse sand and gravel substrates and woody debris, which also supplies habitats for its prey. Other bottom substrates associated with the species include sand, silt, loose clay, and gravel, with organic matter in the form of coarse and fine particulates and snag material (Slack *et al.*

2005, pp. 9, 11). Pearl darter occurrence within these habitats may be seasonal, with spawning occurring in upstream reaches, and growth and recruitment in downstream reaches (Bart *et al.* 2001, pp. 13, 15). Therefore, a continuum of perennial, uninterrupted, and interconnected natural small stream-to-river channel habitat is required for the downstream drift of larvae or movement of juveniles, and the upstream migration of spawning adults.

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

The pearl darter requires unimpeded and interconnected stretches of perennial and flowing streams and rivers with adequate water quality. Water temperatures at pearl darter collection sites has ranged from 8 to 30 degrees Celsius (°C) (46.4 to 86.0 degrees Fahrenheit (°F)) (Suttkus *et al.* 1994, pp. 17–19; Bart *et al.* 2001, p. 13, Slack *et al.* 2002, p. 10), with dissolved oxygen of 5.8 to 9.3 milligrams per liter (mg/l) (Suttkus *et al.* 1994, pp. 17–19; Bart *et al.* 2001, pp. 7, 13–14; Slack *et al.* 2002, p. 10). The species is apparently sensitive to warmer water temperatures and may seasonally require tributaries with canopy shading and/or cool spring flows as seasonal refugia from warmer, unshaded river channels (Bart *et al.* 2001, p. 14).

The natural diet of the pearl darter is poorly known; however, other species within the genus feed on chironomids (midges), small crustaceans, mayflies, and caddisflies (Kuehne and Barbour 1983, p. 49). Food availability is likely affected by adequate flow, channel stability, and water quality. Pearl darters have been maintained in captivity for at least 2 years on a diet of bloodworms (Campbell 2019, p. 1).

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

Pearl darters have been collected at sites with cool to warm water temperatures (8

to 30 °C (46.4 to 86.0 °F)), high dissolved oxygen (5.8 to 9.3 mg/l), slightly acidic to basic pH values (6.3 to 7.6), and apparently low levels of pollution (Suttkus *et al.* 1994, pp. 17–19; Bart *et al.* 2001, pp. 7, 13–14; Slack *et al.* 2002, p. 10). Spawning in the Strong River was associated with bedrock and broken rubble (Suttkus *et al.* 1994, p. 19), and three probable spawning sites in the Pascagoula River system were characterized by extensive outcrops of limestone or sandstone (Bart and Pillar 1997, p. 8). Pearl darters in spawning condition in the Pascagoula River drainage have also been collected over firm gravel in relatively shallow, flowing water from April to early May (Bart *et al.* 2001, p. 13). Ideal conditions for spawning have been described as channel reaches with good canopy shading, an extensive buffer of mature forest, and good water quality (Bart *et al.* 2001, p. 15).

Spawning in the Pearl and Strong Rivers (Mississippi) was documented during March through May (Suttkus *et al.* 1994, pp. 19–20), and young of year were collected in June (Suttkus *et al.* 1994, p. 19). Based on collection occurrence patterns, some researchers have postulated that adult pearl darters migrate upstream during the fall and winter to spawn in suitable upstream gravel reaches, with elevated river discharge during the spring dispersing the larvae and juveniles into downstream reaches (Bart *et al.* 2001, p. 14; Ross *et al.* 2000, p. 11). Other studies have hypothesized that the species disperses locally from shallow spawning habitats into nearby deeper habitats where their presence is more difficult to detect (Slack *et al.* 2002, p. 18). The pattern of the disappearance of the pearl darter from all stream orders in the Pearl River drainage over a relatively short period of time suggests that some degree of seasonal interchange between tributary and river channel subpopulations may have been a factor in the species' extirpation from that

drainage. Therefore, until more is known relative to seasonal dispersal, connectivity between instream habitats should be considered essential for successful breeding and rearing of the pearl darter.

*Summary of Essential Physical or Biological Features*

We derive the specific physical or biological features essential to the conservation of the pearl darter from studies of this species' habitat, ecology, and life history.

Additional information can be found in the September 21, 2016, proposed listing rule (81 FR 64857) and the September 20, 2017, final listing rule (82 FR 43885). We have determined that the following physical or biological features are essential to the conservation of the pearl darter:

(1) Unobstructed and stable stream and river channels with:

(a) Connected sequences of channel runs and bends associated with pools and scour holes; and

(b) Bottom substrates consisting of fine and coarse sand, gravel, bedrock, silt, clay, organic matter, or woody debris.

(2) A natural flow regime necessary to maintain instream habitats and their connectivity.

(3) Water quality conditions, including cool to warm water temperatures (8 to 30 °C (46.4 to 86.0 °F)), high dissolved oxygen (5.8 to 9.3 mg/l), slightly acidic to basic pH (6.3 to 7.6), and low levels of pollutants and nutrients meeting the current State of Mississippi criteria, as necessary to maintain natural physiological processes for normal behavior, growth, and viability of all life stages of the species.

(4) Presence of a prey base of small aquatic macroinvertebrates, including

midges, crustaceans, mayflies, caddisflies, and zooplankton.

### **Special Management Considerations or Protection**

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 pearl darter is threatened by water quality degradation from point and nonpoint source pollution, discharges from municipalities, and geomorphological changes to its channel habitats (82 FR 43885, September 20, 2017, pp. 43888–43893). The features essential to the conservation of this species may require special management considerations or protection to reduce the following threats: (1) Actions that alter the minimum or existing flow regime, including impoundment, channelization, or water diversion; (2) actions that significantly alter water chemistry or temperature by the release of chemicals, biological pollutants, or heated effluents into the surface water or connected groundwater at a point or non-point source; and (3) actions that significantly alter channel morphology or geometry, including channelization, impoundment, road and bridge construction, or instream mining.

Examples of special management actions that would minimize or ameliorate these threats include: (a) Restoration and protection of riparian corridors; (b) implementation of best management practices to minimize erosion (such as State and industry practices for road construction, forest management, or mining activities); (c) stream bank restoration projects; (d) private landowner programs to promote watershed and soil conservation (such as the U.S. Department of Agriculture's Farm Bill and the Service's Private Lands programs); (e) implementation of best management practices for storm water; and (f)

upgrades to industrial and municipal treatment facilities to improve water quality in effluents.

### **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. 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 specific areas within the geographical area occupied by the species at the time of listing and any specific areas outside the geographical area occupied by the species at the time of listing to be considered for designation as critical habitat.

The current distribution of the pearl darter is reduced from its historical distribution, and we anticipate that recovery will require continued protection of the existing population and habitat, as well as establishing a population within its historical range, to ensure there are adequate numbers of pearl darters occurring in stable populations for the species' continued conservation. Furthermore, rangewide recovery considerations, such as maintaining existing genetic diversity and striving for representation of all major portions of the species' historical range, were considered in formulating this proposed critical habitat designation.

We are proposing to designate critical habitat in areas within the geographical area occupied by the species at the time of listing. We identified areas with current occurrence records that we deemed suitable habitat (see delineation steps, below) and that had one or more of the physical or biological features identified for the pearl darter which may require special management considerations or protection. We also are proposing to

designate specific areas outside of the geographical area occupied by the species at the time of listing because we have determined that a designation limited to occupied areas would be inadequate to ensure the conservation of the species. For those unoccupied areas, we have determined that it is reasonably certain that the unoccupied areas will contribute to the conservation of the species and contain one or more of the physical or biological features that are essential to the conservation of the species. We have also determined that the unoccupied areas fall within the regulatory definition of “habitat” at 50 CFR 424.02.

Threats to pearl darters occurring in the Pascagoula River drainage are compounded by the species’ naturally low numbers and short life span, but the species’ conservation potential is primarily limited by its extirpation from the Pearl River drainage and, therefore, its lack of redundancy. The documented Pearl River drainage extirpation was rapid and system-wide, including all mainstem and tributary collection sites seemingly simultaneously. As such, we consider pearl darters occurring within the Pascagoula River and its tributaries as a single population. The loss of the species’ redundancy, with its extirpation from the Pearl River drainage, has also diminished its genetic and ecological representation, and, therefore, increased the species’ vulnerability to catastrophic events and population changes. A successful reintroduction into the Pearl River drainage would restore the species’ redundancy within the historical range. In addition, the pearl darter’s representation would increase from current levels by allowing for local environmental adaptation and increasing genetic representation. Thus, reintroducing the species into the Pearl River drainage would contribute to the resilience and conservation of the pearl darter.



Factors implicated in the Pearl River extirpation include geomorphic instability (*i.e.*, channel erosion and degradation), sedimentation, and point source pollution from municipalities and industries (*e.g.*, Bart and Suttkus 1995, p. 14; Tipton *et al.* 2004, pp. 59–60). One or all of these factors may have been responsible for the diminishment or loss of some or all of the physical or biological features essential to the conservation of the pearl darter within the drainage (*e.g.*, channel stability, substrate, water quality, prey base). We now find that these factors have been reduced to a degree that the pearl darter may be successfully reintroduced into the Pearl River.

For example, active channel erosion and degradation that may have been precipitated by the 1956 construction of the Pearl River navigation system in the lower basin, and aggravated by the 1963 construction of the Ross Barnett Reservoir in the upper basin, have diminished, and instream mining is now prohibited by the States of Mississippi and Louisiana, resulting in more stable channel habitats within the basin. In addition, point-source pollution from untreated municipal and industrial discharge into the Pearl River has been significantly reduced by enactment and enforcement of the Clean Water Act of 1972 (33 U.S.C. 1251 *et seq.*). The improvement of the physical or biological features within the Pearl River drainage is also demonstrated by recent observed increases in other benthic fish species (*e.g.*, crystal darter (*Crystallaria asprella*) and frecklebelly madtom (*Noturus munitus*)), which experienced declines concurrent with the extirpation of the pearl darter (Piller *et al.* 2004, pp. 1007–1011; Tipton *et al.* 2004, pp. 57–60; Wagner *et al.* 2018, p. 13). These improvements leave us reasonably certain that all of the physical or biological features essential to the conservation of the pearl darter are now present within the Pearl River drainage. Because

the Pearl River drainage habitat contains the physical or biological features for the pearl darter and supports other benthic fish species with similar life processes, we conclude that the drainage contains the resources and conditions necessary to support the life processes for the pearl darter.

For this proposed rule, we completed the following steps to delineate critical habitat:

(1) We compiled all available current and historical occurrence data records for the pearl darter in both the Pascagoula and Pearl River drainages;

(2) We used confirmed presence from 1994–2019 as the foundation for identifying areas currently occupied in the Pascagoula River drainage;

(3) We evaluated habitat suitability of stream segments that contain the identified physical or biological features and that are currently occupied by the species, and we retained all occupied stream segments;

(4) We evaluated unoccupied segments of the Pearl River drainage for suitability of spawning and recruitment, darter reintroduction, and monitoring and management of a reintroduced population; and

(5) We evaluated unoccupied segments of the Pearl River drainage for connectivity with reaches historically occupied and identified areas containing the physical or biological features essential to the conservation of the species that may require special management considerations or protection.

Sources of data for this proposed critical habitat designation include the proposed and final listing rules (81 FR 64857, September 21, 2016; 82 FR 43885, September 20, 2017), fish collection databases provided by the MDWFP, survey reports and

observations, and peer-reviewed publications.

#### *Areas Occupied at the Time of Listing*

We used reports and collection data to map species site collections and occurrences between 1994 and 2019 to determine areas occupied at the time of listing. Based on the best available scientific data, we determined that all currently known occupied habitat for the pearl darter was also occupied by the species at the time of listing, and that these areas contain the physical or biological features essential to the conservation of the species and which may require special management considerations or protection.

As stated above, we delineated units based on documented occurrences and the existing physical or biological features essential to the conservation of the species. Collection occurrence patterns suggest that adult pearl darters migrate upstream to spawn in suitable gravel or bedrock reaches, with elevated spring river discharge dispersing larvae and juveniles into downstream reaches; an alternative hypothesis considers that the pearl darter moves from shallow, easily collected spawning habitats into deeper habitats where it is more difficult to detect the fish (see *Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring*, above). While both hypotheses are partially supported by data, we note that the disappearance of the species from the Pearl River drainage occurred fairly rapidly and simultaneously in all stream orders, suggesting some element of migration may be involved in the darter's life history. To allow for potential seasonal movement between stream reaches, we propose to designate one continuous unit of occupied critical habitat within the Pascagoula River drainage. This unit includes portions of the Chunky, Bouie, Leaf, Chickasawhay, and Pascagoula Rivers, as well as

reaches of Okatoma and Big Black Creeks, as described below under **Proposed Critical Habitat Designation**.

Since the 2017 listing of the species, there have been 71 site collections of pearl darter in the Pascagoula River drainage (Wagner *et al.* 2019, pp. 8–18; Schaefer *et al.* 2020, pp. 26–27, 43–44). One of these collections in 2018 extended the known range approximately 60 mi (97 km) in Black Creek, above its confluence with the occupied reach of Big Black Creek (Schaefer *et al.* 2020, pp. 26–27). We consider this additional mileage of stream reach to be occupied at the time of listing. This is because the reach between the previously identified population in Big Black Creek and the newly discovered population upstream has the physical or biological features essential to the conservation of the species, and the species potentially seasonally migrates. The potential for seasonal migration, the species' small size and rarity, and the fact that surveys for the pearl darter are difficult and not always definitive of the species' absence within a particular reach of an occupied stream also support considering this area occupied at the time of listing.

In making these determinations, we recognize that collection sites for the pearl darter occur at areas generally accessible to fish biologists and that occupied habitats within a river reach may vary depending upon life stage, stream size, and season. Additionally, stream habitats are highly dependent upon upstream and downstream channel habitat conditions for their maintenance. Therefore, we considered the areas occupied at the time of listing to extend from an identifiable landmark (*e.g.*, bridge crossing, tributary confluence, etc.) nearest the uppermost records within second or third order streams, through their confluence with third and fourth order streams, downstream

to an identifiable landmark near the lowermost areas of collection in the Pascagoula River (*i.e.*, forks of the East and West Pascagoula River). Within the current range of the pearl darter within the Pascagoula River drainage, some habitats may or may not be actively used at all times by individuals; however, these areas are necessary for maintaining population connectivity, as well as other physical or biological features essential to the conservation of the species, and, therefore, are considered the geographic area occupied at the time of listing for the pearl darter. This area (referred to below as proposed Unit 1) contains all of the physical or biological features essential to the conservation of the pearl darter and which may require special management conditions or protections.

#### *Areas Unoccupied at the Time of Listing*

To consider for designation areas not occupied by the species at the time of listing, we must demonstrate that these areas are essential for the conservation of the pearl darter. The proposed occupied critical habitat does not include geographic areas within the Pearl River drainage—the only other area in which the pearl darter historically occurred—as it has been extirpated from that drainage. In addition, because the Pascagoula River drainage population is the only extant population, that population provides no redundancy for the species. Based upon the species' rapid and system-wide extirpation from the Pearl River drainage, a series of back-to-back stochastic events or a single catastrophic event could similarly significantly reduce resiliency or extirpate the Pascagoula River population. For these reasons, we determined we cannot conserve the species by designating only occupied habitat as it includes only a single population in a single drainage. Thus, we determined that habitat in another historical drainage is needed

for the long-term survival and recovery of the species. Therefore, because we determined that the one occupied area alone is not adequate for the conservation of the species, we have identified and are proposing for designation as critical habitat specific areas outside the geographical area occupied by the species at the time of listing that are essential for the conservation of the species. We used historical occurrence data and the physical or biological features described earlier to identify unoccupied habitat essential for the conservation of the pearl darter.

Based on our review, we determined that the lower Strong River, a major tributary of the Pearl River, has the potential for future reintroduction and reoccupation by the pearl darter, provided that stressors are managed and mitigated. Reestablishing a viable population in the Strong River will restore the species' redundancy within the historical range and increase the species' ecological representation. The specific area encompasses the minimum area of the species' historical range within the Pearl River drainage, while still providing ecological diversity so that the species can evolve and adapt over time. This river reach also provides the potential for the pearl darter to expand its range into other historically occupied areas, which currently may be or may later become suitable, to ensure that the species has an adequate level of redundancy within the Pearl River drainage and guard against future catastrophic events. The lower Strong River also represents the stream reach within the historical range with the best potential for recovery of the species due to current conditions, suitability for reintroductions, and access for monitoring.

Accordingly, we propose to designate one unoccupied unit in the lower Strong River within the Pearl River drainage. As described below in the individual unit

descriptions, this unit contains all of the physical or biological features essential to the conservation of the species and is reasonably certain to contribute to the conservation of the species.

*General Information on the Maps of the Proposed Critical Habitat Designation*

The areas proposed as critical habitat include only stream channels within the ordinary high-water line. There are no developed areas within the critical habitat boundaries except for transportation and pipeline crossings, which do not remove the suitability of these areas for the pearl darter. When determining proposed critical habitat boundaries, we made every effort to avoid including developed areas such as lands covered by buildings, pavement, and other structures because such lands lack physical or biological features necessary for the pearl darter. 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 proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, if the critical habitat is finalized as proposed, a Federal action involving these lands would 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 proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Proposed Regulation Promulgation**. We include more detailed information on the boundaries of the critical habitat designation in our discussion of the individual units

below. 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> under Docket No. FWS–R4–ES–2020–0062 and on our Internet site <http://www.fws.gov/mississippiES/>.

### **Proposed Critical Habitat Designation**

We are proposing to designate approximately 517 mi (832 km) of river and stream channels in two units as critical habitat for the pearl darter. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the pearl darter. The two areas we propose as critical habitat are: (1) Pascagoula River Unit; and (2) Strong River Unit. Ownership of stream channel bottoms included in this proposed rule are determined by riparian land ownership. The table below shows the occupancy of the units, the riparian land ownership, and approximate lengths of the proposed critical habitat for the pearl darter.

#### **Table of proposed critical habitat units for pearl darter.**

[Unit length estimates include only stream channels within the ordinary high-water line.]

UNIT		RIPARIAN LAND OWNERSHIP				Total mi (km)
		Federal mi (km)	State mi (km)	County mi (km)	Private mi (km)	
1. Pascagoula River	Occupied	45 (72)**	76 (122)**		373 (600)	487 (783)**
2. Strong River	Unoccupied			0.4 (0.6)	30 (48.4)	30 (49)
<b>Total km (mi)</b>		45 (72)**	76 (122)**	0.4 (0.6)	403 (648.4)	517 (832)**

\*\*7 mi (11 km) of pearl darter critical habitat stream miles shared between State and Federal lands.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for pearl darter, below.

#### *Unit 1: Pascagoula River Unit*

Unit 1 consists of 487 mi (783 km) of occupied connected river and stream



channels within the Pascagoula River drainage in Mississippi, including:

- 63 mi (102 km) of the Pascagoula River channel from its confluence with the West Pascagoula River in Jackson County, upstream to the confluence of the Leaf and Chickasawhay Rivers in George County;
- 80 mi (129 km) of Big Black Creek/Black Creek channel from its confluence with the Pascagoula River in Jackson County, upstream to U.S. Highway 49 Bridge in Forrest County;
- 160 mi (257 km) of Chickasawhay River channel from its confluence with the Leaf River just north of Enterprise, Clarke County, upstream to the confluence of Okatibbee Creek and Chunky River in Clarke County;
- 21 mi (34 km) of Chunky River channel from its confluence with Okatibbee Creek in Clarke County, upstream to second Highway 80 Crossing in Newton County;
- 119 mi (192 km) of Leaf River channel from its confluence with the Chickasawhay River in George County, upstream to the bridge crossing at U.S. Highway 84 in Covington County;
- 15 mi (24 km) of Bouie River channel from its confluence with the Leaf River, upstream to the confluence of Okatoma Creek in Forrest County; and
- 28 mi (45 km) of Okatoma Creek from its confluence with the Bouie River in Forrest County, upstream to the bridge crossing at U.S. Highway 84 in Covington County.

The riparian lands (channel borders) in this unit are generally privately owned agricultural or silvicultural lands, with short reaches owned and managed by the U.S. Forest Service or the State (see table above). All channel segments in Unit 1 are

occupied by the pearl darter, and the unit contains all the physical or biological features essential to the conservation of the species, including deep pools, runs, and bends and scour holes; mixtures of bottom substrates of sand, silt, loose clay and gravel, fine and coarse particles of organic matter, and snag material; a natural hydrograph with flows and water quality that currently support the normal life stages of the pearl darter; and the species' prey sources.

Special management considerations and protections that may be required to address threats within the unit include minimizing surface water withdrawals or other actions that alter stream flow; reducing excessive use of manures, fertilizers, and pesticides near stream channels; improving treatment of wastewater discharged from permitted facilities; and implementing practices that protect or restore riparian buffer areas along stream corridors.

#### *Unit 2: Strong River Unit*

Unit 2 consists of 30 mi (49 km) of unoccupied habitat in the Strong River channel from its confluence with the Pearl River, upstream to U.S. Highway 49, in Simpson County, Mississippi. The riparian lands in this unit are generally privately owned agricultural or silvicultural lands, with a short channel reach (0.39 mi (0.63 km)) owned and operated by the Simpson County Park Commission (see table above). Unit 2 is not within the geographic range occupied by the pearl darter at the time of listing, but this area was historically known to provide spawning and recruitment habitat prior to the species' extirpation from the Pearl River drainage. This unit currently provides all physical or biological features essential to the conservation of the pearl darter, including a stable channel with bottom substrates of sand, silt, loose clay and gravel, bedrock, fine

and coarse particles of organic matter, and woody debris; a natural hydrograph with flows and water quality to support the normal life stages of the pearl darter and the species' prey sources. Further evidence of the presence of physical or biological features within this reach of the Strong River is demonstrated by recent increases in other benthic fish species (*e.g.*, frecklebelly madtom) that declined concurrent with the extirpation of the pearl darter (Piller *et al.* 2004, pp. 1007–1011; Wagner *et al.* 2018, pp. 4–5).

As described above, the best available information demonstrates that the pearl darter disappeared from the entire Pearl River and all known tributary segments virtually simultaneously. Therefore, it is possible that a series of back-to-back stochastic events or a single catastrophic event could significantly reduce or extirpate the surviving pearl darter population within the Pascagoula River drainage. Due to the species' lack of redundancy, its naturally small numbers within the Pascagoula River drainage, and its short life span, the pearl darter is more vulnerable to existing and future threats, including habitat degradation and loss, catastrophic weather events, and introduced species. This unit would serve to protect habitat needed to reestablish a wild population within the historical range in the Pearl River drainage and recover the species. Re-establishing a population of the pearl darter within Unit 2 would also increase the species' redundancy and restore ecological representation, better ensuring its survival if a stochastic event were to impact the Pascagoula River population. This unit is essential for the conservation of the species because it will provide habitat for range expansion in known historical habitat that is necessary to increase viability of the pearl darter by increasing its resiliency, redundancy, and representation.

The need for reintroduction of the pearl darter into the Pearl River drainage has been recognized and is being discussed by our conservation partners. The landowner of the type locality (location where the species was described) within the Strong River unit has been working with the Service and MDWFP to regularly monitor for the presence of the pearl darter and other benthic fish, and expressed interest in reestablishing the species on the property. Methods and facilities for propagating the species have been developed, tested, and proven at a Service fish hatchery. Accordingly, we are reasonably certain this unit will contribute to the conservation of the pearl darter.

### **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.

We published a final rule revising the definition of destruction or adverse modification on August 27, 2019 (84 FR 44976). Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat as a whole for the conservation of a listed 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, authorized, or carried out by a Federal agency—do not require section 7 consultation.

Compliance with the requirements of section 7(a)(2), is documented 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 Service 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 set forth requirements for Federal agencies to reinitiate formal consultation on previously reviewed actions. These requirements apply when the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law) and, subsequent to the previous consultation, we have listed a new species or designated critical habitat that may be affected by the Federal action, or the action has been modified in a manner that affects the species or critical habitat in a way not considered in the previous consultation. In such situations, Federal agencies sometimes may need to request reinitiation of consultation with us, but the regulations also specify some exceptions to the requirement to reinitiate consultation on specific land management plans after subsequently listing a new species or designating new critical habitat. See the regulations for a description of those exceptions.

### *Application of the “Destruction or Adverse Modification” Standard*

The key factor related to the destruction or adverse modification determination is whether implementation of the proposed Federal action directly or indirectly alters the designated critical habitat in a way that appreciably diminishes the value of the critical habitat as a whole for the conservation of the listed species. As discussed above, the role of critical habitat is to support physical or biological features essential to the conservation of a listed 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 violate section 7(a)(2) of the Act by destroying or adversely modifying such habitat, or that may be affected by such designation.

Activities that the Services may, during a consultation under section 7(a)(2) of the Act, find are likely to destroy or adversely modify critical habitat include, but are not limited to:

(1) Actions that would block or disconnect stream and river channels. Such activities could include, but are not limited to, the construction of dams or weirs, channelization, and mining. These activities could result in destruction of habitat, block movements between seasonal habitats, fragment and isolate subpopulations within critical habitat units, and/or affect flows within or into critical habitat.

(2) Actions that would affect channel substrates and stability. Such activities include channelization, impoundment, mining, road and bridge construction, removal of riparian vegetation, and land clearing. These activities may lead to changes in channel

substrates, erosion of the streambed and banks, and excessive sedimentation that could degrade pearl darter habitat.

(3) Actions that would reduce flow levels or alter flow regimes. These could include, but are not limited to, activities that block or lower surface flow or groundwater levels, including channelization, impoundment, groundwater pumping, and surface water withdrawal or diversion. Such activities can result in long-term changes in stream flows that affect habitat quality and quantity for the darter and its prey.

(4) Actions that would affect water chemistry or temperature or introduce pollutants and nutrients at levels above State of Mississippi criteria. Such activities include, but are not limited to, the release of chemical pollutants, biological pollutants, or heated effluents into the surface water or connected groundwater at a point source or by dispersed release (nonpoint source). These activities could alter water quality conditions to levels that are beyond the tolerances of the pearl darter or its prey species.

(5) Actions that would result in the introduction, spread, or augmentation of nonnative aquatic species in occupied stream segments, or in stream segments that are hydrologically connected to occupied stream segments, even if those segments are occasionally intermittent, or the introduction of other species that compete with or prey on the pearl darter. Possible actions could include, but are not limited to, stocking of nonnative fishes or other related actions. These activities can also introduce parasites or disease, or affect the growth, reproduction, and survival of the pearl darter.

## **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 (DoD), 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 DoD lands with a completed INRMP within the proposed 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 they determine that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless they determine, 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 the determination to exclude a particular area, the statute on its face, as well as the legislative history, are clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

We describe below the process that we undertook for taking into consideration each category of impacts and our analyses of the relevant impacts.

#### *Consideration of Economic Impacts*

Section 4(b)(2) of the Act and its implementing regulations require that we

consider the economic impact that may result from a designation of critical habitat. To assess the probable economic impacts of a designation, we must first evaluate specific land uses or activities and projects that may occur in the area of the critical habitat. We then must evaluate the impacts that a specific critical habitat designation may have on restricting or modifying specific land uses or activities for the benefit of the species and its habitat within the areas proposed. We then identify which conservation efforts may be the result of the species being listed under the Act versus those attributed solely to the designation of critical habitat for this particular species. The probable economic impact of a proposed critical habitat designation is analyzed by comparing scenarios both “with critical habitat” and “without critical habitat.”

The “without critical habitat” scenario represents the baseline for the analysis, which includes the existing regulatory and socio-economic burden imposed on landowners, managers, or other resource users potentially affected by the designation of critical habitat (*e.g.*, under the Federal listing as well as other Federal, State, and local regulations). The baseline, therefore, represents the costs of all efforts attributable to the listing of the species under the Act (*i.e.*, conservation of the species and its habitat incurred regardless of whether critical habitat is designated). The “with critical habitat” scenario describes the incremental impacts associated specifically with the designation of critical habitat for the species. The incremental conservation efforts and associated impacts would not be expected without the designation of critical habitat for the species. In other words, the incremental costs are those attributable solely to the designation of critical habitat, above and beyond the baseline costs. These are the costs we use when evaluating the benefits of inclusion and exclusion of particular areas from the final

designation of critical habitat should we choose to conduct a discretionary 4(b)(2) exclusion analysis.

For this particular designation, we developed an incremental effects memorandum (IEM) considering the probable incremental economic impacts that may result from this proposed designation of critical habitat. The information contained in our IEM was then used to develop a screening analysis of the probable effects of the designation of critical habitat for the pearl darter (IEc 2020, entire). We began by conducting a screening analysis of the proposed designation of critical habitat in order to focus our analysis on the key factors that are likely to result in incremental economic impacts. The purpose of the screening analysis is to filter out particular geographic areas of critical habitat that are already subject to such protections and are, therefore, unlikely to incur incremental economic impacts. In particular, the screening analysis considers baseline costs (*i.e.*, absent critical habitat designation) and includes probable economic impacts where land and water use may be subject to conservation plans, land management plans, best management practices, or regulations that protect the habitat area as a result of the Federal listing status of the species. Ultimately, the screening analysis allows us to focus our analysis on evaluating the specific areas or sectors that may incur probable incremental economic impacts as a result of the designation. If there are any unoccupied units in the proposed critical habitat designation, the screening analysis assesses whether any additional management or conservation efforts may incur incremental economic impacts. This screening analysis combined with the information contained in our IEM are what we consider our draft economic analysis (DEA) of the proposed critical habitat designation for the pearl darter; our DEA is summarized in the narrative below.

Executive Orders (E.O.s) 12866 and 13563 direct Federal agencies to assess the costs and benefits of available regulatory alternatives in quantitative (to the extent feasible) and qualitative terms. Consistent with the E.O. regulatory analysis requirements, our effects analysis under the Act may take into consideration impacts to both directly and indirectly affected entities, where practicable and reasonable. If sufficient data are available, we assess to the extent practicable the probable impacts to both directly and indirectly affected entities. As part of our screening analysis, we considered the types of economic activities that are likely to occur within the areas likely affected by the critical habitat designation. In our evaluation of the probable incremental economic impacts that may result from the proposed designation of critical habitat for the pearl darter, first we identified, in the IEM dated April 21, 2020, probable incremental economic impacts associated with the following categories of activities: (1) Roadway and bridge construction and repair; (2) commercial or residential development; (3) dredging; (4) groundwater pumping; (5) instream dams and diversions; (6) storage, distribution, or discharge of chemical pollutants; (7) oil and gas; (8) utilities; (9) water quantity and supply; and (10) water quality. We considered each industry or category individually. Additionally, we considered whether their activities have any Federal involvement. Critical habitat designation generally will not affect activities that do not have any Federal involvement; under the Act, designation of critical habitat only affects activities conducted, funded, permitted, or authorized by Federal agencies. In areas where the pearl darter is present, Federal agencies already are required to consult with the Service under section 7 of the Act on activities they fund, permit, or implement that may affect the species. If we finalize this proposed critical habitat designation, consultations to

avoid the destruction or adverse modification of critical habitat would be incorporated into the existing consultation process.

In our IEM, we attempted to clarify the distinction between the effects that will result from the species being listed and those attributable to the critical habitat designation (*i.e.*, difference between the jeopardy and adverse modification standards) for the pearl darter's critical habitat. The following specific circumstances in this case help to inform our evaluation: (1) The essential physical or biological features identified for critical habitat are the same features essential for the life requisites of the species, and (2) any actions that would result in sufficient harm or harassment to constitute jeopardy to the pearl darter would also likely adversely affect the essential physical or biological features of critical habitat. The IEM outlines our rationale concerning this limited distinction between baseline conservation efforts and incremental impacts of the designation of critical habitat for this species. This evaluation of the incremental effects has been used as the basis to evaluate the probable incremental economic impacts of this proposed designation of critical habitat.

The proposed critical habitat designation for the pearl darter totals approximately 517 mi (832 km) of river and stream channels in two units. Riparian lands bordering the proposed critical habitat are under private (78 percent), county (0.1 percent), State (15 percent), and Federal (9 percent) ownership. A small portion (1.3 percent) has shared State and Federal ownership. Unit 1 is occupied by the pearl darter and represents 94 percent of the proposed critical habitat. Within this occupied unit, any actions that may affect the species or its habitat would also affect designated critical habitat, and it is unlikely that any additional conservation efforts would be recommended to address the

adverse modification standard over and above those recommended as necessary to avoid jeopardizing the continued existence of the pearl darter. Therefore, only administrative costs are expected in actions affecting this unit. While this additional analysis will require time and resources by both the Federal action agency and the Service, it is believed that, in most circumstances, these costs, because they are predominantly administrative in nature, would not be significant.

Unit 2 is currently unoccupied by the species but is essential for the conservation of the species. This unit totals 30 mi (49 km) and comprises 6 percent of the total proposed critical habitat designation. In this unoccupied area, any conservation efforts or associated probable impacts would be considered incremental effects attributed to the critical habitat designation. However, two threatened species, Gulf sturgeon (listed as Atlantic sturgeon (Gulf subspecies), *Acipenser oxyrinchus desotoi*) and ringed map turtle (*Graptemys oculifera*), currently occupy this unit, and conservation efforts to protect these species would also protect pearl darter critical habitat.

The DEA finds that the total annual incremental costs of critical habitat designation for the pearl darter are not anticipated to reach \$100 million in any given year based on the anticipated annual number of consultations and associated administrative costs, which are not expected to exceed \$710,000 in any year.

In Unit 1, which constitutes 94 percent of the proposed critical habitat area, the activities that may affect the critical habitat are already subject to section 7 consultation due to the presence of pearl darter. We determined that the project modification recommendations made to avoid jeopardy to the pearl darter would also result in the avoidance of adverse modification. Thus, for projects and activities occurring in Unit 1,

no additional project modification recommendations are likely to result from the proposed critical habitat rule and costs are limited to additional administrative effort.

A relatively small fraction (6 percent) of the proposed critical habitat designation is in Unit 2, which is not currently occupied by the species. In these areas, activities that may affect the critical habitat for the pearl darter are also already subject to section 7 consultation due to the presence of other listed species with similar habitat requirements and designated critical habitat. Additionally, activities that may affect pearl darter critical habitat in Unit 2 generally implement project modification recommendations from a standardized set provided in the Mississippi Standard Local Operations Procedures for Endangered Species (SLOPES) agreement. Through this agreement, enacted in June 2017, the U.S. Army Corps of Engineers (COE) and the Service have established routine procedures for jointly implementing section 7 requirements for all projects that require COE permits. The agreement requires the COE to consult species-specific SLOPES documents to determine if a project is expected to adversely affect the species or its habitat. As part of the agreement, species-specific avoidance and minimization measures have been established for COE projects. The measures described for the pearl darter are similar to the measures described for overlapping species and because the COE addresses permitting for projects with water impacts, all projects with a Federal nexus in the proposed pearl darter critical habitat are likely to follow the Mississippi SLOPES procedures and recommendations. Therefore, even absent critical habitat designation, these activities are likely to avoid adverse effects on the habitat.

We are soliciting data and comments from the public on the DEA discussed above, as well as all aspects of this proposed rule and our required determinations.

During the development of a final designation, we will consider the information presented in the DEA and any additional information on economic impacts we receive during the public comment period to determine whether any specific areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 17.90. If we receive credible information regarding the existence of a meaningful economic impact or other relevant impact supporting a benefit of exclusion, we will conduct an exclusion analysis for the relevant area or areas. We may also otherwise decide to exercise the discretion to evaluate any particular areas for possible exclusion. In addition, if we do conduct an exclusion analysis and we have received any information from experts in, or sources with firsthand knowledge about, impacts of the designation that are outside the scope of the Service's expertise, for purposes of the exclusion analysis we will assign weights to those impacts consistent with the information from experts in, or sources with firsthand knowledge about, those impacts, unless we have rebutting information. We may exclude an area from critical habitat if we determine that the benefits of excluding the area outweigh the benefits of including the area, provided the exclusion will not result in the extinction of this species.

#### *Consideration of National Security Impacts*

Section 4(a)(3)(B)(i) of the Act may not cover all DoD lands or areas that pose potential national-security concerns (e.g., a DoD installation that is in the process of revising its INRMP for a newly listed species or a species previously not covered). If a particular area is not covered under section 4(a)(3)(B)(i), national-security or homeland-security concerns are not a factor in the process of determining what areas meet the



definition of “critical habitat.” Nevertheless, when designating critical habitat under section 4(b)(2), the Service must consider impacts on national security, including homeland security, on lands or areas not covered by section 4(a)(3)(B)(i). Accordingly, we will always consider for exclusion from the designation areas for which DoD, Department of Homeland Security (DHS), or another Federal agency has requested exclusion based on an assertion of national-security or homeland-security concerns.

We cannot, however, automatically exclude requested areas. When DoD, DHS, or another Federal agency requests exclusion from critical habitat on the basis of national-security or homeland-security impacts, it must provide credible information, including a reasonably specific justification of an incremental impact on national security that would result from the designation of that specific area as critical habitat. That justification could include demonstration of probable impacts, such as impacts to ongoing border-security patrols and surveillance activities, or a delay in training or facility construction, as a result of compliance with section 7(a)(2) of the Act. If the agency requesting the exclusion does not provide us with a reasonably specific justification, we will contact the agency to recommend that it provide a specific justification or clarification of its concerns relative to the probable incremental impact that could result from the designation. If the agency provides a reasonably specific justification, we will defer to the expert judgment of DoD, DHS, or another Federal agency as to: (1) Whether activities on its lands or waters, or its activities on other lands or waters, have national-security or homeland-security implications; (2) the importance of those implications; and (3) the degree to which the cited implications would be adversely affected in the absence of an exclusion. In that circumstance, in conducting a discretionary section 4(b)(2) exclusion

analysis, we will give great weight to national-security and homeland-security concerns in analyzing the benefits of exclusion.

In preparing this proposal, we determined that the lands within the proposed designation of critical habitat for the pearl darter are not owned, managed, or used by the DoD or DHS, and, therefore, we anticipate no impact on national security or homeland security. However, during the development of a final designation we will consider any additional information received through the public comment period on the impacts of the proposed designation on national security or homeland security to determine whether to undertake the discretionary analysis to determine whether to exclude any specific areas from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 17.90.

#### *Consideration of Other Relevant Impacts*

Under section 4(b)(2) of the Act, we consider any other relevant impacts, in addition to economic impacts and impacts on national security discussed above. We consider a number of factors including whether there are permitted conservation plans covering the species in the area such as HCPs, safe harbor agreements (SHAs), or candidate conservation agreements with assurances (CCAAs), or whether there are non-permitted conservation agreements and partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at the existence of Tribal conservation plans and partnerships 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 proposal, we determined that there are currently no HCPs or

other management plans for pearl darter, and the proposed designation does not include any Tribal lands or trust resources. We anticipate no impact on Tribal lands, partnerships, or HCPs from this proposed critical habitat designation. Additionally, as described above, we are not considering excluding any particular areas on the basis of impacts to national security or economic impacts.

During the development of a final designation, we will consider all information currently available or received during the public comment period. If we receive credible information regarding the existence of a meaningful impact supporting a benefit of excluding any area, we will undertake an exclusion analysis and determine whether those areas should be excluded from the final critical habitat designation under authority of section 4(b)(2) and our implementing regulations at 50 CFR 17.90. We may also exercise the discretion to undertake exclusion analyses for other areas as well.

## **Required Determinations**

### *Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of

the methods listed in **ADDRESSES**. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

*Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA 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 proposed 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 of 1996 (SBREFA; 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 (*i.e.*, small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the 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.

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 to these small entities are significant, we considered the types of activities that might trigger regulatory impacts under this designation as well as 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.

Under the RFA, as amended, and as understood in light of recent court decisions, Federal agencies are required to evaluate the potential incremental impacts of rulemaking

on those entities directly regulated by the rulemaking itself; in other words, the RFA does not require agencies 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 would be directly regulated if we adopt the proposed critical habitat designation. There is no requirement under the RFA to evaluate the potential impacts to entities not directly regulated. Moreover, Federal agencies are not small entities. Therefore, because no small entities would be directly regulated by this rulemaking, the Service certifies that, if made final as proposed, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small entities.

In summary, we have considered whether the proposed designation would result in a significant economic impact on a substantial number of small entities. For the above reasons and based on currently available information, we certify that, if made final, the proposed critical habitat designation will not have a significant economic impact on a substantial number of small business entities. Therefore, an initial 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. In our economic analysis, we did not find that this proposed critical habitat designation would 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 finding:

(1) This proposed rule would 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 would significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year, that is, it is not a “significant regulatory action” under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local



governments and, as such, a Small Government Agency Plan is not required.

*Takings—Executive Order 12630*

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the pearl darter in a takings implications assessment. The Act does not authorize the Service to regulate private actions on private lands or confiscate private property as a result of critical habitat designation. Designation of critical habitat does not affect land ownership, or establish any closures, or restrictions on use of or access to the designated areas. Furthermore, the designation of critical habitat does not affect landowner actions that do not require Federal funding or permits, nor does it preclude development of habitat conservation programs or issuance of incidental take permits to permit actions that do require Federal funding or permits to go forward. However, Federal agencies are prohibited from carrying out, funding, or authorizing actions that would destroy or adversely modify critical habitat. A takings implications assessment has been completed for the proposed designation of critical habitat for the pearl darter, and it concludes that, if adopted, this designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

*Federalism—Executive Order 13132*

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A federalism summary impact statement 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. 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 proposed rule does not have substantial direct effects either on the States, or on the relationship between the national government and the States, or on the distribution of powers and responsibilities among the various levels of government. The proposed 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 or biological features of the habitat necessary for 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 State and local governments in long-range planning because they 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) of the Act 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 would not unduly burden the judicial system

and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. To assist the public in understanding the habitat needs of the species, this proposed rule identifies the elements of physical or biological features essential to the conservation of the species. The proposed areas of critical habitat are presented on maps, and the proposed 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 information collection requirements, and a submission to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*) is not required. We may not conduct or sponsor and you are 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 have determined that no Tribal lands fall within the boundaries of the proposed critical habitat for the pearl darter, so no Tribal lands would be affected by the proposed designation.

### **References Cited**

A complete list of references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and upon request from the Mississippi Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

### **Authors**

The primary authors of this proposed rule are the staff members of the Mississippi Ecological Services Field Office.

### **Signing Authority**

The Director, U.S. Fish and Wildlife Service, approved this document and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the U.S. Fish and

Wildlife Service. Martha Williams, Principal Deputy Director Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service, approved this document on June 29, 2021, for publication.

**List of Subjects in 50 CFR Part 17**

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

**Proposed Regulation Promulgation**

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

**PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

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

AUTHORITY: 16 U.S.C. 1361-1407; 1531-1544; and 4201-4245, unless otherwise noted.

2. Amend § 17.11(h) by revising the entry for “Darter, pearl” under FISHES in the List of Endangered and Threatened Wildlife to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*

(h) \* \* \*

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
* * * *	* * *			
FISHES				
* * * *	* * *			
Darter, pearl	<i>Percina aurora</i>	Wherever found	T	82 FR 43885, 9/20/2017; 50 CFR 17.95(e). <sup>CH</sup>
* * * *	* * *			

3. Amend § 17.95(e) by adding an entry for “Pearl Darter (*Percina aurora*)” following the entry for “Niangua Darter (*Etheostoma nianguae*)” to read as set forth below:

**§ 17.95 Critical habitat—fish and wildlife.**

\* \* \* \* \*

(e) *Fishes.*

\* \* \* \* \*

PEARL DARTER (*Percina aurora*)

(1) Critical habitat units are depicted for Clarke, Covington, Forrest, George, Greene, Jackson, Jones, Lauderdale, Newton, Perry, Simpson, Stone, and Wayne Counties, Mississippi, on the maps in this entry.

(2) Within these areas, the physical or biological features essential to the conservation of the pearl darter consist of the following components:

(i) Unobstructed and stable stream and river channels with:

(A) Connected sequences of channel runs and bends associated with pools and scour holes, and

(B) Bottom substrates consisting of fine and coarse sand, gravel, bedrock, silt, clay, organic matter, or woody debris.

(ii) A natural flow regime necessary to maintain instream habitats and their connectivity.

(iii) Water quality conditions, including cool to warm water temperatures (8 to 30 °C (46.4 to 86.0 °F)), high dissolved oxygen (5.8 to 9.3 mg/l), slightly acidic to basic pH (6.3 to 7.6), and low levels of pollutants and nutrients meeting the current State of Mississippi criteria, as necessary to maintain natural physiological processes for normal behavior, growth, and viability of all life stages of the species.

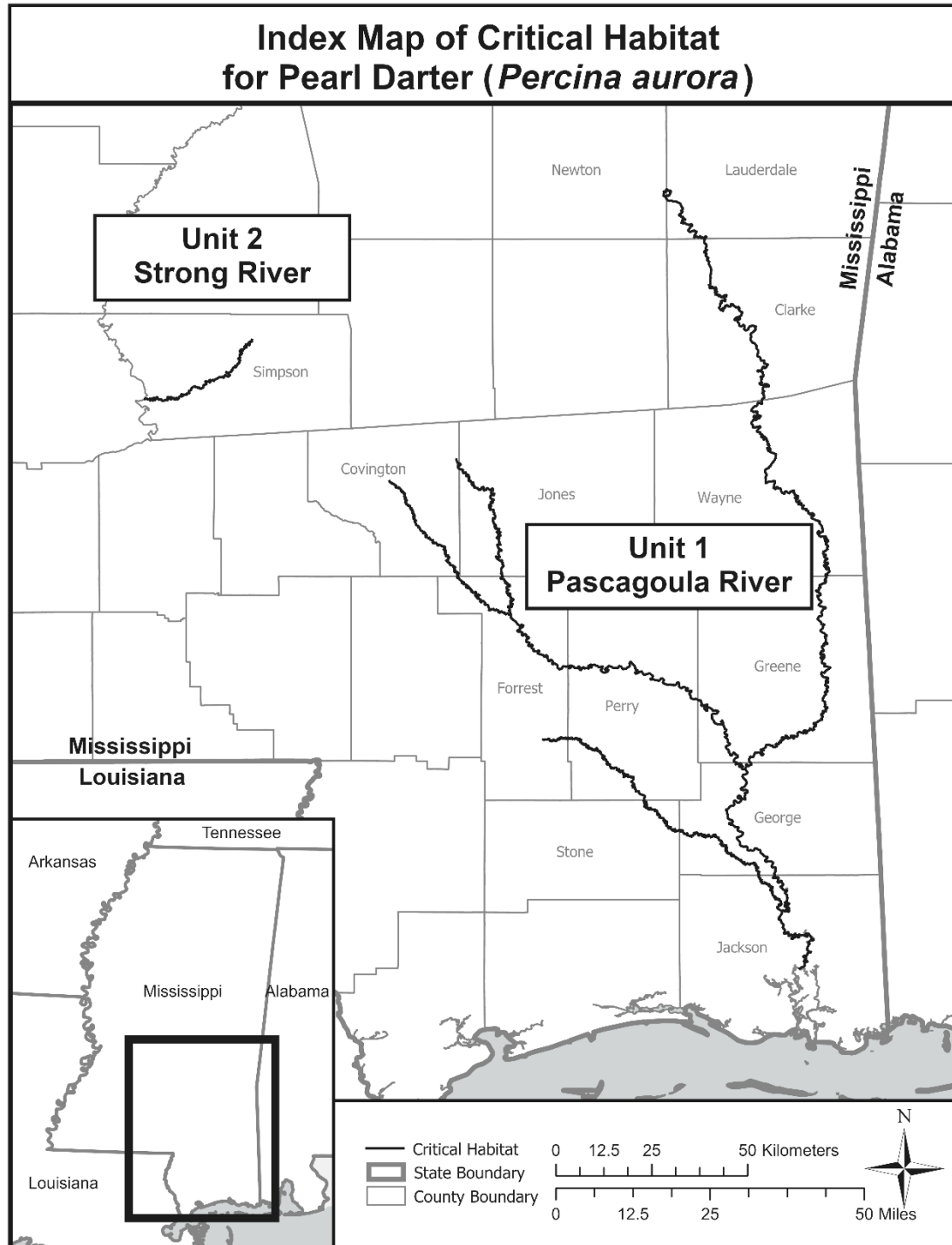
(iv) Presence of a prey base of small aquatic macroinvertebrates, including midges, crustaceans, mayflies, caddisflies, and zooplankton.

(3) Critical habitat includes only the stream channels within the ordinary high water line, and does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of the final rule.

(4) Data layers defining map units were created using U.S. Geological Survey's National Hydrography Dataset flowline data, on a base map of State and County boundaries from the U.S. Department of Agriculture's Natural Resources Conservation Service. Critical habitat units were mapped using the Geographic Coordinate System North American 1983 coordinates. 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 at <http://www.fws.gov/mississippiES/>, at <http://www.regulations.gov> under Docket No. FWS-R4-ES-2020-0062, and at the field office responsible for this designation. 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.

(5) Note: Index map follows:





(6) Unit 1: Pascagoula River drainage, Clarke, Covington, Forrest, George, Greene, Lauderdale, Jackson, Jones, Newton, Perry, Stone, and Wayne Counties, Mississippi.

(i) Unit 1 consists of 487 miles (mi) (783 kilometers (km)) of connected river and stream channels within the Pascagoula River drainage, including:

(A) The Pascagoula River from its confluence with the West Pascagoula River in Jackson County, upstream 63 mi (102 km) to the confluence of the Leaf and Chickasawhay Rivers in George County;

(B) The Big Black/Black Creek from its confluence with the Pascagoula River in Jackson County, upstream 80 mi (129 km) to U.S. Highway 49 Bridge in Forrest County;

(C) The Chickasawhay River from its confluence with the Leaf River just north of Enterprise, Clarke County, upstream 160 mi (257 km) to the confluence of Okatibbee Creek and Chunky River in Clarke County;

(D) The Chunky River from its confluence with Okatibbee Creek in Clarke County, upstream 21 mi (34 km) to second Highway 80 Crossing in Newton County;

(E) The Leaf River from its confluence with the Chickasawhay River in George County, upstream 119 mi (192 km) to the bridge crossing at U.S. Highway 84 in Covington County;

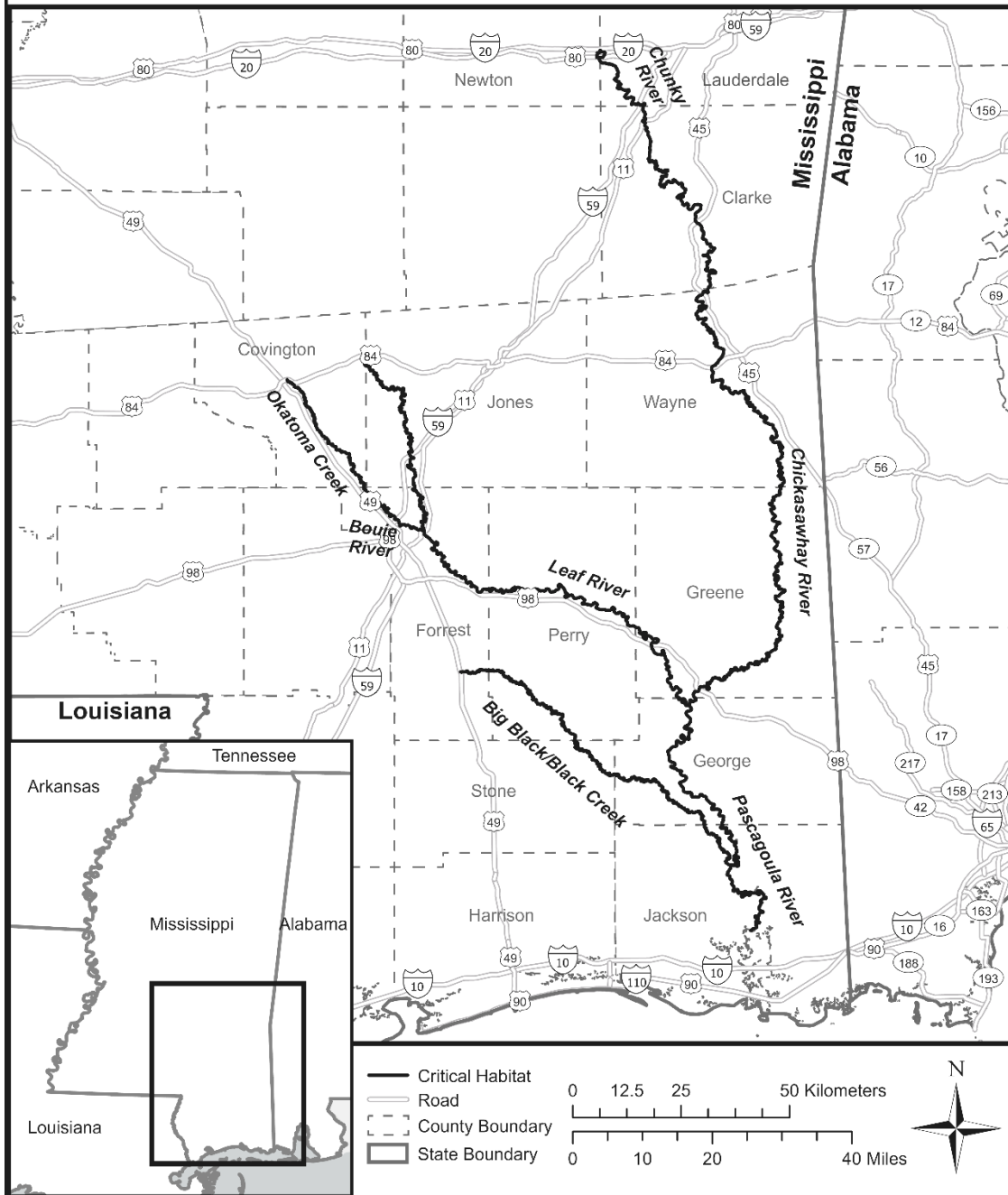
(F) The Bouie River from its confluence with the Leaf River, upstream 15 mi (24 km) to the confluence of Okatoma Creek, in Forrest County; and

(G) The Okatoma Creek from its confluence with the Bouie River in Forrest County, upstream 28 mi (45 km) to the bridge crossing at U.S. Highway 84 in Covington County.

(ii) The channel borders (and therefore the stream channel bottoms) in Unit 1 are generally privately owned agricultural or silvicultural lands, with the exception of 76 mi (122 km) of the Pascagoula River channel border owned and managed by the Mississippi Department of Wildlife, Fisheries, and Parks, and 45 mi (72 km) owned by the U.S. Forest Service.

(iii) Map of Unit 1 follows:

# Unit 1: Pascagoula River Critical Habitat Pearl Darter (*Percina aurora*), Mississippi

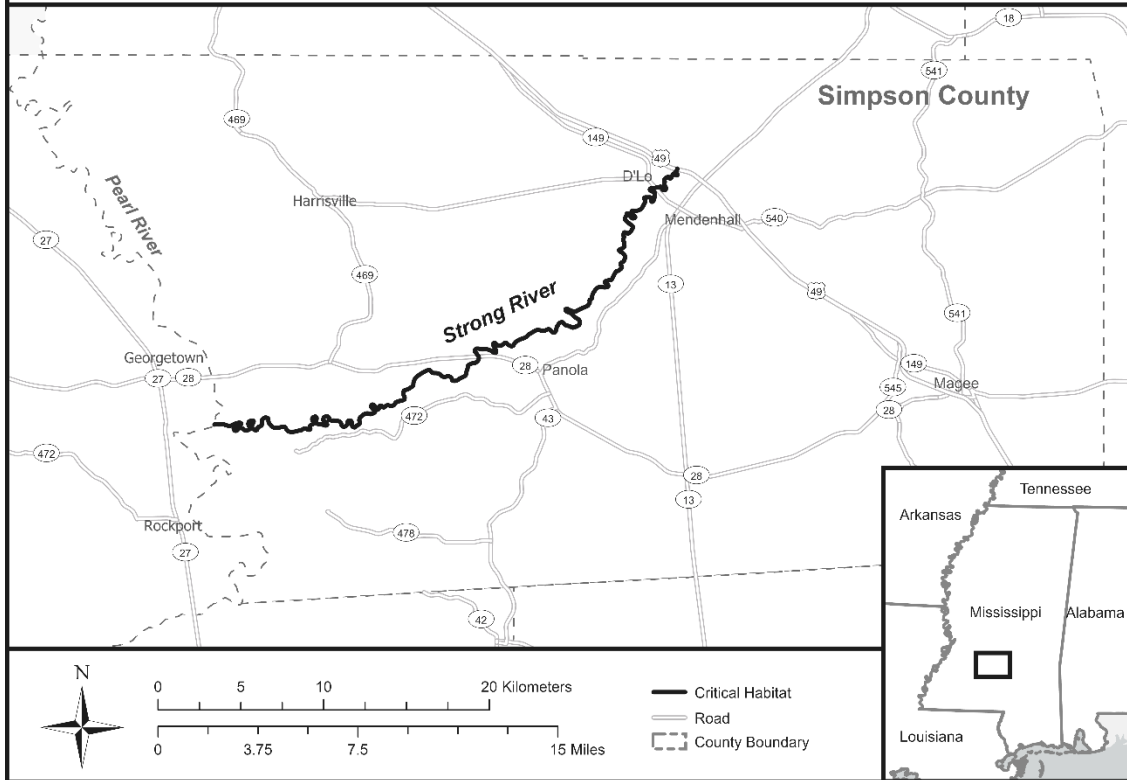


(7) Unit 2: Strong River, Simpson County, Mississippi.

(i) Unit 2 consists of approximately 30 mi (49 km) of the Strong River channel from its confluence with the Pearl River, upstream to U.S. Highway 49 in Simpson County. The channel borders (and therefore the stream channel bottoms) in this unit are generally privately owned agricultural or silvicultural lands, with the exception of a short channel reach (0.39 mi (0.63 km)) owned and managed by the Simpson County Park Commission.

(ii) Map of Unit 2 follows:

## Unit 2: Strong River Critical Habitat Pearl Darter (*Percina aurora*), Simpson County, Mississippi



\* \* \* \* \*

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**Madonna Baucum,**

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