Monitoring at $5,000 to $8,000, Dispute Resolution at $3,000 to $5,000, and Installation at $5,000 to $7,000). In addition, if State A were to partner as an Installation state, aside from the Installation program element payment of $5,000 to $7,000, the state would receive up to $5,000 for per-section installation fees based on the number of transportable sections shipped within and to the state (2,500 transportable sections × up to $2 per section).

Hypothetical State B

State B is an SAA state that does not have any production within the state but otherwise fully participates in the program as an SAAL, JM, DR, and IN state. Shipments to this state are estimated to be 3,500 transportable sections in FY21. Therefore, according to HUD's formula payments, payment to State B would be comprised of:

- Production: 0 transportable sections × $14 = $0
- Shipments: 3,500 transportable sections × $9 = $31,500

In addition to the formula payments above, State B would receive an FY21 year end payment for participation, comprised of the following:

- SAAL: $5,000–$8,000
- JM: $5,000–$8,000
- DR: $3,000–$5,000
- IN: $5,000–$7,000
- Per-section Installation Fee: Up to $7,000 (3,500 transportable sections × up to $2 per section)

Since FY21 is within the to be determined sunset period, State B would continue to receive a year end supplemental payment that would initially be calculated based on the FY14 total payment minus the sum of formula and participation payments: FY14 total payment—($31,500 + $18,000 to $28,000[2] + up to $7,000[3]).

The end of year supplemental would continue to be paid through the sunset period, though in potentially reduced amounts (see Question 3).

After the sunset period, the year-end supplemental payment would be discontinued entirely and payments to the state would reflect potential increases in shipments and installations as well as production payments if a plant were to begin production within the state.

[2] Depending on the established participation payment for each of the SAAL, JM, DR, and IN elements, the participation payment for State B would be expected to be $5,000 to $8,000 for SAAL plus $5,000 to $8,000 for Joint Monitoring plus, $3,000 to $5,000 for Dispute Resolution plus $5,000 to $7,000 for Installation, totaling a payment range of $18,000 to $28,000.

[3] The per section Installation Fee would total up to $7,000 (3,500 transportable sections × up to $2 per section).

II. Request for Public Comment

HUD seeks public feedback on any elements of this ANPR. In particular, HUD seeks information and recommendations on the following issues:

1. Should HUD change from a minimum annual payment structure to a payment structure that is based on an eligible state's participation in the federal program? Are the activities proposed by HUD for incorporation into the payment structure appropriate? Are there activities that should be added to or removed from that list? Provide the reasoning for your response.

2. Should HUD provide a uniform annual funding amount associated with each partnership element? Is the range of funding proposed by HUD for each partnership element appropriate? What amounts within the ranges proposed by HUD are appropriate:

a. For incenting existing SAA states to continue participation in each partnership element?

b. For incenting existing SAA states to implement additional partnership elements?

3. Can a state determine its budgeting needs and establish and implement additional partnership elements to retain maximum compensation within a 5 or 10-year sunset period? Would another time frame be more appropriate? By what means, if any, should the remaining supplemental payment be phased out during the sunset period? For example, should the supplemental payment (calculated after subtracting payments for production and state participation) be reduced by a particular percentage each year (20% in year 2, 40% in year 3, and so on)? Provide the reasoning for your responses.

4. Will states that are not currently SAAs be incentivized to become SAAs? If so, will those states also be incentivized to become active participants to the maximum extent possible in each aspect of the manufactured housing program? Provide the reasoning for your response.

5. Should HUD consider payments to states that are not SAAs? If so, what instrument needs to be implemented to enable such payments? Provide the reasoning for your response.

6. Should HUD augment the per-unit formula to account for each transportable section with a manufacturer-reported first destination in a state that administers a HUD-approved installation program? What are states' costs of overseeing installation, and if HUD were to help offset those costs, what amount of payment per transportable unit would help to meaningfully offset those costs?

Dana T. Wade,

Assistant Secretary for Housing—Federal Housing Commissioner.

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2020–0094; FF09E21000 FXES11110900000 212]

RIN 1018–BE89

Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for Sickle Darter

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the sickle darter (*Percina williamsi*), a fish species from the upper Tennessee River drainage in North Carolina, Tennessee, and Virginia, as a threatened species under the Endangered Species Act of 1973, as amended (Act). After a review of the best available scientific and commercial information, we find that listing the species is warranted. Accordingly, we propose to list the sickle darter as a threatened species with a rule issued under section 4(d) of the Act (''4(d) rule''). If we finalize this rule as proposed, it would add this species to the List of Endangered and Threatened Wildlife and extend the Act's protections to the species.

DATES: We will accept comments received or postmarked on or before January 11, 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 a public hearing, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by December 28, 2020.

ADDRESSES: You may submit comments 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–2020–0094, 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–2020–0094, 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).

FOR FURTHER INFORMATION CONTACT: Lee Andrews, Field Supervisor, U.S. Fish and Wildlife Service, Kentucky Ecological Services Field Office, 330 West Broadway, Suite 265, Frankfort, KY 40601; telephone 502–695–0468. 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. Under the Act, if we determine that a species may be an endangered or threatened species throughout all or a significant portion of its range, we are required to promptly publish a proposal in the **Federal Register** and make a determination on our proposal within 1 year. 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. Listing a species as an endangered or threatened species and designation of critical habitat can only be completed by issuing a rule.

What this document does. This rule proposes the listing of the sickle darter as a threatened species with a rule under section 4(d) of the Act. This rule summarizes our analysis regarding the status of and threats to the sickle darter.

The basis for our action. Under the Act, we may determine that a species is an endangered or threatened species because of any of five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that threats to the sickle darter include habitat degradation or loss stemming from hydrologic alteration by impoundments, including dams and other barriers; resource extraction, including mining and timber operations; and diminished water quality from point and non-point source chemical contamination and siltation (Factor A). These threats contribute to the negative effects associated with the species' reduced range and potential effects of climate change (Factor E).

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 sought the expert opinions of five appropriate specialists regarding the species status assessment report. We received responses from four specialists, which informed this proposed rule. The purpose of peer review is to ensure that our listing determinations and 4(d) rules are based on scientifically sound data, assumptions, and analyses. The peer reviewers have expertise in the biology, habitat, and threats to the species.

Because we will consider all comments and information we receive during the comment period, our final determination may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that the species is endangered instead of threatened, or we may conclude that the species does not warrant listing as either an endangered species or a threatened species. We invite comments on any of these possibilities, as well.

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 governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule.

We particularly seek comments concerning:

(1) The species' biology, range, and population trends, including:

(a) Biological or ecological requirements of the species, including habitat requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

(c) Historical and current range, including distribution patterns;

(d) Historical and current population levels, and current and projected trends; and

(e) Past and ongoing conservation measures for the species, its habitat, or both.

(2) Factors that may affect the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this species and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status, range, distribution, and population size of this species, including the locations of any additional populations of this species.

(5) Information on regulations that are necessary and advisable to provide for the conservation of the sickle darter and that the Service can consider in developing a 4(d) rule for the species. In particular, we seek information concerning:

(a) The extent to which we should include any of the prohibitions in section 9 of the Act (16 U.S.C. 1531 *et seq.*) in the 4(d) rule or whether any other forms of take should be excepted from the prohibitions in the 4(d) rule;

(b) Whether we should add a specific provision to except from prohibition incidental take resulting from silviculture practices and forest management activities that implement highest-standard best management practices and comply with forest practice guidelines related to water quality standards; and

(c) Whether there are additional provisions the Service may wish to consider for the 4(d) rule that are necessary and advisable for the conservation of the sickle darter.

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.

Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made ''solely on the basis of the best scientific and commercial data available.''

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*.

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. We must receive requests for a public hearing, in writing, at 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

On April 20, 2010, we received a petition from the Center for Biological Diversity (CBD), Alabama Rivers Alliance, Clinch Coalition, Dogwood Alliance, Gulf Restoration Network, Tennessee Forests Council, and West Virginia Highlands Conservancy (referred to below as the CBD petition) to list 404 aquatic, riparian, and wetland species, including the sickle darter, as endangered or threatened species under the Act. In response to the petition, we published a partial 90-day finding on September 27, 2011 (76 FR 59836), in which we announced our finding that the petition contained substantial information indicating that listing may be warranted for numerous species, including the sickle darter.

On February 18, 2015, the CBD filed a complaint alleging the Service failed to complete a 12-month finding for the sickle darter in accordance with statutory deadlines. On September 9, 2015, the Service and the CBD filed a stipulated settlement in the District of Columbia, agreeing that the Service will submit to the **Federal Register** a 12-month finding for the sickle darter no later than September 30, 2020 (*Center for Biological Diversity* v. *Jewell,* case 1:15–CV–00229–EGS (D.D.C.)). This document constitutes our concurrent 12-month warranted petition finding and proposed listing rule.

Supporting Documents

An SSA team prepared an SSA report for the sickle darter. The SSA team was composed of Service biologists, in consultation with other species experts from the Tennessee Valley Authority; State agencies in North Carolina, Tennessee, and Virginia; university researchers; and private fish conservation organizations. The SSA report represents a compilation of the best scientific and commercial data available concerning the status of the species, including the impacts of past, present, and future factors (both negative and beneficial) affecting the species. As discussed above under *Peer review,* we solicited appropriate peer review for the SSA report. The Service sent the SSA report to five independent peer reviewers and received four responses. In addition, we sent the draft SSA report for review to Federal partners, State partners, and scientists with expertise in aquatic ecology and fish biology, taxonomy, and conservation.

I. Proposed Listing Determination

Background

The sickle darter is a small fish native to the upper Tennessee River drainage in North Carolina, Tennessee, and Virginia. The species currently has a disjunct distribution, with populations in the Emory River, Little River, Sequatchie River, and Emory River systems in Tennessee, and the upper Clinch River, North Fork Holston River, and Middle Fork Holston River systems in Virginia. Populations within the French Broad River system in North Carolina and Tennessee, and the South Fork Holston River, Powell River, and Watauga River systems in Tennessee are extirpated. A thorough review of the taxonomy, life history, and ecology of the sickle darter is presented in the SSA report (version 1.0; Service 2020a, pp. 9–13).

The sickle darter has a long, slender body reaching up to 120 millimeters (mm) (4.7 inches (in)) in length and an elongated, pointed snout. The body color is brown to olive above and white to pale yellow below with a thin black stripe along the top of the body. Spawning occurs in late winter (February–March), and the species has a maximum lifespan of 3 to 4 years.

Sickle darters typically occupy flowing pools over rocky, sandy, or silty substrates in clear creeks or small rivers. Occupied streams tend to have good water quality, with low turbidity and negligible siltation (Etnier and Starnes 1993, p. 576; Alford 2019, p. 9). In these habitats, the species is most often associated with clean sand-detritus or gravel-cobble-boulder substrates, stands of American water willow (*Justicia americana*), or woody debris piles at water depths ranging from 0.4–1.0 meter (m) (1.3–3.3 feet (ft)) (Etnier and Starnes 1993, p. 576; Page and Near 2007, p. 609; Alford 2019, p. 8). Streams supporting sickle darters range from 9–33 m (29–108 ft) wide and streamside tree canopy cover in these streams ranges from open to nearly closed (Alford 2019, p. 8). The species spends most of its time in the water column, often hovering a few inches above the stream or river bottom (Etnier and Starnes 1993, p. 576).

In winter, sickle darters have been observed in deep pools (depths of up to 3 m (10 ft)) or in slow-flowing, shallow pools in close proximity to cover (Etnier and Starnes 1993, p. 576; Service 2020b, p. 1). The species migrates from the deepest areas of pools to shallow, gravel shoals (riffles) in late winter or early spring (February–March) to spawn (Etnier and Starnes 1993, p. 576). Spawning begins when stream water temperatures reach 10 to 16 Celsius (°C) (50 to 60 Fahrenheit (°F)) (Petty *et al.* 2017, p. 3). Sexual maturity of males occurs at the end of the first year of life, while sexual maturity of females occurs at the end of their second year of life (Page 1978, p. 663; Petty *et al.* 2017, p. 3). Females produce up to 355 eggs per clutch, which hatch in 21 days at an average stream temperature of 10 °C (50 °F) (Etnier and Starnes 1993, p. 576). The incubation period is likely shorter (about 2 weeks) when stream temperatures are higher (Service 2020b, p. 1). The larvae move up and down in the water column and presumably feed on zooplankton and other small macroinvertebrates after depleting yolk sac nutrients (Etnier and Starnes 1993, p. 576; Petty *et al.* 2017, p. 3). After about 30 days, the larvae move to the stream bottom (Petty *et al.* 2017, p. 3) where they mature. Except for their late winter movements from pools to riffles for spawning, no information is available on the movement behavior of the sickle darter. However, studies of two closely related species in the genus

Percina (longhead darter and frecklebelly darter) indicate that the sickle darter likely exhibits seasonal upstream and downstream movements (Eisenhour *et al.* 2011, p. 15; Eisenhour and Washburn 2016, pp. 19–24).

Sickle darters feed primarily on larval mayflies and midges; minor prey items include riffle beetles, caddisflies, dragonflies, and several other groups of aquatic macroinvertebrates (Page and Near 2007, pp. 609–610; Alford 2019, p. 10). Crayfishes have been reported as a common food item for the closely related longhead darter (Page 1978, p. 663), but have not been observed in the sickle darter's diet (Alford 2019, p. 10).

Regulatory and Analytical Framework

Regulatory Framework

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species is an ''endangered species'' or a ''threatened species.'' The Act defines an ''endangered species'' as a species that is in danger of extinction throughout all or a significant portion of its range, and a ''threatened species'' as a species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether any species is an ''endangered species'' or a ''threatened species'' because of any of the following factors:

(A) The present or threatened destruction, modification, or curtailment of its habitat or range;

(B) Overutilization for commercial, recreational, scientific, or educational purposes;

(C) Disease or predation;

(D) The inadequacy of existing regulatory mechanisms; or

(E) Other natural or manmade factors affecting its continued existence.

These factors represent broad categories of natural or human-caused actions or conditions that could have an effect on a species' continued existence. In evaluating these actions and conditions, we look for those that may have a negative effect on individuals of the species, as well as other actions or conditions that may ameliorate any negative effects or may have positive effects.

We use the term ''threat'' to refer in general to actions or conditions that are known to or are reasonably likely to negatively affect individuals of a species. The term ''threat'' includes actions or conditions that have a direct impact on individuals (direct impacts), as well as those that affect individuals through alteration of their habitat or required resources (stressors). The term ''threat'' may encompass—either together or separately—the source of the action or condition or the action or condition itself.

However, the mere identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an ''endangered species'' or a ''threatened species.'' In determining whether a species meets either definition, we must evaluate all identified threats by considering the expected response by the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species, such as any existing regulatory mechanisms or conservation efforts. The Secretary determines whether the species meets the definition of an ''endangered species'' or a ''threatened species'' only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

The Act does not define the term ''foreseeable future,'' which appears in the statutory definition of ''threatened species.'' Our implementing regulations at 50 CFR 424.11(d) set forth a framework for evaluating the foreseeable future on a case-by-case basis. The term ''foreseeable future'' extends only so far into the future as the Services can reasonably determine that both the future threats and the species' responses to those threats are likely. In other words, the foreseeable future is the period of time in which we can make reliable predictions. ''Reliable'' does not mean ''certain''; it means sufficient to provide a reasonable degree of confidence in the prediction. Thus, a prediction is reliable if it is reasonable to depend on it when making decisions.

It is not always possible or necessary to define foreseeable future as a particular number of years. Analysis of the foreseeable future uses the best scientific and commercial data available and should consider the timeframes applicable to the relevant threats and to the species' likely responses to those threats in view of its life-history characteristics. Data that are typically relevant to assessing the species' biological response include species-specific factors such as lifespan, reproductive rates or productivity, certain behaviors, and other demographic factors.

Analytical Framework

The SSA report documents the results of our comprehensive biological review of the best scientific and commercial data regarding the status of the species, including an assessment of the potential threats to the species. The SSA report does not represent a decision by the Service on whether the species should be proposed for listing as an endangered or threatened species under the Act. However, it does provide the scientific basis that informs our regulatory decisions, which involve the further application of standards within the Act and its implementing regulations and policies. The following is a summary of the key results and conclusions from the SSA report; the full SSA report can be found at Docket No. FWS–R4–ES–2020–0094 on *http://www.regulations.gov.*

To assess sickle darter viability, we used the three conservation biology principles of resiliency, redundancy, and representation (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency supports the species' ability to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the species' ability to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the species' ability to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more resilient and redundant a species is and the more representation it has, the more likely it is to sustain populations over time, even under changing environmental conditions. Using these principles, we identified the species' ecological requirements for survival and reproduction at the individual, population, and species levels, and described the beneficial and risk factors influencing the species' viability.

The SSA process can be categorized into three sequential stages. During the first stage, we evaluated the individual species' life-history needs. The next stage involved an assessment of the historical and current condition of the species' demographics and habitat characteristics, including an explanation of how the species arrived at its current condition. The final stage of the SSA involved making predictions about the species' responses to positive and negative environmental and anthropogenic influences. Throughout all stages, we used the best available information to characterize viability as

the ability of a species to sustain populations in the wild over time.

Summary of Biological Status and Threats

In this discussion, we review the biological condition of the species and its resources, and the threats that influence the species' current and future condition, in order to assess the species' overall viability and the risks to that viability.

For sickle darter populations to be resilient, the needs of individuals (slow-flowing pools, substrate, food availability, water quality, and aquatic vegetation or large woody debris) must be met at a larger scale. Stream reaches with suitable habitat must be large enough to support an appropriate number of individuals to avoid negative effects associated with small population size, such as inbreeding depression and the Allee effect (whereby low population density reduces the probability of encountering mates for spawning). Connectivity of stream reaches allows for immigration and emigration between populations and increases the likelihood of recolonization should a population be lost. At the species level, the sickle darter needs a sufficient number and distribution of healthy populations to withstand environmental stochasticity (resiliency) and catastrophes (redundancy) and adapt to biological and physical changes in its environment (representation). To evaluate the current and future viability of the sickle darter, we assessed a range of conditions to allow us to consider the species' resiliency, representation, and redundancy.

We delineated analytical units (populations) using the tributary systems the sickle darter historically occupied. Each population represents demographically linked interbreeding individuals; however, these populations are currently separated by long distances or isolated by impoundments. We identified 10 historical populations across the range of the sickle darter: Emory River, Clinch River, Powell River, Little River, French Broad River, North Fork Holston River, Middle Fork Holston River, South Fork Holston River, Watauga River, and Sequatchie River.

To assess resiliency, we evaluated six components that broadly relate to the species' physical environment or its population demography. Each population's physical environment was assessed by averaging three components determined to have the most influence on the species: Physical habitat quality, connectivity, and water quality. The three components describing population demography were reproduction, occurrence extent (total length of occupied streams compared to historical range), and occupied stream length. Parameters for each component's condition category were established by evaluating the range of existing data and separating those data into categories based on our understanding of the species' demographics and habitat. Using the demographic and habitat parameters, we then categorized the overall condition of each population. We weighted each of the six components equally and determined the average score to describe each population's current condition (see Table 1, below).

Due to a limited amount of species-specific genetic information for the sickle darter, we based our evaluation of the species' representation on the extent and variability of environmental diversity (habitat diversity) across the species' geographical range. Additionally, we assessed sickle darter redundancy (ability of species to withstand catastrophic events) by evaluating the number and distribution of resilient populations throughout the species' range. Highly resilient populations, coupled with a relatively broad distribution, have a positive relationship to species-level redundancy.

TABLE 1—COMPONENT CONDITIONS USED TO ASSESS RESILIENCY FOR SICKLE DARTER POPULATIONS

Component	Condition			
	High	Moderate	Low	0
Physical Habitat	Slow-flowing pools abundant (ample cover in pools); silt deposition low; no extensive or significant habitat alteration such as recent channelization or riparian clearing; > 75% of available habitat suitable for the species.	Slow-flowing pools present but not abundant (some pools with cover); silt deposition moderate; habitat alteration at moderate level such that channelization or other habitat disturbance more widespread; 25–75% of available habitat suitable for the species.	Slow-flowing pools scarce (few pools with cover); silt deposition extensive; habitat severely altered and recognized as impacting the species; < 25% of habitats suitable for the species.	Habitat unsuitable.
Connectivity	High immigration potential between populations (no dams or other barriers separating populations).	Moderate immigration potential between populations (populations separated by 1 low-head dam, and other partial barriers, such as narrow culverts, may be present).	Low immigration potential between populations (populations separated by ≥ 2 low-head dams or other barriers).	No connectivity (populations isolated; no immigration potential due to the presence of large reservoirs).
Water Quality	Minimal or no known water quality issues (i.e., no 303(d) streams* impacting the species, area sparsely populated, few roads).	Water quality issues recognized that may impact species (i.e., some 303(d) streams*, unpaved roads more common, moderate levels of developed land use).	Water quality issues prevalent within system, likely impacting populations (i.e., numerous 303(d) streams*).	Water quality unsuitable.
Reproduction	Clear evidence of reproduction, with multiple age classes present.	Clear evidence of reproduction, juveniles present, but multiple age classes not detected.	No direct evidence of reproduction (only adults present).	Extirpated.
Occurrence Extent	<10% decline from historical range	10–50% decline from historical range.	>50% decline from historical range	Extirpated.
Occupied Stream Length (Continuity).	≥22.5 km (≥ 14 mi)	11.3–22.5 km (7–14 mi)	<11.3 km (< 7 mi)	Extirpated.

* A 303(d) stream is a stream listed under section 303(d) of the Clean Water Act of 1972 (33 U.S.C. 1251 *et seq.*) as a water body impaired by pollutants.

Current Condition of Sickle Darter

Currently, the sickle darter is known from six tributary systems in the upper Tennessee River drainage: Emory River, Little River, Clinch River, North Fork Holston River, Middle Fork Holston River, and Sequatchie River. Historical populations in the Powell River, French Broad River, South Fork Holston River,

and Watauga River systems are extirpated, including the species' only population within the Blue Ridge ecoregion. Impoundments and water pollution in the upper Tennessee River drainage were major factors in the decline of the sickle darter and several other fishes during the early to mid-20th century (Etnier and Starnes 1993, pp. 15, 576). Current factors affecting the condition of sickle darter populations include habitat and water quality degradation, low connectivity, and small population size (*e.g.,* Clinch River). The Emory River and Little River populations exhibit moderate resiliency, as evidenced by the species' persistence within these systems for over 45 years, recent and repeated evidence of reproduction and recruitment, a relatively long occupied reach in each system (more than 22.5 kilometers (km) (14 miles (mi))), and the physical habitat condition and water quality in both systems. The remaining four populations exhibit low resiliency. They are represented by fewer documented occurrences, no evidence of recruitment, shorter occupied reaches, and occur in areas with limited habitat and water quality.

The species' adaptive potential (representation) is low because of its reduced range (and presumably associated reduction in genetic diversity), and the loss of connectivity caused by dam construction. The sickle darter occupies only two of three historical ecoregions (Ridge and Valley and Southwestern Appalachians), likely reducing its ability to adapt to changing environmental conditions over time.

We assessed the number and distribution of resilient populations across the sickle darter's range as a measure of its redundancy. Construction of dams across the upper Tennessee River drainage has eliminated connectivity between extant populations. However, within the currently occupied streams, large barriers are absent, although some small barriers that hamper movement are present (*e.g.,* defunct low-head mill dams, low-water bridges, narrow or partially blocked culverts). As such, there is connectivity within each occupied stream and opportunity for movement of individuals, decreasing the effect of localized stochastic events. Overall, the sickle darter exhibits a low degree of redundancy based on the number of resilient populations and the amount of isolation observed across the species' range, increasing the species' vulnerability to catastrophic events.

Risk Factors for Sickle Darter

Habitat loss and degradation (Factor A) resulting from impoundments, siltation, and water quality degradation, pose the largest risk to the current and future viability of the sickle darter and are the primary contributors to the species' reduced range, population fragmentation, and population loss. Climate change (Factor E) is a potential stressor that may impact the sickle darter in the future. We find the species does not face significant threats from overutilization (Factor B), disease or predation (Factor C), or invasive species (Factor E). A brief summary of relevant stressors is presented below; for a full description, refer to chapter 3 of the SSA report (Service 2020a, entire).

Siltation

Siltation is characterized by excess sediments suspended or deposited in a stream. Excessive levels of sediment accumulate and cover the stream bottom, filling the interstitial spaces with finer substrates and homogenizing and decreasing the available habitat for fishes. In severe cases, sediment can bury large substrate particles such as cobble and boulders. Siltation can affect fishes through abrasion of gill tissues, suffocation of eggs or larvae, reductions in disease tolerance, degradation of spawning habitats, modification of migration patterns, and reductions in food availability (Berkman and Rabeni 1987, pp. 285–294; Waters 1995, pp. 5–7; Wood and Armitage 1997, pp. 211–212; Meyer and Sutherland 2005, pp. 2–3). The sickle darter is considered to be intolerant of siltation (Etnier and Starnes 1993, p. 576). Pool habitat, which is the area in streams most often occupied by sickle darters, is affected by sediment deposition earlier and more readily than habitats with faster moving water (Eisenhour et al. 2009, p. 11). However, the sickle darter is occasionally observed in areas with at least low to moderate levels of siltation on some substrates, as in the Emory River (Service 2020b, p. 3).

Siltation continues to be one of the primary stressors of streams in the upper Tennessee River drainage (TDEC 2010, pp. 43–45; TDEC 2014, pp. 48–50; TDEC 2017, pp. 51–128; VDEQ 2018, pp. 89–91). Sediments can originate from a variety of sources, but State agencies continue to cite land use practices associated with agriculture, land development, and resource extraction (*e.g.,* coal mining) as primary sediment sources within the current and historical range of the sickle darter (TDEC 2010, pp. 56–65; TDEC 2014, pp. 62–69; VDEQ 2018 (Appendix 5), pp. 2313–2531). Unrestricted livestock access occurs on many streams in the range of the sickle darter and has the potential to cause siltation and other habitat disturbance (Fraley and Ahlstedt 2000, pp. 193–194). Grazing may reduce water infiltration rates and increase stormwater runoff; trampling and vegetation removal increases the probability of erosion and siltation (Brim Box and Mossa 1999, p. 103). Other sources of siltation in the species' range include croplands, stream channelization, and removal of riparian (streamside) vegetation, which have the potential to contribute large sediment loads during storm events, thereby causing increased siltation and potentially introducing agricultural pollutants such as herbicides and pesticides carried on or with sediment particles that wash into streams.

Surface coal mining, oil and gas drilling, and logging may also contribute to siltation of stream habitats in the upper Tennessee River drainage, especially the upper Clinch and Powell River systems (TDEC 2017, pp. 94–97; Zipper et al. 2016, pp. 609–610; VDEQ 2018, pp. 2313–2531). Land clearing, road construction, and excavation associated with these land use practices produce new road networks and large areas of bare soil that can contribute large amounts of sediment if best management practices (BMPs) are not used. Siltation from surface coal mining activities, such as the placement of valley fills, forest clearing, and road construction, has affected the sickle darter's historical range in the mainstem Clinch and Powell Rivers. Over the last decade, forestry BMP implementation rates, to control erosion, runoff, and siltation, have increased within the upper Tennessee River drainage (Clatterbuck et al. 2017, pp. 8–12; VDOF 2014, pp. 1–5); however, siltation continues to impact aquatic habitats in those areas where BMP use is lacking.

Water Quality Degradation (Pollution)

Information is lacking on the sickle darter's tolerance to specific pollutants, but overall the species is likely to have low tolerance experienced by other species in its genus. A review of species tolerances to pollution classified five species in the sickle darter genus *Percina* as intolerant, moderately intolerant, or having intermediate tolerance (Grabarkiewicz and Davis 2008, p. 64). None of these five species were classified as moderately tolerant or tolerant of pollution. A variety of pollutants that may impact the sickle darter continue to degrade stream water quality within the upper Tennessee River drainage (Locke et al. 2006, pp.

197, 202–203; TDEC 2010, pp. 42–48; TDEC 2014, pp. 47–53; Zipper et al. 2016, p. 604; TDEC 2017, pp. 51–106; VDEQ 2018 (Appendix 5), pp. 2313–2531). Major pollutants within the upper Tennessee River drainage include pathogens, domestic sewage, animal waste, nutrients, metals, and toxic organic compounds.

Pathogens (fecal indicator bacteria) are a leading cause of stream pollution across the sickle darter's range (Hampson et al. 2000, p. 7; TDEC 2014a, pp. 47–53, TDEC 2017, pp. 51–106; VDEQ 2018 (Appendix 5), pp. 2313–2531). The effect of high bacterial levels on the sickle darter is unknown, but high bacterial concentrations are one indicator of degraded stream conditions, including low dissolved oxygen that negatively affects fish or that may indicate the presence of other pollutants of concern that could harm the species. In the upper Tennessee River drainage, livestock waste is the primary source of bacterial contamination in rural areas, while deteriorating and leaky sewage systems, faulty sewage treatment plants, urban runoff, and combined sewer overflow (CSO) systems are the primary sources of bacterial contamination in urban streams (Hampson et al. 2000, p. 7). Elevated nutrient concentrations of phosphorus, nitrite/nitrate, and ammonia are another leading cause of stream pollution in the upper Tennessee River drainage (Hampson et al. 2000, p. 8; Price et al. 2011, pp. III–1, IV–1; TDEC 2014, p. 50; TDEC 2017, pp. 51–106; VDEQ 2018, pp. 89–91). Primary sources include wastewater treatment facilities, urban and industrial stormwater systems, and agricultural runoff (*i.e.,* livestock waste and synthetic fertilizers) (Hampson et al. 2000, p. 9; TDEC 2014, p. 50).

Other stream pollutants in the upper Tennessee River drainage include organic compounds (*e.g.,* polychlorinated biphenyls (PCBs), dioxins), metals (*e.g.,* mercury, iron, manganese), and pesticides (Hampson et al. 2000, pp. 14–19; Soucek et al. 2000, entire; Soucek et al. 2003, entire; Locke et al. 2006, pp. 200–203; Price et al. 2011, p. VI–1; TDEC 2014, pp. 51–53). Industrial development and coal mining activities prior to the passage of the Clean Water Act of 1972 (CWA; 33 U.S.C. 1251 *et seq.*) and the Surface Mining Control and Reclamation Act of 1977 (SMCRA; 30 U.S.C. 1201 *et seq.*) have left a legacy of contaminated sediment and polluted waters that continue to affect streams in portions of the upper Tennessee River drainage (Hampson et al. 2000, p. 19). Coal mining activity has decreased in the Clinch and Powell River systems in recent years; however, current and previous mining activities continue to impact portions of these stream systems in Tennessee and Virginia (TDEC 2014, p. 51; Ahlstedt et al. 2016, pp. 13–14; Zipper et al. 2016, pp. 604–612; TDEC 2017, pp. 94–97). Insecticides, herbicides, and fungicides are widely used in the upper Tennessee River drainage to control insects, fungi, weeds, and other undesirable organisms (Hampson et al. 2000, pp. 14–18). The compounds vary in their toxicity, persistence in the environment, and transport characteristics, but often become widely distributed in the environment and can pose hazards to non-target organisms such as the sickle darter.

Impoundments and Their Effects—Habitat Fragmentation and Loss

Impoundments are a threat to the sickle darter and a major factor influencing the species' current distribution within the upper Tennessee River drainage (Etnier and Starnes 1993, p. 576; Jenkins and Burkhead 1993, pp. 101–106; Service 2020a, p. 3). From 1912 to 1963, Tennessee Valley Authority constructed 12 dams, impounding waters in each of the sickle darter's historical tributary systems in Tennessee and Virginia (Miller and Reidinger 1998, pp. 35–37). Two dams were constructed on the Tennessee River mainstem, while the remaining 10 dams were built on tributaries (Clinch River, French Broad River, Holston River, South Fork Holston River, and Watauga River), creating 10 impoundments or reservoirs. Physical, chemical, and biological changes to these systems have been dramatic. Alterations to flow and temperature in the impounded reaches behind the dams and the tailwaters that extend several miles below the dams render these reaches uninhabitable for stream fishes such as the sickle darter. Additionally these dams have diminished and, in some cases, eliminated connectivity of sickle darter populations.

Population Fragmentation and Isolation

As a result of the loss of populations throughout the historical range, the sickle darter's remaining range is limited. The remaining populations are localized and geographically isolated from one another due to impoundments and other habitat degradation, leaving them vulnerable to localized extinctions from toxic chemical spills, habitat modification, progressive degradation from runoff (non-point source pollutants), natural catastrophic changes to their habitat (*e.g.,* flood scour, drought), other stochastic disturbances, and decreased fitness from reduced genetic diversity.

Species that have incurred reductions in range and population size are more likely to suffer loss of genetic diversity due to genetic drift, potentially increasing their susceptibility to inbreeding depression, decreasing their ability to adapt to environmental changes, and reducing the fitness of individuals (Soulé 1980, pp. 157–158; Hunter 2002, pp. 97–101; Allendorf and Luikart 2007, pp. 117–146). Some small sickle darter populations (*e.g.,* Middle Fork Holston River) may be below the effective population size required to maintain long-term genetic and population viability (Soulé 1980, pp. 162–164; Hunter 2002, pp. 105–107). The long-term viability of a species depends on the conservation of numerous local populations throughout its geographic range (Harris 1984, pp. 93–104). These separate populations are essential for the species to recover and adapt to environmental changes (Harris 1984, pp. 93–104; Noss and Cooperrider 1994, pp. 264–297). The level of isolation of sickle darter populations makes recolonization following localized extirpations virtually impossible without human intervention.

Climate Change

Changing climate conditions can influence sickle darter viability through changes in water temperature and precipitation patterns that result in increased flooding, prolonged droughts, or reduced stream flows (McLaughlin et al. 2002, pp. 6060–6074; Cook et al. 2004, pp. 1015–1018; Thomas et al. 2004, pp. 145–148; p. 2065; IPCC 2014, pp. 58–83). The species' early spawning period (February–March) makes it vulnerable to warming temperatures and higher flows—conditions that could interrupt or prevent successful spawning in a given year (Service 2020b, p. 3). Stream temperatures in the Southeast have increased roughly 0.2 to 0.4 °C (0.4 to 0.7 °F) per decade over the past 30 years (Kaushal et al. 2010, p. 463), although the extent to which the increase in temperatures has affected the sickle darter in unknown. Predicted impacts of climate change on fishes include disruptions to their physiology, such as temperature tolerance, dissolved oxygen needs, and metabolic rates; life history, such as timing of reproduction and growth rate; and distribution, including range shifts and migration of new predators (Jackson and Mandrak 2002, pp. 89–98; Heino et al. 2009, pp. 41–51; Strayer and Dudgeon 2010, pp. 350–351; Comte et al. 2013, pp. 627–636).

Data on recent trends and predicted changes for the upper Tennessee River drainage allow evaluation of the potential impacts of climate change to the sickle darter in the future. Different emission scenarios were used to estimate average annual increases in maximum and minimum air temperature, precipitation, snowfall, and other variables (Alder and Hostetler 2017, entire). Depending on the chosen model and emission scenario (Representative Concentration Pathway (RCP) 4.5 vs. 8.5), annual mean maximum air temperatures for the upper Tennessee River drainage are expected to increase by 2.1 to 3.1 °C (3.8 to 5.6 °F) by 2074, while precipitation models predict that the upper Tennessee River drainage will experience a slight increase in annual mean precipitation (0.2 in per month) through 2074 (Girvetz et al. 2009, pp. 1–19; Alder and Hostetler 2016, pp. 1–9). Because stream temperature is broadly driven by air temperature (Webb and Nobilis 2007, p. 82), water temperatures in the current and historical range of the sickle darter are expected to increase in the future under both RCP 4.5 and RCP 8.5.

The upper thermal limits of the sickle darter are unknown, but the species' occurrence in streams ranging in size from large creeks to medium-sized rivers suggests that it may have some tolerance to a variety of water conditions. The species may be less vulnerable to droughts, compared to species occurring in smaller or headwater streams. Relative to other fishes, sickle darter may have some resilience to the effects of climate change. Among more than 700 species in the Appalachian region, six other darter species in the genus *Percina* are ranked as moderately vulnerable to the effects of climate change (Appalachian Landscape Conservation Cooperative 2017, unpaginated). Moderately vulnerable is defined as abundance and/or range extent within geographical area assessed likely to decrease by 2050. The sickle darter may have some of the same vulnerabilities due to its similar ecology, life history, and small range.

Conservation Efforts

The sickle darter is listed as threatened by Tennessee (Tennessee Wildlife Resources Commission (TWRC) 2016, p. 3) and Virginia (VDGIF 2018, p. 1), making it unlawful to take the species or damage its habitat without a State permit. Additionally, the sickle darter is identified as a species of greatest conservation need in the Tennessee and Virginia Wildlife Action Plans, which outline actions to promote species conservation. A propagation effort for the sickle darter was initiated in 2015, producing 25 juveniles that were released to the wild. The status of the released fish is unknown, but the effort demonstrates that propagation may be a useful conservation tool to augment sickle darter populations or reintroduce the species to historical localities in the future.

Future Scenarios

In our SSA report (Service 2020a, entire), we defined viability as the ability of the species to sustain populations in the wild over time. To help address uncertainty associated with the degree and extent of potential future stressors and their impacts on the species' needs, the concepts of resiliency, redundancy, and representation were assessed using three plausible future scenarios. We devised these scenarios by identifying information on the following primary threats anticipated to affect sickle darter in the future: Land cover, urbanization, climate change, and conservation activity. The three scenarios capture the range of uncertainty in the changing landscape and how sickle darter will respond to the changing conditions (see Table 2, below). We used the best available data and models to project out 50 years into the future (*i.e.,* 2070), a timeframe where we were reasonably certain the land use change, urbanization, and climate models that we used could forecast patterns in the species' range relevant to the sickle darter and its habitat given the species' life span. For more information on the models and their projections, please see the SSA report (Service 2020a, pp. 54–67).

Under Scenario 1 (continuation of current trend), no significant increases or decreases are expected with respect to land cover, urbanization, or habitat conditions, and habitat restoration efforts (*e.g.,* livestock fencing, riparian plantings, streambank restoration) by the Service and its partners are projected to continue at current levels. In addition, climate change would track RCP 4.5. Three of six extant sickle darter populations are projected to maintain their resiliency categories at current levels. Three extant populations, Clinch River, Middle Fork Holston River, and North Fork Holston River, are projected to become extirpated within 30 years. The species' redundancy and representation are expected to remain at low levels.

Under Scenario 2 (improving trend), habitat conditions throughout the upper Tennessee River drainage are projected to improve due to increased conservation efforts and improving land use practices (*e.g.,* greater forest cover and reduced agricultural and development effects). Based on these factors, resiliency of all extant populations would remain at current levels or increase, and the species may be rediscovered or will be reintroduced into portions of the Powell River system and French Broad River system. The species' redundancy would increase to a low-moderate level and representation would remain at a low level because populations will be reintroduced or rediscovered in two historically occupied river systems, increasing the number of extant populations (our measure of redundancy) from 6 to 8. In spite of the two added populations, representation would remain low because individuals would have the same genetic composition of parental stock in the rivers from which they were sourced, or will be founded from very small, previously undetected populations.

Under Scenario 3 (worsening trend), habitat conditions are projected to decline within the upper Tennessee River drainage due to reductions in forest cover, increased urbanization and agricultural activities, and a climate trend that tracks RCP 8.5. Combined with reduced conservation efforts, these factors will have a negative effect on population resiliency, with projected extirpations of the Clinch River, North Fork Holston River, Middle Fork Holston River, and Sequatchie River populations. Loss of these populations would reduce redundancy and representation, with overall species' redundancy and representation remaining at low levels.

One of our plausible scenarios (improving trends) projected improving conditions characterized by an increased percentage of forested land cover and a reduced percentage of pasture and hay land cover. In this scenario, urbanization and climate change rates of increase would be reduced relative to current trends (Service 2020a, pp. 72–73) and additional conservation actions would be implemented. There was greater uncertainty regarding future species' status and conservation action implementation than in the other two future scenarios. For example, the improving trends scenario projected reintroduction and successful establishment of two populations in the species' historical range, but successful establishment of viable populations of sickle darters has not yet been proven, and funding for this type of conservation, as well as other conservation actions such as easements

for land restoration, is uncertain. Therefore, we did not rely on the improving trends scenario to assess the likelihood of the species becoming in danger of extinction in the foreseeable future. (see *Status Throughout All of Its Range,* below)

TABLE 2—FUTURE CONDITION OF THE SICKLE DARTER BY THE YEAR 2070 UNDER THREE FUTURE SCENARIOS

Analytical unit (population)	Current condition	Scenario 1: Current trend	Scenario 2: Improving trend	Scenario 3: Worsening trend
Emory River	Moderate	Moderate	Moderate	Low.
Clinch River	Low	Likely Extirpated	Low	Likely Extirpated.
Powell River	Extirpated	Likely Extirpated	Low*	Likely Extirpated.
Little River	Moderate	Low	Moderate	Low.
French Broad River	Extirpated	Likely Extirpated	Low*	Likely Extirpated.
Middle Fork Holston River	Low	Likely Extirpated	Low	Likely Extirpated.
North Fork Holston River	Low	Likely Extirpated	Low	Likely Extirpated.
South Fork Holston River	Extirpated	Likely Extirpated	Likely Extirpated	Likely Extirpated.
Sequatchie River	Low	Low	Low	Likely Extirpated.
Watauga	Extirpated	Likely Extirpated	Likely Extirpated	Likely Extirpated.

*Scenario 2 anticipates successful reintroduction or rediscovery of the species in two river systems.

Cumulative Effects of Threats

We note that, by using the SSA framework to guide our analysis of the scientific information documented in the SSA report, we have not only analyzed individual effects on the species, but have also analyzed their potential cumulative effects. We incorporate the cumulative effects into our SSA analysis when we characterize the current and future condition of the species. Our assessment of the current and future conditions encompasses and incorporates the threats individually and cumulatively. Our current and future condition assessment is iterative because it accumulates and evaluates the effects of all the factors that may be influencing the species, including threats and conservation efforts. Because the SSA framework considers not just the presence of the factors, but to what degree they collectively influence risk to the entire species, our assessment integrates the cumulative effects of the factors and replaces a standalone cumulative effects analysis.

Determination of Sickle Darter Status

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of an endangered species or a threatened species. The Act defines ''endangered species'' as a species in danger of extinction throughout all or a significant portion of its range, and ''threatened species'' as a species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. The Act requires that we determine whether a species meets the definition of ''endangered species'' or ''threatened species'' because of any of the following factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence.

Status Throughout All of Its Range

The current conditions as assessed in the sickle darter SSA report show that the species exists in six populations, in six tributary systems in two ecoregions. Two populations, Little River and Emory River, have moderate resiliency, and four populations have low resiliency. Although there are six separate populations distributed within the upper Tennessee River drainage, redundancy is low because four have low resiliency. Representation is currently low because genetic variation has likely been reduced over time as populations became disconnected, isolated, and reduced in size. Further, representation has been diminished with the loss of the species from the Blue Ridge ecoregion. While current resiliency, redundancy, and representation are far from optimal, it is unlikely that the sickle darter is in danger of extinction from a near-term catastrophic event. The occurrence in separate rivers of two populations, which are both in moderate condition and regularly recruiting new age classes (generations), greatly diminishes the possibility that such an event would simultaneously cause extirpation of the two populations, nor is it likely that such an event would simultaneously have the same level of impact on the other four populations in low condition.

After evaluating threats to the species and assessing the cumulative effect of the threats under the section 4(a)(1) factors, we conclude that the risk factors acting on the sickle darter and its habitat, either singly or in combination, are not of sufficient imminence, intensity, or magnitude to indicate that the species is in danger of extinction now (an endangered species) throughout all of its range.

Our analysis of the sickle darter's future conditions shows that the population and habitat factors used to determine resiliency, representation, and redundancy will continue to decline. The primary threats are currently acting on the species and are likely to continue into the future. We selected 50 years as ''foreseeable'' in this case because it includes projections from available models for urbanization, land use, and climate change, threats which will affect the status of the species over that timeframe.

The range of plausible future scenarios of the sickle darter's habitat conditions and water quality factors portend reduced viability into the future. Under the current trend scenario, resiliency is low in two populations and or moderate in one population, and three populations are likely extirpated so that redundancy and representation are reduced. Under the worsening trend scenario, resiliency is low in two populations, and four populations are likely extirpated so that redundancy and representation are substantially reduced. This expected reduction in both the number and distribution of resilient populations is likely to make the species vulnerable to catastrophic disturbance. Thus, after assessing the best available information, we conclude that the sickle darter is not currently in danger of extinction but is likely to become in danger of extinction within the foreseeable future throughout all of its range.

Status Throughout a Significant Portion of Its Range

Under the Act and our implementing regulations, a species may warrant listing if it is in danger of extinction or likely to become so in the foreseeable future throughout all or a significant portion of its range. The court in *Center for Biological Diversity* v. *Everson,* 2020 WL 437289 (D.D.C. Jan. 28, 2020) (*Center for Biological Diversity*), vacated the aspect of our Final Policy on Interpretation of the Phrase ''Significant Portion of Its Range'' in the Endangered Species Act's Definitions of ''Endangered Species'' and ''Threatened Species'' (79 FR 37578; July 1, 2014) that provided that the Service does not undertake an analysis of significant portions of a species' range if the species warrants listing as threatened throughout all of its range. Therefore, we proceed to evaluating whether the species is endangered in a significant portion of its range—that is, whether there is any portion of the species' range for which both (1) the portion is significant, and (2) the species is in danger of extinction in that portion. Depending on the case, it might be more efficient for us to address the ''significance'' question or the ''status'' question first. We can choose to address either question first. Regardless of which question we address first, if we reach a negative answer with respect to the first question that we address, we do not need to evaluate the other question for that portion of the species' range.

Following the court's holding in *Center for Biological Diversity,* we now consider whether there are any significant portions of the species' range where the species is in danger of extinction now (*i.e.,* endangered). In undertaking this analysis for sickle darter, we choose to address the status question first—we consider information pertaining to the geographic distribution of both the species and the threats that the species faces to identify any portions of the range where the species is endangered.

For the sickle darter, we considered whether the threats are geographically concentrated in any portion of the species' range at a biologically meaningful scale. We examined the following threats currently acting on the species: Habitat loss and degradation through siltation, water quality degradation, and impoundments and their effects and the associated effects of the species' reduced range. We also examined the cumulative effects of these threats. Our analysis revealed that these threats are likely to continue into the foreseeable future, or approximately 50 years. Siltation and water quality degradation resulting from nutrients, pathogens, municipal and residential development, agriculture, and logging are present in all watersheds where the sickle darter occurs. Land use changes associated with extraction of energy resources (coal, oil, and gas) are restricted to the Clinch (including Emory River) and Powell River systems, but the stressors associated with these activities, including sedimentation and water quality degradation, also come from sources (*e.g.,* urbanization, grazing, logging) that are common to all watersheds where the species occurs.

Isolation as a result of habitat fragmentation affects all sickle darter populations similarly, and all populations will experience the effects of changing climate conditions. Additionally, resiliency of the remaining populations would decline, while our continuing trends and worsening trends future scenarios respectively projected three or four of the six extant populations would become extirpated. The Little River watershed has the highest amount of land affected by urbanization (development) currently, and that is projected to continue in the future (Service 2020a, pp. 86–87). However, current land use and future rates of land use change are not substantially different among the watersheds occupied by the six populations.

Overall, the current threats acting on the species and its habitat are expected to continue, and there are no indications that these threats would lessen or that declining populations trends would be reverted. After assessing the best available information, we found no concentration of threats in any portion of the sickle darter's range at a biologically meaningful scale. Thus, there are no portions of the species' range where the species has a different status from its rangewide status. Therefore, no portion of the species' range provides a basis for determining that the species is in danger of extinction in a significant portion of its range, and we determine that the species is likely to become in danger of extinction within the foreseeable future throughout all of its range. This is consistent with the courts' holdings in *Desert Survivors* v. *Department of the Interior,* No. 16–cv–01165–JCS, 2018 WL 4053447 (N.D. Cal. Aug. 24, 2018), and *Center for Biological Diversity* v. *Jewell,* 248 F. Supp. 3d, 946, 959 (D. Ariz. 2017).

Determination of Status

Our review of the best available scientific and commercial information indicates that the sickle darter meets the Act's definition of a ''threatened species.'' Therefore, we propose to list the sickle darter as a threatened species in accordance with sections 3(20) and 4(a)(1) of the Act.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness, and conservation by Federal, State, Tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and other countries and calls for recovery actions to be carried out for listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

Recovery Planning

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Section 4(f) of the Act calls for the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning consists of preparing draft and final recovery plans, beginning with the development of a recovery outline and making it available to the public within 30 days of a final listing determination. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. Revisions of the plan may be done to address continuing or new threats to the species, as new substantive information becomes available. The recovery plan also identifies recovery criteria for review of when a species may be ready for reclassification from endangered to threatened (''downlisting'') or removal from protected status (''delisting''), and methods for monitoring recovery progress. Recovery plans also establish

a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (composed of species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. When completed, the recovery outline, draft recovery plan, and the final recovery plan will be available on our website (*http://www.fws.gov/endangered*), or from our Kentucky Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, Tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (*e.g.,* restoration of native vegetation), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If this species is listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost-share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the States of North Carolina, Tennessee, and Virginia would be eligible for Federal funds to implement management actions that promote the protection or recovery of the sickle darter. Information on our grant programs that are available to aid species recovery can be found at: *http://www.fws.gov/grants.*

Although the sickle darter is only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new information on this species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as an endangered or threatened species and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with the Service.

Federal agency actions within the species' habitat that may require conference or consultation or both as described in the preceding paragraph include management and any other landscape-altering activities on Federal lands administered, or on private lands seeking funding, by Federal agencies, which may include, but are not limited to, the Tennessee Valley Authority, U.S. Department of Agriculture (USDA) U.S. Forest Service, USDA Farm Service Agency, USDA Natural Resources Conservation Service, and Federal Emergency Management Agency; issuance of section 404 CWA permits by the U.S. Army Corps of Engineers; and construction and maintenance of roads or highways by the Federal Highway Administration.

It is our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), to identify to the maximum extent practicable at the time a species is listed, those activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of the species proposed for listing. The discussion below regarding protective regulations under section 4(d) of the Act complies with our policy.

Critical Habitat

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.

As discussed earlier in this document, there is currently no imminent threat of collection or vandalism identified under Factor B for this species, and identification and mapping of critical habitat is not expected to initiate any such threat. In our SSA and proposed listing determination for the sickle darter, we determined that the present or threatened destruction, modification, or curtailment of habitat or range is a threat to the sickle darter 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 enumerated in our regulations at 50 CFR 424.12(a)(1) have 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 sickle 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 sickle 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 critical habitat is not determinable, the Act allows the Service an additional year to publish a critical habitat designation (16 U.S.C. 1533(b)(6)(C)(ii)).

For the sickle darter, the species' needs are sufficiently well known, but a careful assessment of the economic impacts that may occur due to a critical habitat designation is ongoing. Until these efforts are complete, information sufficient to perform a required analysis of the impacts of the designation is lacking, and, therefore, we find designation of critical habitat for the sickle darter to be not determinable at this time. We plan to publish a proposed rule to designate critical habitat for the sickle darter concurrent with the availability of a draft economic analysis of the proposed designation.

II. Proposed Rule Issued Under Section 4(d) of the Act

Background

Section 4(d) of the Act contains two sentences. The first sentence states that the Secretary of the Interior (Secretary) shall issue such regulations as he deems necessary and advisable to provide for the conservation of species listed as threatened. The U.S. Supreme Court has noted that statutory language like ''necessary and advisable'' demonstrates a large degree of deference to the agency (see *Webster* v. *Doe,* 486 U.S. 592 (1988)). Conservation is defined in the Act to mean the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to the Act are no longer necessary. Additionally, the second sentence of section 4(d) of the Act states that the Secretary may by regulation prohibit with respect to any threatened species any act prohibited under section 9(a)(1), in the case of fish or wildlife, or section 9(a)(2), in the case of plants. Thus, the combination of the two sentences of section 4(d) provides the Secretary with wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting the prohibitions under section 9 of the Act.

The courts have recognized the extent of the Secretary's discretion under this standard to develop rules that are appropriate for the conservation of a particular species. For example, courts have upheld rules developed under section 4(d) as a valid exercise of agency authority where they prohibited take of threatened wildlife, or include a limited taking prohibition (see *Alsea Valley Alliance* v. *Lautenbacher,* 2007 U.S. Dist. Lexis 60203 (D. Or. 2007); *Washington Environmental Council* v. *National Marine Fisheries Service,* 2002 U.S. Dist. Lexis 5432 (W.D. Wash. 2002)). Courts have also upheld 4(d) rules that do not address all of the threats a species faces (see *State of Louisiana* v. *Verity,* 853 F.2d 322 (5th Cir. 1988)). As noted in the legislative history when the Act was initially enacted, ''once an animal is on the threatened list, the Secretary has an almost infinite number of options available to him with regard to the permitted activities for those species. He may, for example, permit taking, but not importation of such species, or he may choose to forbid both taking and importation but allow the transportation of such species'' (H.R. Rep. No. 412, 93rd Cong., 1st Sess. 1973).

Exercising this authority under section 4(d), we have developed a proposed rule that is designed to address the sickle darter's specific threats and conservation needs. Although the statute does not require us to make a ''necessary and advisable'' finding with respect to the adoption of specific prohibitions under section 9, we find that this rule as a whole satisfies the requirement in section 4(d) of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the sickle darter. As discussed above under Summary of Biological Status and Threats, we have concluded that the sickle darter is likely to become in danger of extinction within the foreseeable future primarily due to habitat degradation or loss stemming from hydrologic alterations by impoundments, including dams and other barriers; land development that does not incorporate BMPs; and diminished water quality from point and nonpoint source pollution and siltation. These threats contribute to the negative effects associated with the species' habitat fragmentation and isolation and potential effects of climate change. The provisions of this proposed 4(d) rule would promote conservation of the sickle darter by encouraging management of the landscape in ways that meet both watershed and riparian management considerations and the species' conservation needs. The provisions of this proposed rule are one of many tools that we would use to promote the conservation of the sickle darter. This proposed 4(d) rule would apply only if and when we make final the listing of the sickle darter as a threatened species.

Provisions of the Proposed 4(d) Rule

This proposed 4(d) rule would provide for the conservation of the sickle darter by prohibiting the following activities, except as otherwise authorized or permitted: Import or export; take; possession and other acts with unlawfully taken specimens; delivery, receipt, transport, or shipment in interstate or foreign commerce in the course of commercial activity; or sale or offer for sale in interstate or foreign commerce.

Threats to the species are noted above and described in detail under Summary of Biological Status and Threats. The most significant threat expected to affect the species in the foreseeable future is loss and fragmentation of habitat from siltation, water quality degradation, and impoundments and their effects. A range of activities have the potential to affect the sickle darter, including commercial activities, agriculture, resource extraction, and land development. Regulating these activities would help preserve the sickle darter's remaining populations, slow the rate of population decline, and decrease synergistic, negative effects from other stressors. Therefore, regulating activities that increase siltation, diminish water quality, alter stream flow, or reduce fish passage would help preserve and potentially provide for expansion of remaining populations and decrease synergistic, negative effects from other threats.

Under the Act, ''take'' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulations at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating incidental and intentional take would help the species maintain population size and resiliency.

We may issue permits to carry out otherwise prohibited activities, including those described above, involving threatened wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.32. With regard to threatened wildlife, a permit may be issued for the following purposes: For scientific purposes, to enhance propagation or survival, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes consistent with the purposes of the Act.

There are also certain statutory exceptions from the prohibitions, which are found in sections 9 and 10 of the Act, and other standard exceptions from the prohibitions, which are found in our regulations at 50 CFR part 17, subparts C and D. Below, we describe these exceptions to the prohibitions that we are proposing for the sickle darter.

Under our proposed 4(d) rule, take of the sickle darter would not be prohibited in the following instances:

- Take is authorized by a permit issued in accordance with 50 CFR 17.32;
- Take results from actions of an employee or agent of one of the Services or of a State conservation agency that is operating under a conservation program pursuant to the terms of a cooperative agreement with the Service;
- Take is in defense of human life; and
- Take results from actions taken by representatives of one of the Services or of a State conservation agency to aid a sick specimen or to dispose of, salvage, or remove a dead specimen that is reported to the Office of Law Enforcement.

We also propose to allow Federal and State law enforcement officers to possess, deliver, carry, transport, or ship any sickle darters taken in violation of the Act as necessary in performing their official duties.

In part, these exceptions to the prohibitions recognize the special and unique relationship with our State natural resource agency partners in contributing to conservation of listed species. State agencies often possess scientific data and valuable expertise on the status and distribution of endangered, threatened, and candidate species of wildlife and plants. State agencies, because of their authorities and their close working relationships with local governments and landowners, are in a unique position to assist the Services in implementing all aspects of the Act. In this regard, section 6 of the Act provides that the Service shall cooperate to the maximum extent practicable with the State in carrying out programs authorized by the Act. Therefore, any qualified employee or agent of a State conservation agency that is a party to a cooperative agreement with the Service in accordance with section 6(c) of the Act, who is designated by his or her agency for such purposes, would be able to conduct activities designed to conserve the sickle darter that may result in otherwise prohibited take for wildlife without additional authorization.

In addition to the exceptions to the prohibitions described above, we propose certain species-specific exceptions to the prohibitions to provide for the conservation of the sickle darter. Consistent with all of the proposed exceptions and based on the best available information, our proposed 4(d) rule identifies the following activities, which are unlikely to result in take of the sickle darter in violation of section 9 if carried out in accordance with existing regulations and permit requirements and outside the February through March spawning season:

These 4(d) rule exceptions cover actions that improve or restore sickle darter habitat, including channel restoration and streambank stabilization, bridge and culvert replacement (including transportation projects that enhance fish passage), as well as low-head dam removal. To encourage protection of streams occupied by the sickle darter, we have included in the exceptions silvicultural activities that implement State best management practices. Within each occupied river system, these actions will promote expansion of the population's range and reduce the population's fragmentation and isolation. Additionally, these actions can reduce stressors that impact the sickle darter, including runoff of siltation and pollution, and may (through riparian reforestation) mediate local water temperatures expected to increase with climate change.

Habitat restoration actions and silvicultural activities excepted by the 4(d) rule may result in some minimal level of harm or temporary disturbance to the sickle darter. For example, a culvert replacement project would likely elevate suspended sediments for several hours and the darters would need to move out of the sediment plume to resume normal feeding behavior. Because the 4(d) rule exceptions do not apply during the sickle darter's two-month spawning period, a critical phase of the species' life history, the potential for take is further minimized. Overall, these activities benefit the species by expanding suitable habitat and reducing within-population fragmentation, contributing to conservation and recovery.

Based on the best available information, the following activities may potentially result in violation of section 9 of the Act; this list is not comprehensive:

(1) Unauthorized handling, collecting, possessing, selling, delivering, carrying, or transporting of the sickle darter, including interstate transportation across State lines and import or export across international boundaries.

(2) Destruction or alteration of the species' habitat by discharge of fill material, draining, ditching, tiling, pond construction, stream channelization or diversion, or diversion or alteration of surface or ground water flow into or out of the stream (*i.e.,* due to roads, impoundments, discharge pipes, stormwater detention basins, etc.).

(3) Introduction of nonnative species that compete with or prey upon the sickle darter.

(4) Discharge of chemicals or fill material into any waters in which the sickle darter is known to occur.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the Kentucky Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Nothing in this proposed 4(d) rule would change in any way the recovery planning provisions of section 4(f) of the Act, the consultation requirements under section 7 of the Act, or the ability of the Service to enter into partnerships for the management and protection of the sickle darter. However, interagency cooperation may be further streamlined through planned programmatic consultations for the species between Federal agencies and the Service, where appropriate. We ask the public, particularly State agencies and other interested stakeholders that may be affected by the proposed 4(d) rule, to provide comments and suggestions regarding additional guidance and methods that the Service could provide or use, respectively, to streamline the implementation of this proposed 4(d) rule (see Information Requested, above).

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.

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

It is our position that 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 listing a species as an endangered or threatened species under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

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 range of the sickle darter, so no Tribal lands would be affected by the proposed rule.

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 Kentucky Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are the staff members of the Fish and Wildlife Service's Species Assessment Team and the Kentucky 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. Aurelia Skipwith, Director, U.S. Fish and Wildlife Service, approved this document on October 30, 2020, for publication.

Dated: October 30, 2020.

Madonna Baucum,

Regulations and Policy Chief, Division of Policy, Economics, Risk Management, and Analytics, Joint Administrative Operations, U.S. Fish and Wildlife Service.

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 adding an entry for ''Darter, sickle'' to the List of Endangered and Threatened Wildlife in alphabetical order under FISHES to read as set forth below:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
*	*	*	*	*
FISHES				
*	*	*	*	*
Darter, sickle	*Percina williamsi*	Wherever found	T	[**Federal Register** citation when published as a final rule]; 50 CFR 17.44(ff).[4d]
*	*	*	*	*

■ 3. Amend § 17.44 by adding a paragraph (ff) to read as set forth below:

§ 17.44 Special rules—fishes.

* * * * *

(ff) Sickle darter (*Percina williamsi*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to the sickle darter. Except as provided under paragraph (ff)(2) of this section and §§ 17.4 and 17.5, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be committed, any of the following acts in regard to this species:

(i) Import or export, as set forth at § 17.21(b) for endangered wildlife.

(ii) Take, as set forth at § 17.21(c)(1) for endangered wildlife.

(iii) Possession and other acts with unlawfully taken specimens, as set forth at § 17.21(d)(1) for endangered wildlife.

(iv) Interstate or foreign commerce in the course of commercial activity, as set forth at § 17.21(e) for endangered wildlife.

(v) Sale or offer for sale, as set forth at § 17.21(f) for endangered wildlife.

(2) *Exceptions from prohibitions.* In regard to this species, you may:

(i) Conduct activities as authorized by a permit under § 17.32.

(ii) Take, as set forth at § 17.21(c)(2) through (c)(4) for endangered wildlife.

(iii) Take as set forth at § 17.31(b).

(iv) Take incidental to an otherwise lawful activity caused by:

(A) Channel restoration projects that create natural, physically stable, ecologically functioning streams (or stream and wetland systems) and that take place between April 1 and January 31. These projects can be accomplished using a variety of methods, but the desired outcome is a natural channel with low shear stress (force of water moving against the channel); bank heights that enable reconnection to the floodplain; a connection of surface and groundwater systems, contributing to

perennial flows in the channel; riffles and pools composed of existing soil, rock, and wood instead of large imported materials; low compaction of soils within adjacent riparian areas; and inclusion of riparian wetlands.

(B) Streambank stabilization projects that use bioengineering methods to replace pre-existing, bare, eroding stream banks with vegetated, stable stream banks, thereby reducing bank erosion and instream sedimentation and improving habitat conditions for the species, that take place between April 1 and January 31. Stream banks may be stabilized using live stakes (live, vegetative cuttings inserted or tamped into the ground in a manner that allows the stake to take root and grow), live fascines (live branch cuttings, usually willows, bound together into long, cigar-shaped bundles), or brush layering (cuttings or branches of easily rooted tree species layered between successive lifts of soil fill). Stream banks must not be stabilized solely through the use of quarried rock (rip-rap) or the use of rock baskets or gabion structures.

(C) Bridge and culvert replacement/removal projects or low head dam removal projects that remove migration barriers or generally allow for improved upstream and downstream movements of sickle darters while maintaining normal stream flows, preventing bed and bank erosion, and improving habitat conditions for the species, and that take place between April 1 and January 31.

(D) Silviculture practices and forest management activities that:

(*1*) Implement State best management practices, particularly for Streamside Management Zones and stream crossings; and

(*2*) When such activities involve sickle darter spawning habitat, are carried out between April 1 and January 31.

(E) Transportation projects that provide for fish passage at stream crossings.

(v) Possess and engage in other acts with unlawfully taken wildlife, as set forth at § 17.21(d)(2) for endangered wildlife.

* * * * *

[FR Doc. 2020–24471 Filed 11–10–20; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 648

[Docket No.: 201103–0288]

RIN 0648–BK05

Fisheries of the Northeastern United States; Omnibus Framework Adjustment To Modify the Mid-Atlantic Fishery Management Council's Risk Policy

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS proposes to approve and implement changes to the Mid-Atlantic Fishery Management Council's Risk Policy. The purpose of this action is to adjust the Council's risk policy by accepting a higher level of risk for stocks at or above biomass targets. These adjustments could lead to increases in catch limits for healthy fisheries managed by the Council.

DATES: Comments must be received by November 26, 2020.

ADDRESSES: The Mid-Atlantic Fishery Management Council has prepared a draft environmental assessment (EA) for this action that describes and analyzes the proposed measures and other considered alternatives. Copies of the draft Risk Policy Omnibus Framework Adjustment (framework), including the EA and information on the economic impacts of this proposed rulemaking, are available upon request from Dr. Christopher M. Moore, Executive Director, Mid-Atlantic Fishery Management Council, Suite 201, 800 North State Street, Dover, DE 19901. These documents are also accessible via the internet at *http://www.mafmc.org.*

You may submit comments on this document, identified by NOAA–NMFS–2020–0143, by the following method:

Electronic Submission: Submit all electronic public comments via the Federal e-Rulemaking Portal.

- Go to *www.regulations.gov/#!docketDetail;D=NOAA-NMFS-2020-0143;*
- Click the ''Comment Now!'' icon, complete the required fields; and
- Enter or attach your comments.

Instructions: Comments sent by any other method, to any other address or individual, or received after the end of the comment period, may not be considered by NMFS. All comments received are a part of the public record and will generally be posted for public viewing on *www.regulations.gov* without change. All personal identifying information (*e.g.,* name, address, etc.), confidential business information, or otherwise sensitive information submitted voluntarily by the sender will be publicly accessible. NMFS will accept anonymous comments (enter ''N/A'' in the required fields if you wish to remain anonymous).

FOR FURTHER INFORMATION CONTACT: Shannah Jaburek, Fishery Management Specialist, 978–282–8456.

SUPPLEMENTARY INFORMATION:

Background

In 2011, the Mid-Atlantic Fishery Management Council implemented its current risk policy. The risk policy specifies the Council's acceptable tolerance of risk for its managed resources. The risk policy also works in conjunction with the Scientific and Statistical Committee's application of the Council's acceptable biological catch (ABC) control rule to account for scientific uncertainty to determine an ABC for a specific stock. Five years after implementation, the Council conducted a review of its risk policy to determine if any modifications were necessary to meet the Council's goals and objectives for its managed fisheries. From this review, the Council determined there were two elements of the current policy that warranted modifications. The Council took final action on this framework to modify its risk policy in December 2019 and submitted the action to us in early August 2020.

Proposed Action

The purpose of this action is to adjust the Council's risk policy by accepting a higher level of risk (*i.e.,* the probability of overfishing, P*) for stocks that are healthy and either at or above biomass targets. For stocks not subject to a rebuilding plan that have a ratio of biomass (B) to biomass at maximum sustainable yield (B_{MSY}) of 1.0 or lower, the maximum P* as informed by the overfishing limit (OFL) distribution would decrease linearly from a maximum value of 45 percent until the P* becomes zero at a B/B_{MSY} ratio of 0.10. For stocks with biomass that exceeds B_{MSY} and the B/B_{MSY} ratio is greater than 1.0, the P* would increase linearly from 45 percent to a maximum of 49 percent when the B/B_{MSY} ratio is equal to 1.5 or greater. Under the current risk policy, the maximum allowed P* is capped at 40 percent for stocks with a B/B_{MSY} ratio of 1.0 or higher, with this probability decreasing