accessibility standards. The checklists allow offerors or developers to self-evaluate their supplies and document—in detail—whether they conform to a specific Section 508 accessibility standard, and any underway remediation efforts addressing conformance issues.

(c) Respondents to this solicitation must identify any exception to Section 508 requirements. If an offeror claims its supplies or services meet applicable Section 508 accessibility standards, and it is later determined by the Government, *i.e.,* after award of a contract or order, that supplies or services delivered do not conform to the described accessibility standards, remediation of the supplies or services to the level of conformance specified in the contract will be the responsibility of the Contractor at its expense.

(End of provision)

■ 24. Section 852.239–76 is added to read as follows:

852.239–76 Information and Communication Technology Accessibility.

As prescribed in 839.203–70(b), insert the following clause:

Information and Communication Technology Accessibility (DATE)

(a) All information and communication technology (ICT) (formerly referred to as electronic and information technology (EIT)) supplies, information, documentation and services support developed, acquired, maintained or delivered under this contract or order must comply with the ''Architectural and Transportation Barriers Compliance Board Electronic and Information Technology (EIT) Accessibility Standards'' (*see* 36 CFR part 1194). Information about Section 508 is available at *http://www.section508.va.gov/.*

(b) The Section 508 accessibility standards applicable to this contract or order are identified in the specification, statement of work, or performance work statement. If it is determined by the Government that ICT supplies and services provided by the Contractor do not conform to the described accessibility standards in the contract, remediation of the supplies or services to the level of conformance specified in the contract will be the responsibility of the Contractor at its own expense.

(c) The Section 508 accessibility standards applicable to this contract are: _____ [*Contracting Officer: Insert the applicable Section 508 accessibility standards*].

(d) In the event of a modification(s) to this contract or order, which adds new EIT supplies or services or revises the type of, or specifications for, supplies or services, the Contracting Officer may require that the Contractor submit a completed VA Section 508 Checklist and any other additional information necessary to assist the Government in determining that the ICT supplies or services conform to Section 508 accessibility standards. If it is determined by the Government that ICT supplies and services provided by the Contractor do not conform to the described accessibility standards in the contract, remediation of the supplies or services to the level of conformance specified in the contract will be the responsibility of the Contractor at its own expense.

(e) If this is an Indefinite-Delivery type contract, a Blanket Purchase Agreement or a Basic Ordering Agreement, the task/delivery order requests that include ICT supplies or services will define the specifications and accessibility standards for the order. In those cases, the Contractor may be required to provide a completed VA Section 508 Checklist and any other additional information necessary to assist the Government in determining that the ICT supplies or services conform to Section 508 accessibility standards. If it is determined by the Government that ICT supplies and services provided by the Contractor do not conform to the described accessibility standards in the provided documentation, remediation of the supplies or services to the level of conformance specified in the contract will be the responsibility of the Contractor at its own expense.

(End of clause)

[FR Doc. 2021–24299 Filed 11–16–21; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2021–0036; FF09E22000 FXES11130900000 212]

RIN 1018–BE57

Endangered and Threatened Wildlife and Plants; Removal of the Okaloosa Darter From the Federal List of Endangered and Threatened Wildlife

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; availability of draft post-delisting monitoring plan.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to remove the Okaloosa darter (*Etheostoma okaloosae*) from the Federal List of Endangered and Threatened Wildlife (List) due to recovery. Our review of the best available scientific and commercial data indicates that the threats to the species have been eliminated or reduced to the point that the species no longer meets the definition of a threatened or endangered species under the Endangered Species Act of 1973, as amended (Act). We request information and comments from the public regarding this proposed rule and the draft post-delisting monitoring (PDM) plan for Okaloosa darters. If this proposal is finalized, Okaloosa darters will be removed from the List and the prohibitions and conservation measures provided by the Act, particularly through sections 7 and 9, would no longer apply to the species.

DATES: We will accept comments received or postmarked on or before January 18, 2022. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date. We must receive requests for public hearings, in writing, at the address shown in **FOR FURTHER INFORMATION CONTACT** by January 3, 2022.

ADDRESSES:

Submitting Comments: You may submit comments on this proposed rule and draft PDM plan by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal: *http://www.regulations.gov.* In the Search box, enter the docket number or RIN for this rulemaking (presented above in the document headings). For best results, do not copy and paste either number; instead, type the docket number or RIN into the Search box using hyphens. Then, click on the Search button. On the resulting page, in the 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.''

(2) *By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS–R4–ES–2021–0036; U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

We request that you send comments by only one of 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).

Accessing Supporting Materials: This proposed rule, draft PDM plan, and supporting documents (including the Species Status Assessment (SSA) and references cited and the 5-year review) are available at *http://www.regulations.gov* under Docket No. FWS–R4–ES–2021–0036.

FOR FURTHER INFORMATION CONTACT: Lourdes Mena, Florida Chief of Classification and Recovery, U.S. Fish and Wildlife Service, Florida Ecological Services Field Office, 7915 Baymeadows Way, Jacksonville, FL 32256–7517; telephone 904–731–3134. 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. Section 4 of the Act and its implementing regulations (50 CFR part 424) set forth the procedures for listing species, reclassifying species, or removing species from the Federal Lists of Endangered and Threatened Wildlife and Plants. In the case of any proposed rule to list, reclassify, or delist a species, we must publish a notice of such proposal in the **Federal Register**. Therefore, in order to remove Okaloosa darters from the List, we must publish a proposed rule.

What this document does. This action proposes to remove Okaloosa darters from the List of Endangered and Threatened Wildlife (*i.e.,* ''delist'' the species) based on its recovery.

The basis for our action. Under the Act, we may determine that a species is an endangered species or a threatened species based on 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.

The determination to delist a species must be based on an analysis of the same factors. Under the Act and our implementing regulations at 50 CFR 424.11, we may delist a species if the best available scientific and commercial data indicate that: (1) The species is extinct; (2) the species does not meet the definition of an endangered species or a threatened species when considering the five factors listed above; or (3) the listed entity does not meet the statutory definition of a species. Here, we have determined that Okaloosa darters should be proposed for delisting under the Act because, based on an analysis of the five listing factors, it has recovered and no longer meets the definition of an endangered or threatened species.

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 and information from the public, other concerned governmental agencies (including but not limited to State and Federal agencies and city or county governments), Native American Tribes, the scientific community, industry, or any other interested party concerning this proposed rule.

We particularly seek comments on:

(1) Information concerning the biology and ecology of the Okaloosa darter;

(2) Relevant data concerning presence or absence of current or future threats to the Okaloosa darter and its habitat;

(3) Information regarding management plans or other mechanisms that provide protection to the Okaloosa darter and its habitat;

(4) Information on the potential for changes in precipitation levels and air and water temperatures to affect the Okaloosa darter due to changes in the climate or other reasons; and

(5) The draft PDM plan and the methods and approach described.

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.*

Because we will consider all comments and information we receive during the comment period, our final determinations 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 should remain listed as threatened.

Public Hearing

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

Previous Federal Actions

On June 4, 1973, we published a final rule in the **Federal Register** (38 FR 14678) listing Okaloosa darters as endangered under the Endangered Species Conservation Act (Pub. L. 91–135) due to its extremely limited range, habitat degradation, and apparent competition from a possibly introduced related species, the brown darter *(Etheostoma edwini).* A 5-year status review was conducted in 2007 (USFWS 2007, entire), and we recommended downgrading the species' classification to threatened as a result of substantial reduction in threats to the species, significant habitat restoration in most of the species' range, and a stable or increasing trend of Okaloosa darters in all stream systems. We reclassified Okaloosa darters as threatened under the Act on April 1, 2011, and established a rule under section 4(d) to further provide for its conservation (76 FR 18087); the section 4(d) rule is at 50 CFR 17.44(bb). On August 6, 2018, we initiated a 5-year review for Okaloosa darters (83 FR 38320). This proposed rule also serves as our 5-year review.

Supporting Documents

A species status assessment (SSA) team prepared an SSA report for Okaloosa darters (USFWS, 2019, entire). The SSA team was composed of Service biologists, in consultation with other species experts. 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. 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 six appropriate specialists regarding the SSA. The Service received two responses.

Background

The Okaloosa darter is a small (maximum size 49 millimeters (mm), 1.93 inches (in)) percid fish. General body coloration varies from red-brown to green-yellow dorsally, and lighter ventrally, although breeding males have a bright orange submarginal stripe on the first dorsal fin (Burkhead et al. 1992, p. 23). The Okaloosa darter is a member of Order Perciformes, Family Percidae and is a distinct species within the genus *Etheostoma* (Burkhead et al. 1992, p. 23), although it remains uncertain as to which subgenus this species belongs (*e.g.,* Song et al. 1998 pp. 348–351; Smith et al. 2014 pp. 259–260).

The Okaloosa darter is a narrow endemic, known to occur in only the tributaries and main channels of six clear stream systems that drain into three Choctawhatchee Bay bayous (Toms, Boggy, and Rocky) in Walton and Okaloosa Counties in northwest Florida: Toms, Turkey, Mill, Swift, Deer Moss (formerly known as East Turkey or Turkey Bolton), and Rocky Creeks. Approximately 90 percent of the 457-square-kilometer (176-square-mile) watershed drainage area that historically supported Okaloosa darters is Federal property under the management of Eglin Air Force Base (Eglin AFB), including about 98.7 percent of the stream length in the current range of the Okaloosa darter. Eglin AFB encompasses the headwaters of all six of these drainages, and the remainder of these streams flow out of Eglin AFB into the urban complex of the cities of Niceville and Valparaiso (USAF 2017c, p. 3–1; 76 FR 18088, April 1, 2011).

The Okaloosa darter's breeding season extends from late March through October, although it usually peaks in April. Spawning pairs attach small numbers of eggs to vegetation, woody debris, and root mats (Collete and Yerger 1962, p. 226; Burkhead et al. 1994, p. 81); however, little is known about larval development (Burkhead et al. 1992, p. 26). Okaloosa darter spawn in the morning hours (Burkhead et al. 1992, p. 26), although courtship displays have also been observed late in the afternoon (Jelks 2018, pers. comm.). During courtship, a male will follow a single female and fertilize eggs as she deposits them singly among vegetation, roots, or woody detritus. Males will spawn with several females. As with most darters, fecundity is low (Burkhead et al. 1992, p. 26). A mean of 76 total ova (eggs) and 29 mature ova were found in 201 female Okaloosa darters, although these numbers may underrepresent annual fecundity as their prolonged spawning season is an indication of fractional spawning (eggs develop and mature throughout the spawning season) (Ogilvie 1980, p. 4; 76 FR 18088, April 1, 2011).

Longleaf pine–wiregrass–red oak sandhill communities dominate the vegetation landscape in Okaloosa darter watersheds. These areas are characterized by high sand ridges where soil nutrients are low and woodland fire is a regular occurrence. Where water seeps from these hills, acid bog communities develop, consisting of sphagnum moss (*Sphagnum* sp.), pitcher plants (*Sarracenia* sp.), and other plants adapted to low-nutrient soils. In other areas, the water emerges from seepage springs directly into clear flowing streams where variation of both temperature and flow is moderated by the deep layers of sand. The streams support a mixture of bog moss *(Mayaca fluviatilis),* bulrush *(Schoenoplectus etuberculatus),* golden club *(Orontium aquaticum),* bur-reed *(Sparganium americanum),* pondweed *(Potamogeton diversifolius),* spikerush (*Eleocharis* sp.), and other aquatic and emergent plants. Okaloosa darters typically inhabit the margins of moderate- to fast-flowing streams where detritus (organic matter, including leaves, twigs, and sticks), root mats, and vegetation are present (Burkhead et al. 1992, p. 25; 76 FR 18088, April 1, 2011). They are rarely found in areas with no current or in open sandy areas in the middle of the stream channel. Creeks with Okaloosa darters have temperatures ranging from 7 to 22 degrees Celsius (°C) (44 to 72 degrees Fahrenheit (°F)) in the winter to 22 to 29 °C (72 to 84 °F) in the summer (Mettee and Crittenden 1977, p. 5; Tate 2018, pers. comm.; Jelks 2018, pers. comm). Overhead canopies range from open to fully closed depending on stream width and fire history (Jordan 2018, pers. comm.). Okaloosa darter thrive in reaches with relatively open canopies, likely due to either increased abundance of submerged vegetation that is used preferentially for spawning or increased secondary production of insect prey (Ingram 2018, p. 11).

Okaloosa darter abundance has been quantified by visual census at multiple sites annually since 1995. Densities in 1995 averaged 1.2 (± 0.8; ± 1 standard deviation) Okaloosa darter per meter (3.28 feet) of stream length. In 2005, a rangewide survey estimated the species' population size at 822,500 (95 percent Confidence Interval 662,916 to 1,058,009). A repeat rangewide survey in 2014 indicated that overall abundance declined by about 24 percent from 2005 (Jordan and Jelks 2018, pp. 10–11). However, 2005 was an unusually good year for Okaloosa darter, and the 2014 estimates reflect some declines associated with dense canopy cover.

A thorough review of the taxonomy, life history, ecology, and overall viability of Okaloosa darters is presented in the SSA report (USFWS 2019, entire; available at *https://www.fws.gov/southeast/* and at *http://www.regulations.gov* under Docket No. FWS–R4–ES–2021–0036).

Recovery

Section 4(f) of the Act directs us to develop and implement recovery plans for the conservation and survival of endangered and threatened species unless we determine that such a plan will not promote the conservation of the species. Under section 4(f)(1)(B)(ii), recovery plans must, to the maximum extent practicable, include objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of section 4 of the Act, that the species be removed from the List.

Recovery plans provide a roadmap for us and our partners on methods of enhancing conservation and minimizing threats to listed species, as well as measurable criteria against which to evaluate progress towards recovery and assess the species' likely future condition. However, they are not regulatory documents and do not substitute for the determinations and promulgation of regulations required under section 4(a)(1) of the Act. A decision to revise the status of a species, or to delist a species, is ultimately based on an analysis of the best scientific and commercial data available to determine whether a species is no longer an endangered species or a threatened species, regardless of whether that information differs from the recovery plan. There are many paths to accomplishing recovery of a species, and recovery may be achieved without all of the criteria in a recovery plan being fully met. For example, one or more criteria may be exceeded while other criteria may not yet be accomplished. In that instance, we may determine that the threats are minimized sufficiently and that the species is robust enough that it no longer meets the definition of an endangered species or a threatened species. In other cases, we may discover new recovery opportunities after having

finalized the recovery plan. Parties seeking to conserve the species may use these opportunities instead of methods identified in the recovery plan. Likewise, we may learn new information about the species after we finalize the recovery plan. The new information may change the extent to which existing criteria are appropriate for identifying recovery of the species. The recovery of a species is a dynamic process requiring adaptive management that may, or may not, follow all of the guidance provided in a recovery plan.

The objective of the Okaloosa darter recovery plan is to restore and protect habitat and stream ecosystems so that Okaloosa darters may be initially downlisted (which occurred in 2011) and eventually delisted. The Okaloosa darter is a narrow endemic that occupies the unique habitats of only six stream systems. Recovery objectives are focused on habitats within their historical range. The recovery plan states that Okaloosa darters will be considered for delisting when:

1. (a) All downlisting criteria have been met; (b) historical habitat of all six streams has been restored to support viable populations of Okaloosa darters (including degraded sections of Mill, Swift, and Tom Creeks); (c) erosion at clay pits, road crossings, and steep slopes has been minimized to the extent that resembles historical predisturbance condition; (d) longleaf restoration and watershed management practices on Eglin AFB are in effect; (e) natural, historical flow regimes are maintained; and (f) water quality and riparian habitat have been significantly improved and maintained.

2. (a) Cooperative and enforceable agreements are in place to protect habitat and water quality and quantity for the historical range outside of Eglin AFB; and (b) management plans that protect and restore habitat and water quality and quantity have been effective and are still in place for the 90 percent of the historical range currently managed by Eglin AFB.

3. Okaloosa darter populations at monitoring sites consist of two or more age-classes and remain stable or increasing in all six streams over a period of 20 consecutive years.

4. No foreseeable threats exist that would impact the survival of this species (assumes military mission is compatible).

Recovery Plan Implementation

The following discussion summarizes the recovery criteria and information on recovery actions that have been implemented under each delisting criterion.

Recovery Criteria

Delisting Criterion #1: All reclassification criteria have been met. (This criterion has been met.)

Delisting Criterion #2: Restore and protect habitat in the six Okaloosa darter stream watersheds.

The Okaloosa darter is naturally restricted in distribution to six streams, of which about 90 percent of the basins are on Eglin AFB and the remaining 10 percent in the Niceville and Valparaiso municipal area. Because of the specific habitat requirements and limited distribution of the darter, habitat that is essential for spawning, rearing, feeding, and cover needs to be restored and protected to prevent the species from declining irreversibly and to recover the species.

Much progress has been made towards actions identified for Okaloosa darters under this criterion since the species was downlisted from endangered to threatened. Erosion into the streams has been reduced to background levels, nearly all fish passage barriers on Eglin AFB have been removed, several projects have been completed to restore and reconnect stream habitat, and conservation agreements with local landowners have been put in place on private lands to protect stream and floodplain habitat. The Eglin AFB erosion control program, habitat restoration programs, and habitat protections agreed to by private landowners have improved habitat for Okaloosa darters sufficient to partially meet this criterion.

Delisting Criterion #3: Erosion at clay pits, road crossings, and steep slopes has been minimized to the extent that resemble historical pre-disturbance condition. (This criterion is partially fulfilled and progress is ongoing.)

Delisting Criterion #4: Longleaf restoration and watershed management practices on the Eglin AFB are in effect. (This criterion is largely fulfilled. Both longleaf and watershed management practices are in effect on Eglin AFB.)

Delisting Criterion #5: Natural, historical flow regimes are maintained. (This criterion has been met.)

Delisting Criterion #6: Water quality and riparian habitat have been significantly improved and maintained. (This criterion is partially fulfilled, and progress is ongoing.)

Delisting Criterion #7: Cooperative and enforceable agreements are in place to protect habitat and water quality and quantity for the historical range outside of Eglin AFB ((2)(a), above), and management plans that protect and restore habitat and water quality and quantity have been effective and are still in place for the 90 percent of the historical range currently managed by Eglin AFB ((2)(b), above).

About 90 percent of the 51,397 hectares (127,000 acres) that represent the drainage basins of darter streams are managed by Eglin AFB. Eglin AFB will continue to include management for Okaloosa darters in the Eglin AFB's Integrated Natural Resources Management Plan (INRMP), changes to which are reviewed and approved by both the Service and the Florida Fish and Wildlife Conservation Commission (FWC) as specified under the Sikes Act. Eglin AFB has no plans to remove management from the INRMP or limit management within Okaloosa darter watersheds (Tate 2020, pers. comm.). In fact, Eglin AFB is working with the Service to shift prescribed fire management to reduce canopy cover in Okaloosa darter streams to further bolster darter numbers and stabilize monitoring sites with observed declines. Additionally, Eglin AFB has placed protective buffers on Okaloosa darter streams to prevent land use changes and management actions that might adversely affect Okaloosa darters or their habitat, thus protecting 90 percent of the darter's watershed area from impacts (Felix 2020, pers. comm.).

Outside the Eglin AFB boundary, the remaining 485.6 hectares (1,200 acres) of Okaloosa darter habitat are situated in the Niceville–Valparaiso urban complex. Okaloosa darters are found at reduced levels or absent from much of this area. Current stream impacts include erosion, non-point discharge of nutrients and pollutants, impoundment, alteration of flow, and culverting. Conservation agreements and habitat buffering on private property further prevent adverse impacts to an additional 3–4 percent of the potential range (Ruckel Properties 2018, entire). In total, 90–95 percent of the watershed area has established protections, and monitoring will ensure this criterion continues to be met.

Delisting Criterion #8: Management plans that protect and restore habitat and water quality and quantity have been effective and are still in place for the 90 percent of the historical range currently managed by Eglin AFB. (This criterion is largely fulfilled through Eglin's 2007 INRMP.)

Delisting Criterion #9: Okaloosa darter populations at monitoring sites consist of two or more age-classes and remain stable or increasing in all six streams over a period of 20 consecutive years.

Monitoring for Okaloosa darters has been conducted annually at 21 core sites distributed throughout the range since 1995. In 2005, 2014, and 2020,

expanded monitoring efforts of 58 sites were conducted to estimate the population size and inform the status review and species status assessment. Additional monitoring has been conducted to support specific research projects. In general, Okaloosa darter numbers increased in the late 1990's through early 2000's, at which time declines were observed at a subset of sites (Jordan and Jelks 2020). Multiple year classes have been recorded in each of the six watersheds in all years of study, regardless of declines (Jordan and Jelks 2020). Although declines have been identified in portions of the range, the majority of the declines could be associated with dense canopy cover limiting vegetation and primary productivity in the stream (Jordan and Jelks 2020). Eglin AFB natural resource managers are working to shift habitat management activities like prescribed fire, vegetative spraying, or mechanical timber stand improvement to limit excessive riparian growth along Okaloosa darter streams. Monitoring data will continue to be collected and used to assess and inform management actions in Okaloosa darter watersheds.

Regardless of declines, the overall population estimate for Okaloosa darters was greater than 500,000 individuals in 2020 (Jordan and Jelks 2020) and range-wide densities generally remain above 2 darters per meter of inhabited stream (Jordan and Jelks 2020), which is approximately 90% of the species' historic range. Maintaining multiple viable populations substantially reduces the risk of species extinction, and future scenario modelling suggests that resiliency and redundancy will persist into the foreseeable future (USFWS 2019). This criterion has been fully met.

Delisting Criterion #10: No foreseeable threats exist that would impact the survival of this species.

Potential future threats to the Okaloosa darter are to its habitat, particularly in three of the smaller basins: Mill Creek, Swift Creek, and Deer Moss Creek. Human activity has degraded physical and chemical habitat quality in these basins, though only the Deer Moss Creek population exhibits declines. Mill Creek is almost entirely within the Eglin AFB golf course, who sponsored a major stream restoration in 2007 that nearly doubled the inhabited stream in this watershed. The golf course has also implemented best management practices (BMPs) for herbicide and pesticide application that limit impacts to Mill Creek. The lower portions of Swift Creek are nearly completely urbanized, but our models show that the planned restoration of College Pond would nearly double the population size. Stream restoration at College Pond would not only add substantial habitat to the watershed, it would also remove a fish passage barrier to multiple tributaries that are currently unoccupied by Okaloosa darters. Eglin AFB is currently working with USFWS, FWC, and community partners to begin engineering designs for this project.

The portions of Deer Moss Creek outside Eglin AFB are currently subject to development pressure; however, during the FWC endangered species permit process, developments and other actions must show a net benefit to the species before approval by the State. In the case of Deer Moss Creek, a conservation plan was developed that prevents construction in all wetlands and an upland buffer, requires bridges that completely span all wetlands, and requires the removal of two fish passage barriers within the watershed, among other provisions (Ruckel Properties, 2014). In addition to protections from urbanization in lower Deer Moss Creek, the Niceville wastewater treatment facility was upgraded in 2010 to reduce nutrients in sprayfield effluent. Recent studies at Eglin AFB have found that groundwater transport in the Deer Moss Creek watershed is approximately 12–18 years (Landmeyer 2020, unpublished data), so the water quality in the stream should improve over time.

Because the range of the Okaloosa darter is almost entirely on Federal lands, nearly all actions in this area were subject to the interagency cooperation requirements of section 7. Following delisting, the protections under section 7 will no longer apply; however, Eglin AFB plans to maintain protections for the Okaloosa darter by maintaining a buffer around Okaloosa darter streams during infrastructure and mission planning, developing enhanced BMPs to limit erosion during construction projects and continue monitoring stream health (Felix 2020, pers. comm.). Additionally, any action on Federal or private lands that impact wetlands would require permits under the Clean Water Act. Eglin protection and restoration of Okaloosa darter streams is a substantial component of natural resources management on Eglin AFB. Approximately 90 percent of the species' range is under the management of Eglin AFB; urbanization will have little to no future effect. Because Okaloosa darters occur in multiple stream systems, which provides redundancy, and no long-term threats are presently impacting Okaloosa darters at the species level in the foreseeable future, this criterion has been met.

Regulatory and Analytical 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 Service 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. In the discussion of threats and the species' response to those threats that follows, we include, where possible, either a qualitative or quantitative assessment of the timing of the threats and species' responses to those threats.

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 stressors to the species. The SSA report does not represent a decision by the Service on whether the species should be proposed for delisting. 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. In this section, we summarize the key conclusions from the SSA report; the full SSA report can be found on the Southeast Region website at *https://www.fws.gov/southeast/* and at *http://www.regulations.gov* under Docket No. FWS–R4–ES–2021–0036.

To assess the Okaloosa darter's viability, we used the three conservation biology principles of resiliency, representation, and redundancy (Shaffer and Stein 2000, pp. 306–310). Briefly, resiliency describes the ability of the species to withstand environmental and demographic stochasticity (for example, wet or dry, warm or cold years), redundancy supports the ability of the species to withstand catastrophic events (for example, droughts, large pollution events), and representation supports the ability of the species to adapt over time to long-term changes in the environment (for example, climate changes). In general, the more redundant and resilient 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 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 of these stages, we used the best available information to characterize viability as the ability of a species to sustain populations in the wild over time. We use this information to inform our regulatory decision.

Summary of Threats and Conservation Measures That Affect the Species

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.

Stressors to Okaloosa darter stem from two main sources: Land use and management practices on Eglin AFB and urbanization around the lower reaches of streams outside of Eglin AFB. Urbanization is the greatest threat to Okaloosa darter, as development leads to pollution, erosion, and sedimentation, altered water flows, and dispersal barriers through multiple pathways. Land use and management practices such as road building, timber harvesting, and fire suppression can affect abundance of Okaloosa darter on Eglin AFB. The effects of a changing climate, such as increasing stream temperatures, could become a threat to Okaloosa darters throughout their geographic range in the future; however, the degree and magnitude of any impacts are uncertain at this time. Impending development along Deer Moss Creek would likely be completed in 20 years; however, a conservation plan is in place to minimize impacts to Deer Moss Creek.

Sedimentation and Erosion

Sediment loading is perhaps the primary factor continuing to impact Okaloosa darter. The primary sources of sediment to aquatic ecosystems on Eglin AFB are: accelerated streamside erosion, borrow pits (areas where clay, sand, or gravel are removed for use at other locations), developed areas, weapon test ranges, silviculture, and roads (Rainer et al. 2005, p. 1–1). Sedimentation can result from unpaved roads, road crossings, road or development projects (*e.g.,* solar power grids), and can also result from poor stormwater control or runoff during heavy, localized rains. Even though the species has been impacted by these threats, the current population estimate is approximately 1.2 million darters across its range.

Management for Okaloosa darters is outlined in Eglin AFB's INRMP, which includes specific goals and objectives to improve Okaloosa darter habitat, and Eglin AFB has demonstrated a commitment to recovery of the species. Therefore, management and other conservation actions are much more likely to occur on Eglin AFB than surrounding properties (USFWS 2007, p. 5). These streams on Eglin AFB flow mostly through forested, natural settings, whereas off-installation, they interface mostly with urban and suburban areas. Eglin AFB personnel have implemented this effective habitat restoration program to control erosion from roads, borrow pits, and cleared test ranges. Since 1995, Eglin AFB personnel have restored 317 sites covering 196.2

hectares (484.8 acres) that were eroding into Okaloosa darter streams, including borrow pits and other non-point sources (pollution created from larger processes and not from one concentrated point source, like excess sediment from a construction site washing into a stream after a rain) of stream sedimentation (76 FR 18090, April 1, 2011). Erosion into the streams has been reduced to background levels, nearly all fish passage barriers on Eglin AFB have been removed, several restoration projects have been completed to restore and reconnect stream habitat, and conservation agreements with local landowners (on 3–4 percent of potential Okaloosa darter range) have been put in place on private lands to protect stream and floodplain habitat (Wetland Sciences 2011, entire).

Eglin AFB personnel estimate that these and other restoration efforts have reduced soil loss from roughly 69,000 tons/year in Okaloosa darter watersheds in 1994 to approximately 2,500 tons/year in 2010 (Pizzolato 2017, pers. comm.). While soils will always be highly susceptible to disturbance and sedimentation and erosion could impact the species, habitat restoration work has improved Okaloosa darter habitat within the base. Improvements like bottomless culverts, bridges over streams, and bank restoration and revegetation have resulted in increased clarity of the water, stability of the channel and its banks, and expansion of Okaloosa darters into new areas within drainages (76 FR 18090, April 1, 2011). Poorly designed silviculture programs can result in accelerated soil erosion and stream sedimentation, but Eglin AFB personnel have designed their program within Okaloosa darter habitat to avoid and minimize impacts to the aquatic ecosystems such that the program is not likely to adversely affect Okaloosa darters (USAF 2017, pp. 4–23; USFWS 2017, pp. 11–12).

Forest and timber management in Okaloosa darter drainages is generally directed toward habitat management for the red-cockaded woodpecker or fuel reduction near military test ranges and in the urban interface, which involve the use of prescribed fire, mechanical or chemical timber stand improvement as well as traditional forestry practices for timber harvest and fuel-wood. Recently timbered areas may leave exposed sandy patches, which can be susceptible to wind erosion. However, erosion has been reduced to background levels; all of these habitat management programs are coordinated through Eglin AFB and are conducted in accordance with State and Federal best management practices (USAF 2017, p. 77, INRMP forestry component plan).

Road Development Projects

Unpaved roads, their low-water stream crossings, and subsequent bank erosion probably have the greatest impact because of their distribution on Eglin AFB, relative permanence as base infrastructure, and long-term soil disturbance characteristics. The largest remaining source of sediment input to Okaloosa darter streams is the unpaved road network, which allows sediment to be washed off the road and into nearby streams, especially where they cross the stream itself. As of 2005, 87 percent (4,348 km) of the roads in Eglin AFB's road network were unpaved, and remain so currently (Felix 2018, pers. comm.).

Road crossings can be detrimental to Okaloosa darter depending on their design. Pipe culverts alter stream flow and impede movement of Okaloosa darter, whereas bridges and bottomless culverts do not. Of the 153 road crossings that previously existed in Okaloosa darter drainages, 57 have been eliminated—28 in Boggy Bayou streams and 29 in Rocky Bayou streams. Although many road crossings have been removed and restored through road closures and restoration efforts over the last few years, others remain and pose a threat to Okaloosa darter and their habitat. For example, five road crossings in the Turkey Creek drainage have repeatedly exceeded State water quality standards for turbidity (USFWS 2017, p. 11).

Road development projects also present potential threats that may negatively impact Okaloosa darter. The Mid-Bay Bridge Authority's Mid-Bay Connector Road (Connector Road), a road constructed from the terminus of the Mid-Bay Bridge to SR 85 north of Niceville, was completed in February 2014 (USFWS 2017, p. 13). Although the Connector Road crosses Okaloosa darter drainages, conservation measures included 19 stipulations to minimize impacts to darter drainages. For example, the project used environmentally sensitive bridge construction techniques and measures to minimize erosion and ground disturbance at each stream crossing and to maintain channel stability. Because the bridges were designed to maintain natural stream geomorphology and were built using appropriate methods to stabilize stream banks and provide erosion control along the stream, long-term erosion and degradation of Okaloosa darter habitat is not anticipated. Monitoring before, during, and after construction detected no significant project-related changes in abundance of Okaloosa darter above or below any of the new stream crossings (Jordan and Jelks, unpublished data). However, the project impacted multiple areas of Okaloosa darter streams via erosion associated with large storm events, and in 2012 violated erosion controls. One of the stream crossings required a full stream restoration within the project limits and downstream from the project area. Erosion-related issues were also reported in 2013 (USFWS 2017, p. 13). As part of further mitigation of the Connector Road's accumulated negative impacts on Okaloosa darters, to date the Mid-Bay Bridge Authority has improved road crossings of Okaloosa darter streams at seven sites on Eglin AFB and at one site off of Eglin AFB. As of February 2019, the Mid-Bay Bridge Authority has no plans for future corridors; however, the existing corridor could be widened to four lanes if future traffic projections justify the need (USFWS 2017, p. 13).

The construction of the Connector Road created several relatively small ''orphaned'' parcels of Eglin AFB-owned property, whereby the road effectively separated those parcels from the natural resources management practices employed elsewhere over the contiguous Eglin AFB reservation properties. Three of these orphan parcels lie within the Okaloosa darter geographic range (approximately 740, 170, and 260 acres) and surround segments of four occupied streams (Mill, Swift, Turkey, and Deer Moss Creeks). Eglin AFB has historically considered orphan parcels candidates both for leasing through enhanced use agreements and for real property transaction or exchange to public and private entities in order to maximize the effectiveness of its real property in supporting the United States Air Force (USAF) mission. Eglin AFB may consider the three parcels mentioned above for such transactions. However, the Eglin AFB has indicated its intent to coordinate with the Service on the impacts of any environmental impact analysis for such transactions (Felix 2018, pers. comm.).

In 2012, the Service issued a biological opinion for widening SR 123 from a two-lane undivided roadway to a four-lane divided roadway from SR 85 South to SR 85 North to the Federal Highway Administration (FHWA) (USFWS 2017, p. 13). The widening included new two-lane bridges at Toms Creek and Turkey Creek, and replacement of the culvert at the unnamed tributary to Turkey Creek with two single-span bridges. The biological opinion concluded that, while the effects of the project included

displacement, injury, and mortality to Okaloosa darter resulting from construction debris, equipment movement, dredge and fill activities, sedimentation, introduction of contaminants, and habitat alteration, it would not jeopardize the continued existence of the threatened Okaloosa darter if certain measures were implemented.

In 2015 and 2016, multiple erosion control failures resulted in sediment from the project site discharging into streams occupied by Okaloosa darter: Toms Creek, Shaw Still Branch, Turkey Creek, and an unnamed tributary to Turkey Creek following storm events. The Service worked with the U.S. Army Corps of Engineers, FHWA, and the Florida Department of Transportation to develop a restoration and compensation plan; implementation began in 2018. The plan was designed to fully offset all impacts and provide a net conservation benefit to the species due to unforeseen, but preventable, impacts. In summer 2017, the Service identified additional impacts of this highway project to steepheads (deep ravines) outside of the initial defined Action Area for this project (Tate 2018, pers. comm.; USFWS 2017, pp. 13–14). Additionally, a working group including the Service and Eglin AFB was formed to develop BMPs that would prevent erosion events and that would be applied to base projects during site preparation and construction (Tate 2018, pers. comm.). The goal of this effort is to prepare BMPs and language/requirements to be included in the real estate leasing agreements, which may help ensure the species' conservation if the Act's protections are removed.

Stormwater Control

Development and construction activity in residential areas outside of Eglin AFB and primarily in the downstream-most portion of the Okaloosa darter range pose a threat due to poor stormwater runoff control and pollution prevention measures that degrade habitat and sometimes create barriers to movement between basins. Although this threat is greater in urban areas, recent failures in erosion control and stormwater management on Eglin AFB highlight the importance of thoroughly understanding how proposed activities contribute to erosion and stormwater management problems and implementing practices to minimize those effects (USFWS 2017, p. 11).

For example, in June 2017, a significant stormwater retention pond failure occurred on Eglin AFB property leased to Gulf Power and run by Gulf Coast Solar Center I, LLC (Coronal Energy), for a solar energy project. This failure caused extensive soil loss both on the leased site and offsite on Eglin AFB property. Okaloosa darter habitat in an unnamed tributary to Toms Creek was completely lost to sedimentation, and additional sediment is still located throughout the floodplain. However, this event impacted less than 0.1 percent of the estimated populations involved, and design changes have been made that are expected to fully offset all impacts and provide a net conservation benefit to the species due to unforeseen, but preventable, impacts (USFWS 2017, p. 14).

Borrow Pits

Borrow pits were a major source of sediment loading to Okaloosa darter streams cited in the 1998 darter recovery plan. At that time, 29 of 39 borrow pits located within or immediately adjacent to Okaloosa darter drainages had been restored. As of 2004, all borrow pits within Okaloosa darter drainages had been restored (59.3 ha; 146.5 ac) (USAF 2017b, pp. 3–18; USFWS 2017, p. 11).

Pollution

Pollution, other than sedimentation, poses a potential threat to darters. One stream in the darter's range, lower Turkey Creek (WBID 495A), is on the Florida Department of Environmental Protection's (2018) Verified List as impaired, listing iron from a closed landfill as the pollutant (USFWS 2018, entire). Using aquatic insect sampling methods, the Service (Thom and Herod 2005, entire) found 12 sites out of 42 sampled within the darter's range to be impaired. One notable source of pollution in Shaw Still Branch and Deer Moss Creek results from wastewater treatment sprayfields (the Niceville–Valparaiso Regional Effluent Land Application Sprayfield) (USFWS 2017, pp. 12–13). Abundance declines from about 45 Okaloosa darter per 20 m in the headwaters just above the sprayfield down to 1 or fewer Okaloosa darter per 20 m in the remaining 4 km or so of stream downstream from the sprayfield (Jordan 2017, pp. 5–7; Jordan, unpublished data, Figure 8). The actual pollutant has yet to be determined, but impacted streams have high conductivity compared to the relatively sterile, ion-poor, and slightly acidic streams that are typical of the area and likely similar to streams where Okaloosa darter evolved. Contaminants found in the portions of Deer Moss Creek exposed to sprayfield effluent were shown to affect the biological processes of other species of fish in those streams (Weil et al. 2012, p. 185). Municipal wastewater with increased conductivity has been shown to negatively affect other species of darters (Hitt et al. 2016, entire; Fuzzen et al. 2016, entire).

Water Withdrawals

Water withdrawals for human consumption in and around the range of Okaloosa darters are presently served by wells that tap the Floridan Aquifer, which is declining in the most populated areas near the coast (Pascale 1974, pp. 12). At this time, there is no evidence that pumping from that aquifer has reduced flows in darter streams (USFWS 2017, p. 13). To the extent that the darter drainages are spring fed (by and large they are fed by seepage), the springs are from the shallow sand and gravel aquifer that is not currently used for human consumption. Additionally, the low permeability of the Pensacola Clay confining bed likely severely limits hydraulic connectivity between the two aquifers (Schumm et al. 1995, p. 288). As long as withdrawals from the sand and gravel aquifer are minimal, local human population growth should not adversely affect water flows in the darter drainages (USFWS 2017, p. 13).

Effects of Climate Change

The Intergovernmental Panel on Climate Change (IPCC) concluded that warming of the climate system is unequivocal (IPCC 2014, entire). Numerous long-term changes have been observed including changes in arctic temperatures and ice, and widespread changes in precipitation amounts, ocean salinity, wind patterns, and aspects of extreme weather including droughts, heavy precipitation, heat waves, and the intensity of tropical cyclones (IPCC 2014, entire). While continued change is certain, the magnitude and rate of change is unknown in many cases (USFWS 2017, p. 14).

The current occupied range of the darter is restricted to approximately 402 km of streams in Walton and Okaloosa Counties, Florida. While science shows that global-scale increases in stream temperatures have occurred (Kaushal et al. 2010, entire; Song et al. 2018, entire), streams within the Okaloosa darter range are seepage and spring-fed, and thus thought to be thermally moderated (USFWS 2017, p. 14). However, thermal mediation varies among nearby Okaloosa darter streams, and streams that support Okaloosa darter are strongly affected by increases in air temperature (Jordan 2018, unpublished data). Information required to evaluate whether increased temperatures in streams will adversely affect Okaloosa darter is lacking; however, declines in abundance following the impoundment

of small stream reaches are likely due in part to increased temperatures, and the loss of darters below larger impoundments, such as Brandt Pond and Swift Creek, are generally assumed to be due to temperature change (Jordan 2018, pers. comm.). Because the distribution of Okaloosa darters is limited, and they cannot expand northward, stream temperature increases or sea level rise that would cause stream inundation could pose a threat to Okaloosa darter by isolating the populations. The National Oceanographic and Atmospheric Administration (NOAA) (2017, entire; NOAA Sea Level Rise Viewer 2018) projects sea level rise will be around 1.84 feet by year 2050 (Sweet et al. 2017, Intermediate High scenario). While this increase will not inundate much of the darter stream systems due to topography, it could isolate the stream systems from each other, limiting genetic exchange (Tate 2018, pers. comm., NOAA Sea Level Rise Viewer 2018). However, the species has maintained genetic exchange among populations despite current and historic saltwater isolation (Austin et al. 2011).

Impoundments

Many streams within the range of Okaloosa darters have a history of impoundment. These impoundments were either deliberately created to produce recreational ponds or unintentionally formed following installation of a poorly designed road crossing. Culverts and other installations can also facilitate the creation of permanent impoundments by North American beavers *(Castor canadensis),* which take advantage of human-made alterations (Nicholson 2009, p. 5; Reeves et al. 2016, p. 1376). Okaloosa darter do not occupy impounded stream reaches (Mettee et al. 1976, p. 2; Nicholson 2009, p. 6) due to their depth and low flow rates, variable water temperatures, more accumulation of organic substrates, and higher numbers of predatory fishes than free-flowing stream reaches (Nicholson 2009, pp. 34; Reeves et al. 2016, p. 1376). Okaloosa darter living downstream of impoundments are also negatively affected, sometimes for a considerable distance. For instance, the roughly 3 km (60 percent) of Swift Creek below College Pond and roughly 2 km (100 percent) of Foxhead Branch below Brandt Pond currently lack Okaloosa darter (Jordan 2018, pers. comm.). In the absence of predators, beaver populations can become overpopulated (Nicholson 2009, p. 5). Eglin AFB currently traps and relocates nuisance beavers and removes beaver impoundments in order to improve stream habitats for Okaloosa darter and plans to continue this work indefinitely (USAF 2017, pp. 512).

Barriers to Dispersal

All of the aforementioned threats could pose barriers to dispersal. Road crossings and impoundments, however, create the most obvious barriers, and many of these barriers have been removed. In 2011, when Okaloosa darters were downlisted to threatened status, 4 of the 153 road crossings and 25 impoundments that were barriers to fish passage remained. A few of these road crossings were culverts with the downstream end perched above the stream bed, precluding the upstream movement of fish during normal and low-flow conditions. However, some of these barriers were determined to have little to no adverse consequence to darter habitat connectivity because they occurred on the outskirts of the current range or were immediately adjacent to another barrier or impoundment.

To date, all but three of the problematic road crossings have been removed. One of these, located at the headwaters of Rocky Creek, is scheduled for removal in coming years. Additionally, 19 impoundments still exist, 11 of which are caused by beaver activity. Nine of these impoundments are scheduled for removal in the next 3 years. Beavers that remain are primarily in the headwater reaches where Okaloosa darters are either not present or would be in very low density. Thus, since the time of listing, most of the barriers to dispersal have been removed, and most of the problematic ones that remain are scheduled to be removed, contributing to improved habitat and reduced population fragmentation.

Canopy Closure

Overhead canopies range from open to fully closed depending on stream width and fire history (Jordan 2018, pers. comm.). Okaloosa darters thrive in reaches with relatively open canopies, likely due to either increased abundance of submerged vegetation that is used preferentially for spawning or increased secondary production of insect prey (Ingram 2018, p. 11). During the past 25 years, several monitored stream sections have changed from open with submerged vegetation to closed canopies with no vegetation. Closed canopy may reduce densities of Okaloosa darters. Once canopy is removed, Okaloosa darter densities increase quickly and dramatically (USFWS 2019, p. 30). In addition to increased riparian density along the streams, the use of low-intensity fire for forest management as opposed to historically high-intensity wildfires could have cascading effects on the watershed through changes in nutrient cycling, hydrology (evapotranspiration), or simply charcoal buffering (changes in pH levels) of water chemistry in the creeks. The Eglin AFB fire management program may shift toward the use of higher intensity prescribed fires in the growing season along stream margins to control growth of canopy trees.

Invasive Species

The introduction and colonization by nonnative invasive species that could compete with or prey on Okaloosa darters is a potential threat. The Okaloosa darter recovery plan lists competitive exclusion by the then-thought-to-be invasive brown darter *(Etheostoma edwini)* to be a threat to Okaloosa darters. The brown darter is native to Okaloosa darter watersheds (Austin, unpublished data) and is not altering the distribution or abundance of Okaloosa darters where they coexist (USFWS 2019, p. 23). Flathead catfish *(Pylodictus olivaris)* are already present in the surrounding river systems, and conditions could become suitable for several cichlid species to successfully reproduce in Okaloosa darter habitat (Jelks 2018, pers. comm.). Tilapia *(Oreochromis niloticus),* for instance, are highly invasive and are well documented to cause local extinctions of native species through resource competition, predation, and habitat alteration (Canonico et al. 2005, pp. 467–474; Zambrano et al. 2006, pp. 1906–1909). Release of aquarium species also remains a possibility. While this threat is speculative and dependent on an intentional release of an unknown invasive species, introduction of a highly competitive predator could lead to severe population depression or potential extirpation of Okaloosa darters. Dispersal of an invasive species among Okaloosa darter's watersheds, however, would likely be limited by saltwater, giving managers time to take control measures within a single population. Eglin AFB and Service personnel have long-established invasive species monitoring programs, and both agencies are committed to routine monitoring, early detection, and control of aquatic invasive species. Early detection and targeted management of invasive species will minimize or eliminate this threat to Okaloosa darters in the future (Tate 2019, pers. comm.).

Summary of Factors Influencing Viability

The vast majority of the range of Okaloosa darters is located on Eglin AFB, where many conservation and restoration actions have been successful in restoring Okaloosa darters to regions it had previously been extirpated from and increasing darters densities since the time of listing. Much progress has been made in implementing conservation actions since the Okaloosa darter was downlisted to threatened. For example, Eglin AFB has restored more than 534 acres of erosional sites and completed multiple stream restoration projects to reconnect fragmented populations. Stream erosion levels have been reduced, and most of the fish passage barriers have been removed. Many restoration projects have been completed, and conservation agreements have been implemented. Collectively, the habitat restoration programs have restored Okaloosa darter habitat, and management agreements will secure the habitat into the future (USAF 2017, p. 94 Wetland Sciences 2011, entire).

However, portions of the Okaloosa darter's range still face threats, mostly from urbanization. The sedimentation, pollution and water quality impacts, and changes to water flow from impoundments that can result from urbanization can lead to a decrease in Okaloosa darters. In areas where there is development, either on Eglin AFB main base or the surrounding cities, darters decrease in abundance or disappear (USFWS 2019, p. 23). Darters also still face threats from canopy closure, accidental spills, or other severe events. However, the vast majority of the Okaloosa darter's range is expected to remain under the management of the Air Force, limiting the impacts from urbanization to less than 10 percent of the historical range for the species.

Okaloosa darters react quickly to restoration activities. For instance, erosion control and other restoration activities began earlier in the Boggy Bayou drainages, progressing to the Rocky Bayou drainages (Pizzalato 2018, pers. comm.). Accordingly, darter numbers increased in the Boggy Bayou drainages earlier than in the Rocky Bayou drainages (Jordan and Jelks 2018, p. 9). Okaloosa darters have also been shown to quickly recolonize restored streams (Reeves et al. 2016, entire) and reclaimed beaver impoundments (Nicholson 2009, entire).

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 we 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. To assess the current and future condition of the species, we undertake an iterative analysis that encompasses and incorporates the threats individually and then 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.

Current Condition

Resiliency

For Okaloosa darters to maintain viability and withstand stochastic disturbance events, its populations must be sufficiently resilient, which is associated with population size, growth rate, and habitat quality. Stochastic events that have the potential to affect Okaloosa darter include temperature changes, drought, localized pollutants/contaminants or other disturbances, or severe weather events such as hurricanes, which can impact individuals or the habitat they require for critical life functions such as breeding, feeding, and sheltering.

Sufficiently resilient Okaloosa darter populations need quality habitat. Okaloosa darters require clear, clean, flowing water provided by deep layers of sand that regulate temperature and flow, with aquatic vegetation, root mats, leaf snags, and other substrates that provide cover. This habitat is maintained by land management practices on adjacent land that limit sedimentation and pollution. Streams that support Okaloosa darter should be free of impoundments created as human-made retention ponds, by poorly designed road crossings that impede flow and genetic exchange, or by beaver dams. Okaloosa darter also benefit from open riparian canopies that allow sunlight to reach the stream below (Ingram 2018, p. 11).

For analysis purposes, we delineated resiliency units for Okaloosa darters based on genetic analysis and obvious barriers to dispersal. Genetic variation exists between the six stream systems (Austin et al. 2011, p. 987). Because limited genetic exchange occurs between streams, the population in each stream is likely to be demographically independent; therefore, we used abundance data for each of the six stream systems to assess resiliency.

Additionally, we assessed barriers to dispersal within each stream system that would indicate a further breakdown into additional populations. However, Eglin AFB has been effective in removing impoundments and poorly designed road crossings that served as barriers to dispersal, so that the remaining impoundments occur at the headwaters or the lower reaches of each stream, leaving each stream's population mostly intact, allowing genetic exchange to occur within each stream system. Outside of Eglin AFB, Shaw Still Branch has Okaloosa darter that are isolated from other Okaloosa darter in the upper reaches of Swift Creek by College Pond; however, the numbers of darters in this small stream are likely fewer than 150. Therefore, we considered this population separately. The watersheds of each of the bayous (Toms, Boggy, and Rocky) where the species has been historically found constitute the three resiliency units for the purposes of this analysis. The Toms representative unit consists only of the Toms population; the Boggy unit consists of the Turkey and Mill populations; and the Rocky unit consists of the Swift, Deer, and Rocky populations.

Habitat metrics, such as conductivity, other water quality metrics, and management, influence darter presence and abundance, but due to a lack of explained variation within the data, no quantitative predictive model has been successfully used. However, numerous data exist that draw causal relationships between habitat metrics and darter presence and abundance, such that we can draw some conclusions. First, it is clear that Okaloosa darter does not inhabit impounded stream reaches. Further, when an impounded stream is restored, Okaloosa darter will quickly colonize the restored habitat, often at higher densities than initially found (Jordan and Jelks 2018, p. 29). When water conductivity gets too high, Okaloosa darter abundance drops (Service 2019, p. 33).

We assess current resiliency for Okaloosa darters in terms of population factors, including the species' presence and density. To estimate a population size, we multiplied the estimated average abundance per meter by the estimated meters occupied (USFWS 2019, Table 5). The average abundance was derived from annual sampling at each of the 21 core monitoring sites over the past 20 years. In populations with multiple core sites, a grand mean was

calculated for the entire population by averaging the long-term means within the population. Due to statistical constraints, population estimates using the expanded monitoring data from 2005 and 2014 only estimate the population of darters present in stream reaches between monitoring sites (USFWS 2019, p. 23) and do not include headwaters and tributary systems known to be inhabited. The calculations made during the SSA and used for this assessment apply the average abundance to all known inhabited stream reaches, generally producing a larger but more complete population estimate.

Using this method, the total rangewide population estimate of Okaloosa darter is approximately 1,249,499 (1,010,0171,488,982) (see Table 1, below). The Rocky Creek population is the largest, comprising 713,458 darters, or 57 percent of this total, followed by the Turkey Creek population, comprising 490,456 darters, or 39 percent. The other four resiliency units (Toms, Mill, Swift, and Deer Moss) together total only four percent of the estimate: Toms Creek has an estimated 23,099 darters; Mill Creek, 1,317; Swift Creek, 18,810; and Deer Moss Creek, 2,353.

These numbers reflect a significant (40 percent) decline between 2005 and 2014. However, the population is still significantly greater than when the species was originally listed. Our professional judgment is that the reduction was caused by an increase in the canopy cover and that more aggressive clearing of the canopy cover will result in rebounding population numbers. This conclusion is consistent with experimental data, in which darter populations increased within months after canopy removal.

TABLE 1—RESILIENCY SCORES FOR OKALOOSA DARTER BASED ON ESTIMATED POPULATION SIZE

[Population sizes <10,000 Okaloosa darters are ranked as ''low,'' populations of 10,000 to 50,000 are ''moderate,'' and values >50,000 are considered to have ''high'' resiliency. Population trends and vulnerability are also provided.]

Population	Estimated population	Population trend slope (avg. count/year)	Population trend	Resiliency	Population vulnerability (%)
Toms	23,099 (±7,610)	0.96	Increasing	Moderate	100
Turkey	490,456 (±90,045)	−1.9	Decreasing	High	36
Mill	1,317 (±288)	−0.47	Decreasing	Low	100
Swift	18,810 (±9,875)	6.05	Increasing	Moderate	75
Deer Moss	2,353 (±1,658)	−0.89	Decreasing	Low	100
Rocky	713,458 (±130,006)	1.12	Increasing	High	41

The results of the resilience analysis are as follows: Two of the populations (Turkey and Rocky) currently have high resiliency, two (Toms and Swift) are considered moderately resilient, and two (Deer Moss and Mill) are considered to have low resiliency.

We classified resiliency by species' presence, density, and population sizes. Population sizes of <10,000 Okaloosa darters are considered ''low,'' 10,000 to 50,000 are ''moderate,'' and >50,000 are ''high.'' Based on the population numbers presented above, the results of the resiliency analysis are as follows: Two of the populations (Turkey and Rocky) currently have high resiliency, two (Toms and Swift) have moderate resiliency, and two (Deer Moss and Mill) are considered to have low resiliency.

Redundancy

Redundancy describes the ability of a species to withstand catastrophic events. Measured by the number of populations, their resiliency, and their distribution (and connectivity), redundancy gauges the probability that the species has a margin of safety to withstand or to bounce back from catastrophic local events such as collapse of a restored borrow pit, infestation by beavers, or spill of toxic chemicals that affect part or all of one population. We report redundancy for Okaloosa darters as the total number of populations and the resiliency of population segments and their distribution within and among representative units. Also, there are multiple populations in two of the stream systems.

Six populations comprise the vast majority of the historical range of Okaloosa darters within the three representative units. Redundancy is demonstrated through the darter's presence in multiple tributaries within most watersheds, and representation is demonstrated through the genetic structure of the populations. All six extant populations exhibit genetic differentiation, and the species is extant across all three representation units. Adequate redundancy is demonstrated through the darter's presence in multiple tributaries within most watersheds encompassing its historical range.

Representation

Representation can be characterized by genetic variability within the range of the species. These three representative units, each identified as containing unique and significant historical variation (Austin et al. 2011, pp. 983, 987), have not been reduced over time. The Toms Bayou representative unit comprises just the Toms population, which is currently considered moderately resilient. However, the Toms population is vulnerable to upstream impacts, which could affect the representation of this unit were a major impact to occur. The Boggy Bayou representative unit comprises the Turkey and Mill populations, of which Turkey is considered highly resilient and has low vulnerability. The Rocky Bayou unit comprises the Swift, Deer Moss, and Rocky populations, of which Swift is considered moderately resilient and Rocky is considered highly resilient, with low vulnerability. Given that each unit still contains at least one population that is moderately or highly resilient (≤10,000 individuals), Okaloosa darters have sufficient genetic variability. Representation is demonstrated through the genetic structure of the populations.

Future Condition

The biggest potential threat to Okaloosa darter in the future is development on and off Eglin AFB. Neighborhoods, roads, commercial structures, and associated utilities such as sprayfields are potential sources of sedimentation, pollution, and altered stream flow throughout the range of this species. Natural factors resulting from long-term forest management practices (*e.g.,* prescribed fire) could also have potentially negative impacts on Okaloosa darters. For instance,

excessive canopy closure over streams might limit Okaloosa darter abundance by shading out aquatic vegetation preferred for spawning, refuge, or foraging (USFWS 2019, p. 23). The effects of canopy closure were built into all the future scenarios through general population increases or declines. For instance, in the ''Ideal Management'' scenario, we would expect that prescribed fire or other management limits excessive canopy cover and contributes to increases in darter numbers. The opposite would be expected in the ''Poor'' and ''Worst'' scenarios. Because we have not established a quantitative relationship between darter numbers and canopy closure, we decided to incorporate this factor into a general increase or decrease in populations over time.

While there are several restoration activities, developments, or other proposed activities that have anticipated locations and quantifiable outcomes, specific information on the location, and therefore effects to Okaloosa darters, of other potential threats are unknown. Therefore, because it is impossible to predict the specific locations or impacts of future developments or other management decisions that could impact Okaloosa darter streams, we assess the future resiliency of each population based on general management and development scenarios. Accordingly, to assess the future viability of Okaloosa darters, we considered four future scenarios that account for some degree of future development and restoration activities, considering effects of whether these activities are implemented or not, and also considered general impacts from unknown future management or land use changes or impacts, at varying levels with positive or negative impacts to each population. For each population, we consider its current condition, including the length of each stream that is unimpounded, the length considered occupied, and the average abundance per meter, to assess the future viability under each of these scenarios.

Please see the SSA report (USFWS 2019, entire) for a more detailed discussion of these considerations.

We projected these future scenarios both over 20 years and 50 years. Any planned restoration efforts, should they be realized, as well as the impending development along Deer Moss Creek, would likely be completed in 20 years. Okaloosa darters respond very quickly to habitat changes, both good and bad. Improved conditions would result in an increase in Okaloosa darters, possibly within the same year (Reeves et al. 2016, pp. 1379–1382), but areas can also lose Okaloosa darters equally quickly if habitat conditions worsen. In some cases where habitat is restored in areas without nearby Okaloosa darters, 20 years would be sufficient to ensure that they would recolonize that area. Not only would 20 years encompass several generations of Okaloosa darter, but it is the time period outlined in the recovery plan for delisting. We projected to 50 years as it is considered the outer limit that projections of base realignment, hydrologic cycles, or climate alteration may be relied upon, based on expert opinion, and will encompass a timeframe in which projected sea level rise as a result of climate change could have realized impacts.

To account for the uncertainty in the management implications of some proposed actions (Deer Moss Creek development and cleanup of the sprayfields) and other unforeseen/unknown future conditions (future land management/development and accidents), we generalize the future stream conditions/management in four categories: status quo (current conditions continue), ideal, poor, and worst. The ''ideal,'' or ''best-case,'' scenario assumes that all potential stream habitat is colonized at normal densities. ''Poor'' management assumes that accidents stemming from errors in management may occur but are unlikely to affect the population in the worst possible place or are unlikely to have a high-magnitude impact; however, over time, these accidents add up and eventually have a larger impact. ''Worst'' management assumes that accidents stemming from errors in management occur and affect the population in a location that will affect the largest portion of the stream or will be of such a magnitude to have a similar effect. In all long-term scenarios, we anticipate the potential negative impacts of climate change by applying reductions in population estimates of 0.5 standard deviations from the current population mean abundance.

Below we assess the future resiliency of Okaloosa darter populations both in the short (20-year) and long term (50-year) for the four different scenarios. Of the four scenarios, the status quo and the ideal scenario are the most likely to occur. The poor and worst management are the least likely to occur. Because these four scenarios encompass the broad changes to management, which would encompass water quality and render land ownership irrelevant, we model future resiliency based on how each scenario would affect the amount of occupied habitat and average abundance estimates within each population. Please see the SSA report for further description of the methodologies we used to model these scenarios and their impacts to Okaloosa darter.

Scenario 1: Status Quo

In this scenario, we modeled current management coupled with both no restoration efforts (1a) and with restoration of the beaver dams on Toms Creek and College Pond on Swift Creek (1b). Under scenario 1a, nothing changed by way of management or restoration, meaning the impounded stream and abundance estimates stayed the same as is current. The development of Deer Moss Creek did not affect the resiliency of this population because the section of stream that would be developed is currently, and remains, unoccupied. For the species as a whole, population estimates did not change much in the short term but decreased in the long term due to a loss of potential habitat (due to sea level rise resulting in stream inundation) and other possible climate-related threats, which we modeled as a 0.5 standard deviation reduction for each population. Not surprisingly, the smallest and most fragmented populations, Mill, Deer Moss, Toms, and Swift Creeks, are potentially susceptible to climate change impacts alone. Habitat restoration in Toms and Swift Creeks would offset our modelled impacts from climate change. Even though saltwater inundation will fragment about 5 percent of the two large populations in Turkey and Rocky Creeks, our models exhibited minimal loss of resiliency as a result of climate change under this scenario.

For the species as a whole, our modelling suggested that, under current management conditions, there are likely to be nearly 1 million Okaloosa darters beyond the 50-year timeframe. In the long term under this scenario, Mill Creek would lose over 30 percent of its population (dropping below 1,000), as would Deer Moss, and Toms Creek too, unless restoration occurs. Swift Creek would lose almost 60 percent of its population unless habitat restoration occurs, but if restoration occurs, the population would more than double in the short term and still increase by nearly 60 percent in the long term. Saltwater inundation in the long term would cause the Rocky, Turkey, and Swift populations to split into three streams each. While Rocky and Turkey would see about 5 percent of their populations cut off from the main segment, the inundation of Swift Creek would also cut off that population from the current location in the absence of restoration efforts. With no restoration,

we can expect that 70 percent of the population in Swift Creek will be above College Pond in Swift Creek, with fewer than 100 in Shaw Still Branch, although neither of these populations are unlikely to remain at all in 50 years. With restoration, about 83 percent of the population would remain in the Swift Creek population and about 17 percent in a Shaw Still Branch population, with likely no dispersal between them (see Table 2, below). Due to the continued impacts of the urbanization in the watershed within the city of Niceville, we estimated population sizes as if inhabited under moderate management conditions (long-term average minus one standard deviation). Sanders Branch would remain unoccupied.

TABLE 2—SCENARIO 1 OF MANAGEMENT FOR OKALOOSA DARTER RECOVERY

[Total stream lengths that would be unimpounded, the occupied meters and the percent that represents, abundance estimates per meter, and the projected population size, both with and without restoration efforts on Toms and Swift Creeks, in both the short term and long term. Scenario 1b shown for Toms (r) and Swift (r) assume restoration of uninhabited portions of the watershed.]

	Total unimpounded streams (m)	Occupied (m)	Abundance/m	Population size
Short Term:				
Toms	14,936	11,300	2.0	23,011
Turkey	150,040	147,911	3.3	486,243
Mill	1,993	846	1.6	1,317
Swift	21,130	5,292	3.5	18,631
Deer Moss	8,396	5,780	0.4	2,354
Rocky	282,068	276,683	2.6	707,791
Toms (r)	16,336	12,360	2.0	25,167
Swift (r)	22,276	14,767	3.5	46,622
Long Term:				
Toms	14,111	9,265	1.7	15,759
Turkey	149,063	132,041	3.0	394,227
Mill	1,993	647	1.4	896
Swift	19,533	2,939	2.6	7,631
Deer Moss	7,981	4,696	0.3	1,239
Rocky	280,096	246,739	2.3	573,683
Toms (r)	15,511	11,736	1.7	19,960
Swift (r)	20,679	11,031	2.6	20,509

Scenario 2: Ideal Restoration, Good Management

This scenario represented the highest population size that the species could attain. Under this scenario, all impoundments were removed, and management removed most existing threats, increasing the occupied lengths of each stream to almost all of the inhabitable area. In other words, we modelled the potential population for all streams as if they were completely free-flowing by applying our current population estimates to the entire potential length of stream habitat in the watershed. This scenario represented the ''best case scenario'' for the species. Because of this, we modelled an expected population expansion of 1.0 standard deviation from the current mean abundance for each population. As expected, short-term estimates increased for all populations, with the highest relative increases in fragmented populations (Swift and Toms) or those impaired by urbanization (Deer Moss and Mill). Because we apply the same negative influence of climate change to the long-term models in this scenario, the long-term population estimates are dampened but still increasing in the four smaller populations with a very slight (<1 percent) reduction in Turkey and Rocky Creeks due to fragmentation and saltwater inundation. Under this scenario, our model indicated there will be more than 1.3 million Okaloosa darters and increased resiliency in all of the smaller populations, even when negative impacts of climate change are applied in the long term.

In the short term, the population would increase for all stream systems, although by a much higher percent in Mill and Swift than in Rocky and Turkey Creeks. In the long term, all populations except Turkey and Rocky still see an increase from current conditions, though not quite as large. Turkey and Rocky would decrease slightly from the current situation (see Table 3, below). Saltwater inundation in the long term would cause the Rocky, Turkey, and Swift stream systems to split into three streams each. While Rocky and Turkey would see about 5 percent of their populations cut off from the main segment, the inundation of Swift Creek in the long term, given ideal restoration and management, would split the population such that about 15 percent would be cut off into a Shaw Still Branch population, and about 11 percent would be cut off into a Sanders Branch population.

TABLE 3—SCENARIO 2 OF MANAGEMENT FOR OKALOOSA DARTER RECOVERY

[Total stream lengths that would be unimpounded, the occupied meters and the percent that represents, abundance estimates per meter, and the projected population size in both the short term and long term. Saltwater inundation in the long term causes the Swift stream systems to split into three streams.]

	Total unimpounded streams (m)	Occupied (m)	Abundance/m	Population size
Short Term:				

TABLE 3—SCENARIO 2 OF MANAGEMENT FOR OKALOOSA DARTER RECOVERY—Continued

[Total stream lengths that would be unimpounded, the occupied meters and the percent that represents, abundance estimates per meter, and the projected population size in both the short term and long term. Saltwater inundation in the long term causes the Swift stream systems to split into three streams.]

	Total unimpounded streams (m)	Occupied (m)	Abundance/m	Population size
Toms	18,510	18,247	2.7	49,397
Turkey	152,692	150,525	3.9	585,687
Mill	4,555	4,490	1.9	8,520
Swift	24,510	24,162	5.4	129,717
Deer Moss	8,396	8,277	0.7	5,746
Rocky	282,731	278,719	3.0	842,921
Long Term:				
Toms	17,685	15,666	2.4	37,153
Turkey	151,715	134,390	3.6	482,352
Mill	4,555	4,035	1.7	6,968
Swift	22,913	14,816	4.4	65,852
		3,146	4.4	13,982
		2,334	4.4	10,374
Deer Moss	7,981	7,070	0.6	3,894
Rocky	280,759	248,699	2.8	694,169

Scenario 3: Poor Management

To model what the future effect of poor management decisions, developments, or other habitat impacts would be in terms of a decrease in average Okaloosa darter abundance per meter, we considered the configuration (or geography) of each stream system for each population. In streams that are complex (have many branching tributaries) or are generally large, a severe negative impact (such as a chemical spill or source of chronic sedimentation) at any of the headwaters would be more likely to impact a smaller percentage of the population compared to a similar impact in the headwaters of a low-complexity (few tributaries) or small stream system. For scenarios 3 and 4, we first assessed the effects of an impact that might occur at the worst possible placement within each watershed by finding the longest length of stream that could be affected by a major impact at the headwaters; in other words, the longest possible downstream distance that could be affected by a single upstream impact. We calculated this distance for each stream (USFWS 2019, Figure 14) and then took that distance and calculated the percent of the total unimpounded streams it would affect (USFWS 2019, Table 7). This percent represents the maximum percent of the stream system that could be affected by one management decision or development. In real-world terms, if one of the outlying airfields that are located in the upper reaches of these stream systems (USFWS 2019, Figure 14) were to be reactivated for military or other uses, the amount of stream impacted could come close to or meet these estimates of ''largest percent affected.''

For both the ''Poor'' and ''Worst'' management scenarios, we used this ''largest percent affected'' to model declines in Okaloosa darter abundances based on whether management was considered ''poor'' or ''worst,'' and whether we were assessing the scenario in the long or short term (USFWS 2019, Table 8).

For management that was ''poor,'' looking at the short term, we considered a management decision or set of decisions or impacts that would decrease the average abundance by 1 standard deviation across this ''largest percent affected'' (this percent of the occupied meters). The remainder of the occupied stream length stayed at current Okaloosa darter abundances. In the long term, we proposed that management impacts could continue to affect these streams either in unfortunate locations or in great magnitude and, coupled with unknown impacts of climate change and the associated warming over that time span, will decrease all abundance estimates an additional 0.5 standard deviation (USFWS 2019, Table 8). As with ''Status Quo,'' we modeled poor management coupled with either no restoration efforts or removal of beaver dams on Toms Creek and restoration of College Pond on Swift Creek.

Under this scenario (see Table 4, below), all population sizes decreased. In the long term, the Swift population dropped below 10,000 individuals unless College Pond is restored, in which case the population almost doubled in the short term and still maintained 15 percent more than current in the long term. In the long term, the Swift Creek population dropped below 10,000 individuals without restoration, and the populations in both Deer Moss and Mill Creeks dropped below 1,000 individuals. Even so, long-term resiliency in Toms, Turkey, Swift, and Rocky Creeks remained relatively unchanged from the ''Status Quo'' models.

TABLE 4—SCENARIO 3 OF MANAGEMENT FOR OKALOOSA DARTER RECOVERY

[Total stream lengths that would be unimpounded, the occupied meters and the percent that represents, abundance estimates per meter, and the projected population size, both with and without restoration efforts on Toms and Swift Creeks, in both the short term and long term.]

	Total unimpounded streams (m)	Occupied (m)	Avg. Abundance/m	Population size
Short Term:				
Toms	14,936	11,300	1.8	20,333

TABLE 4—SCENARIO 3 OF MANAGEMENT FOR OKALOOSA DARTER RECOVERY—Continued

[Total stream lengths that would be unimpounded, the occupied meters and the percent that represents, abundance estimates per meter, and the projected population size, both with and without restoration efforts on Toms and Swift Creeks, in both the short term and long term.]

	Total unimpounded streams (m)	Occupied (m)	Avg. Abundance/m	Population size
Turkey	150,040	147,911	3.2	474,298
Mill	1,993	846	1.3	1,057
Swift	21,130	5,292	3.1	16,321
Deer Moss	8,396	5,780	0.2	1,075
Rocky	282,068	276,683	2.5	692,277
Toms (r)	16,336	12,360	1.8	21,913
Swift (r)	22,276	14,767	2.8	41,688
Long Term:				
Toms	14,111	9,265	1.5	13,563
Turkey	149,063	132,041	2.9	383,564
Mill	1,993	647	1.1	698
Swift	19,533	2,939	2.2	6,348
Deer Moss	7,981	4,696	0.1	284
Rocky	280,096	246,739	2.3	559,848
Toms (r)	15,511	10,184	1.4	14,640
Swift (r)	20,679	13,290	1.9	25,238

Scenario 4: Worst Management

This scenario is very pessimistic. We considered a management decision or set of decisions or impacts that would decrease the average abundance by 2 standard deviations across the ''largest percent affected,'' described above. The remainder of the occupied stream length in Scenario 4 was then considered to be occupied at the ''poor'' Okaloosa darter abundances (a reduction of 1 standard deviation). As with other scenarios, we modeled climate change impacts as an additional reduction of 0.5 standard deviations from the long-term mean and considered the impact of restoration in Toms and Swift Creeks in a separate model.

This is the only scenario where we modelled an extirpation. All populations were reduced by at least 20 percent, even in the short term (see Table 5, below). Under this scenario, Mill and Deer Moss Creek dropped below 1,000 individuals in the short term, and Deer Moss Creek became extirpated in the long term. We estimated a population decline in Toms Creek to approximately half the population estimate of the ''Status Quo'' scenario. Our model projected that Swift Creek could drop to approximately one quarter the population anticipated under the ''Status Quo''; however, the restoration of College Pond would prevent this population from dropping below 10,000 individuals in the short term and more than quadruple the population estimate in the long term. The Turkey and Rocky populations would maintain high resiliency, above 300,000 individuals, even in the long term.

TABLE 5—SCENARIO 4 OF MANAGEMENT FOR OKALOOSA DARTER RECOVERY

[Total stream lengths that would be unimpounded, the occupied meters and the percent that represents, abundance estimates per meter, and the projected population size, both with and without restoration efforts on Toms and Swift Creeks, in both the short term and long term.]

	Total unimpounded streams (m)	Occupied (m)	Avg. Abundance/m	Population size
Short Term:				
Toms	14,936	11,300	1.1	12,752
Turkey	150,040	147,911	2.6	385,027
Mill	1,993	846	0.9	769
Swift	21,130	5,292	1.3	6,760
Deer Moss	8,396	5,780	0.0	159
Rocky	282,068	276,683	2.0	563,304
Toms (r)	16,336	12,360	1.1	13,622
Swift (r)	22,276	14,767	1.0	15,377
Long Term:				
Toms	14,111	9,265	0.8	7,348
Turkey	149,063	132,041	2.3	303,870
Mill	1,993	647	0.7	478
Swift	19,533	2,939	0.6	1,680
Deer Moss	7,981	4,696	0.0	0
Rocky	280,096	246,739	1.8	444,833
Toms (r)	15,511	11,736	0.8	8,998
Swift (r)	20,679	13,290	0.5	6,192

Future Resiliency

Our projections of how resiliency will change in the future are based on the completion or success of specific restoration efforts, nonspecific changes to the management of Okaloosa darter streams or other unforeseen impacts, and the effects of climate change, including unknown effects to the streams from temperature increases, drought, frequent or heavy rainfalls, or invasive species. Our models showed population increases only under ''ideal restoration—good management,'' with the exception of restoration efforts on Swift Creek, which increase the population even under the ''poor'' management scenario. We also took a pessimistic approach to climate change impacts by applying population reductions to all populations in the long-term models. Accordingly, population numbers declined in the long-term models across all stream systems in the absence of future management efforts. Both Mill Creek and Deer Moss Creek remained at low resiliency and decreased to fewer than 1,000 individuals or became extirpated in the long term under the ''poor'' and ''worst'' scenarios. Toms Creek maintained a moderate resiliency in all but the ''worst'' scenario. Swift Creek would see a huge benefit from the removal of beaver impoundments in College Pond, which even under ''poor'' management conditions, would almost double its population size in the short term. In the long term, restoring College Pond resulted in the most robust population gains, roughly quadrupling population estimates under ''poor'' and ''worst'' scenarios. Even under the worst projected management or impact scenario, the estimated sizes of Rocky and Turkey populations did not drop below 300,000, and resiliency in these populations remained exceptionally high.

In general, in our scenarios, the larger populations were more resilient and were more likely than small populations to maintain resiliency in the future. The Deer Moss population is considered to have a low resiliency in comparison to the other populations; however, even under ideal conditions, our models suggested that this population can increase to only about 4,000 individuals, which remains below our designation of moderate resiliency. So, even under ''ideal'' conditions, this population will always have low resiliency. Regardless, the Deer Moss Creek population has persisted over time, even with a much lower resiliency than the other populations. When comparing model outcomes to the most likely future scenario, ''status quo,'' we do not see shifts in resiliency categorization for any of the populations. Only under the ''worst'' scenario were the resiliency for Toms and Swift Creeks depressed, indicating that the two large populations, Turkey and Rocky, should maintain high to very high resiliency in perpetuity. From a population standpoint, a reduction of 2.5 standard deviations from the long-term mean is massive and highly unlikely, indicating the ''worst'' scenario is a depiction of a truly catastrophic decline. Even under this scenario, five of the six populations remain. At the species level, Okaloosa darters exhibit moderate to high resiliency even under the worst-case scenario.

Future Redundancy

Determined by the number of populations, their resiliency, and their distribution (and connectivity), redundancy describes the probability the species has a margin of safety to withstand or recover from catastrophic events (such as a rare destructive natural event or episode involving many populations). Okaloosa darters have a constrained range, limited to just six populations in six streams, and redundancy is naturally low. However, the Okaloosa darter inhabits its historical range almost completely, exhibiting documented resiliency to natural phenomena such as hurricanes and drought (USFWS 2019, p. 23).

Four of the populations, the ones with the lowest current resiliency, are considered highly vulnerable to catastrophic events due to their stream configuration. We determined the ''largest percent affected'' in Mill Creek to be 90 percent (USFWS 2019, Table 7). Thus, a major impact like a toxic chemical spill in the upper watershed could result in drastic population declines. Further, climate change could have consequences that make the streams uninhabitable to Okaloosa darters; temperature rise is one potential threat, but other impacts are possible. Invasive species could also extirpate an entire population were a highly competitive predator to be introduced; tilapia, for instance, are highly invasive and are well documented to cause local extinctions of native species through resource competition, predation, and habitat alteration (Canonico et al. 2005, pp. 467–474; Zambrano et al. 2006, pp. 1906–1909). Given the species' limited range, catastrophic events or the invasion of a nonnative species or steady changes such as increased stream temperatures due to climate change could impact one or more populations. Even so, our modeling resulted in only one population completely failing in the long term under our ''worst'' management scenario, and that scenario assumed drastic declines across all six populations. Thus, loss of redundancy is unlikely in all but the most extreme circumstances. Accordingly, we do not expect Okaloosa darter viability to be characterized by a loss in redundancy unless management fails dramatically in the coming years or a major impact occurs.

Future Representation

All representative units are predicted to retain the same number of populations at least 50 years into the future, except in the scenario where management is particularly bad (Worst scenario). In the Worst scenario, the Deer Moss population becomes extirpated and the Mill population would experience heavy declines. In both the Poor and Worst scenarios, each representative unit will have populations with decreased resiliency, both within the next 20 years (short term) and next 50 years (long term); however, even under the Worst scenario, the two large populations (Turkey Creek and Rocky Creek) will ensure continued resiliency for those populations. The Toms Creek population, being the only population in its representative unit, will see decreased resiliency in the short term in all scenarios except those with current or ideal management and in the long term, all scenarios except those with ideal management.

Determination of Species 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 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.'' For a more detailed discussion on the factors considered when determining whether a species meets the definition of an endangered species or a threatened species and our analysis on how we determine the foreseeable future in making these decisions, please see Regulatory and Analytical Framework.

Okaloosa darter is a narrow endemic, occurring only in six stream systems in Walton and Okaloosa Counties, Florida. The darter currently occurs within all

six historical watersheds. Populations in two of those watersheds are currently highly resilient, two are moderately resilient, and two have low resiliency. While the populations have been affected by impoundments, urbanization (on the lower ends of the streams), and land use impacts (*e.g.,* sedimentation), current population estimates show approximately one million darters across its range. Redundancy is demonstrated through the darters' presence in multiple tributaries within most watersheds, and representation is demonstrated through the genetic structure of the populations. All six extant populations exhibit genetic differentiation, and the species is extant across all three representative units. Overall, the populations are robust. Because approximately 90 percent of the species' range is under the management of Eglin AFB, urbanization will have little to no future effect. Okaloosa darters occur in multiple stream systems, which provides redundancy, and no long-term threats are presently impacting Okaloosa darters at the species level. Accordingly, we conclude that the species is not currently in danger of extinction, and thus does not meet the definition of an endangered species, throughout its range.

In considering whether the species continues to meet the definition of a threatened species (likely to become an endangered species within the foreseeable future) throughout its range, we identified the foreseeable future for Okaloosa darters to be 20–50 years based on our ability to reliably predict the species' response to current and future threats. Over 90 percent of the darter's range is located on Eglin AFB and will continue to benefit from the conservation protections resulting from the Eglin AFB INRMP. Overall, while there may be some loss of resiliency due to climate change, in all but the worst-case scenario, all extant populations will remain. Redundancy will remain the same except under the worst-case scenario, as will representation. Under all four management scenarios, two darter populations (Turkey Creek and Rocky Creek) are expected to continue to be highly resilient. Toms Creek will continue to be moderately resilient in all but the worst-case scenario, in which case its resilience will fall to low. The currently uninhabited tributaries in the Swift Creek watershed will continue to be isolated due to sea level rise, and without restoration, Swift Creek itself will be the only occupied tributary in this population; however, the upper Swift Creek population will continue to serve as a source for recolonization if restoration occurs. Deer Moss Creek is the only population with potential for extirpation, and then only under the worst-case scenario. Further, this population exhibits low resiliency even under ''ideal'' conditions, and its extirpation would not compromise the resiliency of the Rocky Creek representative unit. In other words, while some populations may decline or even become extirpated under the two negative scenarios, under all scenarios Okaloosa darters will exhibit sufficient resiliency, redundancy, and representation to maintain viability for the foreseeable future. Accordingly, we conclude that the species is not likely to become in danger of extinction in 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. Having determined that the Okaloosa darter is not in danger of extinction or likely to become so in the foreseeable future throughout all of its range, we now consider whether it may be in danger of extinction or likely to become so in the foreseeable future in a significant portion of its range—that is, whether there is any portion of the species' range for which it is true that both (1) the portion is significant; and (2) the species is in danger of extinction now or likely to become so in the foreseeable future 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.

In undertaking this analysis for Okaloosa darters, we chose to address the status question first—we considered 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 or threatened. We examined whether any threats are geographically concentrated in any portion of the species' range at a biologically meaningful scale. It is important to note at the outset that this is a narrow endemic with a naturally limited range. We examined the following threats: Land use and management practices on Eglin AFB and urbanization around the lower reaches of streams outside of Eglin AFB. Urbanization is the greatest threat to Okaloosa darter, as development leads to pollution, erosion, and sedimentation, altered water flows, and dispersal barriers through multiple pathways. The threats of sea level rise and urbanization are present in the southern portion of each population, so they are not concentrated on any one population.

As described above, no threats are concentrated in any portion of that range. Although the main threat, urbanization, is present only in the downstream portion of the watersheds—five of the six watersheds pass through the cities of Niceville and Valparaiso before emptying into Choctawhatchee Bay—these urban impacts are not concentrated on any one population. Because the majority of the watersheds are forested and geology is consistent throughout the Okaloosa darter's range, the effects of canopy closure and erosion should be similar across all six watersheds.

We found no concentration of threats in any portion of the Okaloosa darter's range at a biologically meaningful scale. Therefore, no portion of the species' range can provide a basis for determining that the species is in danger of extinction now or likely to become so in the foreseeable future in a significant portion of its range, and we find that the species is not in danger of extinction now or likely to become so within the foreseeable future in any significant portion 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 Okaloosa darter does not meet the definition of an endangered species or a threatened species in accordance with sections 3(6) and 3(20) of the Act. Therefore, we propose to delist the Okaloosa darter from the Federal List of Endangered and Threatened Wildlife.

Effects of This Proposed Rule

This proposal, if finalized, would revise 50 CFR 17.11(h) and 17.44(bb) by removing Okaloosa darter from the Federal List of Endangered and Threatened Wildlife and removing the section 4(d) rule for this species. The prohibitions and conservation measures

provided by the Act, particularly through sections 7 and 9, would no longer apply to this species. Federal agencies would no longer be required to consult with the Service under section 7 of the Act in the event that activities they authorize, fund, or carry out may affect Okaloosa darter. However, approximately 90 percent of the 457-square-kilometer (176-square-mile) watershed drainage area that historically supported Okaloosa darters is Federal property under the management of Eglin AFB, and about 98.7 percent of the stream length in the current range of Okaloosa darters is within the boundaries of Eglin AFB.

As discussed above, Eglin AFB encompasses the headwaters of all six of these drainages. Benefits from the conservation protections will continue because the Air Force will maintain its INRMP for the benefit of other listed species, such as the red-cockaded woodpecker (USAF 2017c, p. 3–1; (76 FR 18088, April 1, 2011). Thus, the INRMP will continue to provide for the conservation of Okaloosa darters even if the species is delisted. Because the Service is required to approve INRMPs every 5 years, we will be able to ensure that this INRMP continues to protect Okaloosa darters into the future. There is no critical habitat designated for this species, so there would be no effect to 50 CFR 17.95.

Post-Delisting Monitoring

Section 4(g)(1) of the Act requires us, in cooperation with the States, to implement a monitoring program for not less than 5 years for all species that have been delisted due to recovery. Post-delisting monitoring (PDM) refers to activities undertaken to verify that a species delisted remains secure from the risk of extinction after the protections of the Act no longer apply. The primary goal of PDM is to monitor the species to ensure that its status does not deteriorate, and if a decline is detected, to take measures to halt the decline so that proposing it as a threatened or endangered species is not again needed. If at any time during the monitoring period data indicate that protective status under the Act should be reinstated, we can initiate listing procedures, including, if appropriate, emergency listing.

Section 4(g) of the Act explicitly requires that we cooperate with the States in development and implementation of PDM programs. However, we remain ultimately responsible for compliance with section 4(g) and, therefore, must remain actively engaged in all phases of PDM. We also seek active participation of other entities that are expected to assume responsibilities for the species' conservation after delisting.

We will coordinate with other Federal agencies, State resource agencies, interested scientific organizations, and others as appropriate to develop and implement an effective PDM plan for the Okaloosa darter. The PDM plan will build upon current research and effective management practices that have improved the status of the species since listing. Ensuring continued implementation of proven management strategies that have been developed to sustain the species will be a fundamental goal for the PDM plan. The PDM plan will identify measurable management thresholds and responses for detecting and reacting to significant changes in Okaloosa darter numbers, distribution, and persistence. If declines are detected equaling of exceeding these thresholds, the Service, in combination with other PDM participants, will investigate causes of the declines. The investigation will be to determine if the Okaloosa darter warrants expanded monitoring, additional protection under the Act.

We are proposing to delist Okaloosa darters based on all six extant populations exhibiting genetic differentiation and the species is extant across all three representation units. Overall, the populations are robust. Because approximately 90 percent of the species' range is under the management of Eglin AFB, urbanization will have little to no future effect. The Okaloosa darter occurs in multiple stream systems, and no long-term threats are presently impacting the Okaloosa darter at the species level. Since delisting would be, in part, due to conservation actions taken by stakeholders, we have prepared a draft PDM plan for Okaloosa darters. The draft PDM plan discusses the current status of the taxon and describes the methods proposed for monitoring if we delist the taxon. The draft PDM plan: (1) Summarizes the status of Okaloosa darters at the time of proposed delisting; (2) describes frequency and duration of monitoring; (3) discusses monitoring methods and potential sampling regimes; (4) defines what potential triggers will be evaluated to address the need for additional monitoring; (5) outlines reporting requirements and procedures; (6) proposes a schedule for implementing the PDM plan; and (7) defines responsibilities. It is our intent to work with our partners towards maintaining the recovered status of Okaloosa darters. We will seek public and peer reviewer comments on the draft PDM plan, including its objectives and procedures (see **FOR FURTHER INFORMATION CONTACT** and Information Requested, above), with the publication of this proposed rule.

Concurrent with this proposed delisting rule, we announce the draft PDM plan's availability for public review at *http://www.regulations.gov* under Docket Number FWS–R4–ES–2021–0036. The Service prepared this draft PDM plan in coordination with Eglin AFB, based largely on monitoring methods developed by the U.S. Geological Survey and Loyola University New Orleans (USFWS 2021, p. 5). The Service designed the PDM plan to detect substantial changes in habitat occupied by Okaloosa darter and declines in Okaloosa darter occurrences with reasonable certainty and precision. It meets the minimum requirement set forth by the Act because it monitors the status of Okaloosa darter using a structured sampling regime over a 10-year period.

Copies can also be obtained from the Service's Panama City Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). We anticipate finalizing this plan, considering all public comments, prior to making a final determination on the proposed delisting rule.

Required Determinations

Clarity of the Proposed 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:

(a) Be logically organized;

(b) Use the active voice to address readers directly;

(c) Use clear language rather than jargon;

(d) Be divided into short sections and sentences; and

(e) 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 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

We have determined that we do not need to prepare an environmental assessment or environmental impact statement, as defined in the National Environmental Policy Act (42 U.S.C.

4321 *et seq.*), in connection with regulations adopted pursuant to section 4(a) of the Endangered Species 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 3207 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. There are no Tribes or Tribal lands associated with this proposed regulation.

References Cited

A complete list of references cited in this rulemaking is available on the internet at *http://www.regulations.gov* under Docket No. FWS–R4–ES–2021–0036 and upon request from the Field Supervisor, Panama City Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this proposed rule are staff members of the Fish and Wildlife Service's Species Assessment Team and the Panama City Ecological Services Field Office.

Signing Authority

The Principal Deputy Director, Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service, approved this document and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the U.S. Fish and Wildlife Service. Martha Williams, Principal Deputy Director, U.S. Fish and Wildlife Service, approved this document on October 21, 2021, for publication.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

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

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

§ 17.11 [Amended]

■ 2. Amend § 17.11 in paragraph (h) by removing the entry for ''Darter, Okaloosa (*Etheostoma okaloosae*)'' under ''Fishes'' from the List of Endangered and Threatened Wildlife.

§ 17.44 [Amended]

■ 3. Amend § 17.44 by removing and reserving paragraph (bb).

Krista Bibb,

Acting Chief, Branch of Policy and Regulations, U.S. Fish and Wildlife Service.

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