

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA**

CENTER FOR BIOLOGICAL DIVERSITY,
378 N. Main Avenue
Tucson, AZ 85701,

Plaintiff,

v.

U.S. FISH AND WILDLIFE SERVICE,
1849 C Street N.W.
Washington, D.C. 20240,

MARTHA WILLIAMS, in her official capacity
as Director of the U.S. Fish and Wildlife Service,
1849 C Street N.W.
Washington, D.C. 20240,

and

DEB HAALAND, in her official capacity as
Secretary of the U.S. Department of the Interior,
1849 C Street N.W.
Washington, D.C. 20240,

Defendants.

Civil Action No.: _____

**COMPLAINT FOR
DECLARATORY AND
INJUNCTIVE RELIEF**

INTRODUCTION

1. In this complaint for declaratory and injunctive relief, Plaintiff Center for Biological Diversity (“Center”) challenges the U.S. Fish and Wildlife Service’s (“Service”) unlawful decision that the Barrens darter (*Etheostoma forbesi*) does not warrant listing as an endangered or threatened species protected under the Endangered Species Act, 16 U.S.C. §§ 1531–1544 (“ESA”).

2. The Barrens darter is one of the rarest fishes in North America. It persists in dwindling numbers in only a handful of small headwater streams that flow into the Collins River on the Barrens Plateau between Nashville and Chattanooga in central Tennessee.

3. Due to many threats across the Barrens darter's narrow range, two of seven populations have already been lost. The five remaining populations are small, isolated from one another, and threatened by many serious threats, including stream dewatering from surface water diversions and groundwater pumping; habitat destruction and pollution caused by urban development, agriculture, and livestock grazing; invasive species; and climate change.

4. The Center petitioned the Service to list the Barrens darter as an endangered or threatened species under the ESA in 2010 because the best available science showed that the Barrens darter was in danger of extinction.

5. Despite the many threats to its survival, the Service decided that the Barrens darter does not warrant protection as an endangered or threatened species. 84 Fed. Reg. 13,237 (April 4, 2019).

6. The Service's decision was arbitrary, capricious, and violated the ESA because it failed to rely on the best available science, failed to properly consider whether current regulatory mechanisms are adequate to protect the Barrens darter, and failed to properly determine whether the Barrens darter is endangered or threatened in a "significant" portion of its range.

7. To remedy these violations, the Center requests that this Court declare that the Service's "not warranted" decision for the Barrens darter is arbitrary and capricious and unlawful under the ESA, vacate the illegal decision, and remand the decision to the Service with direction to issue a new determination regarding whether the best available science supports protecting the Barrens darter as an endangered or threatened species, by a date certain.

JURISDICTION AND VENUE

8. Plaintiff brings this action under the ESA, 16 U.S.C. §§ 1533, 1540(g), and the judicial review provisions of the Administrative Procedure Act ("APA"), 5 U.S.C. §§ 701-706.

9. This Court has jurisdiction under 16 U.S.C. § 1540(c), (g) (ESA citizen suit), and 28 U.S.C. § 1331 and 28 U.S.C. § 1346 (federal question). The Court may grant the relief requested under 16 U.S.C. § 1540(g)(1); 28 U.S.C. §§ 2201–2202; and 5 U.S.C. §§ 704, 706.

10. Venue in the U.S. District Court for the District of Columbia is proper because Defendants reside in this district. 16 U.S.C. § 1540(g)(3)(A); 28 U.S.C. § 1391(e).

11. Plaintiff provided the Service and the Secretary of the U.S. Department of the Interior with 60 days' notice of intent to sue for ESA violations on April 7, 2021, more than 60 days prior to the filing of this Complaint. Defendants have failed to remedy their continuing violations of the ESA by the date of this Complaint's filing. Therefore, an actual and present controversy exists between the parties under 28 U.S.C. § 2201.

PARTIES

12. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY is a non-profit environmental organization dedicated to protecting endangered species and their habitats through science, policy, and law. The Center is headquartered in Tucson, Arizona, with offices in numerous other locations throughout the country. The Center has more than 84,000 members. The Center brings this action on behalf of its organization and its members who derive ecological, recreational, aesthetic, educational, scientific, professional, and other benefits from the Barrens darter, its aquatic habitat, and the health of the Collins River watershed, upon which the Barrens darter relies for its continued survival. The Center's members live near and/or visit areas within the Collins River watershed where Barrens darters are known or believed to exist, in hopes of viewing this increasingly elusive and rare species.

13. For example, Center member Dr. Bernard R. Kuhajda, who is an ichthyologist and was a peer reviewer of the Service's Species Status Assessment for the Barrens darter, has

devoted his life and career to protecting imperiled Southeastern aquatic species. Dr. Kuhajda has frequently visited McMahan Creek, Lewis Creek, Pocahontas Branch, Charles Creek, and other headwater streams on the Barrens Plateau in central Tennessee to collect and analyze endemic endangered and imperiled aquatic species, including the Barrens darter, and plans to return to McMahan Creek to observe Barrens darters in November 2022, as well as visit other streams to survey the species. Dr. Kuhajda has collected and photographed Barrens darters on numerous occasions. Dr. Kuhajda fears that the same threats that have caused the Barrens topminnow to be endangered—specifically, the loss and degradation of its habitat and the expansion of invasive species like the fringed darter—are also pushing the Barrens darter closer to extinction. The Service’s decision not to list the Barrens darter as an endangered or threatened species and provide it with necessary protections harms Dr. Kuhajda’s personal and professional interests.

14. The Center’s members are harmed by the Service’s unlawful decision that listing the Barrens darter as an endangered or threatened species is not warranted under the ESA and by its failure to afford the species the protections of the Act. The injuries described are actual, concrete injuries presently suffered by the Center and its members, and they will continue to occur unless this Court grants relief. The relief sought herein—including an Order vacating the decision and remanding to the Service to issue a new decision based on the best available science—would redress those harms. The Center and its members have no other adequate remedy at law.

15. Defendant U.S. FISH AND WILDLIFE SERVICE is a federal agency in the U.S. Department of the Interior. The Secretary of the Interior has delegated authority to the Service to conserve non-marine endangered and threatened species under the ESA.

16. Defendant MARTHA WILLIAMS is the Director of the U.S. Fish and Wildlife Service and is charged with ensuring agency decisions comply with the law. The Center sues Defendant Williams in her official capacity.

17. Defendant DEBRA HAALAND is the Secretary of the U.S. Department of the Interior (“Secretary”) and has the ultimate responsibility to administer and implement the provisions of the ESA regarding the Barrens darter and to comply with all other applicable federal laws. The Center sues Defendant Haaland in her official capacity.

STATUTORY AND REGULATORY FRAMEWORK

I. Endangered Species Act

18. The ESA, 16 U.S.C. §§ 1531–1544, “represent[s] the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). Its fundamental purposes are “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered species and threatened species.” 16 U.S.C. § 1531(b).

19. The ESA requires the Service to protect imperiled species by listing them as “endangered” or “threatened.” *Id.* § 1533(a)(1). An “endangered” species is one that is “in danger of extinction throughout all or a significant portion of its range.” *Id.* § 1532(6). A “threatened” species is one that is “likely to become an endangered species within the foreseeable future.” *Id.* § 1532(20).

20. The ESA does not define “significant portion of its range.” On July 1, 2014, the Service issued a final policy interpreting the phrase. 79 Fed. Reg. 37,577 (“SPR Policy”). The SPR Policy established that a portion of range is considered significant when its contribution to

the viability of the species is so important that, without the members in that portion, the species would be endangered or threatened throughout all of its range. The SPR Policy's definition of "significant portion of range" has been rendered "superfluous" in that it effectively equates to a species being endangered or threatened in all of its range. *See Ctr. for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 956, 958 (D. Ariz. 2017); *see also Desert Survivors v. Dep't of Interior*, 321 F. Supp. 3d 1011, 1017 (N.D. Cal. 2018) (concluding that the SPR Policy's definition of "significant" was an "impermissible interpretation of the [SPR] language in the ESA.").

21. The SPR Policy interprets the term "range" as "the general geographical area within which the species is currently found." 79 Fed. Reg. at 37,583. Although the Service thus does not "base a determination to list a species on the status (extirpated) of the species in lost historical range," the SPR Policy directs that "evaluating the effects of lost historical range on the viability of the species is an important component of evaluating the current status of the species." *Id.* at 37,584; *see Humane Soc'y v. Zinke*, 865 F. 3d 585, 603 (D.C. Cir. 2017) (rejecting Service's conclusion about current threats to species because the agency "categorically excluded the effects of loss of historical range from its analysis.").

22. In making listing determinations, the Service must assess threats to the species based on five listing factors: (A) the present or threatened destruction, modification, or curtailment of the species' 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. 16 U.S.C. § 1533(a)(1).

23. The Service must list a species if the species meets the definition of “endangered” or “threatened” due to “any one or a combination of” the five listing factors. 50 C.F.R. § 424.11(c); *see* 16 U.S.C. § 1533(a)(1).

24. The Service must make listing determinations “solely on the basis of the best scientific and commercial data available.” 16 U.S.C. § 1533(b)(1)(A).

25. The ESA’s substantive protections generally apply only once the Service lists a species as endangered or threatened. For example, section 7 of the ESA requires all federal agencies to ensure that their actions do not “jeopardize the continued existence” of any listed species or “result in the destruction or adverse modification” of a species’ “critical habitat.” *Id.* § 1536(a)(2). Section 9 of the ESA prohibits, among other things, “any person” from intentionally or incidentally taking listed species without a lawful authorization from the Service. *Id.* §§ 1538(a)(1)(B), 1539. Other provisions require the Service to designate critical habitat for listed species, *id.* § 1533(a)(3); require the service to develop and implement recovery plans for listed species, *id.* § 1533(f); authorize the Service to acquire land for the protection of listed species, *id.* § 1534; and authorize the Service to make federal funds available to states to assist in efforts to preserve and protect endangered and threatened species, *id.* § 1535(d).

26. To ensure the timely protection of species at risk of extinction, Congress set forth a detailed process whereby citizens may petition the Service to list a species as endangered or threatened. The process includes mandatory, nondiscretionary deadlines that the Service must meet. The three required findings, described below, are the 90-day finding, the 12-month finding, and for species that the Service determines warrant protection, the final listing determination.

27. Upon receipt of a listing petition, the Service must “to the maximum extent practicable, within 90 days” make an initial finding as to whether the petition “presents

substantial scientific or commercial information indicating that the petitioned action may be warranted.” *Id.* § 1533(b)(3)(A). If the Service finds that the petition does not present substantial information indicating that listing may be warranted, it rejects the petition, and the process ends.

28. If, on the other hand, as in this case, the Service determines that a petition does present substantial information indicating that listing may be warranted, then the agency must publish that finding and proceed to conduct a full scientific review of the species’ status. *Id.* § 1533(b)(1)(A); 50 C.F.R. § 424.14(h)(2).

29. Upon completion of this status review, and within twelve months from the date that it receives the petition, the Service must make one of three “12-month findings”: (1) the petitioned action is “warranted”; (2) the petitioned action is “not warranted”; or (3) the petitioned action is warranted, but listing is presently “precluded” by other proposals to list, delist, or reclassify the status of listed species. 16 U.S.C. § 1533(b)(3)(B)(i)-(iii).

30. If the Service issues a 12-month finding that listing the species is “warranted,” it must promptly publish in the Federal Register a listing determination—*i.e.*, the 12-month finding—and a “general notice and the complete text of a proposed regulation” to list the species as endangered or threatened. *Id.* § 1533(b)(3)(B)(ii). Within one year of publishing a “warranted” finding and proposed rule, the Service must publish the final regulation listing the species.

31. If, on the other hand, as in this case, the Service issues a 12-month finding that listing the species is “not warranted,” the Service rejects the petition and the process ends. A “not warranted” decision is subject to judicial review. *Id.* § 1533(b)(3)(C)(ii).

II. Administrative Procedure Act

32. While the ESA provides for judicial review of a “not-warranted” decision, *id.* § 1540(g), the APA governs the standard and scope of judicial review, 5 U.S.C. §§ 701-706.

33. The APA grants a right of judicial review to “[a] person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action.” *Id.* § 702.

34. Under the APA, a reviewing court “shall hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *Id.* § 706(2)(A).

35. An agency decision is arbitrary and capricious if it relied on factors that Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, offered an explanation that runs counter to the evidence before the agency, or is so implausible that it cannot be ascribed to a difference in view or the product of agency expertise. *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

FACTUAL BACKGROUND

I. The Barrens Darter (*Etheostoma forbesi*)

36. Found only in a handful of small headwater streams in the Collins River watershed on its namesake Barrens Plateau in central Tennessee, the Barrens darter is a relatively small, tan-colored fish with brown mottling.



Barrens darter (Etheostoma forbesi), photographed by Dr. Bernard Kuhadja.

37. The Barrens darter is a unique species in the perch family that produces sounds and is distinguished by the level of parental care the male provides, including nest guarding. A male establishes a territory around a cavity under a flat rock, attracts a female based on his body size and the quality of his nest cavity, and produces knocks, drums, and purrs to court the female and defend the nest cavity from other males. Once a female has chosen a male, the pair will invert under the rock and the female will adhere her eggs to the underside of the rock in a single layer. The male cleans the eggs and guards them from predators until they hatch.

38. In total, the Barrens darter is confined to a presently known range of less than 10 kilometers (approximately 6 miles) of streams. The few streams where the Barrens darter may be found are typically heavily influenced by groundwater and have slab rock cobble substrates.

39. There are only seven documented Barrens darter populations: Charles Creek, North Prong Barren Fork, McMahan and Lewis Creeks, Duke Creek, South Prong Barren Fork, West Fork Hickory Creek, and Upper Collins River. Two of these seven populations—North Prong Barren Fork and West Fork Hickory Creek—are already extirpated. Another two—Charles Creek and South Prong Barren Fork—have low resiliency, meaning they are vulnerable to extirpation from stochastic events.

40. The Duke Creek population is the first described population for the Barrens darter. The Service characterized this population as being in “high/moderate” condition. In one of the few studies of Barrens darter populations, however, the authors noted that there “was essentially no riparian woody border” along the Duke Creek study area and egg-fungal infections were observed in five nests (Bergen et al. 2012).

41. The McMahan and Lewis Creek population—which the Service describes as being “in the heart of the Barrens darter’s range”—is the only one that the Service characterized

as having high resiliency. The population in Lewis Creek, however, has been described as “extremely fragile” due to a small number of nests, low mean clutch size, and high nest failure rate due to fungal infections. *Id.*

42. Genetic diversity is low across Barrens darter populations, limiting the species’ resiliency and ability to withstand stochastic events such as drought, flooding, and toxic spills.

43. Researchers of Barrens darters recognize that its “extremely restricted distribution . . . makes the species especially vulnerable to habitat destruction even at a small scale.” (Bergen 2010). For example, “a single human impact on a small portion of spawning habitat, such as a chemical spill or major streambed alteration, could potentially eliminate an entire year class” of the species. *Id.*

44. Each one of the Barrens darter populations has been described as “critical to the continued existence of the species.” (Hansen 1995; Bergen et al. 2012)

45. Barrens darters require clear water for their spawning displays to be successful and clean substrates and aquatic vegetation for egg laying.

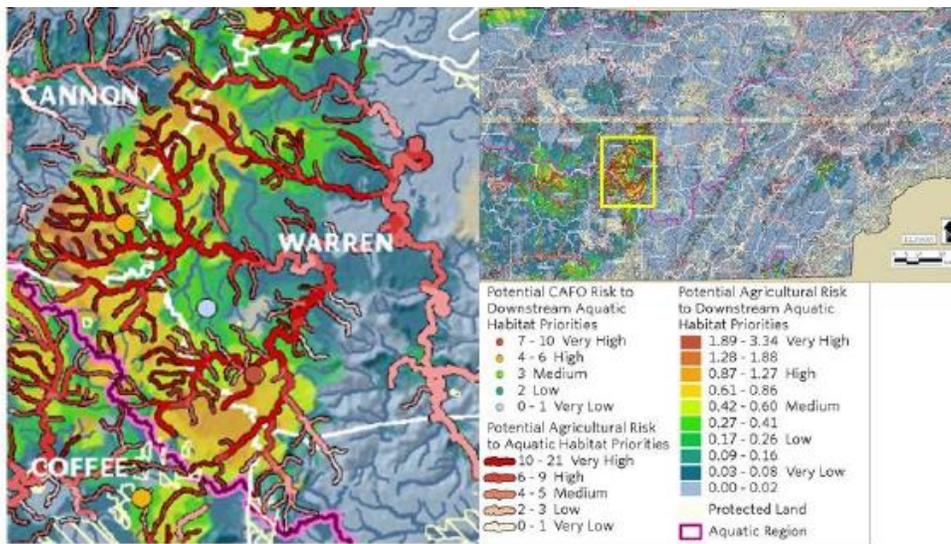
46. Much of the Barrens darter’s aquatic habitat has been degraded or destroyed by stream dewatering (of both surface and groundwater) and the clearing of riparian vegetation, which has led to increased sedimentation, streambed scouring, and stream widening. As riparian vegetation has been cleared, frequently up to the water’s edge, conditions in the Barrens darters’ small headwater streams have shifted to resemble those of larger streams that favor other species, including species that harm the Barrens darter.

47. The fringed darter, a closely related native species that has typically occurred in larger streams and areas further downstream from the Barrens darter, has completely displaced

the Barrens darter in West Fork Hickory Creek, as well as portions of other populations, as habitat conditions have worsened.

48. Within the Barrens darter's narrow range, the clearing of riparian vegetation primarily results from poor grazing and livestock management practices; nurseries and other agriculture; and, to a lesser but growing extent, urbanization. Climate change, which contributes to more extreme drought and flooding events, further exacerbates these impacts.

49. As shown in the below graphic produced by the Tennessee State Wildlife Action Plan, the Barrens darter's headwater streams are at the highest level of risk from agricultural impacts in the entire state of Tennessee.



50. There have not been any targeted conservation efforts for the Barrens darter, which occurs almost entirely in streams flowing on private land.

II. The Service's Analysis of the Listing Petition

51. In 2010, the Center petitioned the Service to list the Barrens darter as an endangered or threatened species. On September 27, 2011, the Service published a positive 90-day finding that listing may be warranted. 76 Fed. Reg. 59,835 (Sept. 27, 2011).

52. In response to Center litigation to compel the Service's overdue 12-month finding, in September 2014, the Service stipulated to making the determination by the end of fiscal year 2018. *Ctr. for Biological Diversity v. Jewell*, No. 1:14-cv-1021-EGS (D.D.C. 2014) (ECF No. 12).

53. In March 2018, the Service issued the *Species Status Assessment Report for the Barrens Darter—Version 1.0* (“SSA”). The Service generally describes SSAs as providing a summary of the best scientific and commercial information available for a species.

54. The SSA analyzed the Barrens darter's predicted future conditions under three scenarios over 5-year and 30-year periods.

55. In Scenario 1, the Service assumed that development in the Barrens darter's range would continue, climate change would continue at current trends, and conservation efforts would occur, but in a limited way.

56. Based on these criteria, the SSA predicted that an additional population would be extirpated and that none of the remaining populations would maintain high resilience.

57. The Service considers Scenario 1 to be “likely.”

Management Unit	Physical Habitat	Water Quality	Population Complexity	Approximate Abundance	Occurrence Extent	Presence of Fringed Darters	Occurrence Complexity	Resilience
1. Charles Creek	Low	Low	Extirpated	Extirpated	Extirpated	Low	Extirpated	Extirpated
2. North Prong Barren Fork	Moderate/Low	Low	Extirpated	Extirpated	Extirpated	High	Extirpated	Extirpated
3. McMahan and Lewis Creeks	Moderate	Moderate	High	Moderate	Moderate	High	High	Moderate/High
4. Duke Creek	Moderate	Moderate	Moderate	Moderate	Moderate	High	High	Moderate
5. South Prong Barren Fork	Low	Low	Moderate	Low	Low	Low	Low	Low
6. West Fork Hickory Creek	Moderate	Low	Extirpated	Extirpated	Extirpated	Low	Extirpated	Extirpated
7. Upper Collins River	Low	Low	Moderate	Low	Low	Moderate	High	Moderate/Low

Table 5-1. Resilience under Scenario 1.

58. In Scenario 2, the Service assumed similar levels of development as in Scenario 1, but with implementation of additional precautions to reduce impacts to streams, a greater level of riparian conservation efforts, and efforts to propagate and reintroduce Barrens darters.

59. Based on these criteria, the SSA predicted that the condition of the Barrens darter would improve and that one of the two existing extirpated populations would be reestablished.

60. The Service considers Scenario 2 to be “unlikely.”

61. In Scenario 3, the Service assumed that development would occur at a higher level than predicted in the other scenarios, agricultural practices would remain the same, climate change would exacerbate the effects of other stressors, and conservation would not occur.

62. Based on these criteria, the SSA predicted that two additional populations would be extirpated and that the remaining populations would be of low resiliency.

63. The Service considers Scenario 3 to be “as likely as not to occur” because of the limited efforts at conservation in the Barrens Plateau area, the recent passage of a Tennessee law reducing regulation of livestock in the state, and a recent history of agricultural spills.

Management Unit	Physical Habitat	Water Quality	Population Complexity	Approximate Abundance	Occurrence Extent	Presence of Fringed Darters	Occurrence Complexity	Resilience
1. Charles Creek	Low	Low	Extirpated	Extirpated	Extirpated	Low	Extirpated	Extirpated
2. North Prong Barren Fork	Low	Low	Extirpated	Extirpated	Extirpated	High	Extirpated	Extirpated
3. McMahan and Lewis Creeks	Low	Low	Moderate	Low	Low	High	Moderate	Low
4. Duke Creek	Low	Low	Low	Low	Low	High	Moderate	Low
5. South Prong Barren Fork	Low	Low	Extirpated	Extirpated	Extirpated	Low	Extirpated	Extirpated
6. West Fork Hickory Creek	Moderate	Low	Extirpated	Extirpated	Extirpated	Low	Extirpated	Extirpated

Table 5-3. Resilience under Scenario 3.

64. On March 28, 2018, the Service issued a *Species Assessment and Listing Priority Assignment Form* for the Barrens darter (“SAF”). The SAF includes a review of the information presented in the SSA and the Service’s findings regarding the Center’s listing petition pursuant to Section 4 of the ESA.

65. In the SAF, the Service concluded that the Barrens darter does not warrant listing as a threatened or endangered species.

66. Relying solely on Scenario 1, the Service based its finding on its conclusions that “populations of the Barrens darter are currently sufficiently resilient that the species is not in danger of extinction” and that four of seven historical populations would remain.

67. The Service’s finding did not analyze or consider Scenario 3, which the agency describes “as likely as not to occur.” Under Scenario 3, only two Barrens darter populations would remain, both at low abundance and low resiliency.

68. In the SAF, the Service also concluded that the Barrens darter is not endangered or threatened in a significant portion of its range.

69. The Service acknowledged its own predictions that the Charles Creek population will be extirpated and that the South Prong Barren Fork population will be reduced to low resiliency in the foreseeable future due to the combined threats of habitat degradation and the associated expansion of fringed darters. The agency concluded, however, that these populations do not represent a significant portion of the species' range, based on its inaccurate conclusion that they "are not contributing either currently or in the foreseeable future to the species' total resiliency at a biologically meaningful scale compared to other representative areas."

70. The Service did not address whether the four extirpated populations predicted under Scenario 3, either separately or together, constitute a significant portion of its range.

71. The Service thus concluded that the predicted extirpation of more than half (four of seven—Charles Creek, North Prong Barren Fork, South Prong Barren Fork, and West Fork Hickory Creek) of all Barrens darter populations does not constitute extirpation in a significant portion of the species' range.

72. The Service further justified its finding with the statement that the "McMahan Creek/Lewis Creek unit is a stronghold for species resiliency . . . under the most likely of the future scenarios assessed."

73. The Service's finding did not, however, address how the loss of more than half the Barrens darter populations will impact the McMahan and Lewis Creek population or the other two populations predicted to persist (Duke Creek and Upper Collins River).

74. Regarding the adequacy of existing regulatory mechanisms, the finding stated only that the Clean Water Act has afforded the Barrens darter "some protection" from pollution.

75. Relying on the SAF findings, on April 4, 2019, the Service issued a 12-month finding concluding that listing the Barrens darter as an endangered or threatened species was not warranted. 84 Fed. Reg. 13,237 (Apr. 4, 2019).

CLAIM FOR RELIEF

Violation of the ESA and/or the APA in Determining that Listing the Barrens Darter as an Endangered or Threatened Species is Not Warranted

76. Plaintiff realleges and incorporates by reference the preceding paragraphs.

77. The Service's decision that the Barrens darter does not warrant listing as an endangered or threatened species throughout all or a significant portion of its range is arbitrary and capricious in numerous respects.

78. Under Scenario 1, which the Service characterized as "likely," only four of seven Barrens darter populations will exist in the foreseeable future. Despite the predicted loss (even under the relatively optimistic Scenario 1) of almost half the populations of this highly endemic species with a naturally narrow distribution, the Service concluded that "populations of the Barrens darter are currently sufficiently resilient that the species is not in danger of extinction."

79. The Service failed to provide a rational explanation for this decision. The Service's finding made no mention of available scientific information concluding that *each* of the Barrens darter's populations is critical to the continued existence of the species, or how that information can be reconciled with the Service's conclusion that the loss of three of seven populations does not render the species endangered or threatened.

80. The Service's decision also arbitrarily disregarded Scenario 3, which it determined is "as likely as not to occur." Under Scenario 3, the Service predicted that five of the seven Barrens darter populations will be extirpated and that the two remaining populations will persist only in low abundance and resiliency, *i.e.*, will be at risk of extinction. The Service

acknowledged this coin-toss as to whether this extinction-level event will unfold within the foreseeable future, yet ignored that possibility entirely in its findings.

81. The Service also arbitrarily concluded that the Charles Creek and South Prong Barren Fork populations do not constitute a significant portion of the species' range; failed to consider whether North Prong Barren Fork and West Fork Hickory Creek constitute a significant portion of the species' range; and failed to consider whether these four populations together constitute a significant portion of the species' range.

82. The Service's decision arbitrarily renders the phrase "significant portion of range" superfluous by concluding that a portion of a species' range can only be significant if its loss would threaten extinction of the species as a whole, a reading that has been repeatedly rejected.

83. The Service's decision also categorically fails to consider the impacts of the species' lost historical range, as well as the additional expected extirpations, on the remaining populations' ability to persist.

84. Finally, the Service failed to rationally consider the adequacy of existing regulatory mechanisms. The Service stated vaguely that the Clean Water Act has provided "some protection" to the Barrens darter, yet provided no explanation or rational basis for that assertion.

85. For these and additional reasons, the Service's decision that listing the Barrens darter as an endangered or threatened species is not warranted is arbitrary and capricious, an abuse of discretion, and otherwise contrary to law. 16 U.S.C. § 1533; 5 U.S.C. § 706(2)(A).

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court:

1. Declare unlawful the Service's determination that listing the Barrens darter as endangered or threatened under the ESA is not warranted;

2. Vacate the Service's 12-month not warranted determination;
3. Remand the 12-month finding to the Service for further analysis and a new listing determination by a date certain that is consistent with the ESA, APA, and this Court's Order;
4. Award Plaintiff its reasonable attorneys' fees and costs; and
5. Grant such other and further relief as the Court may deem just and proper.

Respectfully submitted this 27th day of September, 2022.

/s/ Margaret E. Townsend

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s/ Brian Segee

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