

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
EASTERN DIVISION

NO. _____

SOUND RIVERS, INC. and)
CENTER FOR BIOLOGICAL DIVERSITY,)
)
Plaintiffs,)
)
v.)
)
U.S. FISH AND WILDLIFE SERVICE and)
GREG SHEEHAN, in his official capacity as)
ACTING DIRECTOR, U.S. FISH AND)
WILDLIFE SERVICE,)
)
Defendants.)
_____)

COMPLAINT

[Fed. R. Civ. P. 7]

NATURE OF THE CASE

1. The North Carolina Department of Transportation (“NCDOT”) wants to construct the state’s most expensive highway—a \$2.2 billion toll road—through some of the most sensitive and important wildlife habitat in Piedmont North Carolina. For decades the project has failed to move forward as federal agencies, including the United States Fish and Wildlife Service (“USFWS”), have raised concerns about the massive amount of destruction the highway will cause, including impacts on two imperiled species and the habitat in which they live.

2. In raising these concerns, officials at USFWS were complying with their responsibilities under the Endangered Species Act (“ESA”), which was enacted in 1973 to halt the nation’s march towards mass species extinction. Under the ESA, federal agencies have a duty to examine any federal action that might harm any threatened or endangered species, to

ensure that the activity will not put the species at risk of extinction in the wild, and to aid in the species' recovery.

3. In recent times, however, USFWS has abruptly abandoned its responsibilities under the ESA. This spring the agency published a hurriedly put together document that allows the massive toll highway to bulldoze right through endangered mussel habitat without any measures in place to ensure species survival, let alone assist the species to recover.

4. The official Biological Opinion published by the USFWS allows NCDOT to destroy *every single threatened or endangered mussel* present in over 50 miles of habitat. The document does not attempt to determine how many mussels will in fact be destroyed. The document provides for no monitoring or reporting requirements. The document includes no trigger or safeguard to revisit the analysis.

5. The only even vaguely protective measure in the Biological Opinion is a short-term commitment from NCDOT to provide some minimal funding for an off-site mussel propagation facility. Notably, the funding for this facility will have run out before NCDOT even finishes construction of the toll highway. Moreover, there is no guarantee made in the USFWS approval that the propagation facility will be successful, and no plan whatsoever for reintroducing any propagated mussels back into the wild. No analysis has been performed to demonstrate that the success of the facility will offset the huge damage that will come from construction of a twenty-eight-mile, six-lane highway and all the associated growth and development it will bring.

6. USFWS has failed in every way to analyze impacts to the endangered mussel species and ensure that measures are in place to prevent extinction, minimize loss, and put the species on the road to recovery. The Biological Opinion is arbitrary and capricious and not in

accordance with the law. Two conservation groups, Sound Rivers, Inc. (“Sound Rivers”) and the Center for Biological Diversity (the “Center”), bring this challenge and ask that the Court vacate USFWS’s flawed document and issue a declaratory judgment that the agency’s analysis was unlawful.

JURISDICTION AND VENUE

7. This action arises under the ESA, 16 U.S.C. §§ 1531-44, and the Administrative Procedure Act (“APA”), 5 U.S.C. §§ 701-06. This Court therefore has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question) and 28 U.S.C. § 1361 (action to compel a federal officer to do his duty), and it may issue a declaratory judgment and grant further relief pursuant to 28 U.S.C. §§ 2201-02. Plaintiffs are entitled to bring this action pursuant to the APA, 5 U.S.C. § 702.

8. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(e) because a substantial part of the events or omissions giving rise to the claim occurred in this judicial district and Plaintiff Sound Rivers resides in this district.

PARTIES AND STANDING

Plaintiffs

9. Plaintiff Sound Rivers is a non-profit organization with its principal office in Washington, Beaufort County, North Carolina, that guards the health of the Neuse and Tar-Pamlico River Basins. Sound Rivers was founded in 2015 with the merger of two of the state’s oldest grassroots conservation organizations, the Neuse River Foundation, established in 1980, and the Pamlico-Tar River Foundation, established in 1981. Sound Rivers partners with concerned citizens to monitor, protect, restore, and preserve these watersheds.

10. Sound Rivers' goal is to provide clean water to its communities for consumption, recreation, nature preservation, and agricultural use. Sound Rivers also employs three full-time Riverkeepers® who monitor and protect the Neuse and Tar-Pamlico River Basins, serving as scientific experts and educational resources to schools and communities in the watershed. Sound Rivers is a member of the Waterkeeper Alliance, a nonprofit focused on ensuring drinkable, fishable, and swimmable water everywhere. Sound Rivers has approximately 2,500 members in North Carolina, including numerous members in the Raleigh area.

11. Sound Rivers has members who live and work in the area of Wake and Johnston Counties that will be affected by the Complete 540 toll highway project (the "Project"). Members of Sound Rivers visit, recreate, observe birds and other wildlife, photograph, and otherwise use and enjoy the area. Sound Rivers' members also have educational and scientific interests in the preservation of the area.

12. Sound Rivers' members and staff derive scientific, aesthetic, and spiritual benefit from the existence of the natural features of the area, including Swift Creek, and the wildlife species that depend on it for habitat, and they value the preservation of the area.

13. In particular, Sound Rivers' members value the presence of dwarf wedgemussels, yellow lance mussels, and the fish species on which those mussels rely to propagate. Sound Rivers' members value these species for their own sake and also as integral parts of the riverine ecosystem. Many different kinds of wildlife eat mussels, including raccoons, otters, herons, and egrets. By filtering water for food, mussels help to naturally purify river waters and, by the same token, mussels are good indicators of aquatic health and suitability of habitat for other species.

14. Because mussels' ability to survive and thrive in a river directly indicates the river's water quality, they and similar indicator species are particularly important to Sound Rivers' ongoing work to create the healthiest river possible.

15. Plaintiff Center for Biological Diversity is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center is headquartered in Tucson, Arizona, and has an office in Asheville, North Carolina. The Center has more than 1.6 million members and online activists including 1,184 members and 17,408 supporters in North Carolina, with numerous members in the Raleigh area.

16. The Center has members who live and work in the area of Wake and Johnston Counties that will be affected by the Complete 540 toll highway project. The Center has members who visit, recreate, observe birds and other wildlife, photograph, and otherwise use and enjoy the area, including Swift Creek. The Center, its staff, and its members derive scientific, aesthetic, and spiritual benefit from the existence of the natural features of the area, including Swift Creek and the wildlife species that depend on it for habitat, and they value the preservation of the area.

17. The Center's members value the presence of dwarf wedgemussels, yellow lance mussels, and the fish species on which those mussels rely to propagate. The Center's members value these species for their own sake and also as integral parts of the riverine ecosystem. Many different kinds of wildlife eat mussels, including raccoons, otters, herons, and egrets. By filtering water for food, mussels help to naturally purify river waters and, by the same token, mussels are good indicators of aquatic health and suitability of habitat for other species.

18. The Center's members and staff are keenly focused on ensuring the survival and recovery of all imperiled species. The Center's members and staff have taken a particular interest in protecting dwarf wedgemussel and yellow lance populations as a part of the organization's focus on conservation of freshwater biodiversity in the Southeastern United States.

19. The Complete 540 highway project will destroy or degrade the important habitat in Swift Creek Watershed, harm species that depend on the habitat for survival, and disrupt ecological systems. The Project will thereby directly, adversely, and irreparably injure Sound Rivers, the Center, and their members and staff.

20. Plaintiffs believe that, if the Project proceeds as currently planned, it will harm their scientific, aesthetic, recreational, and spiritual interests in the natural area around the proposed toll highway project and their ability to enjoy the area, including Swift Creek and its abundant wildlife. They further believe that other Project alternatives would cause fewer negative impacts to their interests.

21. These actual and potential injuries have been and continue to be caused by the illegal decisions and actions of the Defendants regarding the Project. The injuries will not be redressed except by an order from this Court that: (1) vacates the Biological Opinion and Incidental Take Statement; (2) requires Defendants to comply with the ESA and all other applicable laws, regulations, and orders; (3) ensures that Defendants take no further actions toward authorizing the Project to proceed with construction until they have complied with those laws; and (4) orders the further relief sought in this action.

Defendants

22. Defendant USFWS is a subordinate federal agency within the U.S. Department of the Interior. USFWS prepared the ESA Biological Opinion, attached hereto as Exhibit 1, challenged in this action and was responsible for ensuring that the document complied with the ESA and its implementing regulations.

23. Defendant Greg Sheehan is the Acting Director of USFWS and is sued in that official capacity. Acting Director Sheehan had the final authority over USFWS' preparation and approval of the inadequate Biological Opinion challenged in this action.

24. Defendants USFWS and Greg Sheehan, are herein referred to collectively as "Defendants."

FEDERAL STATUTORY AND REGULATORY BACKGROUND

Endangered Species Act ("ESA")

25. Congress enacted the ESA because human activities have caused many species to go extinct and other species "have been so depleted in numbers that they are in danger of or threatened with extinction." 16 U.S.C. §§ 1531(a)(1)-(2). "The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost." *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 184 (1978).

26. Accordingly, under the ESA, "all Federal departments and agencies shall seek to conserve endangered species and threatened species." 16 U.S.C. § 1531(c)(1). To "conserve" means to use "all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary." *Id.* § 1532(3). This may include, but is not limited to, "all activities associated with scientific resources management such as research, census, law enforcement,

habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.” *Id.*

27. The ESA’s primary goal is to “preserve the ability of natural populations to survive in the wild.” *Trout Unlimited v. Lohn*, 559 F.3d 946, 957 (9th Cir. 2009). The purpose of the ESA “is to promote populations that are self-sustaining without human interference.” *Id.*; *see also* 16 U.S.C. §§ 1531(b) (purpose includes preservation of ecosystems on which endangered and threatened species depend), 1539(a)(2)(B) (incidental take not to “appreciably reduce the likelihood of the survival and recovery of the species in the wild”); H.R. REP. NO. 95-1625 at 5 (1978), *as reprinted in* 1978 U.S.C.C.A.N. 9453, 9455; 50 C.F.R. § 402.02 (“jeopardize” means to reduce likelihood of survival “in the wild”); U.S. FISH & WILDLIFE SERV. AND NAT’L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK 4-37 (1998) (explaining that jeopardy analysis frames survival “in terms of the species’ reproduction, numbers, and distribution in the wild”).

28. In furtherance of the conservation goals of the ESA, Section 9 of the Act makes it illegal for any person—including governmental agencies—to “take” any endangered species, except as specifically authorized by USFWS. 16 U.S.C. § 1538(a)(1)(B). In general, this prohibition also applies to threatened species managed by USFWS. 50 C.F.R. § 17.31(a). It is also unlawful for any person to violate regulations pertaining to threatened or endangered species. 16 U.S.C. § 1538(a)(1)(G).

29. It is unlawful for “any person” to “cause to be committed” any offense described in Section 9, including take of threatened or endangered species, or a violation of regulations

pertaining to these species. *Id.* § 1538(g). The term “person” includes “any officer, employee, agent, department, or instrumentality of the Federal Government.” *Id.* § 1532(13).

30. The ESA defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect,” or attempt to do any of those things. *Id.* § 1532(19). Take is defined “in the broadest possible manner to include every conceivable way in which a person . . . can ‘take’ or attempt to ‘take’ any fish or wildlife.” *Defenders of Wildlife v. U.S. Env’tl Prot. Agency*, 882 F.2d 1294, 1300 (8th Cir. 1989).

31. “Harm” means “an act which actually kills or injures wildlife,” including habitat modification or degradation that “injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.” 50 C.F.R. § 17.3. “Harass” means “an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering.” *Id.*

32. Section 7 of the ESA prohibits federal agency actions that may jeopardize the survival and recovery of any threatened or endangered species. Each federal agency must “insure” that “any action authorized, funded, or carried out by [the] agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species.” *Id.* § 1536(a)(2). To “jeopardize” a species means to engage in an action that could reduce appreciably the likelihood of both survival and recovery of a listed species in the wild. 50 C.F.R. § 402.02. A federal agency’s grant of permits or authorizations constitutes agency action subject to the requirements of Section 7. *Id.* § 402.02(c).

33. Section 7 of the ESA establishes an interagency consultation process that agencies must follow to fulfill their substantive mandate to avoid jeopardizing endangered or threatened species and harming their habitat. This process contains two major steps.

34. First, a federal agency proposing to take some action—termed the “action agency”—must request information from USFWS¹ concerning whether any species that has been listed or is proposed to be listed is present in the area of the proposed action. 16 U.S.C. § 1536(c)(1); *see* 50 C.F.R. § 402.12(c).

35. If USFWS determines that listed species may be present, the action agency must conduct a “biological assessment” that identifies “any endangered species or threatened species which is likely to be affected” by the proposed action. 16 U.S.C. § 1536(c)(1). The biological assessment must “evaluate the potential effects of the action on listed and proposed species and designated and proposed critical habitat and determine whether any such species or habitat are likely to be adversely affected by the action.” 50 C.F.R. § 402.12(a).

36. Once complete, the action agency must submit the biological assessment to USFWS for review. *Id.* § 402.12(j). If the biological assessment shows that “there are no listed species or critical habitat present that are likely to be adversely affected by the action and [USFWS] concurs . . . then formal consultation is not required.” *Id.* § 402.12(k)(1).

37. The second major step in the ESA consultation process, if necessary, is formal consultation. An agency may not take any action that might affect any listed species or critical habitat without first consulting with USFWS. 16 U.S.C. §§ 1536(a)(2), 1536(b); 50 C.F.R. §§ 402.14(g)(8), (h)(3). During formal consultation, USFWS must determine whether the proposed action, taken together with cumulative effects, is likely to jeopardize the existence of a

¹ The National Marine Fisheries Service evaluates actions that might affect marine species.

threatened or endangered species in the wild or result in the destruction or adverse modification of critical habitat. 50 C.F.R. §§ 402.02, 402.14(g)(3)-(4); 16 U.S.C. § 1536(b)(3)-(4).

38. USFWS sets forth its determination in a “biological opinion.” 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(h). A biological opinion must include a summary of the information upon which the opinion is based, including an evaluation of “the current status of the listed species,” the “effects of the action,” and “cumulative effects.” 50 C.F.R. §§ 402.14(h); *id.* 402.14(g)(2), (g)(3). “Effects of the action” include both direct and indirect effects of an action “that will be added to the environmental baseline.” *Id.* § 402.02. The “environmental baseline” includes “the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.” *Id.* “Cumulative effects” include “future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area.” *Id.*

39. During the consultation process, each agency must use the best scientific data available. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g).

40. If in the biological opinion USFWS concludes that the action is likely to jeopardize an endangered or threatened species or destroy or adversely modify critical habitat, it must list “reasonable and prudent alternatives” that would avoid jeopardy. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14.

41. On the other hand, if the consulting agency concludes that the action is not likely to jeopardize an endangered or threatened species or destroy or adversely modify critical habitat, but could take listed species, it must issue an “incidental take statement” that (1) specifies the

amount or extent of anticipated take; (2) specifies reasonable and prudent measures to minimize adverse impacts; and (3) prescribes mandatory terms and conditions for the action. 16 U.S.C. § 1536(b)(4); 50 C.F.R. § 402.14(i).

42. The incidental take statement functions as an exemption from the broad prohibition on take established in Section 9, for any incidental taking that is in compliance with the terms and conditions of the statement. *See* 16 U.S.C. § 1536(o)(2).

43. If the incidental take statement uses a surrogate measure to express the amount of incidental take, it must “[d]escribe[] the causal link between the surrogate and take of the listed species, explain[] why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species, and set[] a clear standard for determining when the level of anticipated take has been exceeded.” 50 C.F.R. § 402.14(i).

44. Whenever possible, the incidental take statement’s specification of the amount of anticipated take “should be a specific number” of individuals that may be taken by the project. *Arizona Cattle Growers’ Ass’n v. U.S. Fish and Wildlife Serv.*, 273 F.3d 1229, 1249 (9th Cir. 2001); *Oregon Nat. Res. Council v. Allen*, 476 F.3d 1031, 1037 (9th Cir. 2007) (“Congress has clearly declared a preference for expressing take in numerical form.”); *Miccosukee Tribe of Indians of Fla. v. United States*, 566 F.3d 1257, 1275 (11th Cir. 2009) (“[S]pecific population data is required unless it is impractical.”); ESA Handbook, 4-50 (expressing preference for a “specific number”).

45. If the amount of take specified in the incidental take statement is exceeded, the action agency must immediately reinitiate consultation. 50 C.F.R. § 402.14(i)(4).

Administrative Procedure Act

46. The APA provides that a “person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof.” 5 U.S.C. § 702.

47. The APA provides that a court shall set aside agency “actions, findings, and conclusions” that are “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). The APA grants to a reviewing court the authority to “compel agency action unlawfully withheld or unreasonably delayed.” *Id.* § 706(1).

48. A biological opinion is a final agency action within the meaning of the APA and is judicially reviewable under § 704 of that act. *Dow AgroSciences LLC v. Nat’l Marine Fisheries Serv.*, 637 F.3d 259, 261 (4th Cir. 2011).

FACTS

49. This lawsuit concerns the environmental impacts of a proposed toll highway project in the Raleigh, North Carolina metropolitan area. The Complete 540 project would extend the Triangle Expressway twenty-eight miles from the N.C. 55 Bypass in Apex to U.S. 64/U.S. 264 (I-495) in Knightdale. The project has been dubbed “Complete 540” because it would complete the imagined “540 Outer Loop” around the greater Raleigh area.

50. The project is being carried out by NCDOT and FHWA. The project will require a permit under section 404 of the Clean Water Act from the U.S. Army Corps of Engineers. FHWA and the U.S. Army Corps of Engineers are the “action agencies” for purposes of the ESA.

51. At a cost of approximately \$2.2 billion, Complete 540 would be the most expensive highway ever built in North Carolina. Much of the project will be financed with

revenue from tolls, limiting access for low-income members of the Raleigh area who nonetheless will be forced to endure the pollution and ancillary traffic that the project generates.

Furthermore, despite its enormous cost, the benefits of the project are minimal.

52. NCDOT's own analysis shows that the \$2.2 billion investment will do little to improve congestion on existing roadways. According to NCDOT's projections, if the project is built, by 2040 it will cause 12 primary corridors to be more congested during the day, whereas if it is not built only 7 primary roadways would be congested. The project will actually increase "vehicle-hours traveled" on multiple local roads by 2040, including segments of important arterials such as I-40, I-540, US 1, US 70 Business, US 401, NC 55, NC 210, Tryon Road, Poole Road, and Cleveland School Road.

53. Moreover, NCDOT's analysis shows that less expensive alternatives that would not impose such devastating impact on the mussel populations would provide an overall level of benefit similar to the proposed toll highway. Alternatives that focus on improving existing highways, such as the "Improve Existing Arterials" or "IE3-A" that NCDOT has studied, would yield around one half of the mobility gains and *more* congestion relief than the Toll Highway. Tables in NCDOT's traffic analysis show that a new location highway is expected to reduce congested vehicle miles traveled, or "VMT," by just 12.06% in the study area while IE3-A is expected to improve the same measure by 22.49%.

54. The "Complete 540" toll highway project will cause severe environmental degradation. According to the final environmental impact statement for the project, prepared pursuant to the National Environmental Policy Act, the project as planned will impact 59,533 feet of streams, 145 acres of buffers, and 156 different wetlands comprising 69.5 acres.

55. This lawsuit concerns the toll highway's impacts on two species of freshwater mussel that have been listed by USFWS as at risk of extinction, the endangered dwarf wedgemussel and the threatened yellow lance.

Dwarf Wedgemussel

56. The dwarf wedgemussel is a small bivalve that rarely exceeds 45 mm (about 1 ¾ inches) in length. Its thin shell is usually greenish-brown with green rays, turning black or brown and thickening somewhat with age. The mussel's lifespan is about 12 years. The dwarf wedgemussel's habitat includes streams and rivers ranging from 5 to 100 meters wide, where it resides in shallow areas near the banks.

57. Female dwarf wedgemussels become gravid (full of eggs) in the early fall and glochidia (larva) are released by mid-spring. Glochidia attach to fish with a hook-like appendage in order to hitchhike to new areas, using the fish as a means of dispersal. Mussel glochidia are generally species-specific and will only live if they find the correct fish. For the dwarf wedgemussel, the fish species that have been identified as possibly supporting dwarf wedgemussel reproduction are the tessellated darter (*Etheostoma olmstedi*), johnny darter (*Etheostoma nigrum*), and mottled sculpin (*Cottus bairdi*). After several weeks, the glochidium detaches itself from the unharmed fish and drops to the river bottom, where it begins life as a juvenile mussel.

58. The dwarf wedgemussel was listed as endangered under the ESA on March 14, 1990. 55 Fed. Reg. 9447-51.

59. The threats to the dwarf wedgemussel are numerous, including habitat destruction through damming and channelization of rivers, other riparian disturbances, pollution, sedimentation, impoundments, artificial flow regimes, and stream fragmentation. The 1993

Recovery Plan for the mussel identifies the top four threats as impoundments, pollution, riverbank alteration, and siltation.

60. USFWS has found that little riverine and riparian habitat nearby or adjacent to dwarf wedgemussel populations is protected other than by state and local land use regulations, and therefore that development of adjacent uplands continues to be a significant and pervasive threat to southern populations.

61. These and other impacts can disrupt mussel life cycles, prevent the migration of fish carrying glochidia, block gene flow, and prohibit recolonization, resulting in reduced “recruitment” rates (addition of mussels by birth or immigration), decreased population densities, and increased probability of local extinctions.

62. In addition, the toxic impacts of industrial, domestic, and agricultural pollution, including runoff, are primary threats to the mussel’s survival.

63. The species’ relatively short lifespan, low population densities, low reproductive rate, dependence on specific fish species, and limited ability of those fish to disperse into new areas all combine with the threats described above to contribute to putting the dwarf wedgemussel at risk of extinction.

64. Historically, the dwarf wedgemussel’s range extended from North Carolina at the southern extremity north all the way into New Brunswick, Canada, and was recorded in seventy localities in fifteen river basins spanning eleven states and one Canadian province. The mussel is now extinct in Canada, and gone from the main body of the Neuse River.

65. In the remainder of its historic range, the mussel exists in much lower densities than in the past, including in North Carolina. USFWS has found that increased development in the Neuse River Basin as the City of Raleigh grows will cause indirect impacts such as water

quality degradation from upland development in the form of suburban and industrial runoff, river flow alteration, and fragmentation of two small populations by construction of the Buckhorn Reservoir. In a 2012 survey, USFWS found that out of the eleven stream reaches of the Neuse River that once were home to the dwarf wedgemussel, the animal could be found in only one: Swift Creek.

66. A population of dwarf wedgemussel has long persisted in Swift Creek, which is within the toll highway project area, and this Swift Creek population is essential to the recovery of the species: USFWS has identified this population as one that must be viable in order for the species ever to make progress towards recovery and be “down-listed” from endangered to threatened.

67. The dwarf wedgemussel has been found in Swift Creek in recent surveys conducted in connection with the Complete 540 project. A 2012 survey found three mussels in Swift Creek below Lake Benson. A 2014 “Phase 1” Dwarf Wedgemussel Viability Study reviewed a number of prior surveys concerning the dwarf wedgemussel’s presence and historic and current ranges in Swift Creek, and the results were updated in a 2016 “Phase 2” viability study that located one mussel in 2016.

Yellow Lance

68. Like the dwarf wedgemussel, the yellow lance is a small bivalve. Its bright yellow shell is more than twice as long as it is tall, reaching just over 3 inches in length. The shell may have a waxy appearance and will show brownish ridges known as “growth rests” that show where the edge of the mussel’s shell was during earlier stages of its life.

69. The life cycle of the yellow lance is similar to that of the dwarf wedgemussel. Females expel glochidia into the river, which attach to certain fish for a few weeks before

dropping off as juveniles mussels. In laboratory studies, the yellow lance have been documented to use two species of minnow: white shiners (*Luxilus albeolus*) and pinewoods shiners (*Lythrurus matuntinus*).

70. The yellow lance lives in clean sand of coarse to medium grains, and sometimes in gravel, at the bottom of clean moderately flowing small to medium streams with high levels of dissolved oxygen.

71. The species' historical range is from the Neuse River basin at the southernmost extremity north into Maryland. Currently, the yellow lance is still present in seven of the eight river basins of its historic range, having been extirpated from the Potomac River. The population in the remaining basins has declined in both number and distribution over the decades.

72. The yellow lance faces threats similar to those faced by the dwarf wedgemussel. Pollution from all sources easily harms mussels, which stay in one place during their adult lives and filter water from the water column to collect food. Sediment can easily make it difficult for mussels to feed or simply suffocate them. Dams disrupt river flow patterns and eliminate habitat, as well as preventing movement of the fish that yellow lance rely on as glochidia, isolating populations and increasing the likelihood that the fish and mussels will die out.

73. The yellow lance was listed as threatened under the Endangered Species Act on April 3, 2018. 83 Fed. Reg. 14189-98 (April 3, 2018)(to be codified at 50 C.F.R. pt. 17).

74. According to a 2018 species status report on which USFWS based, in part, its determination that the yellow lance is threatened, much of the geographic representation of the yellow lance has been lost: 70% has vanished from the coastal plain, and 56% from the Piedmont. Although the species persists in the majority of the river basins in its known historic range, it is represented by very few individuals in few locations. Of the eight historic

populations, one has “moderate” resiliency, six of the remaining populations—including the Neuse—have “low” resiliency, and the population in the Potomac has been extirpated. During the most recent surveys in the Neuse River Basin, between 2014 and 2016, one individual mussel was found in 2015.

Consultation History

75. Complete 540 will directly harm the dwarf wedgemussel and yellow lance. It will include two bridges spanning Swift Creek itself in the area most important to the dwarf wedgemussel, downstream of Lake Benson. Bridge bents (piles) may be as close as ten feet from the Swift Creek.

76. The highway will generate runoff contaminated with roadway pollutants and sediment. Drainage from bridge decks in the critical Swift Creek and Middle Creek Watersheds will simply be routed to land before it ultimately pours into water bodies. Spills of hazardous chemicals should follow road runoff into hazardous spill basins in some locations, but may occur in locations without these basins, or could still ultimately drain into Swift Creek despite them if the spill is larger than the basin can contain or is made so by combining with rainwater. Erosion control in the Swift Creek and Middle Creek Watersheds will be designed to provide protection from 25-year storms; however, with global warming floods are becoming more frequent and more severe.

77. Since the dwarf wedgemussel was first discovered in Swift Creek in 1991, rapid development within the watershed below the Lake Benson Dam has severely impacted the mussel, resulting in a declining “catch per unit of effort.” However, in recent years, despite continuing development in the region the population has begun to stabilize and reproduce.

78. During the history of this project, USFWS submitted multiple letters expressing concern about the toll highway project's potential effects on the dwarf wedgemussel.

79. As early as 2009, USFWS staff began meeting with NCDOT and FHWA, and in early 2010 USFWS submitted its first letter to NCDOT expressing concerns about the project's likely effects on the dwarf wedgemussel.

80. In its 2010 letter, USFWS stated that the proposed project would have "significant impacts on fish and wildlife resources, including impacts to streams, wetlands, upland forest and other habitat types," in the form of loss of habitat and habitat fragmentation. It stated that it was "particularly concerned about impacts to the dwarf wedgemussel population in Swift Creek," which would be "at risk from direct effects associated with construction of the project (e.g. erosion and siltation from construction area), and from indirect effects associated with the degradation of water quality from secondary development induced by the new road." According to the letter, increased impervious surface and stormwater runoff from additional development would further degrade the water quality in Swift Creek and its tributaries, as had already happened in the preceding 10 to 15 years.

81. USFWS recommended that NCDOT "develop a strategy to avoid contributing to the degradation of the water quality of the Swift Creek watershed." USFWS also recommended moving the interchange with I-40 and US 70, which would be located "on top of several tributaries to Swift Creek and also in close proximity to Swift Creek mainstem." The letter did not discuss mussel propagation.

82. The especially destructive interchange that NCDOT and FHWA plan to place "on top" of a key section of habitat within Swift Creek has not changed. During the planning process, NCDOT color-coded its different route alternatives. Complete 540 is based on the so-

called “Orange Route,” which places the interchange on top of the key confluence identified by USFWS. Only one alternative route, the so-called “Red Route,” would have avoided these impacts.

83. USFWS submitted additional letters to FHWA or NCDOT in 2011, 2012, and 2015. It met with FHWA or NCDOT again in 2011, 2012, 2015, 2016, and four times in 2017.

84. In its 2015 letter, USFWS stated that “[o]verall, the project will have very substantial impacts on fish and wildlife resources, including impacts on streams, wetlands, upland forest and other habitat types,” taking the form of “direct loss of habitat and habitat fragmentation.” Addressing effects on the dwarf wedgemussel in particular, the agency reminded NCDOT that “[i]n previous correspondence and during the Service’s participation in interagency meetings, the service has frequently stated its concern regarding the likely adverse effects of the project on the dwarf wedgemussel within the Swift Creek watershed (Neuse River Basin).” The agency requested further information beyond the “Phase 1” dwarf wedgemussel viability study in order to fully establish the baseline condition of the mussel and other questions regarding viability. USFWS again reminded NCDOT that the 1993 recovery plan “requires, among other criteria, that a viable population (i.e. a population containing a sufficient number of reproducing adults to maintain genetic variability and annual recruitment adequate to maintain a stable population) occur in Swift Creek.” It stated that maintaining such a population was “vitally important,” and further emphasized: “We cannot understate [sic] the significance of this issue.”

85. In the same letter, USFWS stated a desire for a dedicated facility and staff to attempt to propagate the dwarf wedgemussel on a large scale. USFWS recommended that NCDOT and FHWA provide assistance in developing such a facility, and added, “The ability, or

lack thereof, to propagate DWMs and augment the population in Swift Creek will factor significantly in our analysis to determine whether the Complete 540 project will jeopardize the continued existence of the species.”

86. Thus, in 2015, USFWS began discussing with FHWA and NCDOT a captive propagation program which they purported would improve the dwarf wedgemussel’s likelihood of survival, or “viability” in the Swift Creek Watershed.

87. In 2016, USFWS prepared a dwarf wedgemussel “viability study” for the Swift Creek watershed. Following this report, NCDOT and FHWA agreed to provide funding for a captive mussel propagation facility as a conservation measure.

88. In 2017, NCDOT and FHWA prepared a “biological assessment” in which FHWA requested formal consultation with USFWS concerning the project’s effects on the dwarf wedgemussel, and a separate conference concerning its effects on the yellow lance.

89. In January 2018, before the yellow lance was listed as threatened, USFWS provided FHWA and NCDOT with a draft biological opinion which concluded that the toll highway was Likely to Adversely Affect the yellow lance and dwarf wedgemussel.

90. The final biological opinion (hereinafter the “Biological Opinion”) was released April 10, 2018, one week after the yellow lance was listed as threatened.

91. The Biological Opinion purports to analyze whether the project will put listed species—the dwarf wedgemussel and the yellow lance—in jeopardy of extinction.

92. The Biological Opinion concludes that Complete 540 is not likely to jeopardize the continued existence of the dwarf wedgemussel, *id.* at 22, or the yellow lance, *id.* at 26.

93. In support of its “no jeopardy” determination for each species, the Biological Opinion relies on conservation measures that it expects to “minimize and partially offset potential adverse effects” to them. *Id.* at 3.

94. The conservation measures include the proposed mussel propagation facility. *Id.* at 5.

95. The conservation measures also include a preconstruction survey to be performed at the Swift Creek crossing that will relocate mussels to another area or take them into captivity to serve as brood stock for the proposed propagation facility. *Id.* at 5.

96. The Biological Opinion relies on an “Indirect and Cumulative Effects Analysis” (“ICE”) prepared by NCDOT to stand for the proposition that the highway will not have a significant indirect impact on growth in the project area. NCDOT’s ICE analysis is, however, arbitrary and incorrect. As Plaintiffs noted in comments to NCDOT and USFWS in February 2018, the analysis stands in contrast to myriad statements from state, regional and local planners, the business community, and NCDOT itself, that the highway and the access it provides will lead to significantly higher levels of development than would occur if the project was not constructed. This phenomenon of “induced growth” has already been well documented along the existing stretches of I-540.

97. Because the Biological Opinion relied on the arbitrary ICE analysis, it fails to account for these indirect impacts and the effect they will have on the mussel populations.

98. The conservation measures do not address the indirect effects of induced growth, the effects of impacts to water quality from the project and induced growth, or negative impacts to the fish species on which the mussels rely. *Id.* at 3-6.

99. The environmental baseline for the dwarf wedgemussel purports to include all human activities in the action area, but does not discuss the proposed Atlantic Coast Pipeline. *Id.* at 10.

100. Among the effects to the dwarf wedgemussel from construction of the project, the Biological Opinion identifies construction-related harm; bridge debris infill; stream fill associated with culverts and bridge bents in tributaries that could be habitat for the mussels or supporting fish species; crushing these fish during construction; stranding the fish in isolated, overheated, or low-oxygen areas; driving the fish away with noise or underwater sound waves; and prolonged erosion and sedimentation from construction areas in close proximity to Swift Creek and its tributaries, including threats from major storms eroding soil from disturbed areas. *Id.* at 13-14.

101. The Biological Opinion stated that a catastrophic failure of erosion controls could be lethal, but the true effect would be difficult to determine due to the dwarf wedgemussel's "small size and cryptic nature." *Id.* at 14.

102. Among the effects to the dwarf wedgemussel from operation of the project, the Biological Opinion identifies modification of stream flows and channel stability due to the presence of culverts and bridge bents; roadway runoff that includes contaminants such as heavy metals, inorganic salts, hydrocarbons, and suspended solids, to which mussels are among the most sensitive forms of aquatic life; and potential traffic accidents involving toxic chemicals. *Id.* at 14-15.

103. The Biological Opinion acknowledges that the dwarf wedgemussel has not been propagated and reintroduced in North Carolina. *Id.* at 18.

104. The Biological Opinion speculates that the propagation facility could generate an “ark” population of dwarf wedgemussels from the Neuse River basin to maintain the genetic stock, in case the mussels are locally extirpated as a result of projects like Complete 540. *Id.* at 19.

105. The Biological Opinion does not explain how the propagation facility could minimize take from the toll highway as opposed to offset the impacts of take. *Id.*

106. The proposed mussel propagation facility contemplated in the Biological Opinion is governed by two agreements, a January 5, 2018 “reimbursable agreement” and a February 27, 2018 “interagency agreement.”

107. In the reimbursable agreement between NCDOT and Wake County, the county agreed that if it receives funding from NCDOT it will renovate and add to an existing facility, and NCDOT agreed to reimburse Wake County up to 110% of the estimate cost of renovation of \$1,958,936. The agreement is contingent on NCDOT receiving a permit from the U.S. Army Corps of Engineers.

108. The reimbursable agreement references a memorandum of understanding between North Carolina State University (“NCSU”) and Wake County.

109. The interagency agreement between NCDOT and the North Carolina Wildlife Resources Commission (“NCWRC”) states that NCDOT has agreed to fund the operations and maintenance of the propagation program “for up to five (5) years,” and provides an anticipated funding amount of \$3,041,064.

110. The interagency agreement then provides that, subject to receiving this funding from NCDOT, NCWRC will provide the same funding for operations and maintenance of the program under some future agreement with NCSU, specifying that NCWRC is responsible only

for managing and distributing funding for the program, and not for construction, operation or maintenance, “or achieving the Program’s propagation goals.”

111. The interagency agreement also provides that NCDOT is responsible solely for providing funding for the program, and not for “construction, management, operations or success of the Program, [the Yates Mill Aquatic Conservation Center] or its propagation goals.”

112. Despite the provision for potential cost overruns in the reimbursable agreement, the interagency agreement states that the “total maximum amount of funding available” for construction and operation and maintenance of the propagation program is \$5 million.

113. The conservation measure based on potential relocation of mussels states that the mussels will be either relocated or captured to serve as brood stock without committing to either option, and acknowledges that either option constitutes take. *Id.*

114. The extent of the survey “has yet to be determined, but it will likely be very limited in scope.” *Id.*

115. The Biological Opinion gives similar, but even less thorough treatment to conservation measures for the yellow lance. *Id.* at 22-26.

116. The Biological Opinion contains a short incidental take statement (hereinafter the “Incidental Take Statement”).

117. The Incidental Take Statement does not determine the number of individual animals of each threatened or endangered species that the project will take.

118. For both the dwarf wedgemussel and the yellow lance, the Incidental Take Statement states that “we believe that incidental take for this species is difficult to determine.” Bi-Op at 28. USFWS generally bases this determination on two assertions, without providing a

basis for either of them: (1) mussels live underwater and are hard to monitor; and (2) the specific cause of a given harm to mussels can be difficult to determine.

119. The Incidental Take Statement states that “[i]ncidental take that occurs as harm resulting in injury or death from larger amounts of siltation or water quality degradation which temporarily disrupt movement, breeding, feeding, or sheltering of adult and juvenile [dwarf wedgemussel or yellow lance] or larval glochidia are likely not detectable or measurable,” but does not explain why such impacts are “likely not” detectable or measurable. *Id.*

120. The Incidental Take Statement also states that “[i]ncidental take that occurs as harm resulting in injury or death from larger amounts of siltation or water quality degradation would be difficult to determine,” but does not explain why such impacts would be difficult to determine. *Id.*

121. The Incidental Take Statement also states that take that results from harm to the fish on which mussels rely “would likely not be detectable or measureable,” but does not explain why. *Id.*

122. Instead of determining the number of individual animals that the project will take, the Incidental Take Statement then “specifies” the extent of take by using “miles of . . . stream habitat as a surrogate measure” because of “the difficulty of detecting take of [dwarf wedgemussel or yellow lance] caused by the Action.” *Id.* at 28-29.

123. Using this “surrogate” measure of take, the Incidental Take Statement identifies 53 miles of potentially occupied stream habitat for the dwarf wedgemussel, and identifies the amount of take of dwarf wedgemussels as “all DWM (including adults, juveniles, and glochidia) harassed and/or harmed within the approximately 53 miles of stream habitat contained in the Action Area.” *Id.* at 28.

124. Similarly for the yellow lance, the Incidental Take Statement identifies 47 miles of “potentially occupied habitat for YL” and identifies the amount of take of yellow lance as “all YL (including adults, juveniles, and glochidia) harassed and/or harmed within the approximately 47 miles of stream habitat contained in the Action Area.” *Id.*

125. In other words, the Incidental Take Statement authorizes the amount of take of dwarf wedgemussels and yellow lance as simply whatever ends up being taken within the animals’ potentially-occupied habitat in the action area, up to and including 100%.

126. The Incidental Take Statement identifies two “reasonable and prudent measures”: (1) funding the mussel propagation facility; and (2) conducting a preconstruction survey to determine whether the dwarf wedgemussels and yellow lance used for the propagation facility will come from individual animals that are relocated to make way for the project or simply removed from populations in the wild. *Id.* at 29.

127. The Incidental Take Statement’s terms and conditions are limited to the following: (1) NCDOT must provide approximately \$2 million to Wake County to construct the mussel propagation facility; (2) NCDOT must provide approximately \$3 million to the North Carolina Wildlife Resource Commission’s Non-Game Aquatic Project Fund to operate the facility; and (3) NCDOT must conduct a preconstruction survey to determine whether the dwarf wedgemussels and yellow lance used for the propagation facility will come from individual animals that are relocated to make way for the project or simply removed from populations in the wild. *Id.* at 29-30.

128. The Incidental Take Statement does not include any monitoring and reporting requirements at all, purportedly because the Service was “not able to provide specific instructions for such monitoring and reporting,” because “the Action Area is very large, and the

amount or extent of incidental take is necessarily broadly defined using the surrogate measure of stream miles.” *Id.* at 30.

FIRST CLAIM FOR RELIEF

Defendants’ Incidental Take Statement Violates the APA by Authorizing All Take of Endangered and Threatened Species within the Action Area without Limit

129. The Conservation Groups incorporate by reference all preceding paragraphs.

130. In issuing an incidental take statement, USFWS must conclude that “the taking of an endangered species or a threatened species incidental to the agency action will not violate” Section 7(a)(2)’s prohibition against jeopardizing the continued existence of protected species. 16 U.S.C. § 1536(b)(4)(B).

131. In reaching its “no jeopardy” finding, the Biological Opinion concludes that the direct effects of the action would be limited to three areas where the proposed toll highway crossings would be within 0.25 miles of known occupied habitat of dwarf wedgemussels, and that impacts to yellow lance in Swift Creek “are very similar to those of” dwarf wedgemussels. Bi-Op at 21, 25. The Biological Opinion concludes that “direct construction related effects to [yellow lance] in Middle Creek are unlikely.” *Id.* at 25.

132. The Biological Opinion also concludes that the toll highway would lead to only “a relatively small incremental increase in . . . development” and consequent impacts from impervious surfaces, water quality, and sedimentation to dwarf wedgemussels and yellow lance would be limited. Bi-Op at 21, 26.

133. Despite the Biological Opinion’s claims that the project’s direct impacts would be limited to areas of stream crossings, not including Middle Creek for yellow lance, and only have limited indirect impacts, the Incidental Take Statement authorizes take of

- a. *all* dwarf wedgemussels harassed or harmed within 53 miles of potentially occupied stream habitat, including 21 miles of Swift Creek, approximately 26 miles of Middle Creek, approximately 1 mile of White Oak Creek, and approximately 5 miles of Little Creek, Bi-Op at 28, and
- b. *all* yellow lance harassed or harmed within approximately 47 miles of potentially occupied stream habitat, including 21 miles of Swift Creek and approximately 26 miles of Middle Creek, Bi-Op at 29.

134. The Incidental Take Statement also states that Defendants “anticipate potential take in the form of harm would likely be limited to the area at and immediately downstream of the NC 540 crossing of Swift Creek,” but does not limit permissible take in the form of harm to this area.

135. By authorizing “incidental” take equivalent to all of the potential or known habitat of endangered dwarf wedgemussel and threatened yellow lance in the Swift Creek Watershed, the Incidental Take Statement would effectively allow the action agencies to take *all* mussels within Swift Creek watershed, in contrast to the Biological Opinion’s findings regarding its no-jeopardy conclusion.

136. The Incidental Take Statement’s authorization of take beyond what is incidental to the project, to include all mussels within all potential habitat of dwarf wedgemussels and yellow lance within the action area, is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1636(a)(2).

SECOND CLAIM FOR RELIEF

Defendants' No Jeopardy Finding Violates the APA by Relying on Vague, Unexplained Conservation Measures that Fail to Ensure the Project is not Likely to Jeopardize Endangered and Threatened Mussels

137. The Conservation Groups incorporate by reference all preceding paragraphs.

138. In reaching its biological opinion that the Complete 540 project is not likely to jeopardize the continued existence of endangered and threatened species, USFWS considered conservation measures proposed by NCDOT and FHWA to “partially offset potential adverse effects to Dwarf Wedgemussel . . . and Yellow Lance,” Bi-Op at 3, including the conservation measures of a “Preconstruction Survey and Potential Mussel Relocation” and “Propagation Facility.” *Id.* at 5.

139. USFWS does not explain how a preconstruction survey can successfully minimize take of endangered and threatened mussels, particularly if, as stated in the Incidental Take Statement, “there is no practical way to know the number of [dwarf wedgemussels or yellow lance] in the Action Area,” and take for these species is “difficult to determine.” *Id.* 28-29. USFWS further fails to explain how relocating any found mussels to an undefined “appropriate habitat within Swift Creek outside of the salvage area,” will reduce take, particularly if such habitat is indirectly impaired by the project.

140. USFWS also does not explain how the proposed propagation facility can successfully reduce or offset take of endangered and threatened mussels, particularly when the facility is only funded for five years, depends on actions of third-parties other than the action agencies, and there is no commitment about the facility actually producing mussels viable for release into the project area.

141. Moreover, USFWS does not explain how such a propagation facility could operate given the demonstrated difficulty of obtaining broodstock, and USFWS's claim that "there is no practical way to know the number of [dwarf wedgemussels or yellow lance] in the Action Area," and take for these species is "difficult to determine," such that locating broodstock may be impossible. Bi-Op at 28-29.

142. Finally, even if the facility were to successfully propagate mussels in captivity, USFWS fails to demonstrate that such captively-propagated mussels could be successfully released into the project area after construction of the Complete 540 toll highway or explain where they will be released and what habitat will be available to them to allow them to thrive.

143. The agency's determination that the Complete 540 project is not likely to jeopardize the continued existence of such species, based on conservation measures of (1) a preconstruction survey and potential mussel relocation, and (2) a mussel propagation facility, that are not reasonably specific, not certain to occur, and are ineffective, is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

THIRD CLAIM FOR RELIEF

Defendants' Incidental Take Statement Violates the APA by Failing to Set a Numerical Limit on Take of Protected Species as Required Under the ESA

144. The Conservation Groups incorporate by reference all preceding paragraphs.

145. If USFWS determines an action will not jeopardize the continued existence of endangered or threatened species, it must provide an incidental take statement specifying the impact of incidental take on affected species. 16 U.S.C. § 1536(b)(4)(c)(i).

146. An incidental take statement must specify the amount of take anticipated from the project. USFWS must do so as a numerical limit on the take of protected species, or establish

that such a numerical limit is impractical. 50 C.F.R. § 402.14(i); *see Miccosukee Tribe of Indians of Fla.*, 566 F.3d at 1275; *Oregon Nat. Res. Council*, 476 F.3d at 1037; *Arizona Cattle Growers' Ass'n*, 273 F.3d at 1249-50.

147. USFWS's Incidental Take Statement claims without explanation that detecting harm or lethal take of dwarf wedgemussel and yellow lance would be "difficult to determine" and is "likely not detectable or measureable." The Incidental Take Statement fails to demonstrate that specifying the extent of take in terms of number of individual protected species is impractical.

148. Rather than specifying the number of individual protected species anticipated to be taken incidental to the project, USFWS uses a surrogate measure of take. The Incidental Take Statement defines the extent of take caused by the project as all miles of potentially occupied habitat in the project area. The Incidental Take Statement does not explain the "causal link" between this surrogate measure of potentially occupied habitat and take of the protected mussel species.

149. USFWS's failure to set a numerical limit on take of protected species, or to establish that such a numerical limit is impractical and how the surrogate measure is causally linked to the take of listed species in its Incidental Take Statement is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

FOURTH CLAIM FOR RELIEF

Defendants' Incidental Take Statement Violates the APA because it Fails to Require that the Authorized Take Must Be Monitored, in Violation of the ESA

150. The Conservation Groups incorporate by reference all preceding paragraphs.

151. An incidental take statement must include reporting requirements that must be complied with in order to implement reasonable and prudent measures necessary to minimize the impact of incidental take on affected species. 16 U.S.C. § 1536(b)(4)(c)(iv) .

152. The Complete 540 Incidental Take Statement does not include any monitoring or reporting requirements.

153. Without any monitoring or reporting requirements, there is no meaningful mechanism by which to know when the level of authorized incidental take has been exceeded. In turn, there is no way to know whether the project is in compliance with the consultation and jeopardy requirements of Section 7(a)(2).

154. USFWS's failure to include reporting and monitoring requirements is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

FIFTH CLAIM FOR RELIEF

Defendants' Incidental Take Statement Fails to Establish a "Trigger" for Reinitiation of Consultation with USFWS as Required Under the ESA

155. The Conservation Groups incorporate by reference all preceding paragraphs.

156. An incidental take statement must require the action agency to reinitiate formal consultation with USFWS if "the amount or extent of taking specified in the incidental take statement is exceeded." 50 C.F.R. § 402.16(a).

157. As described above, the Complete 540 Incidental Take Statement fails to specify the impact of the toll highway on the two mussel species or set a numerical limit on take, and fails to require reporting and monitoring of take, both of which are required to determine whether a take limit has been exceeded.

158. The Incidental Take Statement therefore does not establish any measurable “trigger” for reinitiation of consultation.

159. USFWS’s failure to include any meaningful and effectual trigger for reinitiation of consultation in the Incidental Take Statement is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

SIXTH CLAIM FOR RELIEF

Defendants’ Incidental Take Statement Violates the APA by Relying on Improper Terms and Conditions

160. The Conservation Groups incorporate by reference all preceding paragraphs.

161. An incidental take statement must include “terms and conditions” with which the action agency must comply. 16 U.S.C. § 1536(b)(4)(c)(iv).

162. Only those measures that will be taken by the action agency to minimize a project’s incidental takings are properly included in an incidental take statement’s terms and conditions. 50 C.F.R. § 402.14(i)(1)(ii); *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 698 F.3d 1101, 1114 n.9 (9th Cir. 2012).

163. Mitigation measures that do not minimize incidental takings but nonetheless promote recovery of a species are properly considered conservation actions that are interrelated to a proposed project. *Ctr. for Biological Diversity*, 698 F.3d at 1114 n.9.

164. Conservation measures are not legally binding, 50 C.F.R. § 402.14(j), but are part of the proposed action, and their implementation is required under the terms of the consultation, meaning that failure to implement them requires new consultation, *Ctr. for Biological Diversity*, 698 F.3d at 1114.

165. The terms and conditions included in the Complete 540 Incidental Take Statement depend on actions of non-federal parties—namely NCDOT, Wake County, N.C. State, and the N.C. Wildlife Resources Commission—in relation to the proposed propagation facility.

166. The propagation facility does not minimize take.

167. USFWS's failure to include terms and conditions that apply to the action agency and that minimize rather than merely mitigate incidental takings in the Incidental Take Statement is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

SEVENTH CLAIM FOR RELIEF

Defendants' No Jeopardy Finding Violates the APA because It Is Not Supported by the Best Available Scientific Data as Required under the ESA

168. The Conservation Groups incorporate by reference all preceding paragraphs.

169. In issuing a biological opinion, USFWS must consider the best available scientific data. 16 U.S.C. § 1536(a)(2).

170. USFWS's Biological Opinion for the Complete 540 project failed to use the best available scientific data to properly document and analyze the likely impacts from the proposed toll highway to endangered and threatened mussel species, including failing to account for indirect effects from induced growth, harmful water quality effects, and impacts to necessary support species, among other shortcomings.

171. USFWS's failure to fully consider all likely impacts to threatened and endangered species, and in turn its determination that the Complete 540 project is not likely to jeopardize the continued existence of such species, is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

EIGHTH CLAIM FOR RELIEF

Defendants' Biological Opinion Violates the APA by Failing to Document an Accurate Environmental Baseline

175. The Conservation Groups incorporate by reference all preceding paragraphs.

176. A biological opinion must consider all effects of the proposed action, which include “direct and indirect effects . . . on the species . . . , together with the effects of other activities that are interrelated or interdependent with [the] action, that will be added to the environmental baseline.” 50 C.F.R. § 402.02.

177. In turn, the environmental baseline is defined to include “the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.” *Id.*

178. The Complete 540 Biological Opinion’s environmental baseline fails to include impacts from the concurrently planned Atlantic Coast Pipeline, which would also cross and directly and indirectly impact the Swift Creek watershed.

179. Moreover, the USFWS’s analysis of indirect and cumulative impacts relies entirely on an Indirect and Cumulative Effects Report conducted by Michael Baker Engineering on behalf of NCDOT, which relied on a flawed methodology for projecting land use changes caused by the project, and ignored the contrary evidence about the likelihood that the highway will induce significant land use changes.

180. The environmental baseline for the Biological Opinion is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

NINTH CLAIM FOR RELIEF

Defendants' Biological Opinion Violates the APA by Failing to Consider How the Toll Highway Will Impact Recovery of Threatened and Endangered Species

181. The Conservation Groups incorporate by reference all preceding paragraphs.

182. The intended goals of the ESA include preventing the extinction of a species and allowing a species to recover to the point where it can be de-listed. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004).

183. Recovery is an essential component of the ESA that must be considered when an agency makes a jeopardy analysis. 50 C.F.R. § 402.02 (defining “jeopardize” as “reduce appreciably the likelihood of both the survival *and recovery* of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.” (emphasis added)).

184. In the Biological Opinion USFWS made no attempt to address how construction of Complete 540 or associated actions would impact recovery of the two mussel species.

185. The Biological Opinion’s failure to consider species recovery for the two mussel species is arbitrary, capricious, an abuse of discretion, and otherwise not in accordance with the law, in violation of the APA, 5 U.S.C. § 706(2); *see* 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.10-16.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that this Court:

- A. Issue a declaratory judgment stating that the Defendants have violated the Administrative Procedure Act and the Endangered Species Act, in the respects set forth above;
- B. Order that the Biological Opinion and Incidental Take Statement dated April 10, 2018 be vacated, set aside, and/or rescinded;

C. Award Plaintiffs the costs of this action, including their reasonable attorneys' fees; and

D. Grant Plaintiffs such further and additional relief as the Court deems just and proper.

This the 23rd day of May, 2018.

s/ Kimberley Hunter _____

Kimberley Hunter

N.C. Bar No. 41333

khunter@selcnc.org

Ramona H. McGee

N.C. Bar No. 47935

rmcgee@selcnc.org

SOUTHERN ENVIRONMENTAL LAW CENTER

601 West Rosemary Street, Suite 220

Chapel Hill, North Carolina 27516-2356

Telephone: (919) 967-1450

Facsimile: (919) 929-9421

Attorneys for Plaintiffs