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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R4–ES–2018–0092; FF09E21000 FXES11110900000 201]

RIN 1018-BC28

Endangered and Threatened Wildlife and Plants; Threatened Species Status with Section 4(d) Rule for Neuse River Waterdog and Endangered Status for Carolina Madtom and Designations of Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule; revisions and reopening of comment period.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce the reopening of the comment period on our May 22, 2019, proposed rule to list the Carolina madtom (*Noturus furiosus*) as an endangered species and the Neuse River waterdog (*Necturus lewisi*) as a threatened species with a section 4(d) rule, and to designate critical habitat for both species under the Endangered Species Act of 1973, as amended (Act). In this document, we present revisions to the section 4(d) rule language and to the critical habitat designation we proposed for the Neuse River waterdog on May 22, 2019. We now propose to designate a total of 779 miles (1,254 kilometers) as critical habitat for the Neuse River waterdog across 18 units within portions of 18 counties in North Carolina. This amounts to an increase of 41 miles (66 kilometers) in the proposed critical habitat designation for that species. We are reopening the comment period to allow all interested parties the opportunity to comment on the May 22, 2019, proposed rule, as well as the

revisions described in this document. Comments previously submitted need not be resubmitted, as they will be fully considered in preparation of the final rule.

DATES: The comment period for the proposed rule published May 22, 2019, at 84 FR 23644, is reopened. So that we can fully consider your comments in our final determination, submit them on or before **[INSERT DATE 30 DAYS AFTER DATE OF FEDERAL REGISTER PUBLICATION]**. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES**, below) must be received by 11:59 p.m. Eastern Time on the closing date.

ADDRESSES: *Document availability:* You may obtain copies of the May 22, 2019, proposed rule and associated documents on the Internet at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2018–0092 or by mail from the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Written comments: You may submit written comments by one of the following methods:

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

<http://www.regulations.gov>. In the Search box, enter FWS–R4–ES–2018–0092, which is the docket number for this rulemaking. Then, click on the Search button. On the resulting page, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rule box to locate this document. You may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit your comments by U.S. mail to: Public Comments Processing, Attn: FWS–R4–ES–2018–0092, U.S. Fish and Wildlife Service, MS: JAO/1N, 5275 Leesburg Pike, Falls Church, VA 22041–3803.

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

FOR FURTHER INFORMATION CONTACT: Pete Benjamin, Field Supervisor, U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office, 551F Pylon Drive, Raleigh, NC 27606; telephone 919-856-4520. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service at 800-877-8339.

SUPPLEMENTARY INFORMATION:

Information Requested

We will accept written comments and information during this reopened comment period on our May 22, 2019, proposed listing determination and designation of critical habitat for the Carolina madtom and proposed listing determination with section 4(d) rule and designation of critical habitat for the Neuse River waterdog (84 FR 23644), the revisions to the section 4(d) rule and proposed critical habitat designation for the Neuse River waterdog that are described in this document, and our draft economic analysis (DEA) of the proposed critical habitat designations for both species. We will consider information and recommendations from all interested parties. We are particularly interested in comments concerning:

- (1) The Carolina madtom's and Neuse River waterdog's biology, range, and population trends, including:
 - (a) Biological or ecological requirements of the species, including habitat

requirements for feeding, breeding, and sheltering;

(b) Genetics and taxonomy;

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

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

(e) Past and ongoing conservation measures for the species, their habitats, or

both.

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

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

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

(5) Information on activities that are necessary and advisable to provide for the conservation of the Neuse River waterdog to include in a 4(d) rule for the species. In particular, information concerning the extent to which we should include any of the section 9 prohibitions in the 4(d) rule or whether any other forms of take should be excepted from the prohibitions in the 4(d) rule.

(6) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act, including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation,

and whether that increase in threat outweighs the benefit of designation such that the designation of critical habitat may not be prudent.

(7) Specific information on:

(a) The amount and distribution of Carolina madtom or Neuse River waterdog habitat;

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

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

(d) What areas not occupied at the time of listing are essential for the conservation of the species and why.

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

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

(10) Information on the extent to which the description of probable economic impacts in the DEA is a reasonable estimate of the likely economic impacts.

(11) Whether any specific areas we are proposing for critical habitat designation should be considered for exclusion under section 4(b)(2) of the Act, and whether the benefits of potentially excluding any specific area outweigh the benefits of including that

area under section 4(b)(2) of the Act.

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

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

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

If you submitted comments or information on the May 22, 2019, proposed rule or DEA during the comment period that was open from May 22, 2019, to July 22, 2019, please do not resubmit them. Any such comments are already part of the public record of this rulemaking proceeding, and we will fully consider them in the preparation of our final determination. Our final determination will take into consideration all written comments and any additional information we receive during both comment periods. The final decision may differ from the May 22, 2019, proposed rule, as revised by the proposals described in this document, based on our review of all information we receive during this rulemaking proceeding.

You may submit your comments and materials concerning the May 22, 2019, proposed rule, this document, or the DEA by one of the methods listed in **ADDRESSES**.

We request that you send comments only by the methods described in **ADDRESSES**.

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

Comments and materials we receive, as well as supporting documentation we used in preparing the May 22, 2019, proposed rule, this document, and the DEA, will be available for public inspection on <http://www.regulations.gov> at Docket No. FWS–R4–ES–2018–0092, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**). You may obtain copies of the May 22, 2019, proposed rule, this document, and the DEA on the Internet at <http://www.regulations.gov> at Docket No. FWS–R4–ES–2018–0092, or by mail from the Raleigh Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Public Hearing

Section 4(b)(5) of the Act provides for a public hearing on this proposal, if requested. Requests must be received within 15 days after the date of publication of this proposed rule in the *Federal Register* (see **DATES**, above). Such requests must be sent to the address shown in **FOR FURTHER INFORMATION CONTACT**. We will schedule a public hearing on this proposal, if requested, and announce the date, time, and place of the hearing, as well as how to obtain reasonable accommodations, in the *Federal*

Register and local newspapers at least 15 days before the hearing. For the immediate future, we will provide these public hearings using webinars that will be announced on the Service's website, in addition to the *Federal Register*. The use of these virtual public hearings is consistent with our regulation at 50 CFR 424.16(c)(3).

Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal. Based on the new information we receive (and any comments on that new information), we may conclude that a species is threatened instead of endangered (or vice versa), or we may conclude that a species does not warrant listing as either an endangered species or a threatened species. Such final decisions would : (1) be based on the best scientific and commercial data available after considering all of the relevant factors; (2) rely only on factors authorized by statute; and (3) articulate a rational connection between the facts found and the conclusions made, including why we changed our conclusion.

Background

The purpose of this document is to discuss only those topics directly relevant to the revised proposed section 4(d) rule language and the designation of critical habitat for the Neuse River waterdog. For more information on the Carolina madtom and the Neuse River waterdog, their habitats, and previous Federal actions concerning either species, refer to the proposed rule published in the *Federal Register* on May 22, 2019 (84 FR 23644).

In our May 22, 2019, proposed rule, we proposed to list the Neuse River waterdog as a threatened species with a section 4(d) rule, including exceptions for species restoration efforts by State wildlife agencies, channel restoration projects, bank

stabilization projects, and silvicultural practices and forest management activities. That rule also proposed to designate critical habitat in 16 units encompassing approximately 738 stream miles (1,188 kilometers) in the Tar and Neuse river basins in North Carolina. In addition, we announced the availability of a DEA of the proposed critical habitat designation. We accepted comments on the proposal and DEA for 60 days, ending July 22, 2019.

Based on information we received during the public comment period, we propose to revise the section 4(d) rule and critical habitat designation for Neuse River waterdog, and we are therefore reopening the comment period for 30 days to allow the public additional time to submit comments on both the May 22, 2019, proposed rule, as well as the revisions described in this document.

New Information and Revisions to Previously Proposed Section 4(d) Rule

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

wide latitude of discretion to select and promulgate appropriate regulations tailored to the specific conservation needs of the threatened species. The second sentence grants particularly broad discretion to the Service when adopting the prohibitions under section 9.

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

Exercising its authority under section 4(d), the Service has developed a species-specific proposed rule that is designed to address the Neuse River waterdog's specific threats and conservation needs. Although the statute does not require the Service to make a "necessary and advisable" finding with respect to the adoption of specific prohibitions under section 9, we find that this rule as a whole satisfies the requirement in section 4(d)

of the Act to issue regulations deemed necessary and advisable to provide for the conservation of the Neuse River waterdog. The proposed 4(d) rule would promote conservation of the Neuse River waterdog by encouraging management of the landscape in ways that meet both land management considerations and the conservation needs of the Neuse River waterdog. It would be one of the tools that the Service would use to promote the conservation of the Neuse River waterdog. It would apply only if and when the Service makes final the listing of the Neuse River waterdog as a threatened species.

As discussed under the May 22, 2019, proposed rule's **Summary of Biological Status and Threats** (84 FR 23644, pp. 84 FR 23646–23652), declines in water quality, loss of stream flow, riparian and instream fragmentation, and deterioration of instream habitats are affecting the status of the Neuse River waterdog. These threats, which are expected to be exacerbated by continued urbanization and the effects of climate change, were central to our assessment of the future viability of the Neuse River waterdog. Therefore, we propose to prohibit actions that result in the incidental take of Neuse River waterdog by altering or degrading the habitat. Regulating incidental take resulting from these activities would help preserve the species' remaining populations, slow its rate of decline, and decrease synergistic, negative effects from other stressors.

This 4(d) rule would provide for the conservation of the Neuse River waterdog by prohibiting the following activities, except as otherwise authorized or permitted: importing or exporting; take; possession and other acts with unlawfully taken specimens; delivering, receiving, transporting, or shipping in interstate or foreign commerce in the course of commercial activity; or selling or offering for sale in interstate or foreign commerce.

Under the Act, “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Some of these provisions have been further defined in regulation at 50 CFR 17.3. Take can result knowingly or otherwise, by direct and indirect impacts, intentionally or incidentally. Regulating incidental and/or intentional take would help preserve the species’ remaining populations, slow their rate of decline, and decrease synergistic, negative effects from other stressors. Therefore, we proposed to prohibit intentional take of the Neuse River waterdog, including, but not limited to, capturing, handling, trapping, collecting, or other activities. In this document, we propose to change the way in which the provisions of the 4(d) rule for the Neuse River waterdog would appear in 50 CFR 17.43, and we would no longer refer to the prohibitions set forth at 50 CFR 17.31(a). Instead, we detail the prohibitions set forth at 50 CFR 17.21, which apply to endangered species. However, the substance of the prohibitions, and exceptions to those prohibitions, in the proposed 4(d) rule for the Neuse River waterdog have not changed. As we stated in the May 22, 2019, proposed rule, the species needs active conservation to improve the quality of its habitat. By excepting some of the general prohibitions of 50 CFR 17.21, these excepted actions can encourage cooperation by landowners and other affected parties in implementing conservation measures. This would allow use of the land while at the same time ensuring the protection of suitable habitat and minimizing impact on the species.

During the comment period on the May 22, 2019, proposed rule, we received numerous comments from the public on several of the exceptions to the prohibitions in the proposed 4(d) rule. As a result of these comments, we retain the four exceptions, and propose to revise three of them. Below, we describe the four exceptions, the comments

we received, and their proposed revisions, if any.

The first exception, for incidental take resulting from species restoration efforts by State wildlife agencies, including collection of broodstock, tissue collection for genetic analysis, captive propagation, and subsequent stocking into currently occupied and unoccupied areas within the historical range of the species, remains unchanged from what we proposed on May 22, 2019 (84 FR 23644, see pp. 84 FR 23655, 23670).

The second exception, for incidental take resulting from channel restoration projects, retains all of the language from the May 22, 2019, proposed rule for creation of natural, physically stable, ecologically functioning streams that are reconnected with their groundwater aquifer (84 FR 23644, see pp. 84 FR 23655, 23670). However, we propose to add language that would require surveys for and relocation of Neuse River waterdogs observed prior to commencement of restoration action.

The third exception, for incidental take resulting from bank stabilization projects, remains largely unchanged from what we proposed on May 22, 2019 (84 FR 23644, see pp. 84 FR 23655, 23671), except that we propose to add a requirement that appropriate “native” vegetation, including woody species appropriate for the region and habitat, be used for stabilization.

During the public comment period, the Service received several comments on the fourth exception for incidental take resulting from silvicultural practices and forest management activities (84 FR 23644, see pp. 84 FR 23655–23656, 23671), including seeking further clarification of the meaning of “highest standard” best management practices (BMPs). Therefore, to address any uncertainty regarding which silvicultural and forest management BMPs will satisfy this exception for incidental take resulting

from silvicultural practices and forest management activities, we propose to revise our section 4(d) language to clarify that the BMPs must result in protection of the habitat features that provide for the breeding, feeding, sheltering, and dispersal needs of the Neuse River waterdog. Specifically concerning streamside management zones (SMZs), we propose to revise the proposed 4(d) rule to provide details about SMZ widths that would be protective of the habitat for the species, similar to those more substantial BMPs considered for “special/sensitive” streams that are designated “trout waters” and already implemented by the North Carolina forestry program in the Neuse and Tar River basins (North Carolina Forest Service (NCFS) 2006, p. 42). SMZs for waterbodies that are occupied by the Neuse River waterdog are intended to be similar to trout water buffers, as described by the North Carolina Department of Environmental Quality’s Environmental Management Commission (North Carolina General Statutes 113A-57), and to protect the species’ life-history requirements, as documented in the species status assessment (SSA) for the Neuse River waterdog (USFWS 2019, pp. 5–11). In waterbodies that support listed aquatic species, a wider SMZ is more effective at reducing sedimentation, maintaining lower water temperatures through shading, and introducing food (such as leaves and insects) into the food chain (VADF 2011, p. 37). Ninety percent of the food in forested streams comes from bordering vegetation (NCWRC 2002, p. 6; USFWS 2006, p. 6; Stewart et al. 2000, p. 210; USFWS 2018, p. 10). Neuse River waterdogs require cool, well-oxygenated water, and a clean stream bottom (USFWS 2018, p. 10). A lack of these features limits the number of waterdogs a stream can support. Aquatic habitat and suitable water temperature can be maintained even during logging operations when streamside vegetation is left intact (VADF 2011, p. 37).

In addition, we propose to revise the 4(d) rule to provide details on how access roads, skid trails, and crossings can be used in a way that would be most protective of the habitat by reducing sedimentation (NCFS 2018, entire). Highly turbid, silted stream water can clog the external gills of waterdogs, and can also decrease the stream’s insect population, an important source of food (USFWS 2018, p. 8).

Accordingly, we have clarified the intent of the fourth exception, for incidental take resulting from silviculture practices and forest management activities, to those practices and activities that implement State-approved best management practices (BMPs), which include the following specifications for streamside management zones (SMZs), stream crossings, and access roads:

1. A two-zoned SMZ is established and maintained along each side of the margins of intermittent streams, perennial streams, and perennial waterbodies (see table for example of current specifications based on slope similar to trout waters (VADF 2011, p. 15)). The SMZ is measured from bankfull (i.e., the top of the stream bank on both sides), and is expected to confine visible sediment resulting from accelerated erosion.

Table 1. Streamside Management Zone (SMZ) for Waterbodies Occupied by Neuse River Waterdog.

Percent Slope of Adjacent Lands (%)	Zone 1 (no touch/no harvest; measured in feet)	Zone 2 (selective harvest allowed; measured in feet)	Total SMZ Width (measured in feet)
0–10	50	16	66
11–20	50	25	75
21–45	50	50	100
46+	50	70	120

2. Access roads and skid trails that cross an intermittent stream, a perennial stream, or a perennial waterbody are installed using properly designed and constructed structures installed at right angles to the stream. Structures do not impede fish passage or stream flow, and minimize the amount of visible sediment that enters that stream or waterbody. Number of crossings is minimized, and stable sites for crossings are chosen.

These crossings are installed so that:

- a. Stream flow is not obstructed or impeded;
- b. No intermittent stream channel, perennial stream channel, or perennial waterbody is used as an access road or skid trail;
- c. Crossings are provided with effective structures or native ground cover to protect the stream banks and stream channel from accelerated erosion;
- d. Crossings have sufficient water control devices to collect and divert surface flow from the access road or skid trail into undisturbed areas or other control structures to restrain accelerated erosion and prevent visible sediment from entering intermittent streams, perennial streams, and perennial waterbodies; and
- e. Native ground cover, or best management practices, that prevents visible sediment from entering intermittent streams, perennial streams, and perennial waterbodies is provided within 10 working days of initial disturbance and is maintained until the site is permanently stabilized.

3. All access roads and skid trails are located outside of SMZs unless no other alternative exists.

These State-approved forestry BMPs are upheld by North Carolina's Forest Practice Guidelines (FPGs) related to water quality standards and the Sustainable

Forestry Initiative/Forest Stewardship Council/American Tree Farm System certification standards for both forest management and responsible fiber sourcing, and are publicly available on the websites for these organizations, as follows:

- <https://www.stateforesters.org/bmps/>
- <https://www.ncforestservation.gov/publications/Forestry%20Leaflets/WQ01.pdf>
- https://www.sfiprogram.org/wp-content/uploads/2015_2019StandardsandRulesSection2Oct2015.pdf
- <https://us.fsc.org/download.fsc-us-forest-management-standard-v1-0.95.htm>
- <https://www.treefarmssystem.org/certification-american-tree-farm-standards>

We reiterate that these actions and activities may have some minimal level of take of the Neuse River waterdog, but are unlikely to negatively impact the species' conservation and recovery efforts. To the contrary, we expect they would have a net beneficial effect on the species. Across the species' range, instream habitats have been degraded physically by sedimentation and by direct channel disturbance. The activities in the proposed 4(d) rule would correct some of these problems, creating more favorable habitat conditions for the species.

As we already stated in the May 22, 2019, proposed rule, the proposed 4(d) rule would allow the issuance of permits to carry out otherwise prohibited activities, including those described above, involving threatened wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.32. With regard to threatened wildlife, a permit may be issued for the following purposes: for scientific purposes, to enhance the propagation or survival of the species, for economic hardship, for zoological exhibition, for educational purposes, for incidental taking, or for special purposes

consistent with the purposes of the Act. There are also certain statutory exemptions from the prohibitions, which are found in sections 9 and 10 of the Act.

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

Finally, the proposed 4(d) rule would allow take of the Neuse River waterdog without a permit by any employee or agent of the Service or a State conservation agency who is designated by his/her agency for such purposes and when acting in the course of his official duties if such action is necessary to aid a sick, injured, or orphaned specimen; to dispose of a dead specimen; or to salvage a dead specimen which may be useful for scientific study. In addition, Federal and State law enforcement officers may possess, deliver, carry, transport, or ship a Neuse River waterdog taken in violation of the Act as necessary.

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

New Information and Revisions to Proposed Critical Habitat for Neuse River Waterdog

During the public comment period, we received 83 letters containing 26 comments on the proposed critical habitat designation, with 7 substantive comments specific to the proposed designation for Neuse River waterdog. The comments from the North Carolina Wildlife Resources Commission (NCWRC) and one private consultant provided new observation data collected since the November 2018 version of the SSA report, including updated 2018 and 2019 survey records in Middle Creek (Neuse River Basin, Johnston County, North Carolina), Tuckahoe Swamp (Trent River Basin, Jones County, North Carolina), Tar River (Tar River Basin, Franklin and Granville Counties, North Carolina), Fishing Creek (Tar River Basin, Nash County, North Carolina), and Bens Creek (Fishing Creek Subbasin, Warren County, North Carolina).

Based on the new data, we propose certain revisions to the critical habitat

designation we proposed on May 22, 2019, for the Neuse River waterdog. Specifically, we propose to add two units based on new observation data of the species provided by NCWRC in locations within the historical range; new Unit 3 is 2 miles (3.2 km) of Bens Creek in the Tar River Basin in Warren County, North Carolina, and new Unit 18 is 2 miles (3.2 km) of Tuckahoe Swamp in the Trent River Basin in Jones County, North Carolina. We also propose to revise Unit 1 to add 3.7 river miles (6 km) of the Upper Tar River based on a 2018 observation provided by NCWRC of Neuse River waterdog. We propose to revise Unit 4 (previously Unit 3) to add 20 miles (32.3 km) of Fishing Creek based on a 2019 observation provided by NCWRC of Neuse River waterdog. We propose to revise Unit 6 (previously Unit 5) to add 11 miles (17.8 km) of the upper reach of the Tar River based on a 2019 observation by a permitted private consultant of Neuse River waterdog. We propose to revise Unit 10 (previously Unit 9) to add 23.2 miles (37.4 km) of Middle Creek based on two 2018 observations provided by NCWRC of Neuse River waterdog. We propose to revise the downstream portion of Unit 17 (previously Unit 16) to remove 1.1 miles (2 km) of the Trent River that borders the U.S. Department of Defense's Marine Corps Air Station Cherry Point Oak Grove Outlying Landing Field (OLF) based on the Neuse River waterdog being included in the Station's integrated natural resources management plan.

All of the additional stream miles are currently occupied, contain most or all of the physical or biological features to support life-history functions essential to the conservation of the Neuse River waterdog, and may require special management considerations or protection from threats as described in the May 22, 2019, proposed rule (84 FR 23644). Because of these revisions, the numbering for most of the critical habitat

units has changed from the May 22, 2019, proposed rule, although the names and descriptions remain the same.

We also used a higher resolution National Hydrography Dataset GIS data layer, which resulted in minor changes to the stream mileage numbers. Most of the changes result in an increase or decrease of less than 3 mi (4.8 km) to proposed critical habitat in any unit, with the greatest change being an addition of 4.2 mi (6.8 km) to Unit 5 (previously Unit 4). The exception is Unit 17 (previously Unit 16), which had an error in the proposed stream mileage; to correct that error, in this document, we reduce the proposed critical habitat in that unit by approximately 28.5 mi (45.6 km).

The DEA for the proposed critical habitat designation remains the same; the counties containing the new units are included in the DEA's analysis that uses the consultation efforts occurring in counties, which overlap with the May 22, 2019, proposed designation for Neuse River waterdog critical habitat, as the basis of determining incremental costs.

Revised Proposed Critical Habitat Designation

In total, we now propose to designate approximately 779 miles (1,254 kilometers) in 18 units in North Carolina as critical habitat for the Neuse River waterdog. The proposed critical habitat areas described below constitute our best assessment, at this time, of areas that meet the definition of critical habitat, and all units are considered currently occupied by the species. Those 18 units are: (1) Upper Tar River, (2) Upper Fishing Creek, (3) Bens Creek, (4) Fishing Creek Subbasin, (5) Sandy/Swift Creek, (6) Middle Tar River Subbasin, (7) Lower Tar River Subbasin, (8) Eno River, (9) Flat River, (10) Middle Creek, (11) Swift Creek, (12) Little River, (13) Mill Creek, (14) Middle

Neuse River, (15) Contentnea Creek/Lower Neuse River Subbasin, (16) Swift Creek (Lower Neuse), (17) Trent River, and (18) Tuckahoe Swamp. Table 2 shows the name, land ownership of the riparian areas surrounding the units, and approximate river miles of the proposed designated units for the Neuse River waterdog. Where appropriate, Table 2 also notes the previous number for units for which the numbering has changed.

Table 2. Revised Proposed Critical Habitat Units for the Neuse River Waterdog.

Critical Habitat Unit	Riparian Ownership	River Miles (Kilometers)	Proposed Changes	Previous Unit Numbering
Unit 1. TAR1–Upper Tar River	Private; Easements	12.3 (19.8)	+ 3.7 mi (6km)	Unit 1: TAR1
Unit 2. TAR2–Upper Fishing Creek	Private; Easements	10.5 (17)	none	Unit 2: TAR2
Unit 3. TAR3-Bens Creek	Private	2 (3.2)	New	New Unit
Unit 4. TAR4a–Fishing Creek Subbasin	Private; Easements; State	82.8 (133.3)	+ 20 mi (32.3 km)	Unit 3: TAR3a
Unit 5. TAR4b–Sandy/Swift Creek	Private; Easements; State	72.5 (116.8)	none	Unit 4: TAR3b
Unit 6. TAR4c–Middle Tar River Subbasin	Private; Easements; State	111 (179)	+ 11 mi (17.8 km)	Unit 5: TAR3c
Unit 7. TAR4d–Lower Tar River Subbasin	Private; Easements; State	59.9 (96.3)	none	Unit 6: TAR3d
Unit 8. NR1–Eno River	Private; Easements; State	43.9 (70.6)	none	Unit 7: NR1
Unit 9. NR2–Flat River	Private; Easements	15.2 (24.5)	none	Unit 8: NR2
Unit 10. NR3–Middle Creek	Private; Easements; Local	30.8 (49.6)	+ 23.2 mi (37.4 km)	Unit 9: NR3
Unit 11. NR4–Swift Creek	Private	24 (38.6)	none	Unit 10: NR4
Unit 12. NR5a–Little River	Private; Easements	90.8 (146.1)	none	Unit 11: NR5a
Unit 13. NR5b–Mill Creek	Private; Easements	20.8 (33.5)	none	Unit 12: NR5b

Unit 14. NR5c–Middle Neuse River	Private; State; Easements	43.2 (69.5)	none	Unit 13: NR5c
Unit 15. NR6–Contentnea Creek/Lower Neuse River Subbasin	Private; Easements	114.8 (184.8)	none	Unit 14: NR6
Unit 16. NR7–Swift Creek (Lower Neuse)	Private; Easements	10.3 (16.5)	none	Unit 15: NR7
Unit 17. TR1–Trent River	Private	32.5 (52.4)	- 1.1 mi (2 km)	Unit 16: TR1
Unit 18. TR2 – Tuckahoe Swamp	Private	2 (3.2)	New	New Unit
Total		779 (1,254)	+ 41 mi (66 km)	

Note: Distances may not sum due to rounding.

The revised proposed critical habitat designation is defined by the map or maps, as modified by any accompanying regulatory text, presented at the end of this document under **Proposed Regulation Promulgation**. For units that are unchanged from the May 22, 2019, proposed rule, please refer to information at <http://www.regulations.gov> under Docket No. FWS–R4–ES–2018–0092. We include more detailed information on the boundaries of the revised proposed critical habitat designation in the discussion of new and revised proposed individual units below.

Unit 1: TAR1 – Upper Tar River

Revised Unit 1 consists of 12.3 river miles (19.8 river km) of the Tar River in Granville County from approximately SR1004 (Old NC 75) downstream to SR1622 (Cannady’s Mill Road). We propose to revise Unit 1 to add 3.7 river miles (6 km) of the Upper Tar River based on a 2018 observation of Neuse River waterdog provided by NCWRC. The riparian land adjacent to this unit is primarily privately owned (80 percent), with several conservation parcels or easements (20 percent). The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required to address

excess sediment and pollutants that enter the creek and serve as indicators of other forms of pollution such as bacteria and toxins, reducing water quality for the species. Sources of these types of pollution are likely agricultural and silvicultural runoff.

Unit 3 – TAR3: Bens Creek

This is a new unit. Unit 3 consists of 2 river miles (3.2 river km) of Bens Creek in Warren County, North Carolina. The proposed designated area begins approximately one mile upstream and ends approximately one mile downstream of SR1509 (Odell-Littleton Road). We propose the addition of this unit based on a 2019 observation of Neuse River waterdog provided by NCWRC. The riparian areas on either side of the river are privately owned. The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required to address excess sediment and pollutants that enter the creek and serve as indicators of other forms of pollution such as bacteria and toxins, reducing water quality for the species. Sources of these types of pollution are likely agricultural and silvicultural runoff.

Unit 4: TAR4a – Fishing Creek Subbasin

Revised Unit 4 (previously Unit 3) consists of 82.8 river miles (133.3 river km) of lower Little Fishing Creek approximately 1.6 miles (2.6 km) upstream of SR1214 (Silvertown Rd) downstream to the confluence with Fishing Creek, and including the mainstem of Fishing Creek from the Warren/Halifax County line to the confluence with the Tar River in Halifax, Nash, and Edgecombe Counties. We propose to revise Unit 4 (previously Unit 3) to add 20 miles (32.3 km) of Fishing Creek based on a 2019 observation of Neuse River waterdog provided by NCWRC. The riparian land adjacent to

the unit includes private land (86 percent), several conservation parcels (6 percent), and State game lands (8 percent). The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required to address excess sediment and pollutants that enter the creek and serve as indicators of other forms of pollution such as bacteria and toxins, reducing water quality for the species. Sources of these types of pollution are likely agricultural and silvicultural runoff.

Unit 6: TAR4c – Middle Tar River Subbasin

Revised Unit 6 (previously Unit 5) consists of 111 river miles (179 river km) of the Middle Tar River from upstream of Highway 401 downstream to the confluence with Fishing Creek, including Stony Creek below SR1300 (Boddies' Millpond Rd), downstream to the confluence with the Tar River. This unit is located in Franklin, Nash, and Edgecombe Counties. We propose to revise Unit 6 (previously Unit 5) to add 11 miles (17.8 km) of the upper reach of the Tar River based on a 2019 observation of Neuse River waterdog provided by a permitted private consultant. The riparian land adjacent to this unit is nearly all private lands (99 percent), with less than 1 percent conservation parcels, local parks, and a research station. The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required within this unit to address a variety of threats. Excessive amounts of nitrogen and phosphorus run off the land or are discharged into the waters, causing too much growth of microscopic or macroscopic vegetation and leading to extremely low levels of dissolved oxygen. As a result, there are six "impaired" stream reaches (as identified on the State's Clean Water

Act section 303d list) totaling approximately 32 miles in the unit. Expansion or addition of new wastewater discharges are also a threat to habitat in this unit. Special management focused on use of agricultural BMPs, implementation of highest levels of treatment of wastewater practicable, maintenance of forested buffers, and connection of protected riparian corridors will benefit habitat for the species in this unit.

Unit 10: NR3 – Middle Creek

Revised Unit 10 (previously Unit 9) consists of 30.8 river miles (49.6 river km) of Middle Creek from Southeast Regional Park downstream to the confluence with Swift Creek in Johnston County, North Carolina. We propose to revise Unit 10 (previously Unit 9) to add 23.2 miles (37.4 km) of Middle Creek based on two 2018 observations of Neuse River waterdog provided by NCWRC. The riparian land adjacent to this unit is predominantly privately owned (91 percent) with a few conservation parcels (9 percent). The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required within this unit to address threats, particularly from encroaching urbanization and pollution from agricultural and silvicultural runoff.

Unit 17: TR1 – Trent River

Revised Unit 17 (previously Unit 16) consists of 32.5 river miles (52.4 river km) of Beaver Creek from SR1316 (McDaniel Fork Rd) to the confluence with the Trent River, and Trent River from the confluence with Poplar Branch downstream to the SR1121 (Oak Grove Rd) crossing at the Marine Corps Cherry Point property, in Jones County. This unit was decreased to not include land owned by the Marine Corps at its Air Station (MCAS) Cherry Point Oak Grove Outlying Landing Field. The base's

integrated natural resources management plan includes implementing ecosystem management practices that support the conservation and management of at-risk herpetofauna species, including Neuse River waterdog, known to occur at MCAS Cherry Point (Tetra Tech 2012, p.C-10). The riparian land adjacent to this unit is privately owned. The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required to address excess sediment and pollutants that enter the creek and serve as indicators of other forms of pollution such as bacteria and toxins, reducing water quality for the species. Sources of these types of pollution are likely agricultural and silvicultural runoff.

Unit 18: TR2—Tuckahoe Swamp

This is a new unit. Unit 18 consists of 2 river miles (3.2 river km) of Tuckahoe Swamp in Jones County, North Carolina. The proposed designated area begins upstream of SR1142 (Weyerhaeuser Road) to the confluence with the Trent River. The riparian areas on either side of the river are privately owned. The unit currently supports all breeding, feeding, and sheltering needs for the species.

Special management considerations or protection may be required to address excess sediment and pollutants that enter the creek and serve as indicators of other forms of pollution such as bacteria and toxins, reducing water quality for the species. Sources of these types of pollution are likely agricultural and silvicultural runoff.

References Cited

A complete list of references cited in this document is available on the Internet at <http://www.regulations.gov> and upon request from the Raleigh Ecological Services Field

Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this document are the staff members of the U.S. Fish and Wildlife Service Species Assessment Team and Raleigh Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

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

Proposed Regulation Promulgation

Accordingly, we propose to further amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as proposed to be amended at 84 FR 23644 (May 22, 2019) as set forth below:

PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS

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

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

2. Amend § 17.43 by adding a paragraph (f) to read as follows:

§17.43 Special rules—amphibians.

* * * * *

(f) Neuse River waterdog (*Necturus lewisi*).

(1) *Prohibitions.* The following prohibitions that apply to endangered wildlife also apply to the Neuse River waterdog. Except as provided in paragraph (a)(2) of this section and § 17.4, it is unlawful for any person subject to the jurisdiction of the United States to commit, to attempt to commit, to solicit another to commit, or cause to be

committed, any of the following acts in regard to this species:

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

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

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

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

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

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

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

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

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

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

(v) Take incidental to the following activities:

(A) Species restoration efforts by State wildlife agencies, including collection of broodstock, tissue collection for genetic analysis, captive propagation, and subsequent stocking into currently occupied and unoccupied areas within the historical range of the species.

(B) Channel restoration projects that create natural, physically stable, ecologically functioning streams (or stream and wetland systems) that are reconnected with their groundwater aquifers. These projects can be accomplished using a variety of methods, but the desired outcome is a natural channel with low shear stress (force of water moving

against the channel); bank heights that enable reconnection to the floodplain; a reconnection of surface and groundwater systems, resulting in perennial flows in the channel; riffles and pools comprised of existing soil, rock, and wood instead of large imported materials; low compaction of soils within adjacent riparian areas; and inclusion of riparian wetlands. Second- to third-order, headwater streams reconstructed in this way would offer suitable habitats for the Neuse River waterdog and contain stable channel features, such as pools, glides, runs, and riffles, which could be used by the species for spawning, rearing, growth, feeding, migration, and other normal behaviors. Prior to restoration action, surveys to determine presence of Neuse River waterdog must be performed, and if located, waterdogs must be relocated prior to project implementation.

(C) Bank stabilization projects that use bioengineering methods to replace pre-existing, bare, eroding stream banks with vegetated, stable stream banks, thereby reducing bank erosion and instream sedimentation and improving habitat conditions for the species. Following these bioengineering methods, stream banks may be stabilized using native species live stakes (live, vegetative cuttings inserted or tamped into the ground in a manner that allows the stake to take root and grow), native species live fascines (live branch cuttings, usually willows, bound together into long, cigar shaped bundles), or native species brush layering (cuttings or branches of easily rooted tree species layered between successive lifts of soil fill). Native species vegetation includes woody species appropriate for the region and habitat conditions. These methods will not include the sole use of quarried rock (rip-rap) or the use of rock baskets or gabion structures.

(D) Silviculture practices and forest management activities that implement State-approved best management practices for sensitive areas, including a two-zoned streamside management zone (SMZ) (Zone 1 width is a 50-foot minimum with no harvest allowed; Zone 2 width is variable depending on slope and includes selective harvest) established and maintained along each side of the margins of intermittent streams, perennial streams, and perennial waterbodies. The SMZ is measured from bankfull (i.e., the top of the stream bank), and will confine visible sediment resulting from accelerated erosion. Access roads and skid trails that cross an intermittent stream, a perennial stream, or a perennial waterbody will be installed using properly designed and constructed structures installed at right angles to the stream, will not impede fish passage or stream flow, and will minimize the amount of visible sediment that enters that stream or waterbody. The number of crossings will be minimized, stable sites for crossings will be chosen, and access roads and skid trails will be located outside of SMZs unless no other alternative exists.

3. Amend §17.95(d), in the entry proposed at 84 FR 23644 for “Neuse River waterdog (*Necturus lewisi*),” by revising paragraphs (5) through (16) and by adding paragraphs (17) and (18) to read as follows:

§17.95 Critical habitat—fish and wildlife.

* * * * *

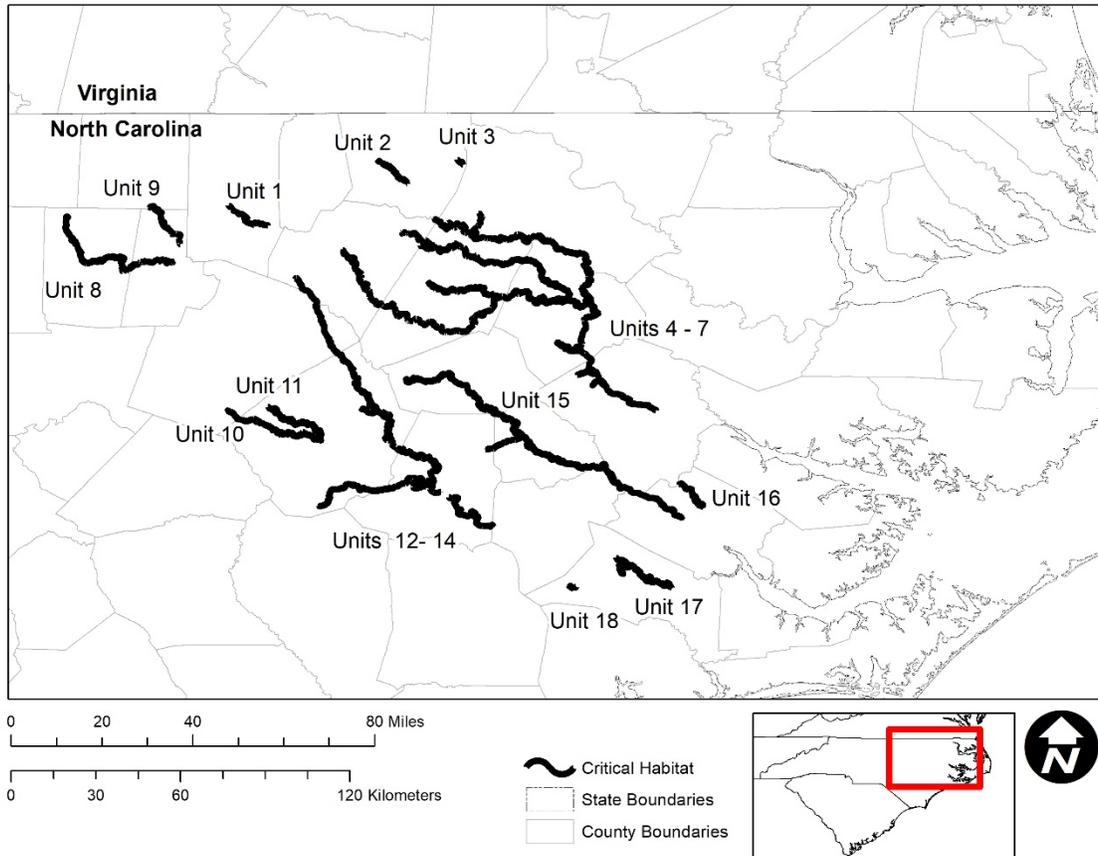
(d) *Amphibians.*

* * * * *

Neuse River Waterdog (*Necturus lewisi*)

(5) Note: Index map follows:

Index Map of Critical Habitat Units for Neuse River Waterdog

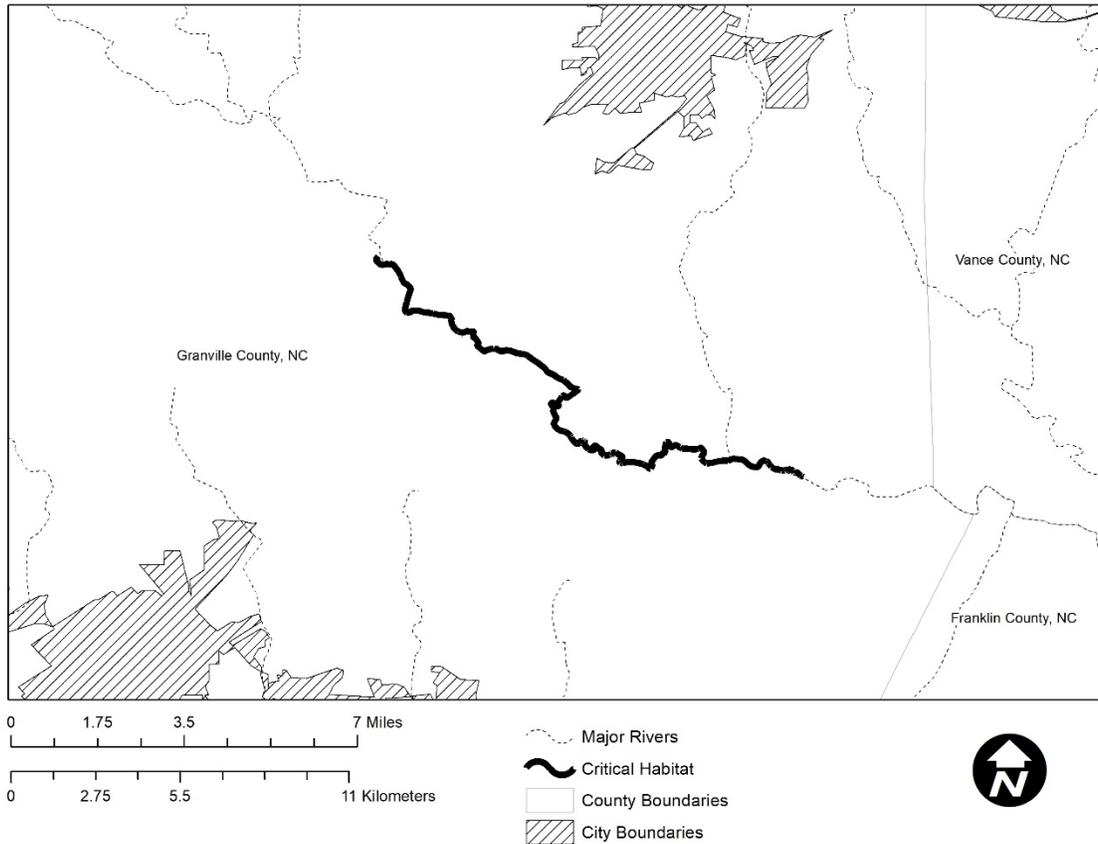


(6) Unit 1: TAR1–Upper Tar River, Granville County, North Carolina.

(i) This unit consists of 12.3 river miles (19.8 river kilometers) of occupied habitat in the Upper Tar River from approximately SR1004 (Old NC 75) downstream to SR1622 (Cannady’s Mill Road). Unit 1 includes stream habitat up to bankfull height.

(ii) Map of Unit 1 follows:

Map of Unit 1: TAR1 - Upper Tar River Critical Habitat Unit for Neuse River Waterdog

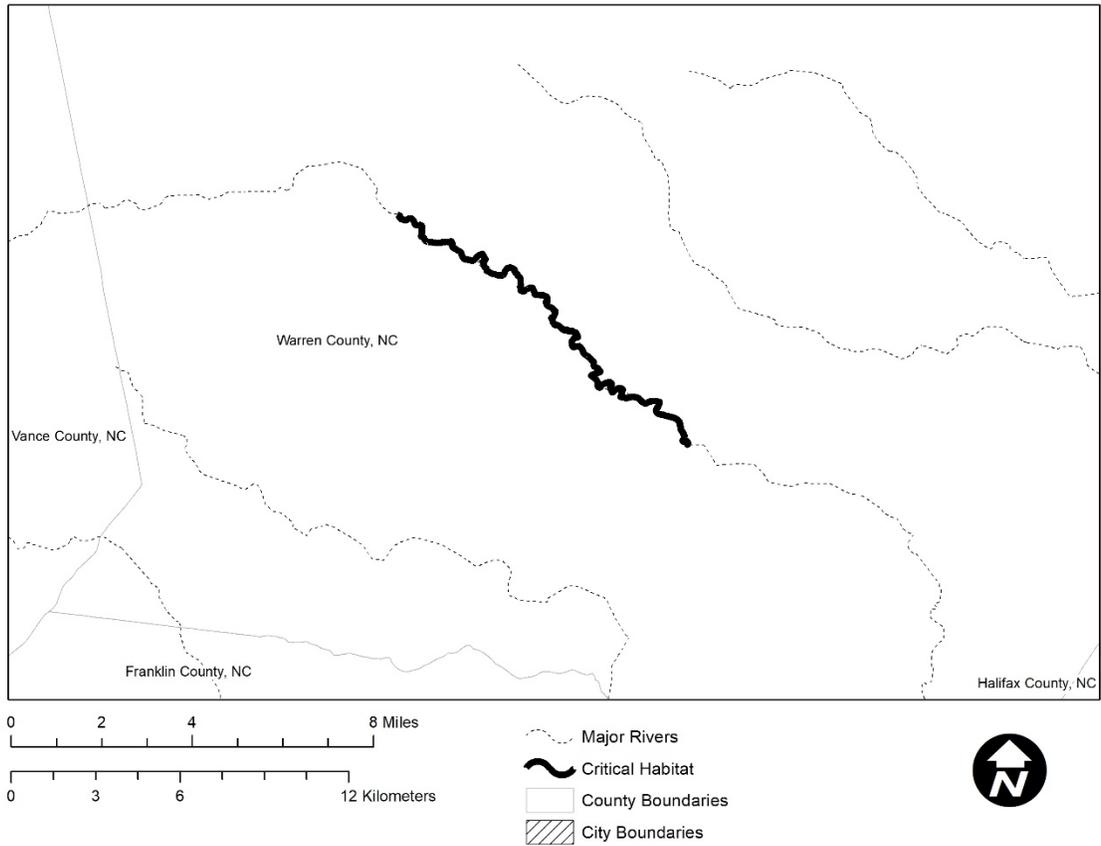


(7) Unit 2: TAR2–Upper Fishing Creek, Warren County, North Carolina.

(i) This unit consists of 10.5 river miles (17.0 river kilometers) of habitat in Upper Fishing Creek from SR1118 (No Bottom Drive) downstream to NC58. Unit 2 includes stream habitat up to bankfull height.

(ii) Map of Unit 2 follows:

Map of Unit 2: TAR2 - Upper Fishing Creek Critical Habitat Unit for Neuse River Waterdog

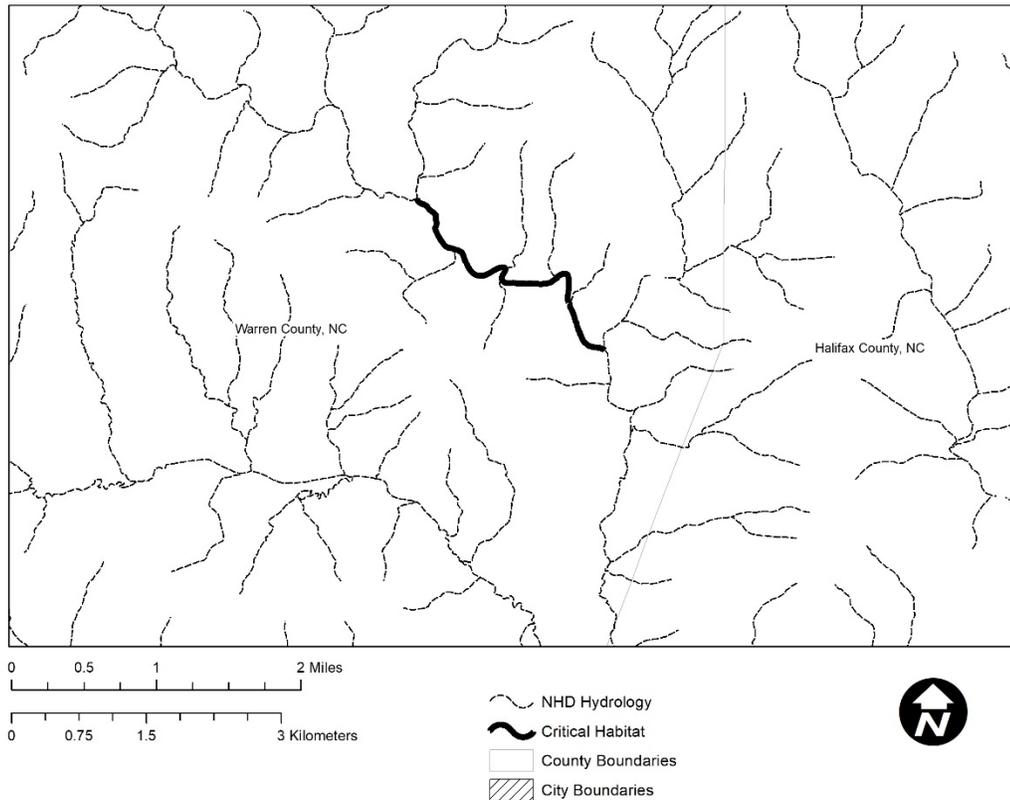


(8) Unit 3: TAR3–Bens Creek, Warren County, North Carolina.

(i) This unit consists of 2 river miles (3.2 river km) of Bens Creek beginning approximately one mile upstream and ending approximately one mile downstream of SR1509 (Odell-Littleton Road). Unit 3 includes stream habitat up to bankfull height.

(ii) Map of Unit 3 follows:

Map of Unit 3: TAR3 - Ben's Creek Critical Habitat Unit for Neuse River Waterdog



(9) Unit 4: TAR4a–Fishing Creek Subbasin, Edgecombe, Halifax, Nash, and Warren Counties, North Carolina; Unit 5: TAR4b–Sandy/Swift Creek, Edgecombe, Franklin, Nash, and Warren Counties, North Carolina; Unit 6: TAR4c–Middle Tar River Subbasin, Edgecombe, Franklin, and Nash Counties, North Carolina; and Unit 7: TAR4d–Lower Tar River Subbasin, Edgecombe and Pitt Counties, North Carolina.

(i) Units 4, 5, 6, and 7 include stream habitat up to bankfull height.

(ii) Unit 4 consists of 82.8 river miles (133.3 river km) of lower Little Fishing Creek approximately 1.6 miles (2.6 km) upstream of SR1214 (Silvertown Rd) downstream to the confluence with Fishing Creek, and including the mainstem of Fishing Creek from the Warren/Halifax County line to the confluence with the Tar River in

Halifax, Nash, and Edgecombe Counties.

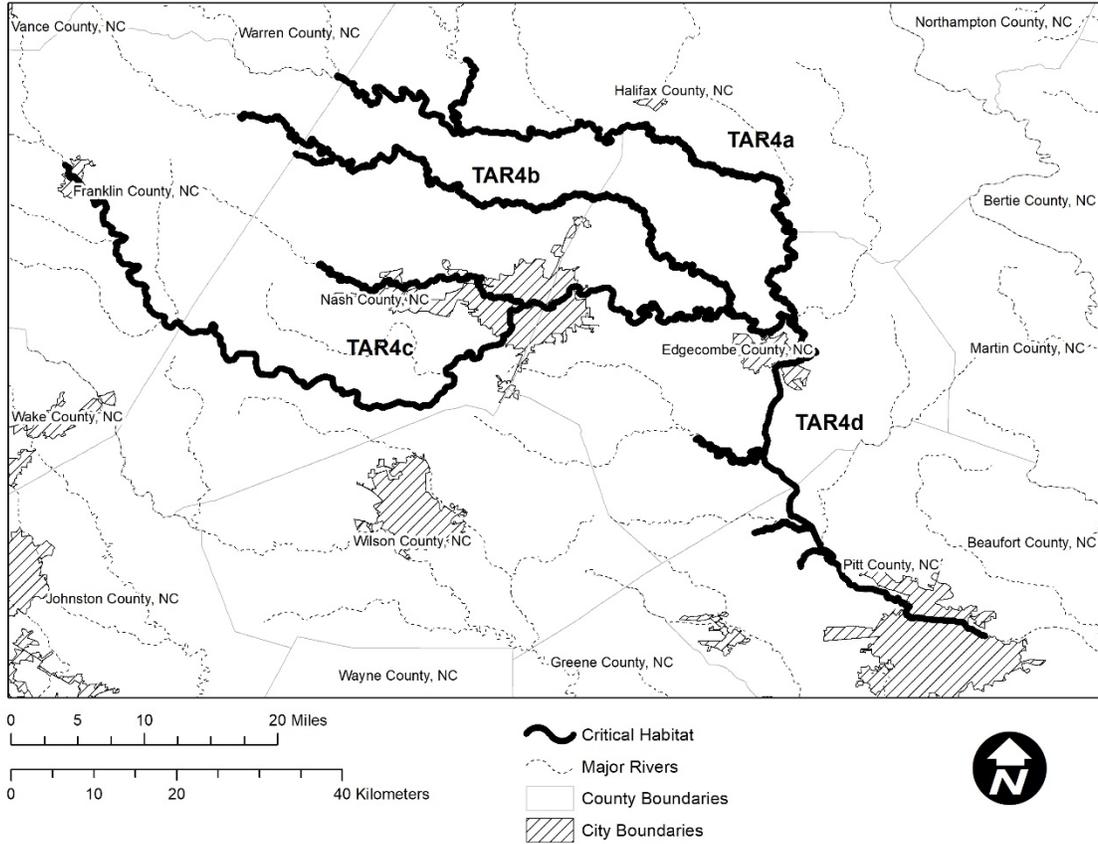
(iii) Unit 5 consists of 72.5 river miles (116.8 river kilometers) of habitat in Sandy Creek downstream of SR 1451 (Leonard Road) to the confluence with the Tar River, including Red Bud Creek downstream of the Franklin/Nash county line to the confluence with Swift Creek.

(iv) Unit 6 consists of 111 river miles (179 river kilometers) of the Middle Tar River from upstream of Highway 401 downstream to the confluence with Fishing Creek, including Stony Creek below SR1300 (Boddies' Millpond Rd), downstream to the confluence with the Tar River.

(v) Unit 7 consists of 59.9 river miles (96.3 river kilometers) in the Lower Tar River Subbasin from the confluence with Fishing Creek downstream to the confluence with Barber Creek near SR1533 (Port Terminal Road). This unit includes portions of Town Creek below NC111 to the confluence with the Tar River, Otter Creek below SR1251 to the confluence with the Tar River, and Tyson Creek below SR1258 to the confluence with the Tar River.

(vi) Map of Units 4, 5, 6, and 7 follows:

Map of Units 4 - 7: TAR4 - Middle/Lower Tar River Subbasins Critical Habitat Units for Neuse River Waterdog

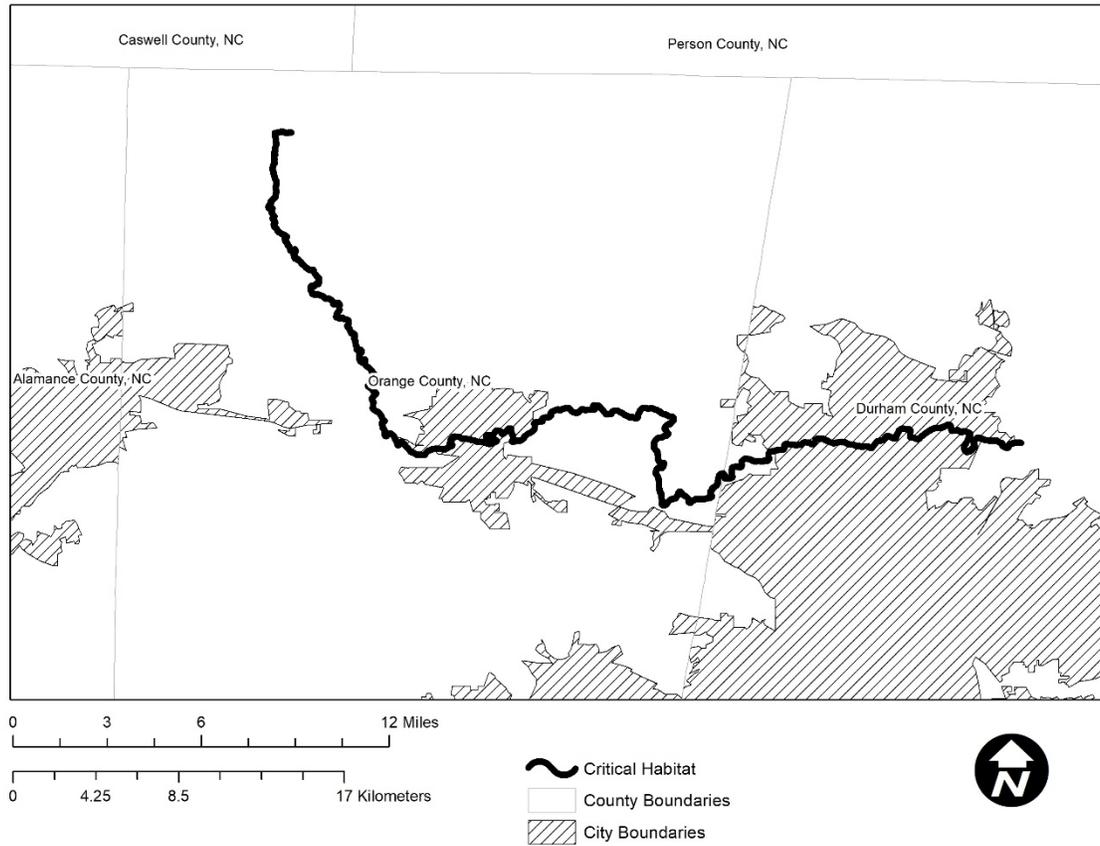


(10) Unit 8: NR1–Eno River, Durham and Orange Counties, North Carolina.

(i) This unit consists of 43.9 river miles (70.6 river kilometers) of habitat in the Eno River from NC86 downstream to the inundated portion of Falls Lake. Unit 7 includes stream habitat up to bankfull height.

(ii) Map of Unit 8 follows:

Map of Unit 8: NR1 - Eno River Subbasin Critical Habitat Unit for Neuse River Waterdog

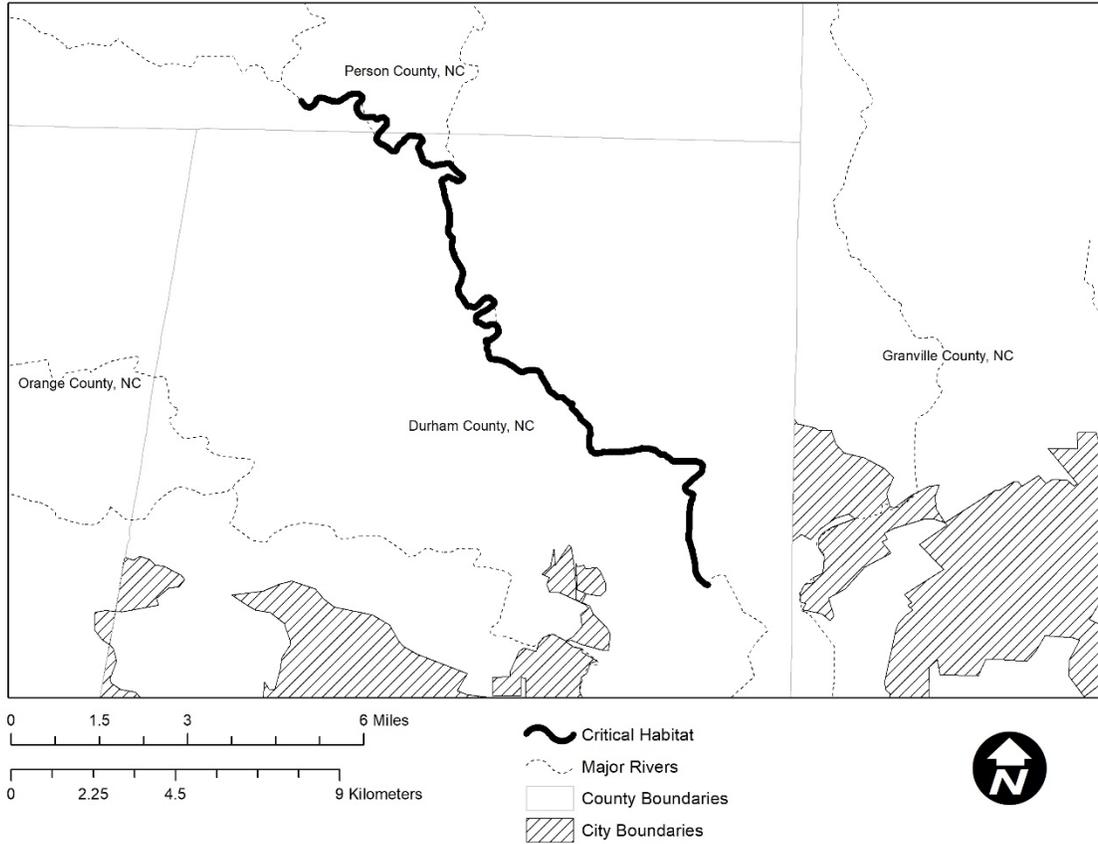


(11) Unit 9: NR2–Flat River, Durham and Person Counties, North Carolina.

(i) This unit consists of 15.2 river miles (24.5 river kilometers) of habitat in the Flat River from SR1739 (Harris Mill Road) downstream to the inundated portion of Falls Lake. Unit 8 includes stream habitat up to bankfull height.

(ii) Map of Unit 9 follows:

**Map of Unit 9: NR2 - Flat River Subbasin Critical Habitat Unit for
Neuse River Waterdog**

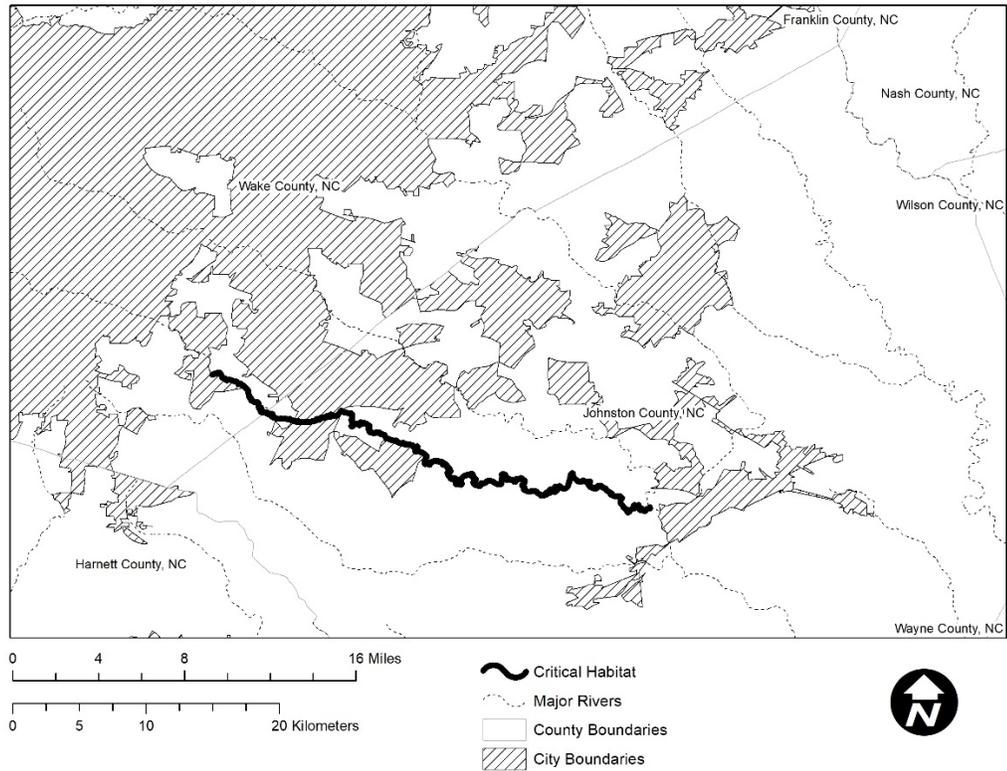


(12) Unit 10: NR3–Middle Creek, Johnston and Wake Counties, North Carolina.

(i) This unit consists of 30.8 river miles (49.6 river km) of Middle Creek from Southeast Regional Park downstream to the confluence with Swift Creek in Johnston County, North Carolina. Unit 10 includes stream habitat up to bankfull height.

(ii) Map of Unit 10 follows:

Map of Unit 10: NR3 - Middle Creek Subbasin Critical Habitat Unit for Neuse River Waterdog

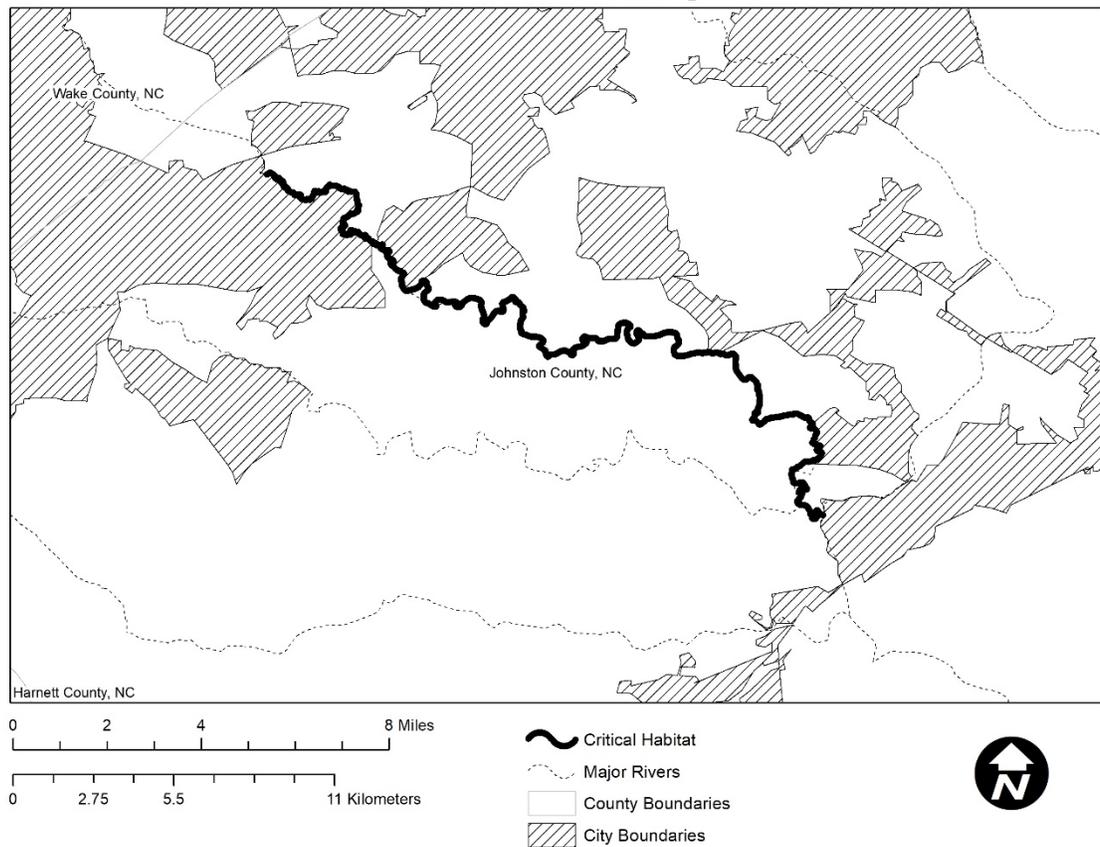


(13) Unit 11: NR4–Swift Creek, Johnston County, North Carolina.

(i) This unit consists of 24 river miles (38.6 river kilometers) of occupied habitat in Swift Creek from NC42 downstream to the confluence with the Neuse River. Unit 11 includes stream habitat up to bankfull height.

(ii) Map of Unit 11 follows:

Map of Unit 11: NR4 - Swift Creek Subbasin Critical Habitat Unit for Neuse River Waterdog



(14) Unit 12: NR5a–Little River, Franklin, Johnston, Wake, and Wayne Counties, North Carolina; Unit 13: NR5b–Mill Creek, Johnston and Wayne Counties, North Carolina; and Unit 14: NR5c–Middle Neuse River, Wayne County, North Carolina.

(i) Units 12, 13, and 14 include stream habitat up to bankfull height.

(ii) Unit 12 consists of 90.8 river miles (146.1 river kilometers) of habitat in the Little River from near NC96 in Wake County downstream to the confluence with the Neuse River, including Buffalo Creek from NC39 to the confluence with the Little River.

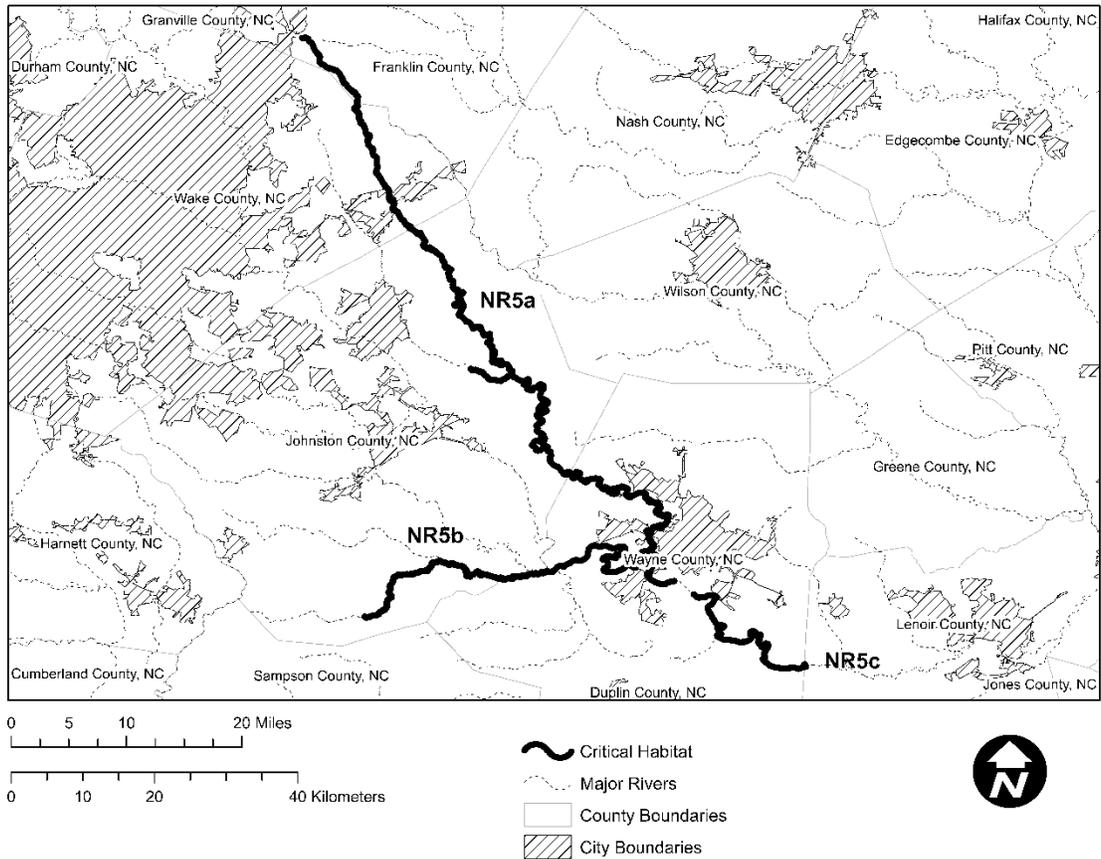
(iii) Unit 13 consists of 20.8 river miles (33.5 river kilometers) of Mill Creek

from upstream of US701 downstream to the confluence with the Neuse River.

(iv) Unit 14 consists of 43.2 river miles (69.5 river kilometers) of the Middle Neuse River from the confluence with Mill Creek downstream to the Wayne/Lenoir County line.

(v) Map of Units 12, 13, and 14 follows:

Map of Units 12 - 14 : NR5 - Middle Neuse River Subbasins Critical Habitat Units for Neuse River Waterdog



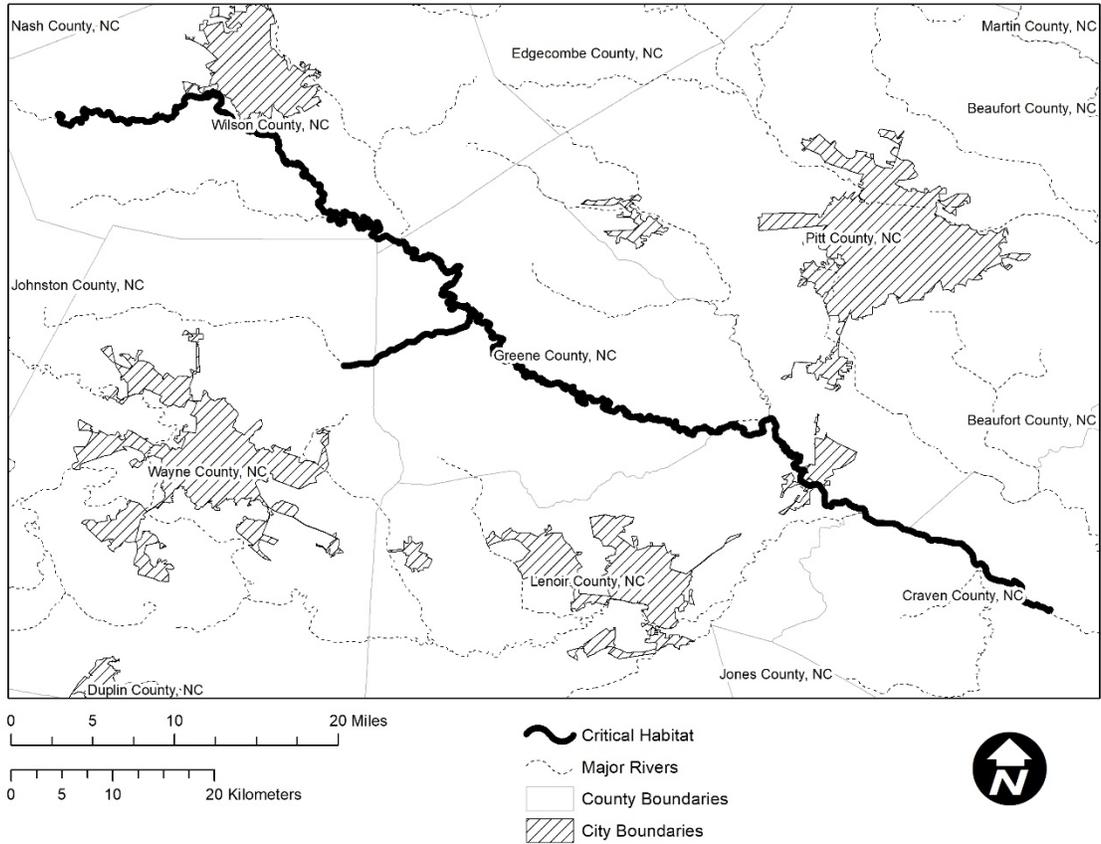
(15) Unit 15: NR6–Contentnea Creek/Lower Neuse River Subbasin, Craven, Greene, Lenoir, Pitt, Wayne, and Wilson Counties, North Carolina.

(i) This unit consists of 114.8 river miles (184.8 river kilometers) of habitat in the Contentnea Creek from NC581 downstream to its confluence with the Neuse River,

Nahunta Swamp from the Wayne/Greene County line to the confluence with Contentnea Creek, and the Neuse River from the confluence with Contentnea Creek to the confluence with Pinetree Creek. Unit 15 includes stream habitat up to bankfull height.

(ii) Map of Unit 15 follows:

**Map of Unit 15: NR6 - Contentnea Creek/Lower Neuse River Subbasin
Critical Habitat Unit for Neuse River Waterdog**

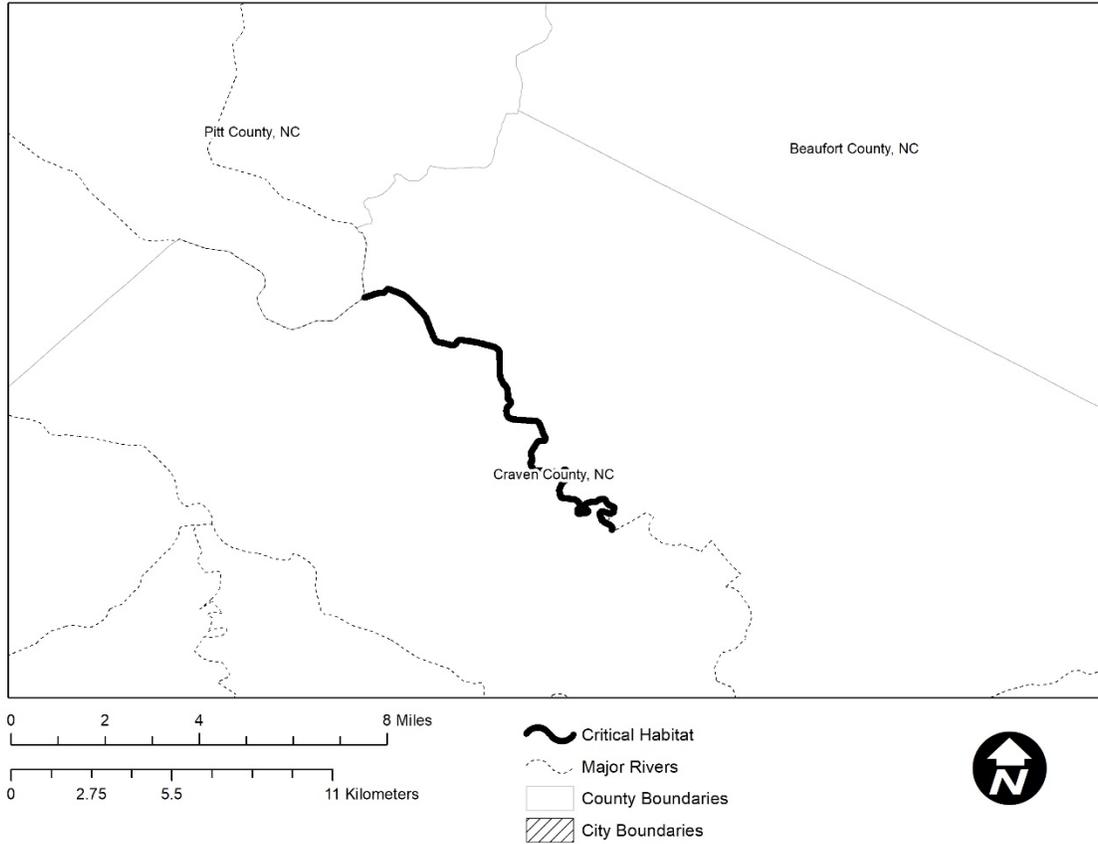


(16) Unit 16: NR7–Swift Creek, Craven County, North Carolina.

(i) This unit consists of 10.3 river miles (16.5 river kilometers) of habitat in Swift Creek from SR1931 (Beaver Camp Rd) downstream to SR1440 (Streets Ferry Rd). Unit 16 includes stream habitat up to bankfull height.

(ii) Map of Unit 16 follows:

**Map of Unit 16: NR7 - Swift Creek (Lower Neuse) Subbasin
Critical Habitat Unit for Neuse River Waterdog**

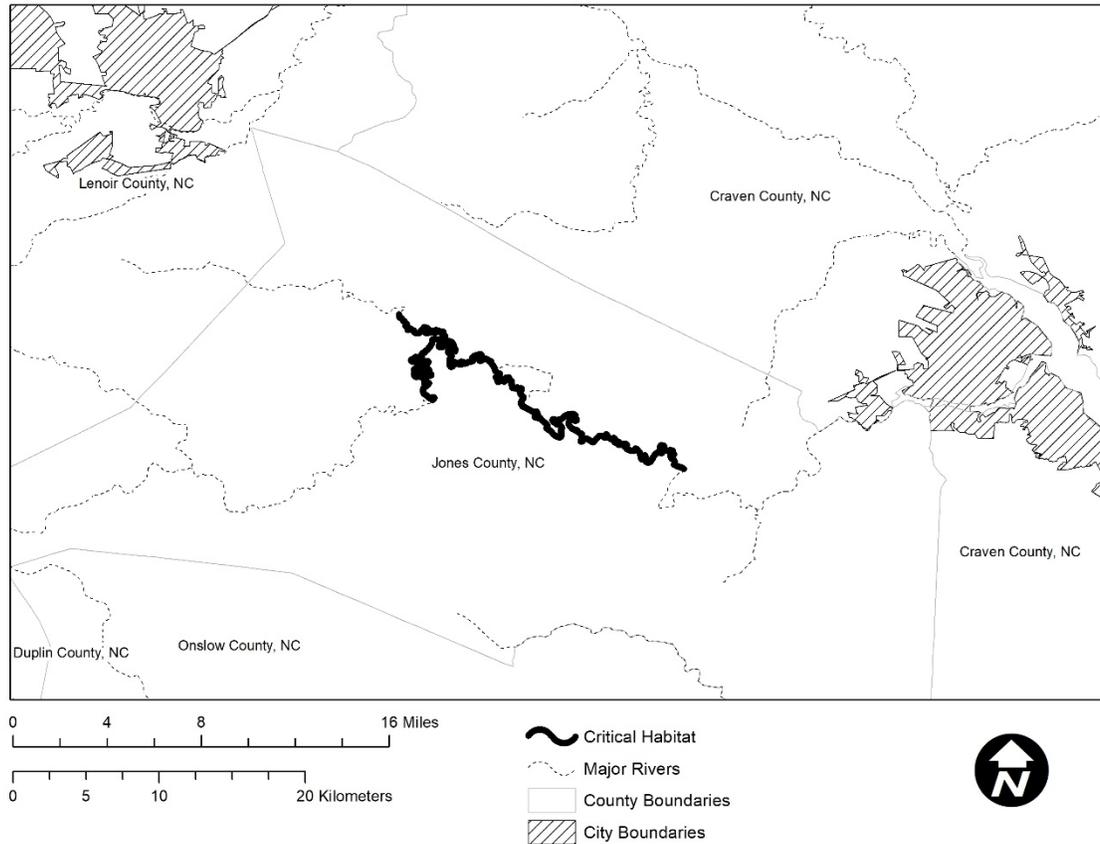


(17) Unit 17: TR1–Trent River, Jones County, North Carolina.

(i) This unit consists of 32.5 river miles (52.4 river kilometers) of habitat in Beaver Creek from SR1316 (McDaniel Fork Rd) to the confluence with the Trent River, and Trent River from the confluence with Poplar Branch downstream to SR1121 (Oak Grove Rd) crossing at the Marine Corps Cherry Point property. Unit 17 includes stream habitat up to bankfull height.

(ii) Map of Unit 17 follows:

**Map of Unit 17: TR1 - Trent River Subbasin
Critical Habitat Unit for Neuse River Waterdog**

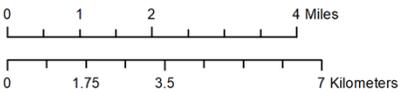
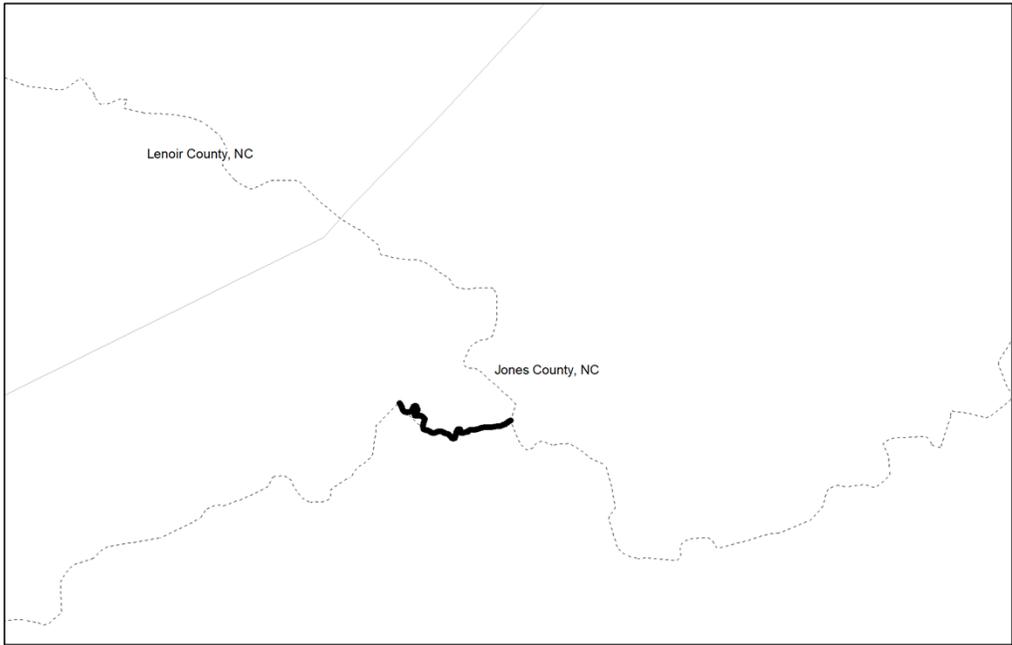


(18) Unit 18: TR2–Tuckahoe Swamp, Jones County, North Carolina.

(i) This unit consists of 2 river miles (3.2 river km) of Tuckahoe Swamp in Jones County, North Carolina. Unit 18 begins upstream of SR1142 (Weyerhaeuser Road) to the confluence with the Trent River. Unit 18 includes stream habitat up to bankfull height.

(ii) Map of Unit 18 follows:

**Map of Unit 18: TR2 - Tuckahoe Swamp
Critical Habitat Unit for Neuse River Waterdog**



- Critical Habitat
- Major Rivers
- County Boundaries
- City Boundaries



* * * * *

Aurelia Skipwith
Director,
U.S. Fish and Wildlife Service.

[FR Doc. 2020-15347 Filed: 7/29/2020 8:45 am; Publication Date: 7/30/2020]