



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: September 25, 2018
Comment Deadline: October 25, 2018
Corps Action ID Number: SAW-2009-02240

The Wilmington District, Corps of Engineers (Corps) received an application from the North Carolina Department of Transportation, Environmental Analysis Unit, seeking Department of the Army authorization to discharge fill material into waters of the United States associated with the proposed 28.8 miles of new alignment for the Complete 540 project in Wake and Johnston Counties. The Complete 540 project encompasses three NCDOT TIP projects: R-2721 (NC-55 Bypass to US-401), R-2828 (east of US 401 to I-40 Interchange), and R-2829 (east of I-40 to US 64/264), impacting 66.23 acres of wetlands, 58,270 linear feet of tributaries, and 29.53 acre of ponds, regulated under Section 404 of the Clean Water Act. The project also impacts 2.75 acre of non-404 isolated wetlands, and 1.75 acre of non-404 ponds constructed in uplands.

Specific location information is described below. Construction plans are not attached to this Public Notice due to the large amount of pages. However, electronic copies of this Public Notice and the construction plans can be found at:

<http://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

Applicant: North Carolina Department of Transportation (NCDOT)
Environmental Analysis Unit
Attn: Philip S. Harris, PhD
1548 Mail Service Center
Raleigh, NC 27699-1548

Authority

The Corps evaluates this application and decides whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of the following Statutory Authorities:

- Section 404 of the Clean Water Act (33 U.S.C. 1344)
- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

Agency Review

This project has been through an extensive interagency review process in coordination with the Federal Highway Authority (FHWA), the lead Federal agency.

Location

Location Description:

Nearest Towns: Holly Springs, Raleigh, Garner, and Clayton

Nearest Waterways: Middle Branch, Rocky Branch, Mills Branch, Panther Branch, Little Creek, Juniper Branch, Guffy Branch, Swift Creek, White Oak Creek, Little Creek, the Neuse River, and unnamed tributaries.

River Basin: Cape Fear and Neuse

Latitude and Longitude (near center of project at NC 50): 35.624 N, - 78.607 W

Existing Site Conditions

The project impact sites are typical lower piedmont, upper coastal plain streams, and typical lower piedmont, upper coastal plain bottomland hardwood forest, headwater forest, and basin emergent wetlands. Topography in the project vicinity is comprised of gently rolling hills with narrow, level floodplains along streams. Elevations in the study area range from 140 to 460 feet above mean sea level. Land use in the project vicinity consists primarily of forestland interspersed with residential development and agriculture, and some commercial/industrial uses, in southern Wake and eastern Johnston Counties.

The NC Division of Water Resources (NCDWR) Best Usage Classification for most of the impacted streams is C/NSW. Others are classified as C, or WS-III/NSW.

Applicant's Stated Purpose

Two primary purposes: (1) to improve mobility within and through the study area during peak travel periods, and (2) to reduce congestion on the study area's existing roadway network. A secondary purpose, or "other desired outcome," of the project was also identified: to improve system linkage in the regional roadway network by completing the 540 outer loop around the Raleigh metropolitan area - an infrastructure improvement that has been sought by local communities and planners for more than 40 years.

Project Description

NCDOT proposes to construct a new, limited-access toll highway from NC 55 Bypass in Apex, to US 64/US 264 (I-495) in Knightdale, North Carolina. The 28.8 miles of new alignment will consist of six lanes, with three 12-foot lanes in each direction, separated by a 70-foot wide median. Proposed interchange locations for the Complete 540 project

include the NC-55 Bypass, Holly Springs Road, Bells Lake Road, US-401, Old Stage Road, NC- 50, White Oak Road, I-40, US-70 Bypass, Old Baucom Road, Auburn Knightdale Road, Poole Road, and US-64/264 Bypass.

The project is divided into four design/construction sections. Permit drawings for the proposed R-2721 (Sections A and B) have been completed, and these sections are scheduled to go to contract in November 2019. Preliminary impacts based on slope stakes plus 25 feet have been calculated for R-2828 and R-2829, and these sections are scheduled to go to contract in October 2019, and greater than five years in the future, respectively. The NCDOT will apply for any relevant permit modifications for R-2828 and R-2829 when final designs are complete. Construction will not commence on R-2828 and R-2829 until permit modifications have been received based on final design.

For R-2721A, proposed impacts to jurisdictional areas total 15.24 acres of permanent wetland (riparian and non-riparian) impacts, 10,428 linear feet of permanent stream impacts (including 1,068 lf of bank stabilization), 441 linear feet of temporary stream impacts, 1.93 acres of permanent pond impacts, and 1,166,439 square feet of Neuse riparian buffer impacts. Additionally, R-2721A has 0.02 acres of non-404 isolated wetland impacts and 0.21 acres of non-404 impacts to ponds constructed in uplands.

R-2721B has 12.69 acres of permanent wetland impacts, 0.60 acres of temporary wetland impacts, 9,443 linear feet of permanent stream impacts (including 907 lf of bank stabilization), 485 linear feet of temporary stream impacts, 14.04 acres of permanent pond impacts, and 1,308,419 square feet of Neuse riparian buffer impacts. R-2721B has 2.43 acres of non-404 isolated wetland impacts and 1.52 acres of non-404 impacts to ponds constructed in uplands.

Preliminary proposed impacts (based on proposed slope stakes plus 25 feet) for R-2828 include, 19.30 acres of permanent wetland (riparian and non-riparian) impacts, 20,086 linear feet of permanent stream impact, 5.99 acres of permanent pond impacts, and 2,031,787 square feet of Neuse riparian buffer impacts. Additionally, R-2828 has 0.30 acres of non-404 isolated wetland impacts, and 0.02 acres of non-404 impacts to ponds constructed in uplands.

R-2829 proposed impacts (based on proposed slope stakes plus 25 feet) include 18.40 acres of permanent wetland impacts (riparian and non-riparian), 17,387 linear feet of permanent stream impacts, 7.57 acres of permanent pond impacts, and 2,268,108 square feet of Neuse riparian buffer impacts.

Detailed design plans and information about the proposed mitigation sites are available for review at the U.S. Army Corps of Engineers Regulatory Field Office at 3331 Heritage Trade Drive, Suite 105, Wake Forest, North Carolina 27587 (Call ahead to arrange a time for review at (919) 554-4884. ext. 23).

Avoidance and Minimization

NCDOT employed multiple strategies to avoid and minimize impacts to jurisdictional areas in its design for this project. Preliminary designs were adjusted to avoid and/or minimize impacts to jurisdictional features.

For those impacts to jurisdictional streams and wetlands that cannot be avoided in their entirety, minimization efforts were utilized throughout the planning and design process. These are listed below.

- Design Standards in Sensitive Watersheds will be implemented.
- Considering environmental, hydraulic, and roadway perspectives, 2:1 slopes are proposed within the wetlands, where practical.
- Toe protection is being installed in areas where sideslopes intersect with a wetland.
- Energy dissipator pads and rip rap pads are being used near wetland areas to minimize the potential for erosion.
- No staging of construction equipment or storage of construction supplies in jurisdictional wetlands or streams.
- NCDOT and its contractors will not fill or perform land clearing activities within jurisdictional wetlands, buffers, streams or any areas under the jurisdiction of the USACE, or within isolated waters, except as authorized by the US Army Corps of Engineers and the NC Division of Water Resources.
- Borrow and waste activities will occur outside of jurisdictional features.
- Horizontal and vertical alignment shifts were analyzed from the functional design to the preliminary design of the Preferred Alternative. These shifts included multiple interchange layout options. Interchange layouts that best minimized overall impacts to jurisdictional features and surrounding residences and businesses, while maintaining effective traffic operations were selected. Detailed information about the alignment shifts can be found in the attached July 12, 2017 Interagency Project Meeting Minutes.
- Grass swales, median roadway ditches, and rip rap dissipater treatments have been used where feasible.
- Proposed box culverts will have a 1-foot sill and be buried 1 foot.
- Hazardous spill basins will be installed near Swift Creek, as necessary along the proposed roadway.
- Noise walls will help to minimize impacts to residential and other developed areas.
- Sediment and erosion control devices will follow the NCDOT protocol for Environmentally Sensitive Areas, where required.
- NCDOT is purchasing a 27 acre parcel (PIN 0770405615) north of Oxford Green Drive to avoid wetland and stream impacts associated with installation of a driveway for access.
- The box culvert being installed on Middle Creek is being increased to promote wildlife passage at Station Y3 15+00.
- Countersunk riprap pads will be utilized to minimize sedimentation impacts to jurisdictional streams.

- NCDOT is proposing to bridge multiple streams and wetlands to avoid and minimize impacts to jurisdictional features. These include:
 - Middle Creek on R-2721 at Station L 85+00.
 - Wetland BF on R-2721 between Stations L 345+00 and L 350+00.
 - Juniper Creek and associated wetlands on R-2828 at Station L 660+00.
 - Wetland WDV and Stream CY on R-2828, Stations L 832+21 to L 846+71. These wetlands are hydrologically connected to riparian wetlands associated with Swift Creek.
 - Swift Creek on R-2828 and associated wetlands at Station L 865+00.
 - Wetland FN on R-2829 at Stations L 975+00.
 - White Oak Creek (Austin Pond) on R-2829 at Station L 1085+00.
 - Wetland JJ (1) and Stream HC on R-2829 at Station L 1460+00.
- On-site supervision of the project by the Division Environmental Supervisor and contract inspectors will allow an evaluation of all construction activities to determine if there are appropriate ways to further minimize construction impacts.

Compensatory Mitigation

The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment, i.e., wetland and stream loss: NCDOT is proposing payment to the NC Division of Mitigation Service In-lieu-fee Program (NCDMS ILF) for compensatory mitigation for R-2721. Compensatory mitigation for R-2828 is proposed from a combination of NCDMS ILF and private mitigation banks. NCDOT will develop a compensatory mitigation strategy for R-2829 when the anticipated contract timeline is within five years.

NCDOT is proposing compensatory mitigation for permanent stream impacts, permanent riparian wetland impacts, and permanent non-riparian wetland impacts, at a 2:1 ratio.

Cultural Resources

Pursuant to Section 106 of the National Historic Preservation Act of 1966, Appendix C of 33 CFR Part 325, and the 2005 Revised Interim Guidance for Implementing Appendix C, the District Engineer consulted district files and records and the latest published version of the National Register of Historic Places and initially determines that:

- Should historic properties, or properties eligible for inclusion in the National Register, be present within the Corps' permit area; the proposed activity requiring the DA permit (the undertaking) is a type of activity that will have no potential to cause an effect to historic properties.
- No historic properties, nor properties eligible for inclusion in the National Register, are present within the Corps' permit area; therefore, there will be no historic properties affected. The Corps subsequently requests concurrence from the SHPO (or THPO).

- Properties ineligible for inclusion in the National Register are present within the Corps' permit area; there will be no historic properties affected by the proposed work. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; however, the undertaking will have no adverse effect on these historic properties. The Corps subsequently requests concurrence from the SHPO (or THPO).
- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; moreover, the undertaking may have an adverse effect on these historic properties. The lead Federal Agency for this project, the Federal Highway Administration, has initiated consultation with the SHPO (or THPO).
- The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area. A copy of this public notice will be sent to the SHPO.

Endangered Species

Pursuant to the Endangered Species Act of 1973, the Corps reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information:

- The Corps determines that the proposed project would not affect federally listed endangered or threatened species or their formally designated critical habitat.
- The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat.
- This May Affect, Likely to Adversely Affect determination for the Northern Long-eared Bat is covered under a programmatic the U.S. Fish and Wildlife Service's (USFWS's) Programmatic Biological Opinion (BO) titled 'Northern Long-eared Bat (NLEB) Programmatic Biological Opinion for North Carolina Department of Transportation (NCDOT) Activities in Eastern North Carolina (Divisions 1-8),' dated March 25, 2015, and adopted on May 4, 2015, which

contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with ‘incidental take’ that are specified in the BO.

- The Corps initiates consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.
- The Corps will consult under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.
- The Corps has initiated consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.
- The lead Federal Agency for this project, the Federal Highway Administration, has initiated consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.
- The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. Consultation has been completed by the lead Federal Agency for this project, the Federal Highway Administration, for this type of activity and the effects of the proposed activity have been evaluated and/or authorized by the US Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS). A copy of this public notice will be sent to the USFWS and the NMFS.
- The Corps is not aware of the presence of species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. The Corps will make a final determination on the effects of the proposed project upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Other Required Authorizations

This notice and all applicable application materials have been forwarded to the appropriate State agencies for review.

North Carolina Division of Water Resources (NCDWR): The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice, combined with the appropriate application fee, at the NCDWR Central Office in Raleigh constitutes initial receipt of an application for a 401 Certification. A waiver will be deemed to occur if the NCDWR fails to act on this request for certification within sixty days of receipt of a complete application. Additional information regarding the 401 Certification may be reviewed at the NCDWR Central Office, Transportation Permitting Unit, 512 North Salisbury Street, Raleigh,

North Carolina 27604-2260. All persons desiring to make comments regarding the application for a 401 Certification should do so, in writing, by October 16, 2018 to:

NCDWR Central Office
Attention: Ms. Amy Chapman, Transportation Permitting Unit
(USPS mailing address): 1617 Mail Service Center, Raleigh, NC 27699-1617

Or,

(physical address): 512 North Salisbury Street, Raleigh, North Carolina 27604

Evaluation

The decision whether to issue a permit will be based on an evaluation of the probable impacts including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values (in accordance with Executive Order 11988), land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidated State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing will be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, October 25, 2018. Comments should be submitted to Eric Alsmeyer, Raleigh Regulatory Field Office, 3331 Heritage Trade Drive, Suite 105 , Wake Forest, North Carolina 27587 , at (919) 554 - 4884 x23.