US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: September 27, 2019
Comment Deadline: October 27, 2019
Corps Action ID Number: SAW-2011-00858

The Wilmington District, Corps of Engineers (Corps) received an application from Duke Energy seeking Department of the Army authorization for the permanent discharge of 2.93 acres of fill material into wetlands, 3.20 acres of open water impacts and 3.45 acres of temporary wetland impacts for the rearmament and vegetation removal of the Sutton Lake dam.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/

Applicant:
Duke Energy
Attn: Steve Cahoon
410 South Wilmington Street
Raleigh, NC 27601

AGENT:
Wood Environment & Infrastructure Solutions Inc.
Attn: Richard Harmon
4021 Stirrup Creek Drive
Suite 100
Durham, NC 27703

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)

Location

Location Description: The project area is Sutton Lake which is located 0.49 miles southwest of the intersection of I-140 and 421 and is associated with the existing L.V. Sutton Energy Complex in Wilmington, New Hanover County, North Carolina. Project area includes the Lake itself and the wetlands on the riverside of the impounded dam structure. The address for Sutton Lake is 249 and 801 Sutton Steam Plant Road, Wilmington, North Carolina 28401.

Project Area (acres): Approximately 211.9 Nearest Town: Wilmington
Nearest Waterway: Cape Fear River River Basin: Cape Fear
Latitude and Longitude: 34.286136 N, -77.996774 W

Existing Site Conditions

The existing Sutton Lake Dam is located within the property of the L.V. Sutton Energy Complex (plant) and was constructed as a cooling reservoir for the 575-megawatt coal-fired plant and three oil-fueled combustion turbine power generators. The coal-fired plant was retired in November 2013 with demolition of the coal plant and older combustion turbines completed in 2017. The L.V. Sutton Energy Complex is now a 625-megawatt natural gas combined-cycle plant. The facility is in northern New Hanover County directly abutting the Cape Fear River to the west. The lake is open to the public for boating, fishing, and recreation.

Sutton Lake directly abuts the Cape Fear River and was largely constructed within the riverine floodplain of the river. The property between the dam and the river is comprised almost entirely of forested wetlands. According to the USDA Soil Survey of New Hanover County on-site soils consists of Dorovan and Kureb.

Applicant's Stated Purpose

The applicant's stated purpose of the proposed project is to restore the structural integrity of the Sutton Lake Dam for use by the L.V. Sutton Energy Complex and for the structure to withstand future storm related incidents which will ensure the health and safety of citizens living downstream. The applicant proposes to remove vegetation along the slope of the dam and to armor the interior and exterior of the dam using geotextile fabric and rip rap.

Project Description

After Hurricane Florence topped the Sutton Lake Dam and caused breaches the Corps issued an emergency permit (SAW-2018-01861) to temporarily rebuild the breached areas with 130 foot long 6 foot high and 15 foot wide weir. Approximately 650 cubic yards of material were placed below the ordinary high water mark.

A follow up Nationwide Permit (SAW-2011- 00858) was authorized March 20, 2019 allowing for the additional fill of 0.44 acres of open waters for additional breach repairs.

The applicant now proposes to discharge fill material into 2.93 acres of wetlands, 2.30 acres of open waters, and temporarily impact 3.45 acres of wetlands for safety improvements to the existing dam to provide long-term additional support for the integrity of the dam feature. This will include the removal of vegetation on the slope of the dam and cutting trees to the base within a 15 foot zone of the toe of the dam. The dam will then be armored using geotextile fabric and rip rap within the first 6 feet from the toe, and the remaining nine feet of the cleared vegetation will be allowed to return to its natural state. Armoring will occur within the pond itself to its original design using rip rap and geotextile. Included in this repair work is the filling of a 0.20 acre scour hole and repair work along the toe of the armored intake canal.

Avoidance and Minimization

The applicant provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment:

Steps to minimize potential adverse impacts to wetlands and the receiving waters of the Cape Fear River were considered by the applicant during project planning for the Sutton Lake Dam Rearmament and Vegetation Removal Project. The applicant determined that complete avoidance of Waters of the U.S. (WOTUS) is not feasible during rearmament of the dam due to the required space for dam safety inspections. Armoring of the interior and exterior slopes of the dam will impact open water and wetlands. Additional steps taken by the applicant to minimize and avoid impacts to wetlands and waters are listed below:

- Utilize materials that are pervious to minimize stormwater impacts;
- Only place rip-rap with geotextile in six-feet of the 15-foot offset to minimize wetland impacts, wetland type will change from forested to herbaceous in the remaining nine-feet but will still provide habitat and hydrologic functions
- Original designs included armoring a 10-foot buffer with rip rap and geotextile, but it was determined that six-feet would be enough for dam safety inspections and reduce permanent wetland impacts; and
- Construction work will be conducted from the crest of the dam to limit temporary wetland impacts from construction machinery.

The applicant studied several alternatives and used the following functional criteria was applied to alternatives:

- Ease of constructability with the design and materials used
- Design rearmament in a manner that will increase structural integrity of the dam and will also allow dam safety inspections
- Minimize impacts to WOUS
- Maximize pervious surfaces in the design to minimize stormwater runoff

No-Build Alternative

The Sutton Lake Dam would remain in its current conditions and no vegetation would be cleared at the toe of the dam; therefore, there would be no impacts to WOUS.

All action alternatives include the placement of rip-rap and geotextile on the cooling pond side of the dam for rearmament. Differences in the three plans entail the material used to solidify the crest and exterior slope of the dam.

1.) **Rip Rap with Geotextile Alternative (preferred alternative)**

The crest of the dam would be comprised of #4 ballast stone to a minimum thickness of three-inches. Voids would be filled with aggregate base course, or ABC stone. Geotextile would be placed on the exterior slope of the dam and covered with two-feet of rip-rap. Rip-rap and geotextile fabric would extend to the six-foot offset from the toe of dam to ensure adequate space for future dam safety inspections.

2.) Fabriform Alternative

Armoring the crest with fabric formed concrete down to an elevation of eight-feet along the exterior slope of the dam. The exterior slop of the dam below an elevation of eight-feet would be covered with Geotextile fabric and two-feet of rip-rap to the six-foot offset from the toe of the dam. The constraints to implementation including the following:

- Increase of impervious surfaces compared to the rip-rap with geotextile alternative

3.) Hydroturf Alternative

The hydroturf alternative would involve the placement of a hydroturf geomembrane with concrete infill armoring the crest and down to an elevation of eight-feet along the exterior slope of the dam. The exterior slope of the dam below an elevation of eight-feet would be covered with geotextile fabric and two-feet of rip-rap to the six-foot offset from the toe of the dam. The constraint to implementation include the following:

- Increase in impervious surfaces compared to the rip-rap with geotextile alternative

Compensatory Mitigation

The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment: Based on the High rating resulting from the aquatic functional evaluation using the North Carolina Wetland Assessment Method (NCWAM), Duke Energy proposes to mitigate for riparian wetlands at a 2:1 ratio for 2.51 acres of permanent impacts to wetlands. Mitigation is not being pursued for 0.42 acres of riparian wetlands with a NC WAM overall rating of low or medium nor is mitigation being offered for the 3.45 acres of temporary wetland impacts. Additionally, no mitigation is proposed for the permanent open water impacts.

Essential Fish Habitat

Pursuant to the Magnuson-Stevens Fishery Conservation and Management Act, this Public Notice initiates the Essential Fish Habitat (EFH) consultation requirements. The Corps' initial determination is that the proposed project would not effect EFH or

associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

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 an 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 Corps subsequently initiates 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-indentified permit area.

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, not likely to adversely affect federally listed endangered or threatened species or their formally designated critical habitat.

☒ 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 requests concurrence on their may affect not likely to adversely affect the Northern Long Eared Bat (NLEB) (*Myotis septentrionalis*), which is located within New Hanover County, and the implementation of the December 8, 2016 Standard Local Operating Procedures for Endangered Species (SLOPES) Act Compliance for the NLEB in North Carolina.

☐ 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 Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat. Consultation has been completed for this type of activity and the effects of the proposed activity have been evaluated and/or authorized by the National Marine Fisheries Service (NMFS) in the South Atlantic Regional Biological Opinion or its associated documents, including 7(a)(2) & 7(d) analyses and Critical Habitat assessments. A copy of this public notice will be sent to 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

The Corps forwards this notice and all applicable application materials 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, 401 and Buffer 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 18, 2019 to:

NCDWR Central Office
Attention: Ms. Karen Higgins, 401 and Buffer Permitting Unit
(USPS mailing address): 1617 Mail Service Center, Raleigh, NC 27699-1617

Or,

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

North Carolina Division of Coastal Management (NCDCM):

☒ The application did not include a certification that the proposed work complies with and would be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2 (b)(2) the Corps cannot issue a Department of Army (DA) permit for the proposed work until the applicant submits such a certification to the Corps and the NCDCM, and the NCDCM notifies the Corps that it concurs with the applicant's consistency certification. As the application did not include the consistency certification, the Corps will request, upon receipt,, concurrence or objection from the NCDCM.

☐ Based upon all available information, the Corps determines that this application for a Department of Army (DA) permit does not involve an activity which would affect the coastal zone, which is defined by the Coastal Zone Management (CZM) Act (16 U.S.C. § 1453).

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 27, 2019. Comments should be submitted to Ms. Rachel Capito,Wilmington Regulatory Field Office,
69 Darlington Avenue, Wilmington, North Carolina 28403 , or at
Rachel.A.Capito@usace.army.mil . Questions concerning this proposal can also be directed to Ms. Capito at (910) 251-4487.