



US Army Corps  
Of Engineers  
Wilmington District

# PUBLIC NOTICE

Issue Date: April 11, 2018  
Comment Deadline: May 11, 2018  
Corps Action ID Number: SAW-2018-00197

The Wilmington District, Corps of Engineers (Corps) received an application from the City of Raleigh seeking Department of the Army authorization to impact 512 linear feet (lf) of perennial stream channel, associated with the proposed improvements and expansion of the E.M. Johnson Water Treatment Plant (WTP), an 86 million gallons per day (mgd) treatment facility, at 10301 Falls of Neuse Road in Raleigh, Wake County, North Carolina.

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

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>

**Applicant:** City of Raleigh  
Mr. Perry Allen  
City of Raleigh Public Utilities Department  
Post Office Box 590  
Raleigh, North Carolina 27602

**Agent:** Hazen and Sawyer  
Ms. Linda Diebolt  
4011 West Chase Boulevard, Suite 500  
Raleigh, North Carolina 27607

## 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 site is the E.M. Johnson WTP located at 10301 Falls of Neuse Road in the southwest quadrant of the intersection of Falls of Neuse Road and Raven Ridge Road in Raleigh.

Project Area (acres): 159.29  
Nearest Town: Raleigh  
Nearest Waterway: Unnamed tributary to Falls Lake  
River Basin: Neuse/03020201

Latitude and Longitude: 35.9096 N, -78.59302 W

## Existing Site Conditions

The site contains the existing E.M. Johnson WTP and associated infrastructure. The project area is located in the central portion of the E.M. Johnson WTP site. This area is comprised of approximately 1.3 acres of early successional forest which contains an unnamed tributary (UT) to Falls Lake, a 6-foot wide perennial stream, that discharges from a 60-inch reinforced concrete culvert. Flow that discharges into this stream channel consists of existing piped stormwater discharges, plant overflow from a National Pollutant Discharge Elimination System (NPDES) permitted discharge for overflow from plant operations, groundwater seepage from the upgradient clearwell, and sheetflow of stormwater runoff from upgradient areas. The forested portion of the project area (1.3 acres) is abutted on three sides by developed/disturbed areas. The canopy consists mainly of sweet gum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), tulip poplar, (*Liriodendron tulipifera*), and loblolly pine (*Pinus taeda*). The understory contains a dense sapling and shrub layer comprised of the canopy species, native shrubs such as highbush blueberry (*Vaccinium corymbosum*), and invasive species, including Chinese privet (*Ligustrum sinense*). The herbaceous layer of the early successional forest is moderately vegetated with native and non-native species, and contains a dense vine layer comprised mainly of poison ivy (*Toxicodendron radicans*), Japanese honeysuckle, (*Lonicera japonica*), and greenbriar, (*Smilax rotundifolia*).

Downstream of the project site, the stream varies from 6 to 10 feet in width, flows for approximately 2,200 feet along the property boundary, and discharges into another UT to Falls Lake that flows from Camp New Life, an approximately 8- to 14-foot wide perennial stream. The UT from Camp New Life, upstream of the aforementioned confluence, flows along approximately 1,000 feet of the WTP parcel boundary. See Figure 2. This area consists of an approximately 14-acre old-growth hardwood forest that has been designated by the City of Raleigh as Tree Conservation Area. The old-growth forest consists of a full canopy of mature trees with sparse understory, herbaceous, and

vine layers. The canopy is dominated by upland oak species such as white oak (*Quercus alba*) along with red maple, tulip poplar, and loblolly pine. The sparse understory is comprised of saplings of canopy species, eastern redcedar (*Juniperus virginiana*), American holly (*Ilex opaca*), and flowering dogwood (*Cornus florida*). The sparse herbaceous layer is comprised of various upland fern species such as Christmas fern (*Polystichum acrostichoides*) in addition to running cedar (*Diphasiastrum digitatum*). No project activities are proposed within the old-growth hardwood forest area. No jurisdictional wetlands are located within the project area, or on the WTP site. The soils onsite are Appling sandy loam and Wedowee sandy loam; both well drained with slopes ranging from 6 to 25 percent.

### **Applicant's Stated Purpose**

The City of Raleigh proposes to expand the E. M. Johnson WTP from 86 mgd to 120 mgd. E.M. Johnson's WTP, in conjunction with the D.E. Benton WTP, supply drinking water to the City of Raleigh and the Towns of Wake Forest, Rolesville, Zebulon, Wendell, Knightdale, and Garner. This service area encompasses approximately 422 square miles and a population of approximately 530,000. Population growth and flow projections in the service area indicate that the water demand would necessitate a rated plant capacity of 120 mgd by the year 2030. The proposed expansion and improvements would allow the WTP to be capable of meeting the current and anticipated future state and federal regulations under the Safe Drinking Water Act. Maintaining operational flexibility and consistent water quality are priorities for the City during and following construction of the WTP expansion. The proposed improvements would provide redundancy for all equipment, process trains, and treatment processes, allowing the WTP to meet the 120-mgd capacity at all times, including when a critical process unit may be removed from service or taken offline. The plant expansion incorporates a single process train that would build upon the existing treatment processes, thereby minimizing operational complexity and providing consistent water quality. The project consists of modifications to the site and facilities to accommodate the expansion, including a new electrical building, new back-up generators, and future process facilities. The existing electric utility substation would be relocated onsite to allow space for construction of the new electrical building and generators. Two new electrical duct banks would be necessary to connect the new electrical building and generators and the relocated substation to the WTP.

### **Project Description**

The City of Raleigh proposes to permanently impact 512 lf of perennial stream to accommodate the grading required for construction of the new structures. Approximately 490 lf of stream within the project area would be placed in a 60-inch reinforced concrete pipe that would connect to the existing 60-inch pipe containing the upstream portion of the stream. The new stream culvert, as well as pipes that would discharge into the stream

culvert, would be routed such that the new stream culvert and the pipes that would discharge into the stream culvert are not overlain by structures. A headwall and wingwalls would be constructed at the downstream terminus of the culvert and the stream would discharge across an approximately 22-foot long riprap apron to be constructed in the existing stream channel.

### **Avoidance and Minimization**

The applicant provided the following information in support of efforts to avoid and/or minimize impacts to the aquatic environment: An Alternatives Analysis that included seven avoidance and minimization options was conducted. The alternatives assessed included the no-action alternative, upgrading the existing generator building, expansion of the existing generator building, construction of a new generator building in conjunction with using the existing generator building, construction of a new onsite generator building and demolition of existing building, construction of new backwash clarifiers in a different location, and construction of a new WTP. It has been determined that the existing generator building is not structurally sound and cannot be upgraded or expanded. Use of the existing generator building in conjunction with a new building is not feasible since the system cannot be separated into two facilities. Due to existing and proposed infrastructure locations, no alternative onsite location is available for the new generator building or new backwash clarifiers. Additionally, construction of a new WTP facility is considered to be cost-prohibitive. Comparative analysis of the project alternatives indicated that expansion of the WTP would require culverting of the stream within the project area. Proper deployment of best management practices would ensure avoidance of inadvertent impacts downstream of the project area.

### **Compensatory Mitigation**

The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment: The applicant proposes to offset the loss of stream functions that are eliminated as a result of culverting or placing riprap in 512 lf of stream by purchasing credits from the North Carolina Department of Environmental Quality, Division of Mitigation Services in-lieu fee program. Mitigation would be obtained at a 2:1 ratio for a total of 1,024 feet of stream mitigation credit.

### **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-identified 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 federally listed endangered or threatened species or their formally designated critical habitat.
  - The Corps reviewed this project in accordance with (IAW) the NLEB Standard Local Operating Procedures for Endangered Species (SLOPES) between the USACE, Wilmington District, and the Asheville and Raleigh U.S. Fish and Wildlife Service (Service) Offices, and determined that the action area for this project is located outside of the highlighted areas/red 12-digit HUCs and activities in the action area do not require prohibited incidental take; as such, this project meets the criteria for the 4(d) rule and any associated take is exempted/excepted.
  - 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 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 May 4, 2018, 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 (NCCDM):**

- 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 NCCDM, and the NCCDM 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 NCCDM.
- 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, May 12, 2018. Comments should be submitted to Ms. Tasha Alexander, Raleigh Regulatory Field Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, North Carolina 27587, at (919) 554-4884, ext. 35.