FINAL ENVIRONMENTAL ASSESSMENT

Construction of New Laboratory Facilities for the USDA Agricultural Research Service

Raleigh, North Carolina

July 2023

Prepared by

United States Army Corps of Engineers
Wilmington District

Prepared for

United States Department of Agriculture
Agricultural Research Service
Southeastern Area Office

USDA
ARS

CONSTRUCTION OF NEW LABORATORY FACILITIES FOR THE USDA

Agricultural Research Service (ARS)

Finding of No Significant Impact (FONSI)

Finding of No Significant Impact (FONSI)
In accordance with the requirements of the National Environmental Policy Act (NEPA) and implementing procedures, an environmental assessment (EA) was prepared to analyze the potential impacts of construction of new laboratory facilities for the USDA.

Purpose and Need
The USDA plant breeding program develops crops and germplasm lines that increase yield, improve nutritional and flavor quality, tolerate environmental stresses, and resist pests. The USDA currently has four Research Units plus a Location Support Office (LSO) located in Raleigh, NC that support collaborative research between USDA and North Carolina State University. The Units and LSO are physically separated from each other, and three of the Units are physically separated within each Unit. A large portion of the research is located at three off-campus locations, ranging from five to seven miles away from the main campus (Reedy Creek, MidPines Rd, and Inwood Rd).

There's a need to improve collaboration, to update technology and facilities, and to increase efficiencies and support space. The purpose of this project is to consolidate the existing field-related aspects of USDA's plant breeding (including seed handling, processing, and grain quality), pathology, and physiology research; and to house a national laboratory for the research and production of doubled-haploid plants in a location that meets the USDA's needs.

Proposed Action and Alternatives
The US Department of Agriculture (USDA), Agricultural Research Service (ARS) considered two alternatives in this EA:

- Under the Proposed Action Alternative, a new USDA ARS Plant Improvement Facility (PIF) will be constructed on an approximately 11-acre open field site. A temporary construction staging area will be located immediately to the north of the site development, in a previously disturbed area (1.7 acres). Proposed site development will include multiple buildings with access from Inwood Road. Process and Research buildings will total 51,679 square feet, while the equipment storage and facility support building will total 59,082 square feet.
- Under the No Action alternative, a new PIF would not be constructed. The USDA will have to continue operating the existing PIF in separate and aging locations. The proposed project site will continue to function as an agricultural field; no building will be constructed on the site.

Public Engagement
The USDA ARS will publish a Notice of Availability (NOA) for the Final EA and FONSI. The NOA will be published on USACE websites [https://www.saw.usace.army.mil/Library/NEPA-Documents]. The Final EA and FONSI will be available upon request.

Potential Impacts
The EA considered the potential environmental impacts of the Proposed Action including cumulative impacts. The analysis completed in the EA found that no significant impacts on environmental resources would result from the implementation of the Proposed Action. The Proposed Action will be implemented in compliance with the following best management practices and mitigation measures:

Impacts Summary	
Resource Area	**Best Management Practices (BMPs) and Mitigation Measures**
Climate	**Impacts:** Air temperatures around the newly constructed facility are likely to increase due to the conversion of an agricultural field to parking lots, roofs, and roads. **BMPs:** USDA-ARS would require the contractor to use gravel paving for parking areas instead of asphalt as it will minimize surface temperature increase.
Geology and Soils	**Impacts:** During grading and construction, soil compaction may occur. Soil compaction can reduce water infiltration capacity, reduce biomass and increase heat retention. **BMPs:** USDA-ARS will build stormwater infrastructure that will be used to minimize the effects of soil compaction and increased impervious surfaces on local water quality and minimize erosion. A stormwater management and erosion control permit will be developed and acquired from the City of Raleigh as part of their Site Permit Review.
Water Quality	**Impacts:** The proposed action will increase the impervious surfaces by approximately 2.8 acres. This may cause small minor changes to water quality in surrounding water bodies. **BMPs:** Several temporary and permanent stormwater management features, including a retention pond and level spreader-filter strip, are proposed. Temporary impacts from construction, cut/fill, and grading are thought to be minimal because the State of North Carolina Stormwater and Construction's Best Management Practices will be adhered to as appropriate. Any construction disturbance greater than one acre will require a National Pollutant Discharge Elimination System permit, pursuant to Section 402 of the Clean Water Act. A stormwater and erosion control permit package has been submitted to the City of Raleigh for a Site Permit Review. Due to the implementation of erosion control measures and compliance with North Carolina Construction General Permit NCG010000 for stormwater discharges, no effects to water quality are expected

Impacts Summary	
Endangered, Threatened, or Protected Species	**Impacts**: This project site is disturbed and regularly tilled and planted with row crops such as corn and soybeans. Similarly, the temporary access road and staging area also contain active agricultural fields. Therefore, no potential TE habitat occurs at this site. **Mitigation Measures: Not Applicable**
Historic and Archaeological Resources	**Impacts**: The proposed construction will have no effect on cultural resources and will follow Section 106 of the National Historic Preservation Act requirements. The proposed site is heavily disturbed and has been used as an agricultural field for at least the past 30 years. **BMPs**: Building massing will reflect the agrarian context of Lake Wheeler Road's research, university, and private residential buildings. Construction access will be via an existing, established roadway (Inwood Road), and the staging area will be in previously disturbed areas. In the event cultural resources including, but not limited to, cultural artifacts, relics, remains, or objects of antiquity are discovered during project construction, the North Carolina State Historic Preservation Office (SHPO) shall be immediately notified and the resource(s) in question shall be protected from further disturbance until appropriate resolution is established.
Noise	**Impacts:** Noise will be generated by the proposed project from several construction-related sources. These includes vehicular traffic and heavy construction equipment. **BMPs:** Work will occur only during daylight hours, assuring no sleep disturbance for most people, and the overall impact will be short-term and minor.
Public Safety	**Impacts:** There will be no specific change in public safety hazards on site. During construction, standard safety measures will be taken to ensure unauthorized persons do not have access to the site. **BMPs:** Safety measures will include use of construction fencing, signage, and prohibiting trespassers, etc.
Protection of Children	**Impacts:** Presidential Executive Order 13045 seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of Federal policies, programs, activities, and standards. Children are potentially at greater risk for accidents such as falls, entrapments, etc., especially during a project's construction phase. **BMPs:** During construction, standard safety measures will be taken to ensure children do not have access to the site. This will include use of exclusionary construction fencing, signage, and prohibiting trespassers, etc.

Finding of No Significant Impact

After careful review of the Final EA, I have concluded that implementation of the Proposed Action will not generate significant controversy or have a significant impact on the quality of the human or natural environment. Therefore, as evidenced by my signature below, I determine that the Proposed Action will have no significant impact and the action will be implemented. This analysis fulfills the requirements of NEPA and the CEQ regulations. An Environmental Impact Statement will not be prepared, and the USDA ARS is issuing this FONSI.

Signed:

Archie Tucker Digitally signed by Archie Tucker Date: 2023.07.07 14:21:42 -05'00'

07/07/2023

Archie Tucker
Southeast Area Director
Agricultural Research Service
U.S. Department of Agriculture

[Date]

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LIST OF ABBREVIATIONS

ABBREVIATION	TITLE
ARS	Agricultural Research Services
BMP	Best Management Practices
CFR	Code of Federal Regulations
CEQ	Council on Environmental Quality
ER	Engineer Regulation
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EO	Executive Order
GOV	Government Owned Vehicles
LSO	Location Support Office
NCSU	North Carolina State University
NEPA	National Environmental Policy Act
PIF	Plant Improvement Facility
RCP	Reinforced Concrete Pipe
SHPO	North Carolina State Historic Preservation Office
TE	Threatened and Endangered Species
USFWS	U.S. Fish and Wildlife Service
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture

1. INTRODUCTION

This Environmental Assessment (EA) presents and discusses impacts that will potentially result from the construction of a new facility by the U.S. Department of Agriculture (USDA). The proposed Plant Improvement Facility (PIF) will provide the requirements to operate the collaborative plant science efforts of the USDA Agricultural Research Facility (ARS) and North Carolina State University (NCSU). North Carolina State University is a state-owned public-land grant university located Raleigh, North Carolina-

1.1 Location

The proposed action will occur on an approximately 11-acre open field site at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road (35.73158°, -78.68266°) in Raleigh, Wake County, North Carolina. The proposed project location is shown in Figure 1 below.

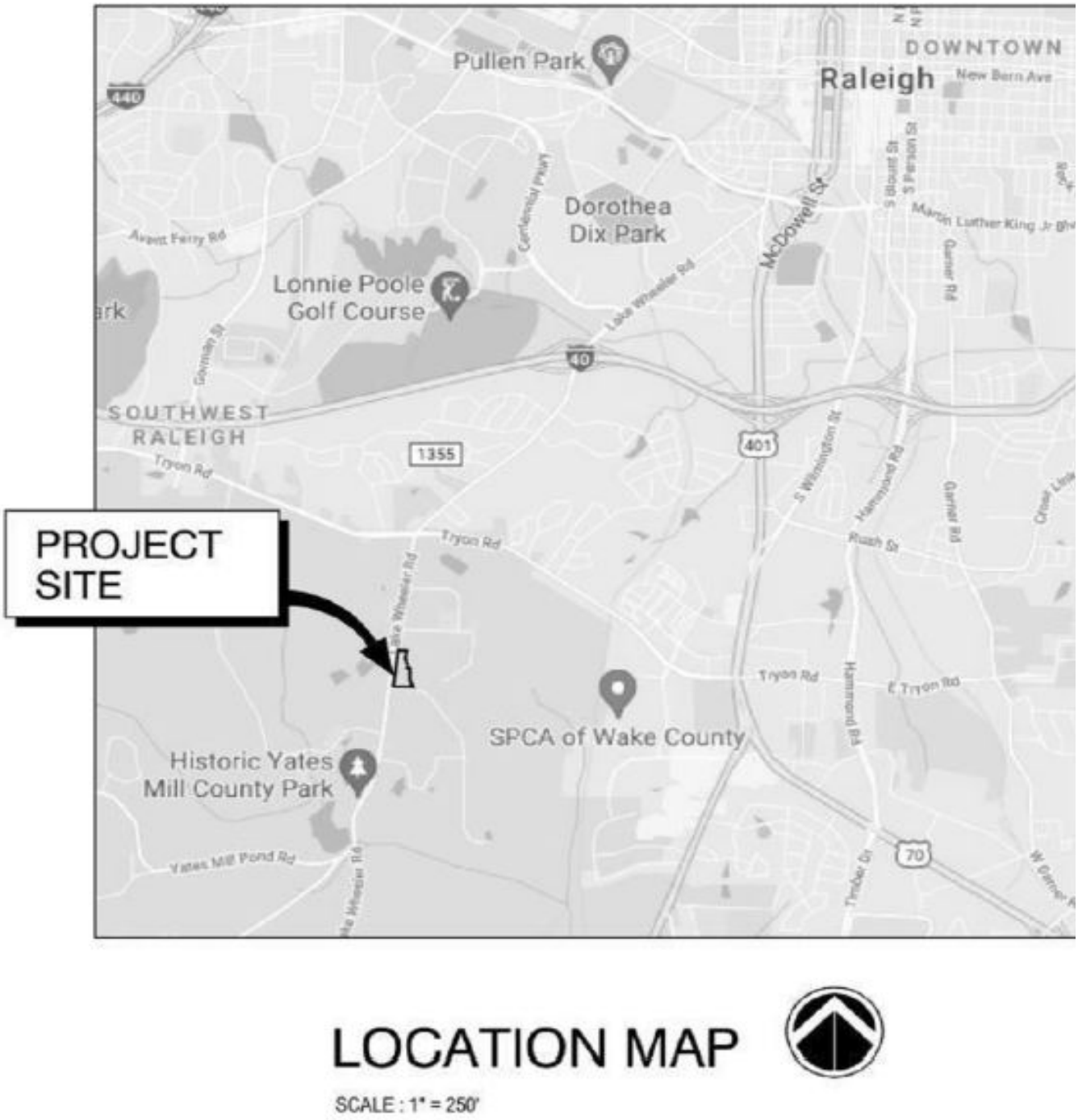

Figure 1: Proposed Site for USDA Agricultural Research Facility Wake County, NC

1.2 Purpose and Need

The USDA plant breeding program develops crops and germplasm lines that increase yield, improve nutritional and flavor quality, tolerate environmental stresses, and resist pests. The USDA currently has four Research Units plus a Location Support Office (LSO) located in Raleigh, NC that support collaborative research between USDA and NCSU. The Units and LSO are physically separated from each other, and three of the Units are physically separated within each Unit. A large portion of the research is located at three off-campus locations, ranging from five to seven miles away from the main campus (Reedy Creek, MidPines Rd, and Inwood Rd). There's a need to improve collaboration, to update technology and facilities, and to increase efficiencies and support space. The purpose of this project is to consolidate the existing field-related aspects of USDA's plant breeding (including seed handling, processing, and grain quality), pathology, and physiology research; and to house a national laboratory for the research and production of doubled-haploid plants in a location that meets the USDA's needs.

1.3 Authority

Funding and authorization for the construction of the NCSU USDA ARS site was included in 2019 Consolidated Appropriations Act. The conference agreement provides $381,200,000 for ARS Buildings and Facilities for the next highest priorities identified on the 2012 USDA ARS Capital Investment Strategy and 2015 ARS Co-located Cooperator Facility Report

1.4 Proposed Action

1.4.1 Land Lease

The NCSU proposes to lease all the lands, non-removable property, buildings, and grounds of the project site to USDA.

1.4.2 Construction of New Facilities

The Plant Improvement Facility will be comprised of interior spaces organized according to their respective crop in building wings that will be connected by a central outdoor breezeway. The south portion of the facility will be anchored by a greenhouse/headhouse. The northern portion of the facility will include the water collection tank, associated pump house and the storage facility. The proposed action is described in detail in Section 2.2.

1.5 Scope

The National Environmental Policy Act (NEPA) and Title 40 of the Code of Federal Regulations (CFR), Parts 1500-1508 (40 CFR 1500-1508), require Federal agencies to consider the potential environmental consequences of proposed actions and alternatives. 7 CFR § 520.3 further states USDA ARS will comply with the NEPA. An Environmental Assessment (EA) is prepared for an action that is not clearly categorically excluded but does not clearly require an Environmental Impact Statement (EIS) [40 CFR §1501.3 (a) and (b)]. Based on the EA, the federal agency either prepares an EIS, if one appears warranted, or issues a "Finding of No Significant Impact", which satisfies the NEPA requirement. This EA is prepared according to the Engineer Regulation (ER) 200-2-2, Procedures for Implementing NEPA, and the Council for Environmental Quality (CEQ) regulations (40 CFR § 1508.27) for Implementing the Procedural Provisions of NEPA (40 CFR § 1500-1508). This EA is being prepared in accordance with the 2022 Phase I CEQ NEPA revisions.

This EA, written by the U.S. Army Corps of Engineers (USACE), Wilmington District, for the USDA, presents the potential impacts associated with construction of the Plant Improvement Facility. Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality (amended by EO 11991), provides policy directing the Federal government to take leadership in protecting and enhancing the environment. Per CEQ guidance, the EA focuses on resource areas where there are potential impacts.

1.6 Public Involvement

NEPA requires that the public be involved in the decision-making process on Federal actions. Consideration of the views and information of all interested parties promotes open communication and enables better decision-making. All agencies, organizations, and members of the public having a potential interest in the proposed action are urged to participate in the decision-making process.

2. ALTERNATIVES

2.1 No Action Alternative

Under the No Action alternative, USDA will not construct a new PIF as a part of this action. The USDA will have to continue operating the PIF in separate and aging locations. The proposed project site will continue to function as an agricultural field; no building will be constructed on the site.

2.2 Proposed Action

The proposed action will provide a new facility to operate the collaborative plant science efforts of the USDA Agricultural Research Service and North Carolina State University. The PIF facility will combine existing programs that are currently located in aging and/or separate facilities in several other locations and will bring together employees, who are currently separated by several miles, into one common facility, providing better opportunity for collaboration and increased efficiencies. The PIF will also provide updated technology, increased support space, and room for growth. Construction of the proposed facility will meet the current and future research needs of USDA ARS at NCSU in Raleigh, North Carolina.

The proposed action consists of the construction of a new USDA ARS PIF on an approximately 11-acre open field site. A temporary staging area would be immediately north of the project site in a previously disturbed area of 0.98 acres. However, in May 2023 project specific guidance from the US Fish and Wildlife Service resulted in a project design change. The temporary access road that supports a small tree plot has been removed from the project. This is a design change since the Draft EA was publicly available in late 2022. See the tricolored bat treatment in Section 3.2.3.

The project site is adjacent to existing USDA research areas for several different programs and the proposed new development will include multiple buildings with proposed access coming off Inwood Road (Figure 2). The process and research buildings will total 51,679 Gross Square Feet (GSF) and the equipment storage and facility support building will total 59,082 GSF.

Permanent site access from Inwood Road will require installation of a 54 foot long, 15-inch-diameter RCP pipe that will connect the existing roadside ditches. The total acreage of impact for this permanent access road is about 3,000 square feet (0.07 acres). The primary driving and parking areas will be gravel, except where paving is needed for accessible parking and access. The gravel parking area include 27 parking spaces.

This action will include the cut, fill, and grading of soils, the pouring of concrete pads, and the construction of the buildings. There is no domestic water or sewer

infrastructure on site. A network of well, storage tank, rainwater harvesting, and retention ponds will be used to support domestic systems, and fire protection water demand.

The site plan (Figure 2) includes temporary and permanent stormwater features, including a dry pond and a permanent level spreader filter strip (LS-FS). A level spreader-filter strip consists of the level spreader, which is a poured concrete lip and a filter strip that is graded and grassed. The LS does not remove pollutants by itself; however, it is an indispensable device needed to bring about pollutant removal in the FS. The vegetation and soils in the FS remove pollutants primarily via filtration and infiltration. The LS-FS provides Secondary Stormwater Control Management. The LS-FS will have a forebay in front of the level spreader, which is an excavated, bowl-shaped feature that slows the stormwater and sediment and debris to settle out. The total area for the LS-FS and forebay is about 0.14 acre.

The Draft EA identified two temporary access roads. The one from Chi Road, north of the site (not shown), has been removed from the project design to avoid any effects to the tricolored bat, which was recently proposed for protection under the Endangered Species Act as endangered.

A temporary construction staging area is proposed within the 11-acre project site, north of the septic field (Figure 3). The proposed staging area will be in a previously disturbed 0.98-acre area (i.e., agricultural field) within the area shown on Figure 3. Following construction, the disturbed area will be restored to pasture/hay production using an endophyte (fungal) free fescue.

Figure 2: The proposed construction consisting of a main office building, a headhouse/greenhouse, parking and access.

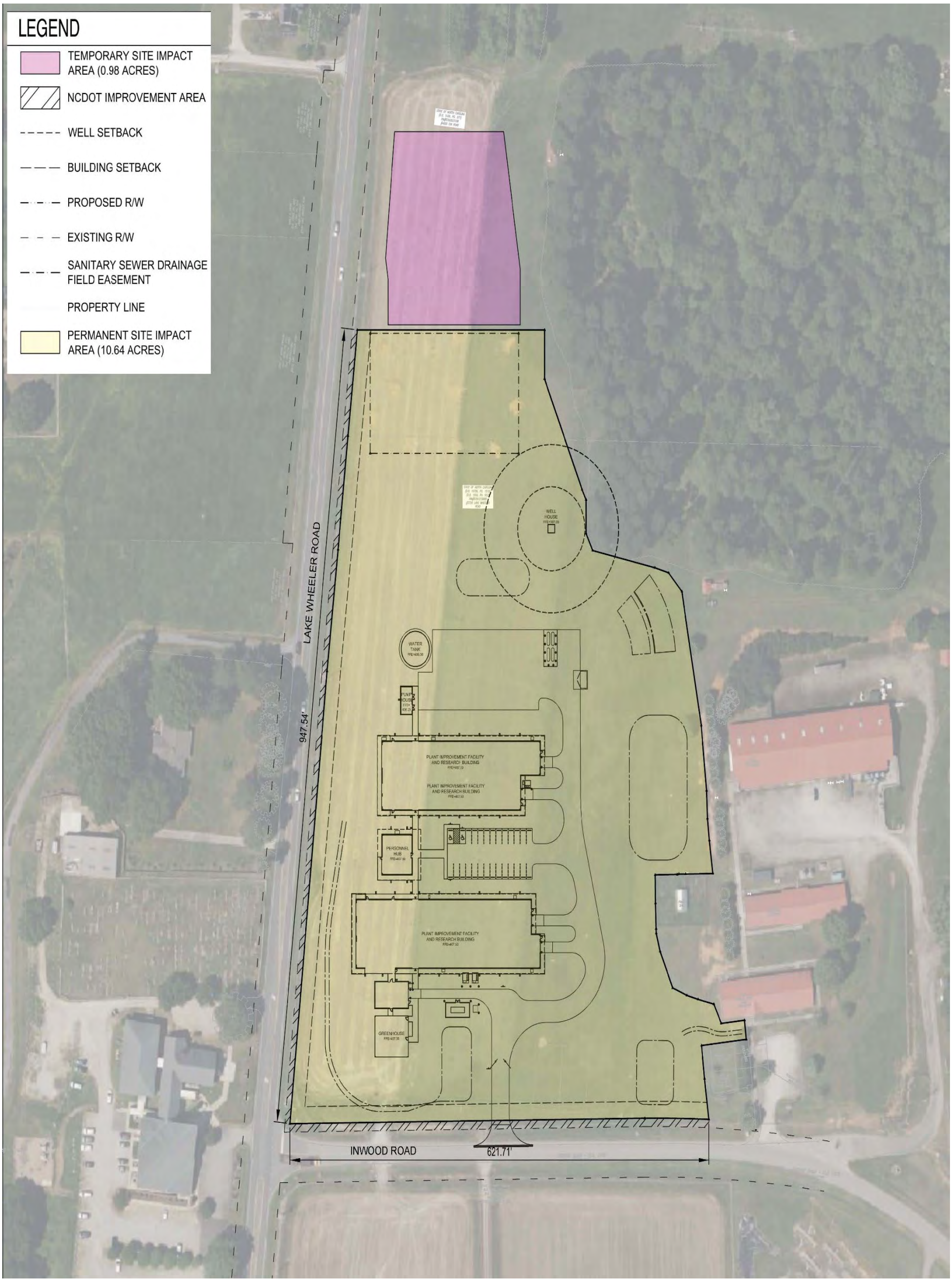

Figure 3: The proposed project limits of disturbance, including the temporary construction staging area, i.e., Temporary Site Impact Area (purple area), north of the project site.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 Physical Environment

3.1.1 Climate

Affected Environment: The project is in a Köppen Cfa climate (humid-subtropical). Wake County experiences warm summers with mild winters. On average there are 156 days of rain a year, averaging 31.7 inches. The hottest summer month (July) has an average high of 89.4º Fahrenheit (F) and the coldest month (January) has an average low of 32.2º F.

No Action: No direct or indirect changes to climate will be expected under the no action alternative.

Proposed Action:

Direct Impacts: The proposed action will have a negligible effect to the local and global climate. Air temperatures around the newly constructed facility are likely to increase due to the conversion of an agricultural field to parking lots, roofs, and roads. However, the use of gravel paving for parking areas instead of asphalt will minimize surface temperature increase. The higher temperatures will dissipate quickly to adjacent areas, and the size of the proposed complex will not constitute a major “heat island”. Small amounts of greenhouse gases will be released by construction equipment at the site; however, these emissions will be localized and temporary in nature and will not significantly contribute to climate change.

Indirect Impacts: No indirect impacts are anticipated.

3.1.2 Geology and Soils

Affected Environment: The project is located within the North Carolina Piedmont region (Figure 3) which includes gently rolling hills and low ridges. The region is composed mainly of Proterozoic and Paleozoic metamorphic and intrusive igneous rocks. The rocks are composed of chlorite, epidote, and other greenschist-facies minerals.

The site contains Appling sandy loam (2 to 6 percent slopes) and Cecil sandy loam (2 to 6 and 6 to 10 percent slopes) soils. The Appling and Cecil Series are listed as Prime farmland soils. Prime Farmland, as defined by the USDA, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these

uses. A soils map that includes the construction area is included in Appendix A.

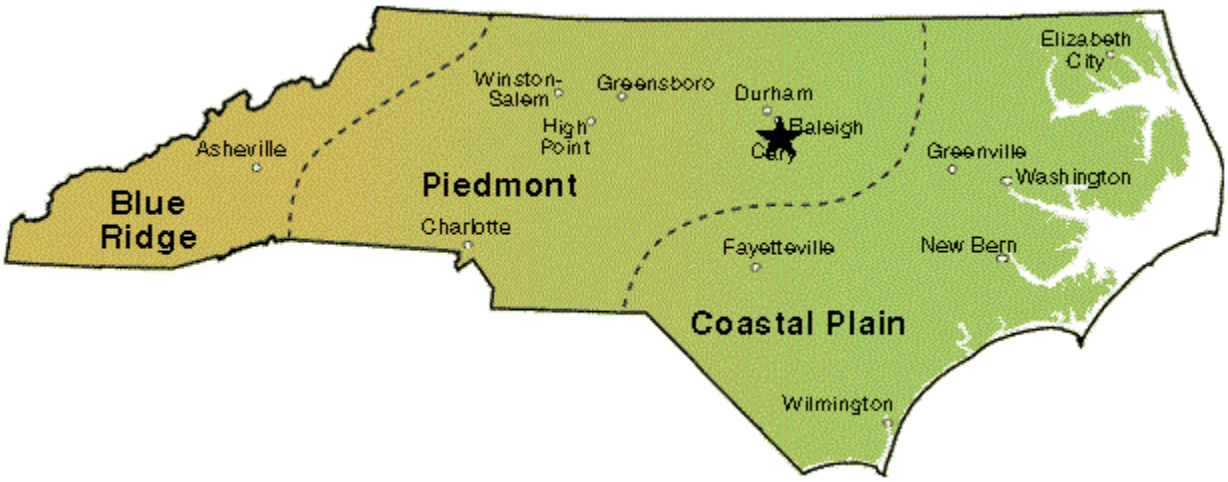

Figure 4: The location of the proposed project in reference to North Carolina's geological regions. Note that Raleigh is just North of the fall line between the Piedmont Upland and the Coastal Plain. (USGS, n.d.)

No Action: No impacts will occur to local geologic or soil resources under the No Action because no changes to existing geology or soils will occur.

Proposed Action:

Direct Impacts: The proposed action will involve the cutting/filling and grading of existing topography as a result of site preparation. Most soils have been previously disturbed from past site development activities. Fill soils will be used during construction, which will likely be locally sourced. Impacts to the major geography and soils of the area will remain unchanged.

There will be minor impacts to the soils from the construction and grade work on the 11-acre site, as well as minor impacts to approximately 0.98 acres associated with the grading required for the temporary staging area (Figure 3). During grading and construction, soil compaction may occur. Soil compaction can reduce water infiltration capacity, reduce biomass and increase heat retention (Stoessel, Sonderegger, Bayer, & Hellweg, 2018). While the compaction of the soils may negatively affect water infiltration, stormwater infrastructure will be used to minimize the effects of soil compaction and increased impervious surfaces to local water quality and minimize erosion. A stormwater management and erosion control permit package will be submitted to the City of Raleigh for a Site Permit Review.

This combined submittal and review process is done to obtain all site approvals. The City of Raleigh reviews plans for compliance related to stormwater management, public utilities, transportation, fire, urban forestry, planning and zoning regulations. Through this process the project will get stormwater discharge approval for coverage under the North Carolina Construction General Permit NCG010000.

The National Resources Conservation Service has been contacted regarding the construction on Prime Farmlands and all necessary coordination has been completed to ensure compliance with the Farmland Protection Policy Act by letter from the USDA dated September 15, 2022 (Appendix B).

Indirect Impacts: No indirect impacts are anticipated.

3.1.3 Water Quality

Affected Environment: The project will occur entirely within the Swift Creek watershed (Figure 5). The site eventually drains into an unnamed tributary to Swift Creek, which flows into Lake Wheeler, then to Lake Benson and ultimately to the Neuse River. Portions of the watershed have been listed as impaired by the North Carolina Department of Environmental Quality. No surface water or wetland is located within the project area.

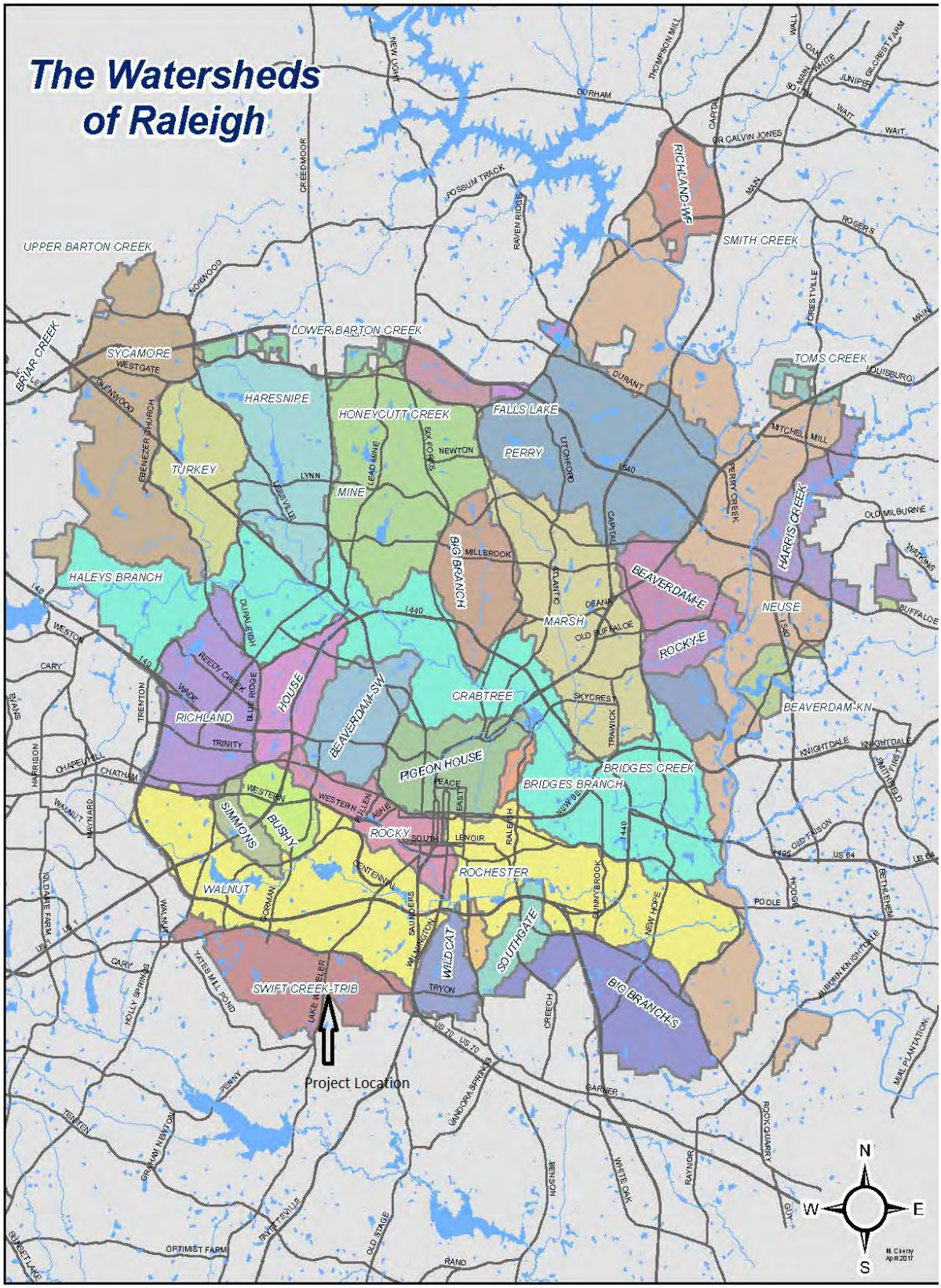

Figure 5: The watersheds of Raleigh, NC.

No Action: No impacts will occur to water quality under the No Action because no changes to existing water resources will occur.

Proposed Action:

Direct Impacts: The proposed action will increase the impervious surfaces by approximately 2.8 acres. This may cause small minor changes to water quality in surrounding water bodies. Temporary impacts from construction, cut/fill, and grading are thought to be minimal as North Carolina Stormwater and Construction Best Management Practices (BMP) will be adhered to as appropriate. Any construction disturbance of more than one acre will require the obtainment of a National Pollutant Discharge Elimination System (NPDES) permit, pursuant to Section 402 of the Clean Water Act. Several temporary and permanent stormwater features, including a retention pond and level spreader-filter strip, are proposed to be constructed at the site (Figure 2). Due to the implementation of erosion control measures and compliance with North Carolina Construction General Permit NCG010000 for stormwater discharges, no effects to water quality are expected.

Indirect Impacts: No indirect impacts are anticipated.

3.1.4 Groundwater

Affected Environment:

No Action: No impacts will occur to groundwater under the No Action because no changes to existing groundwater will occur.

Proposed Action:

Direct Impacts: Impacts to groundwater will be minimized by utilizing BMP during construction. Groundwater impacts will also be minimized by designing appropriate stormwater retention, infiltration and sewage infrastructure.

Indirect Impacts: No indirect impacts are anticipated.

3.1.5 Air Quality

Wake County, North Carolina is not within an Environmental Protection Agency (EPA) nonattainment area (Environmental Protection Agency, 2022).

Greenhouse gases absorb infrared radiation, thereby trapping heat and making the planet warmer. The most important greenhouse gases directly emitted by humans include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and several other fluorine-containing halogenated substances. Although CO_2, CH_4, and N_2O occur naturally in the atmosphere, human activities have changed their atmospheric concentrations. From the pre-industrial era (i.e., ending about 1750 CE) to 2017 CE, concentrations of these greenhouse gases have increased globally by 45, 164, and 22 percent, respectively.

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other greenhouse gases, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the earth.

No Action: No impacts will occur to air quality under the No Action because no changes to existing pollution loading will occur.

Proposed Action:

Direct Impacts: The local area will receive a minor increased amount of air pollution due to the cars for the employees that will work at the new facility. However, the facility is consolidating multiple existing facilities located within the same area into a single location. Some impacts from employee commutes would be offset by no longer utilizing the former locations.
There will also be temporary increases in air pollution during the construction of the project. The impacts of this pollution will not cause Wake County or Raleigh to exceed any state or national air quality standards or become an EPA nonattainment area. No changes to air quality or climate change are anticipated.

Indirect Impacts: No indirect impacts are anticipated.

3.1.6 Floodplain

The project site is immediately adjacent to a small creek with natural relief and topography; however, no construction activity will occur in the floodplain.

No Action: No impacts will occur to the floodplain under the No Action because no changes to existing floodplain will not occur.

Proposed Action:

Direct Impacts: The proposed construction will not occur within a floodplain; given this, the requirements of EO 11988 (Floodplain Management) do not apply to this project.

Indirect Impacts: No indirect impacts are anticipated.

3.1.7 Wetlands

A wetland survey of the project area was conducted; wetlands are not present in the project area. A National Wetlands Inventory (NWI) map is shown in Figure 6.

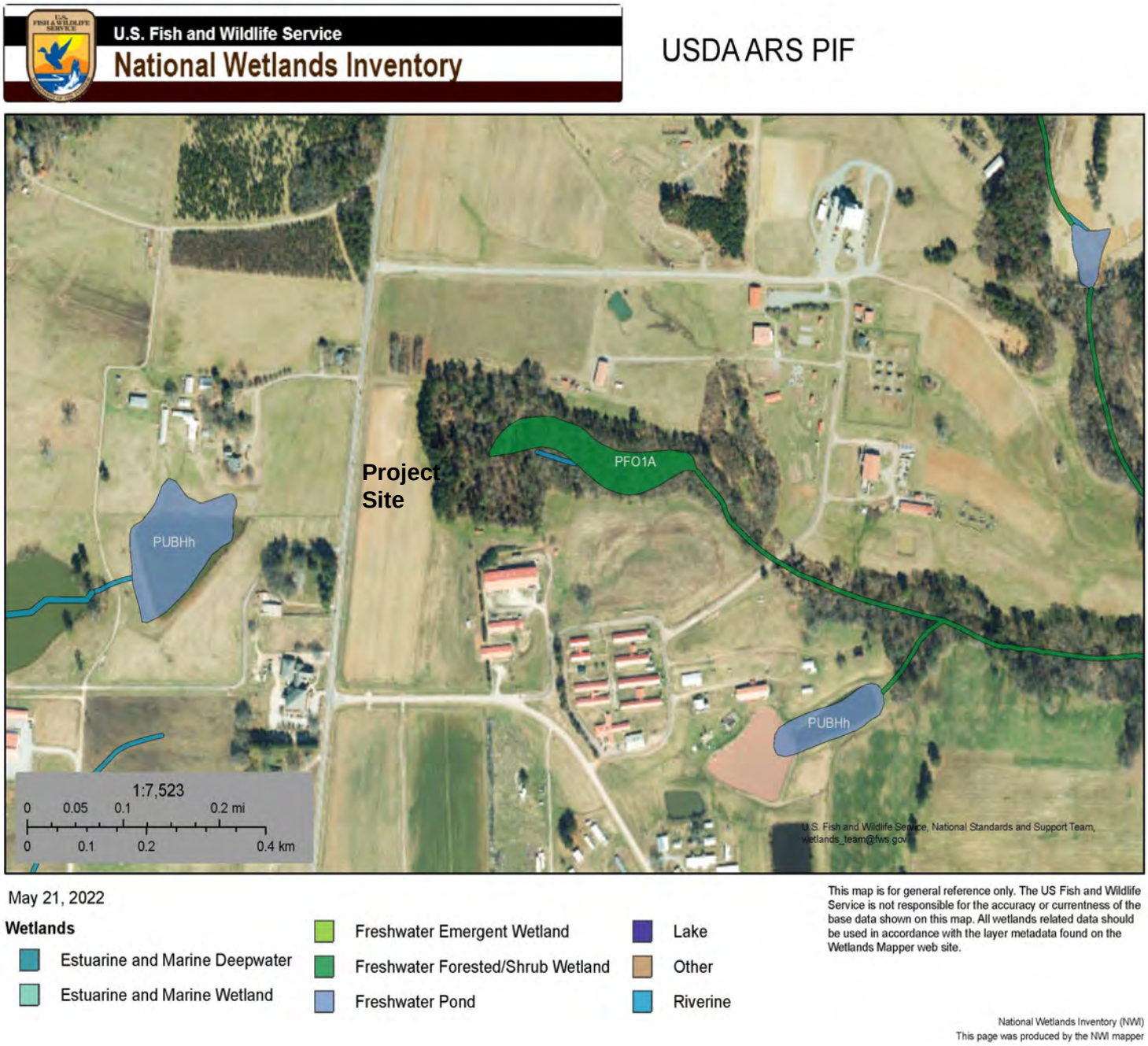

Figure 6: The NWI wetland map associated with the proposed project site.

No Action: No impacts will occur to wetlands under the No Action because no changes to the existing wetlands will occur.

Proposed Action:

Direct Impacts: There are no wetlands within the project area and no runoff into any adjacent wetlands are anticipated. The proposed construction is not expected to impact wetlands.

Indirect Impacts: No indirect impacts are anticipated.

3.2 Biological Resources

3.2.1 Fish and Fishery Resources

There are no commercial or recreational fisheries within the project area or in the vicinity.

No Action: No impacts will occur to fish or fishery resources under the No Action because no changes to existing fish habitat will occur.

Proposed Action:
Direct Impacts: No impacts will occur to fish or fishery resources under the Proposed Action because no changes to existing fish habitat will occur.

Indirect Impacts: No indirect impacts are anticipated.

3.2.2 Wildlife Resources and Habitat

Affected Environment: The land area in the vicinity of the project area contains mostly agricultural fields. There is a small, forested drainage area adjacent to the project area that contains a bottomland hardwood habitat with an ephemeral stream. The site would be expected to contain Eastern cottontail rabbit (*Sylvilagus floridanus*), racoons (*Procyon lotor),* Virginia opossum (*Didelphis virginiana*), and white - tailed deer (*Odocoileus virginianus*), and Eastern wild turkey (*Meleagris gallopavo silvestris*). No clearing is proposed within the bottomland hardwood area.

No Action: No impacts will occur to wildlife resources under the No Action because no changes to existing wildlife habitat will occur.

Proposed Action:

Direct Impacts: A relatively minor amount of wildlife habitat will be lost due to the construction of the PIF. This will consist of the clearing and grading an 11-acre project area that is currently an agricultural field. The project would result in a permanent loss of use of this upland area. It is likely that small urban adapted species that live in the area of impact would relocate onto undeveloped adjacent areas. Additionally, temporary impacts to 0.98 acres will result from clearing and grading to construct the temporary staging area. The temporary access road at Inwood Road will be converted to a permanent driveway.

Indirect Impacts: No indirect impacts are anticipated.

3.2.3 Endangered, Threatened, or Protected Species

Under the Endangered Species Act of 1973, any federal agency proposing an action must review the project for potential effects to threatened and endangered species (TE), including their habitat. The U.S. Fish and Wildlife Service (USFWS) supports and online species data clearing house known as *Information for Planning and Consultation* (IPaC). An IPaC report (USFWS 2023) was used to identify TE species

that could be present based on habitat requirements, distribution maps and known occurrences (https://ecos.fws.gov/ipac/). This report was generated on June 7, 2023 (Appendix C). Nine TE species are thought to occur within the proposed project area in Wake County, North Carolina (Table 1) There is no designated Critical Habitat within the proposed project area or its immediate vicinity.

During the winter, tricolored bats (TCB) are often found in caves and abandoned mines, although in the southern United States, where caves are sparse, TCB are often found roosting in road-associated culverts where they exhibit shorter torpor bouts and forage during warm nights. During the spring, summer, and fall, bats are found in forested habitats where they roost in trees, primarily among leaves of live or recently dead deciduous hardwood trees, but may also be found in Spanish moss, pine trees, and, occasionally, human structures. The TCB is strongly associated with dense tree and underbrush cover but is not known to be inhabiting the test plots and the smaller tracts make it unlikely to be found there.

The red-cockaded woodpecker is known to inhabit open pine woodlands. No habitat is known to exist in the vicinity of the project area. The monarch butterfly is known to inhabit open grasslands and rely on milkweed as a host to lay their eggs. Intensive agricultural fields, like the current project conditions, will not support the butterfly. The disturbed conditions at the project area will also not be expected to support the growth of Michaux's Sumac.

The project area doesn't include the medium to large streams where the dwarf wedgemussel, Neuse River waterdog, yellow lance or Carolina madtom occur, therefore, the proposed project will have *no effect* on the dwarf wedgemussel, Carolina madtom or the Neuse River waterdog.

No changes in the flow of or runoff into any adjacent streams is expected as a course of the proposed federal action. Construction at the project site should not negatively affect the success of any TE species. A USACE biologist surveyed the site on 28 June 2021 and did not identify potential habitat for any listed species.

Table 1: Effects of the No Action Alternative on Threatened and Endangered Species in the area

Common Name	Scientific Name	Status	Determination
tricolored bat	*Perimyotis subflavus*	Proposed Endangered	No Effect
red-cockaded woodpecker	*Picoides borealis*	Endangered	No Effect
neuse river waterdog	*Necturus lewisi*	Threatened	No Effect
Carolina madtom	*Noturus furiosus*	Endangered	No Effect
Atlantic pigtoe	*Fusconaia masoni*	Threatened	No Effect
dwarf wedgemussel	*Alasmidonta heterodon*	Endangered	No Effect
yellow lance	*Elliptio lanceolata*	Threatened	No Effect
monarch butterfly	*Danaus plexippus*	Candidate	No Effect
Michaux's sumac	*Rhus michauxii*	Endangered	No Effect

No Action:

No impacts will occur to threatened or endangered species under the No Action because no changes to existing wildlife habitat will occur.

Proposed Action:

Direct Impacts: This project site is disturbed and regularly tilled and planted with row crops such as corn and soybeans. Similarly, staging area contains active agricultural fields. Therefore, no potential TE habitat occurs at this site, except for the tricolored bat.

In 2023 the US Fish and Wildlife Service (USFWS) proposed the bat for listing as endangered under the ESA. On May 22, 2023, the USFWS provided interim guidance, for this project, to address potential involvement prior to and after listing, if final listing does occur. The guidance is as follows:

If work is not completed (particularly tree removal and any culvert modification/removal) before the listing decision, the Corps (i.e., the USDA) *should reinitiate consultation with the Service* (i.e., US Fish and Wildlife Service) *on impacts from the project construction to TCB. The EA should acknowledge that reinitiation of consultation will be required if the TCB is listed prior to completion of the project.*

The Service hopes to have programmatic solutions in place prior to a listing decision. In the piedmont, TCB roost in trees during warmer months and roost or hibernate in culverts and potentially bridges year-round. It is not well-known whether they may come out of the culvert roost on warm winter nights, or whether they may roost in trees for

any part of the winter. Tree removal and culvert removal or modification (if the culvert is greater than 36 inches in diameter) may affect TCB if individuals of the species are present. Installation of new culverts should not affect the species. If and when it is listed, there will probably be time of year restrictions on tree-cutting and also probably an acreage threshold in order to make a determination of MANLAA (may affect, not likely to adversely affect*).*

The EA states that approximately 17,600 square feet of trees are proposed for removal, which is likely below the threshold we (i.e., US Fish and Wildlife Service) plan to set for winter tree clearing. We currently plan to treat the TCB similarly to the rest of the range where the species hibernates in winter, so if you (i.e., USDA) can commit to cutting the trees in winter (November 30 - March 1, when the TCB is more likely to be hibernating), then we could concur with a preliminary determination of MANLAA. Even if that commitment can't be made, there may be other paths to a MANLAA determination, but those are still being worked out.

With this new information the USDA has decided not to remove the trees as part of this action. Figure 3 depicts this area in purple for reference. The entire area is no longer part of the action. Consequently, the proposed project will have *no effect* on the tricolored bat. Furthermore, it is anticipated that the proposed action will also have no effect on the other listed species presented in Table 10.

Indirect Impacts: No indirect impacts are anticipated.

3.3 Socioeconomics and Cultural Resources

3.3.1 Socioeconomic Conditions

According to the 2021 Census, there were 1,150,204 people living in Wake County, North Carolina. The population was 67.9% White, 21.0% Black, 0.8% Native American, 7.7% Asian, 0.1% Pacific Islander, 10.4% Hispanic or Latino, and 2.6% from two or more races. The median household income was $83,567; 7.4% of the population lives below the poverty line (United States Census Bureau, 2021).

No Action: No changes in socioeconomics in the area will occur under the no action alternative.

Proposed Action:

Direct Impacts: A temporary increase in jobs in association with the construction may occur, however, the sourcing and effect of the jobs are unknown. The facility is replacing an existing facility located within the same area, so it will not result in additional jobs.

Indirect Impacts: No indirect impacts are anticipated.

3.3.2 Land Use

Land use within the project area is for agricultural production of row crops such as

soybeans and corn. Land use in the vicinity of the project site includes residential development, agriculture, university land, and research facilities.

No Action: No changes in land use to the area will occur under the no action alternative.

Proposed Action:

Direct Impacts: The project area will be converted from an agricultural field to a research facility with a driveway, parking area, and storage buildings. Some existing field area will remain post-construction.

Indirect Impacts: No indirect impacts are anticipated.

3.3.3 Historic and Archaeological Resources

The proposed project site, including the temporary features, is in an open field at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road (35.73158°, -78.68266°) in Raleigh, Wake County, North Carolina (Figure 1). Referencing available historic aerial imagery, the site has been extensively disturbed and used for agriculture and/or agricultural education for more than 30 years (Figure 7).

Figure 7: Historic aerial imagery of the project site and surrounding area, February 1993 (image courtesy of Google Earth).

No action: Continued agricultural use of the proposed project site will have no effect on cultural resources.

Proposed Action:

Direct Impacts: The proposed construction will have no effect on cultural resources and will follow Section 106 of the National Historic Preservation Act requirements. The proposed site is heavily disturbed and has been used as an agricultural field for at least the past 30 years. Building massing will reflect the agrarian context of Lake Wheeler Road's research, university, and private residential buildings. Construction access will be via existing, established roadways and the proposed temporary access from Inwood Road, and the staging area will be in previously disturbed areas.

In the event cultural resources including, but not limited to, cultural artifacts, relics, remains, or objects of antiquity are discovered during project construction, the North

Carolina State Historic Preservation Office (SHPO) shall be immediately notified and the resource(s) in question shall be protected from further disturbance until appropriate resolution is established.

Indirect Impacts: No indirect impacts are anticipated.

The regulatory agency responsible for managing and protecting these resources, under the federal National Historic Preservation Act, is the North Carolina State Historic Preservation Office (SHPO). Coordination with SHPO has been completed and they identified no historic or cultural resources in the project area (**Appendix E**). Therefore, the proposed project will have no effect on those resources.

3.3.4 Water Supply

There is no domestic water available from the City of Raleigh on site. Facilities within the immediate area require on-site well water/storage tank systems.

No Action: No impacts will occur to water under the No Action Alternative because no changes to existing water usage will occur.

Proposed Action:

Direct Impacts: The site water shall be supplied from a well water system. Pending further flow test results, a new 6-inch diameter well casing, approximately 600 feet deep, with associated pump and pump house will be provided to supply the site. The maximum well flow capacity in this area is reported to be 50 gallons per minute. A 4-inch diameter line from the well will supply water to a 240,000-gallon storage tank that will be the source for a fire protection system, evaporated water cooling and domestic water system. If necessary, water treatment will be incorporated into the evaporated water cooling and domestic system. No negative impacts will occur to the local area's water supply under the Proposed Action because no large changes to existing water usage will occur.

Indirect Impacts: No indirect impacts are anticipated.

3.3.5 Traffic

Traffic around the project site mainly travels along Lake Wheeler Road and Inwood Road. The City of Raleigh lies along Interstate 40 between Wilmington, NC and Greensboro, NC where traffic is moderate. The project site is located approximately four miles outside downtown Raleigh and within a mile of a high-density residential development. Traffic volume in Raleigh can be heavy at times, especially during weekday commuting periods. However, the site is in a less populated area that experiences reduced traffic volume.

No Action: No impacts will occur to traffic under the No Action because no changes to existing traffic volume or patterns will occur.

Proposed Action:

Direct Impacts: Minor alterations to the traffic patterns around the project site may occur but should have no noticeable effects based on the number of employees.. No changes to traffic patterns are expected to occur at the site and traffic is not expected to be detoured during construction.

Indirect Impacts: No indirect impacts are anticipated.

3.3.6 Noise

The project site is located about four miles outside of downtown Raleigh and within a mile of high-density residential development. The area currently experiences moderate traffic and urban noise.

No Action: The No Action will not result in any noise generation.

Proposed Action:

Direct Impacts: Noise will be generated by the proposed project from several construction-related sources. These includes vehicular traffic and heavy construction equipment. Typical sources of construction-related noise are shown in Table 2, along with expected noise levels at 25 and 50 feet from the source. It is estimated that such noise levels from the proposed action will be comparable to noise originating from a residential home or commercial building construction project. This may constitute a minor nuisance to the nearby area.

Work will occur only during daylight hours, assuring no sleep disturbance for most people, and the overall impact will be short-term and minor. Long-term impacts resulting from operating the new facility will include operation of agricultural machinery related to research activities. Considering the site is currently used for agricultural production the new noise impacts will be similar to the existing conditions. Any increase of noise from the new facility will be considered negligible

Indirect Impacts: No indirect impacts are anticipated.

Table 2: Typical Noises from Construction in Urban Environments.
Source: U.S. Department of Transportation, 1977

Typical Noise Generating Sources in Typical Urban Environments			
Construction Phase	**Equipment**	**Noise Level at 25 ft (dBA-Leq)**	**Noise Level at 50 ft (dBA-Leq)**
Clearing and grubbing	Bulldozer, backhoe	95	89
Earthwork	Scraper, bulldozer	97	91
Foundation	Backhoe, loader	94	88
Superstructure	Crane, loader	95	89
Base preparation	Trucks, bulldozer	97	91
Paving	Paver, trucks	98	92

3.3.7 Aesthetics

Affected Environment: The project site is located on land owned by North Carolina State University. The site contains agricultural fields and has a research facility on the adjacent property. Most of the land within a 0.5-mile radius is used for agricultural production. North Carolina State University maintains building and landscaping standards for areas on and around university property.

No Action: No impacts will occur to the area aesthetics under the No Action because no changes to the viewscape, vegetation, or architecture will occur.

Proposed Action:

Direct Impacts: The proposed action will result in the conversion of an agricultural field into a research facility. The new facility will be located adjacent to the existing NCSU Animal and Poultry Teaching Unit facilities and be required to follow the University's building and landscaping standards. Although view frames will be changed with the construction of a developed facility on agricultural fields, the construction will look similar to other structures already present near the project area. The staging area will be restored to pre-construction conditions following project completion. There will be no long-term adverse effects to aesthetics of the area.

Indirect Impacts: No indirect impacts are anticipated.

3.3.8 Hazardous and Toxic Material Liabilities

There are no EPA Superfund sites in the vicinity of project area. There is a potential for substances being present from fertilizer and pesticides from past agricultural uses. Use of these agricultural chemicals will be reduced or eliminated as a result of converting the use to a research facility.

No Action: No impacts will occur to risks of hazardous and toxic materials under the No

Action because no disturbances to the soils, air, and waters will occur.

Proposed Action:

Direct Impacts: This alternative is expected to have no effect on Hazardous and Toxic Materials (HTM) and will not result in the production of HTM.

Indirect Impacts: No indirect impacts are anticipated.

3.3.9 Public Safety

For both the No Action and the Proposed Action Alternatives, there will be no specific change in public safety hazards on site. During construction, standard safety measures will be taken to ensure unauthorized persons do not have access to the site. This will include use of construction fencing, signage, and prohibiting trespassers, etc. No interruption to the travel of emergency vehicles is expected as a result of the proposed action.

3.3.10 Protection of Children

On April 12, 1991, the President issued EO 13045, Protection of Children from Environmental Health Risks and Safety Risks. The EO seeks to protect children from disproportionately incurring environmental health or safety risks that might arise as a result of Federal policies, programs, activities, and standards. Children are potentially at greater risk for accidents such as falls, entrapments, etc.

During construction, standard safety measures will be taken to ensure children do not have access to the site. This will include use of exclusionary construction fencing, signage, and prohibiting trespassers, etc. For both the No Action and the Proposed Action Alternatives, there will be no increased risk to children.

3.3.11 Environmental Justice

On February 11, 1994, the President issued EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. The EO is designed to focus Federal attention on the environmental and human health conditions in minority and low-income communities with the goal of achieving environmental justice. The EO is also intended to promote nondiscrimination in Federal programs substantially affecting human health and the environment. The EO states that Federal activities, programs, and policies should not produce disproportionately high and adverse impacts on minority and low-income populations. For both the No Action and the Proposed Action Alternatives, there will be no negative impacts to minority or low-income communities. An environmental justice report is included in Appendix D (EPA, 2022).

3.4 Cumulative Impacts

The CEQ regulations define cumulative impacts as “the impact on the environment which results from the incremental impact of the action when added to other past,

present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other action." (40 CFR. § 1508.7). Actions considered in the cumulative impacts analysis include implementation of the proposed action and no action alternatives and other Federal, State, Tribal, local agencies, or government or private actions that impact the resources affected by the proposed action.

The proposed action will involve the cut/fill and grading of existing topography to allow for the construction of the new laboratory facilities. This project site is already disturbed and regularly tilled and planted with row crops such as corn and soybeans. Most of the soils at the site have been previously graded and disturbed. Impacts to the environmental resources of the area will be minor. This project does not cumulatively contribute to the environmental degradation of the local area.

4. COORDINATION

The Draft EA was circulated for a 30-day review and comment period to a comprehensive list of Federal, State and local agencies, as well as pertinent government officials, interested stakeholders and individuals. All comments received during public review have been considered and a summary of those comments and responses is provided in Appendix E. All received comments are provided in Appendix F. Although several comments were received from state agencies, none were substantive, but those comments provided important notification and permit requirement information.

Coordination with the North Carolina State Historic Preservation Office will be initiated and comments on the proposed project and on the draft EA will be requested.

The National Resources Conservation Service was contacted, and all necessary coordination has been completed to ensure compliance with the Farmland Protection Policy Act (Appendix B).

A stormwater and erosion control permit package will be submitted to the City of Raleigh for a Site Permit Review. Through this process the project will get stormwater discharge approval for coverage under the North Carolina Construction General Permit NCG010000.

Table 3: Public Comment Responses Received and Guidance Summary

Agency/Organization/Individual	Response	Project Review	Permit Type	Pre-construction Notification Requirement	Applicability to the Proposed Project
North Carolina Department of Environmental Quality					
Division of Waste Management, Solid Waste Section, Asbestos Control Group	No adverse impact	May be applicable	Solid Waste Disposal	Yes	Applicable
Division of Waste Management, Superfund Section	No sites affected	Complete	Not Applicable	Not Applicable	Not Applicable
NPDES Stormwater Program and North Carolina Sedimentation Pollution Control Act	NC Erosion and sediment control plan and NPDES requirements	Not conducted yet	NPDES: Construction Stormwater and state review	Yes, the erosion and sediment control plan is to be submitted at least 30 days prior to construction start	Applicable
Hazardous Waste Section	No comment	Complete	Underground Storage Tanks	Not Applicable	Only if discovered during construction
Division of Water Resources: Public Water Supply Section	Defers to other state agencies comments	Public water supply system plans and specifications	Not Applicable	System must be reviewed and approved prior to construction contract issuance or construction start.	Applicable
Other Agencies					
NC Wildlife Resources Commission	No comment	Not Applicable	Not Applicable	Not Applicable	Not Applicable
State Historic Preservation Office	No comment	Complete	Not Applicable	Not Applicable	Not Applicable
NC Department of Public Safety: Division of Emergency Management	No comment	Not Applicable	Not Applicable	Not Applicable	Not Applicable
NC Department of Health and Human Services: Health Hazards Control Unit, Asbestos Removal	Comment received	Yes, only if building demolition is planned	Not Applicable	Yes, only if building demolition is planned	Not Applicable
NC Department of Health and Human Services: Health Hazards Control Unit, Open Burning	Comment received	Yes, if burning will occur	Open Burning	Not Applicable	Yes, if open burning will occur
NC Department of Transportation	No comment	Not Applicable	Not Applicable	Not Applicable	Not Applicable

5. IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

Any irreversible or irretrievable commitments of resources involved in the proposed action have been considered and are either unanticipated at this time or have been considered and determined to present minor impacts by scope and scale. Although natural habitat would be impacted, it is not considered irreversible.

6. ADVERSE ENVIRONMENTAL IMPACTS WHICH CANNOT BE AVOIDED

Impacts to the site resulting from the construction of the facility will be minimal. An agricultural field will be permanently converted to a research facility. Some wildlife species may no longer use the land, resulting in their displacement to adjacent areas. The unavoidable negative effects of the project are considered minor.

7. LIST OF PREPARERS

Jeremy Overstreet, Eric Gasch, and Tom Davidowicz
Biologists, Wilmington District U.S. Army Corps of Engineers

Darrell Williamson
Safety, Health and Environmental Manager, Agricultural Research Service, Administrative and Financial Management

References

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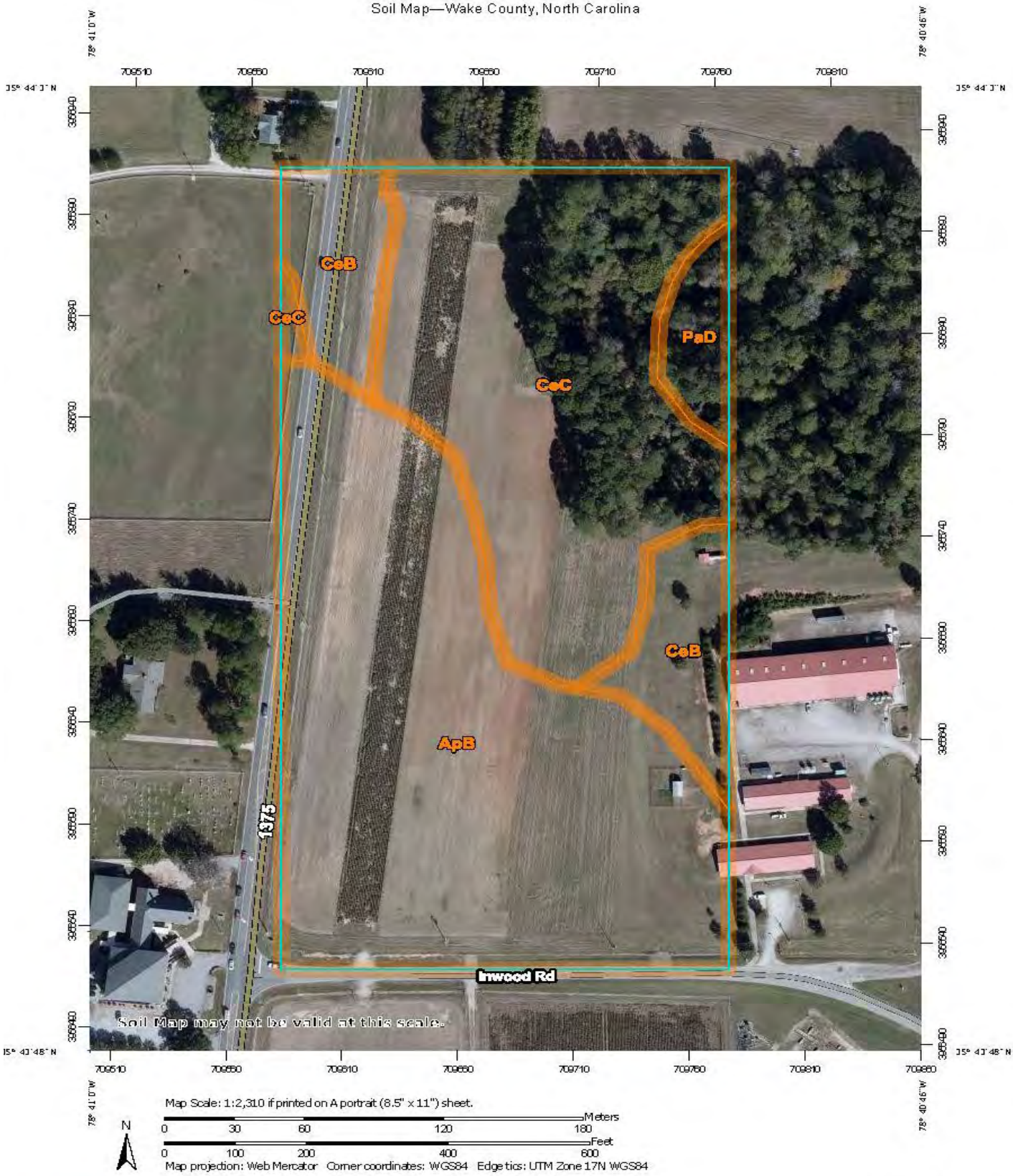
APPENDICES

APPENDIX A: SOILS MAP (WEB SOIL SURVEY)

Soil Map—Wake County, North Carolina



Map Scale: 1:2,310 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 30 60 120 180

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Wake County, North Carolina
Survey Area Data: Version 20, Jun 3, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 19, 2019—Oct 28, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ApB	Appling sandy loam, 2 to 6 percent slopes	9.3	49.5%
CeB	Cecil sandy loam, 2 to 6 percent slopes	2.2	11.4%
CeC	Cecil sandy loam, 6 to 10 percent slopes	6.8	36.0%
PaD	Pacolet sandy loam, 10 to 15 percent slopes	0.6	3.2%
Totals for Area of Interest		**18.9**	**100.0%**

APPENDIX B: USDA FARMLAND PROTECTION POLICY ACT

USDA
United States Department of Agriculture

Natural Resources
Conservation Service

North Carolina
State Office

4407 Bland Rd.
Suite 117
Raleigh
North Carolina 27609
Voice (919) 873-2100
Fax (844) 325-2156

September 15, 2022

Jeremy Overstreet, Biologist, Environmental Resources Section
Wilmington District, U.S. Army Corps of Engineers
69 Darlington Ave.
Wilmington, NC 28402
Office: 910-251-4700

Dear Jeremy Overstreet:

The following information is in response to your request soliciting comments regarding the USDA Agricultural Research Facility in Wake County, NC.

> Projects are subject to Farmland Protection Policy Act (FPPA) requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency.
>
> For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land. Farmland means prime or unique farmlands as defined in section 1540(c)(1) of the Act or farmland that is determined by the appropriate state or unit of local government agency or agencies with concurrence of the Secretary to be farmland of statewide of local importance.
>
> "Farmland" does not include land already in or committed to urban development or water storage. Farmland ``already in" urban development or water storage includes all such land with a density of 30 structures per 40-acre area. Farmland already in urban development also includes lands identified as ``urbanized area" (UA) on the Census Bureau Map, or as urban area mapped with a ``tint overprint" on the USGS topographical maps, or as ``urban-built-up" on the USDA Important Farmland Maps. See over for more information.

The area in question **does include** land classified as Prime Farmland. In accordance with the Code of Federal Regulations 7CFR 658, Farmland Protection Policy Act, the AD-1006 was initiated. NRCS has completed Parts II, IV, V of the form, and returned for completion by the requesting agency.

If you have any questions, please feel free to email me at Laura.Muzzy@usda.gov.

Sincerely,

Laurie F. Muzzy

Laurie F. Muzzy
Resource Soil Scientist

cc:
Diana Irizarry, supervisory soil conservationist, NRCS, Raleigh, NC
Michael Jones, state soil scientist, Raleigh, NC

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request September 12, 2022	
Name of Project USDA Agricultural Research Facility		Federal Agency Involved U.S. Department of Agriculture	
Proposed Land Use Research Facility		County and State Wake County, North Carolina	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 9/12/2022	Person Completing Form: Laurie F. Muzzy
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated 0	Average Farm Size 111
Major Crop(s) corn	Farmable Land In Govt. Jurisdiction Acres: 78.91 % 432,714	Amount of Farmland As Defined in FPPA Acres: 78.91 % 432,714	
Name of Land Evaluation System Used Wake County LESA	Name of State or Local Site Assessment System NA	Date Land Evaluation Returned by NRCS 9/15/2022	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	12.12			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	12.12			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	8.6			
B. Total Acres Statewide Important or Local Important Farmland	3.5			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.003%			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	7.97%			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	85.44			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	0			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	3			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	5			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	38	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	85.44	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	38	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	123.44	0	0	0

Site Selected: Site A	Date Of Selection 03-Feb-2023	Was A Local Site Assessment Used? YES ☑ NO ☐

Reason For Selection:

Site meets all objectives and is in compliance with the Farmland Protection Policy Act.

Name of Federal agency representative completing this form: US Army Corps of Engineers	Date: 03-Feb-2023

(See Instructions on reverse side)

Form AD-1006 (03-02)

APPENDIX C: US FISH AND WILDLIFE SERVICE INFORMATION FOR PLANNING AND CONSULTATION REPORT

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Wake County, North Carolina

Local office

Raleigh Ecological Services Field Office

(919) 856-4520
(919) 856-4556

MAILING ADDRESS
Post Office Box 33726
Raleigh, NC 27636-3726

PHYSICAL ADDRESS
551 Pylon Drive, Suite F
Raleigh, NC 27606-1487

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	**Proposed Endangered**

Birds

NAME	STATUS
Red-cockaded Woodpecker Picoides borealis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7614	Endangered

Amphibians

NAME	STATUS
Neuse River Waterdog Necturus lewisi Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6772	Threatened

Fishes

NAME	STATUS
Carolina Madtom Noturus furiosus Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/528	**Endangered**

Clams

NAME	STATUS

Atlantic Pigtoe Fusconaia masoni — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/5164

Dwarf Wedgemussel Alasmidonta heterodon — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/784

Yellow Lance Elliptio lanceolata — Threatened
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/4511

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Michaux's Sumac Rhus michauxii Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5217	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus **This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.**	**Breeds Sep 1 to Jul 31**
Black-billed Cuckoo Coccyzus erythropthalmus **This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.** https://ecos.fws.gov/ecp/species/9399	**Breeds May 15 to Oct 10**
Cerulean Warbler Dendroica cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 28 to Jul 20
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Kentucky Warbler Oporornis formosus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea **This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.**	**Breeds Apr 1 to Jul 31**
Red-headed Woodpecker Melanerpes erythrocephalus **This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.**	**Breeds May 10 to Sep 10**

Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ( )

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ( )

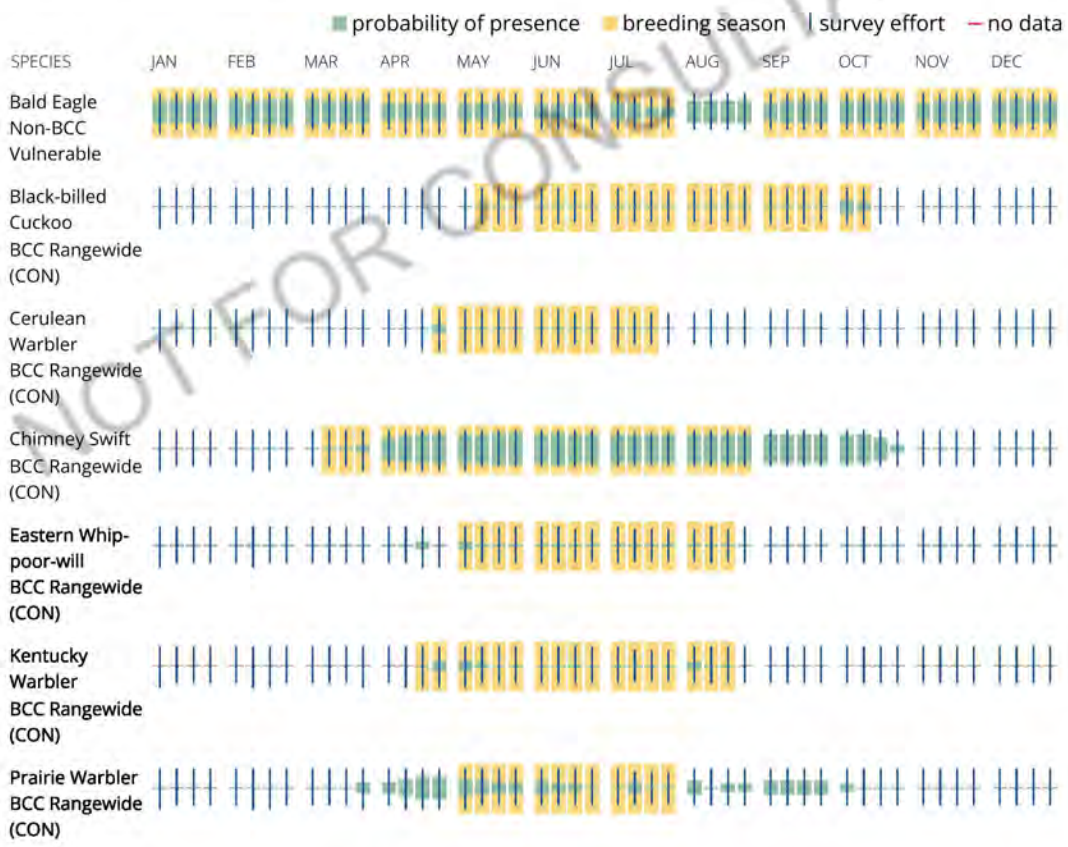
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

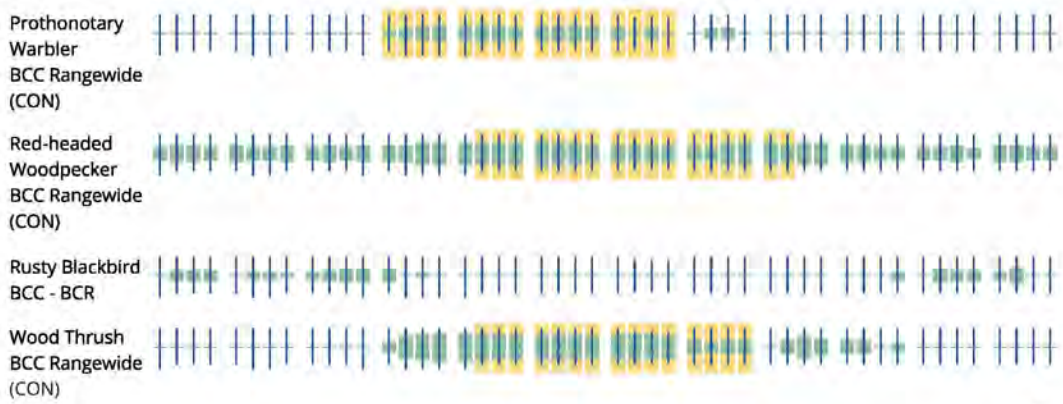
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory

(NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND
PFO1A

FRESHWATER POND
PUBHh

RIVERINE
R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX D: ENVIRONMENTAL JUSTICE REPORT

EJScreen Report (Version 2.0)

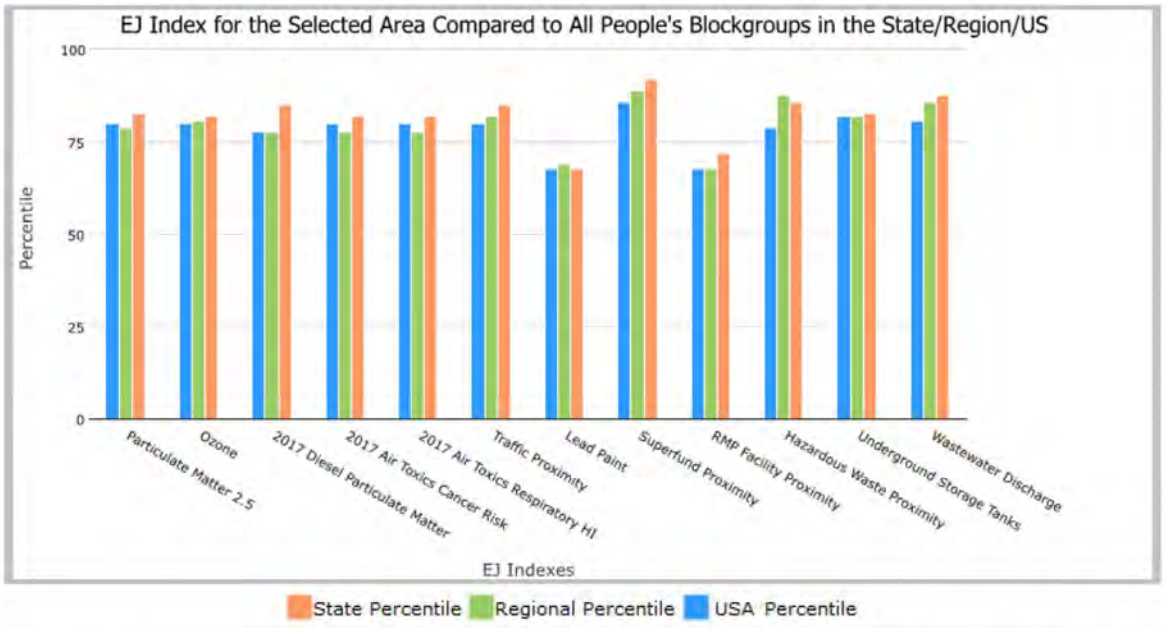
1 mile Ring Centered at 35.731464,-78.682053, NORTH CAROLINA, EPA Region 4

Approximate Population: 1,075

Input Area (sq. miles): 3.14

USDA ARS

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
Environmental Justice Indexes			
EJ Index for Particulate Matter 2.5	83	79	80
EJ Index for Ozone	82	81	80
EJ Index for 2017 Diesel Particulate Matter*	85	78	78
EJ Index for 2017 Air Toxics Cancer Risk*	82	78	80
EJ Index for 2017 Air Toxics Respiratory HI*	82	78	80
EJ Index for Traffic Proximity	85	82	80
EJ Index for Lead Paint	68	69	68
EJ Index for Superfund Proximity	92	89	86
EJ Index for RMP Facility Proximity	72	68	68
EJ Index for Hazardous Waste Proximity	86	88	79
EJ Index for Underground Storage Tanks	83	82	82
EJ Index for Wastewater Discharge	88	86	81



This report shows the values for environmental and demographic indicators and EJSCREEN indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSCREEN documentation for discussion of these issues before using reports.

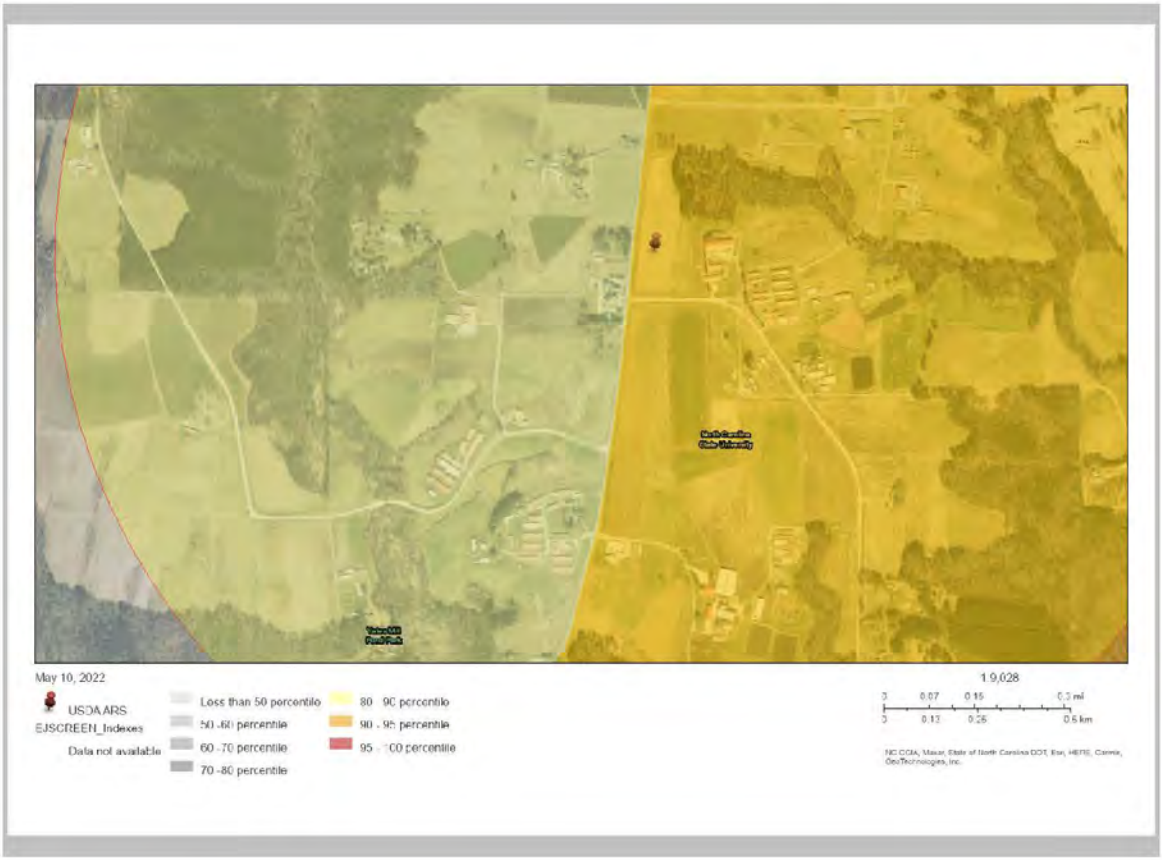
EJScreen Report (Version 2.0)

1 mile Ring Centered at 35.731464,-78.682053, NORTH CAROLINA, EPA Region 4

Approximate Population: 1,075

Input Area (sq. miles): 3.14

USDA ARS



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	0

EJScreen Report (Version 2.0)

1 mile Ring Centered at 35.731464,-78.682053, NORTH CAROLINA, EPA Region 4

Approximate Population: 1,075

Input Area (sq. miles): 3.14

USDA ARS

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Pollution and Sources							
Particulate Matter 2.5 ($\mu g/m^3$)	8.54	7.74	71	8.18	65	8.74	48
Ozone (ppb)	42.2	41.7	58	37.9	77	42.6	49
2017 Diesel Particulate Matter* ($\mu g/m^3$)	0.236	0.182	74	0.261	50-60th	0.295	<50th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	30	29	95	31	80-90th	29	80-90th
2017 Air Toxics Respiratory HI*	0.4	0.37	94	0.4	70-80th	0.36	80-90th
Traffic Proximity (daily traffic count/distance to road)	210	350	61	430	59	710	49
Lead Paint (% Pre-1960 Housing)	0.075	0.16	43	0.15	50	0.28	34
Superfund Proximity (site count/km distance)	0.14	0.082	87	0.083	85	0.13	76
RMP Facility Proximity (facility count/km distance)	0.11	0.39	28	0.6	23	0.75	18
Hazardous Waste Proximity (facility count/km distance)	0.77	0.83	66	0.62	76	2.2	51
Underground Storage Tanks (count/km^2)	2	3.4	62	3.5	62	3.9	59
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0053	0.25	77	0.45	76	12	64
Socioeconomic Indicators							
Demographic Index	46%	36%	71	37%	68	36%	69
People of Color	48%	37%	68	39%	65	40%	63
Low Income	44%	34%	69	35%	67	31%	73
Unemployment Rate	2%	6%	23	6%	23	5%	24
Linguistically Isolated	3%	2%	73	3%	69	5%	61
Less Than High School Education	7%	12%	38	13%	36	12%	43
Under Age 5	4%	6%	35	6%	36	6%	34
Over Age 64	8%	16%	16	17%	14	16%	18

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

APPENDIX E: PUBLIC INVOLVEMENT SUMMARY

Agency/Organization/Individual	Response	Project Review	Permit Type	Pre-construction Notification Requirement	Applicability to the Proposed Project
North Carolina Department of Environmental Quality					
Division of Waste Management, Solid Waste Section, Asbestos Control Group	No adverse impact	May be applicable	Solid Waste Disposal	Yes	-
Division of Waste Management, Superfund Section	No sites affected	Complete	-	-	-
NPDES Stormwater Program	-	-	NPDES: Construction Stormwater	-	-
Hazardous Waste Section	No comment	-	Underground Storage Tanks	-	Only if discovered during construction
Division of Water Resources: Public Water Supply Section	Defers to other state agencies comments	Public water supply system plans and specifications	-	System must be reviewed and approved prior to construction contract issuance or construction start.	-
Other Agencies					
NC Wildlife Resources Commission	No comment	-	-	-	-
State Historic Preservation Office	No comment	Complete	Not Applicable	Not Applicable	-
NC Department of Public Safety: Division of Emergency Management	No comment	-	-	-	-
NC Department of Health and Human Services: Health Hazards Control Unit	-	-	-	Yes	-
NC Department of Health and Human Services: Health Hazards Control Unit	-	-	Open Burning	-	-
NC Department of Transportation	No comment	-	-	-	-

APPENDIX F: CORRESPONDENCE

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

March 13, 2023

Planning and Environmental Branch

Ms. Crystal Best
Environmental Policy Activities Coordinator
NC Department of Administration/State Clearinghouse
1301 Mail Service Center Raleigh, NC 27699-1301

Dear Ms. Best:

The U.S. Army Corps of Engineers (USACE), Wilmington District, Wilmington, North Carolina, has prepared the Draft Environmental Assessment (Draft EA) for the Construction of New Laboratory Facilities for the USDA Agricultural Research Service, Raleigh, North Carolina, March 2023. Enclosed with this letter is the Public Notice announcing the public release of the Draft EA.

An electronic version of this Draft EA is available on the USACE, Wilmington District website at:

https://www.saw.usace.army.mil/

Based on the information in the Draft EA, we expect the proposed Federal action will not significantly affect the quality of the human environment; therefore, an Environmental Impact Statement will not be required. If this opinion is upheld following circulation of this report, a Final EA and Finding of No Significant Impact will be completed and circulated. We would appreciate receiving any comments regarding our determination no later than 30 days from the date of this letter.

Written comments may be to submitted Mr. Eric Gasch at Eric.K.Gasch@usace.army.mil.

Sincerely,

Jenny Owens Digitally signed by Jenny Owens Date: 2023.03.10 11:41:37 -05'00'

Jenny Owens
Acting Chief, Planning and
Environmental Branch

Roy Cooper
Governor

Pamela B. Cashwell
Secretary

April 18, 2023

Eric Gasch
U.S. Army Corps of Engineers
Wilmington District
69 Darlington Avenue
Wilmington, NC 28403-

Re: SCH File # 23-E-0000-0186 Proposed Action is for the Construction of New Laboratory Facilities for the USDA Agricultural Research Service in Raleigh, NC located on an 11-acre open field site at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road.

Dear Eric Gasch:

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act.

Attached to this letter are comments made by the agencies in the review of this document. If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

If you have any questions, please do not hesitate to contact me at (984) 236-0000.

Sincerely,

CRYSTAL BEST
State Environmental Review Clearinghouse

Attachments

Mailing
1301 Mail Service Center | Raleigh, NC 27699-1301

ncadmin.nc.gov

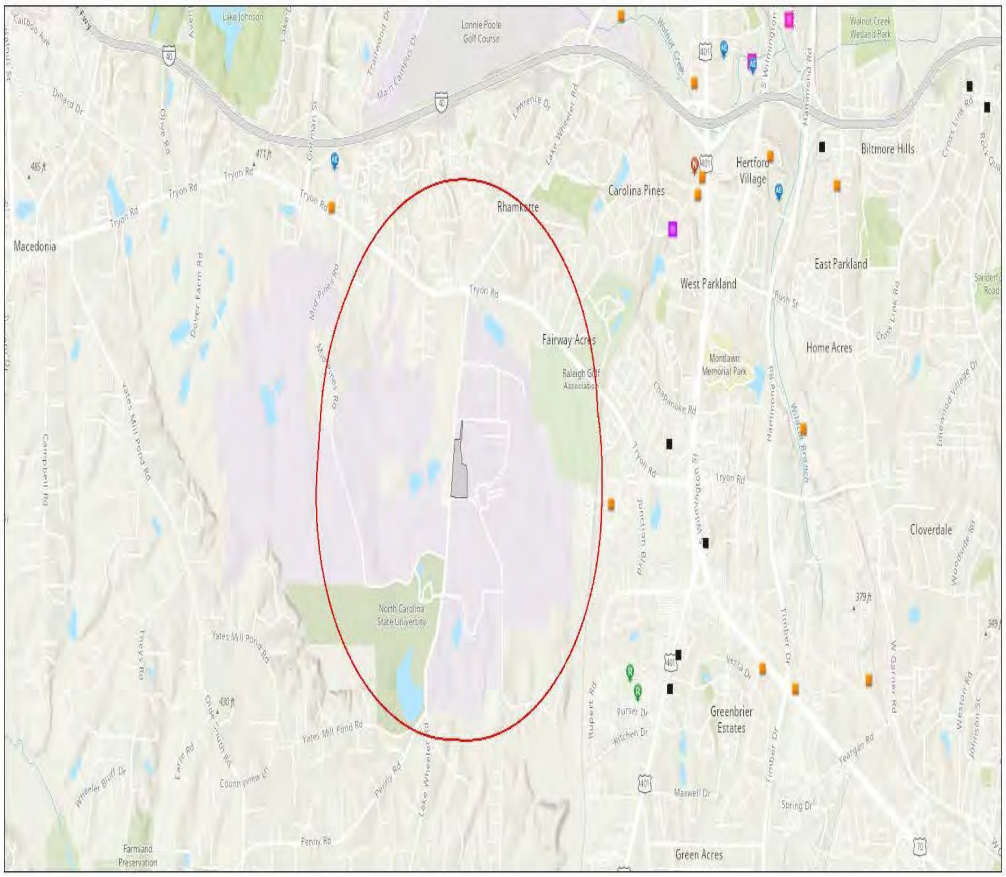
Superfund & Brownfield Sites SEPA/NEPA Review Report

Area of Interest (AOI) Information

Wake County NEPA project 23-018

Area : 2,525.9 acres

Mar 20 2023 10:11:21 Eastern Daylight Time



Inactive Hazardous Sites
No Further Interest
DryCleaning Contaminated
NC Brownfields Location_View
Pre Regulatory Landfill Sites
Recorded
Activity Pending
Active Eligible
Investigation

1:36,112

0 0.33 0.65 1.3 mi

0 0.5 1 2 km

North Carolina State University, City of Raleigh, Wake County, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, NASA, NGA, USGS, FEMA

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MICHAEL SCOTT
Director

NORTH CAROLINA
Environmental Quality

Date: March 20, 2023

To: Michael Scott, Director
Division of Waste Management

Through: Janet Macdonald
Inactive Hazardous Sites Branch

From: Katie C Tatum
Inactive Hazardous Sites Branch

Subject: NEPA Project # 23-0186 U.S. Army Corps of Engineers-USDA, Wake County, North Carolina

The Superfund Section has reviewed the proximity of sites under its jurisdiction to the U.S. Army Corps of Engineers-USDA project. Proposed Action is for the Construction of New Laboratory Facilities for the USDA Agricultural Research Service in Raleigh, NC located on an 11-acre open field site at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road. To view E-copy go to https://www.saw.usace.army.mil/

No (0) Superfund Section sites and no (0) Brownfields Program Sites were identified within one mile of the project as shown on the attached report.

Please contact Janet Macdonald at 919.707.8349 if you have any questions concerning the Superfund Section review portion of this SEPA/NEPA inquiry.

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MICHAEL SCOTT
Director

NORTH CAROLINA
Environmental Quality

MEMORANDUM

TO: Michael Scott, Division Director through Sharon Brinkley

FROM: Amanda Thompson, Environmental Senior Specialist – Solid Waste Section

DATE: March 20, 2023

SUBJECT: Review: SW 23-0186 – Wake County (Environmental Assessment – US Army Corp of Engineers - USDA – Proposed project is for the construction of new laboratory facilities for the USDA Agricultural Research Service in Raleigh.)

The Division of Waste Management, Solid Waste Section (Section) has reviewed the documents submitted for the subject project in Wake County, NC. Based on the information provided in this document, the Section at this time does not see an adverse impact on the surrounding communities and likewise knows of no situations in the communities, which would affect this project.

For any planned or proposed projects, it is recommended that during any land clearing, demolition, and construction, the US Army Corps of Engineers-USDA and/or its contractors would make every feasible effort to minimize the generation of waste, to recycle materials for which viable markets exist, and to use recycled products and materials in the development of this project where suitable. **Any waste generated by and of the project that cannot be beneficially reused or recycled as described, may require disposal of at a solid waste management facility permitted by the Division. The Section strongly recommends that the US Army Corps of Engineers-USDA require all contractors to provide proof of proper disposal for all generated waste to permitted facilities.**

Permitted solid waste management facilities are listed on the Division of Waste Management, Solid Waste Section portal site at: https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/solid-waste-management-annual-reports/solid-waste-permitted-facility-list
And the site locator tool at:
https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebfa49fc383f688

Questions regarding solid waste management for this project should be directed to Mr. Tim Davis, Environmental Senior Specialist, Solid Waste Section, at (919) 707-8290.

cc: Tim Davis, Environmental Senior Specialist

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary

NORTH CAROLINA
Environmental Quality

To: Crystal Best
State Clearinghouse
NC Department of Administration

From: Lyn Biles
Division of Environmental Assistance and Customer Service
Washington Regional Office

Re: 23-0186
Environmental Assessment - Proposed Action is for the Construction of New Laboratory Facilities for the USDA Agricultural Research Service in Raleigh, NC located on an 11-acre open field site at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road.
Wake County

Date: April 13, 2023

The Department of Environment Quality has reviewed the proposal for the referenced project. Based on the information provided, several of our agencies have identified permits that may be required and offered some valuable guidance. The comments are attached for the applicant's review.

The Department will continue to be available to assist the applicant with any questions or concerns.

Thank you for the opportunity to respond.

Attachments

North Carolina Department of Environmental Quality
217 West Jones Street | 1601 Mail Service Center | Raleigh, North Carolina 27699-1601
919.707.8600

Department of Environmental Quality
Project Internal Review

Project Number: 23-0186 **County: Wake** **Date Received: 3-17-2023**

Due Date: 4-11-2023

Project Description: *Environmental Assessment - Proposed Action is for the Construction of New Laboratory Facilities for the USDA Agricultural Research Service in Raleigh, NC located on an 11-acre open field site at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road. To view E-copy go to https://www.saw.usace.army.mil/*

This Project is being reviewed as indicated below:

Regional Office	Regional Office Area	In-House Review	
☐ Asheville	☑ Air	☐ Air Quality	☐ Coastal Management
☐ Fayetteville	☑ DWR	☑ Waste Mgmt	☐ Marine Fisheries
☐ Mooresville	☑ DWR - Public Water	☐ Water Resources Mgmt (Public Water, Planning & Water Quality Program)	☐ CC & PS Div. of Emergency Mgmt
☑ Raleigh	☑ DEMLR (LQ & SW)	☐ DWR-Transportation Unit	☐ DMF-Shellfish Sanitation
☐ Washington	☑ DWM		☑ Wildlife Gabriela
☐ Wilmington			☐ Wildlife/DOT
☐ Winston Salem			

Manager Sign-Off/Region:	Date:	In-House Reviewer/Agency:
	4/11/23	Melodi Deaver, Hazardous Waste Section

Response (check all applicable)

___ No objection to project as proposed.

X
___ No Comment

___ Insufficient information to complete review

___ Other (specify or attach comments)

Department of Environmental Quality
Project Internal Review

Project Number: 23-0186 **County: Wake** **Date Received: 3-17-2023**

Due Date: 4-11-2023

Project Description: *Environmental Assessment - Proposed Action is for the Construction of New Laboratory Facilities for the USDA Agricultural Research Service in Raleigh, NC located on an 11-acre open field site at the northeast corner of the intersection of Lake Wheeler Road and Inwood Road. To view E-copy go to https://www.saw.usace.army.mil/*

This Project is being reviewed as indicated below:

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☐ Washington	☑ DWM		☑ Wildlife Gabriela
☐ Wilmington			☐ Wildlife/DOT
☐ Winston Salem			

Manager Sign-Off/Region:	Date:	In-House Reviewer/Agency:
	4-11-2023	Gabriela Garrison/NCWRC

Response (check all applicable)

X No objection to project as proposed.

X No Comment

___ Insufficient information to complete review

___ Other (specify or attach comments)

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: Raleigh
Project Number: 23-0186 Due Date: 4/11/2023
County: Wake

Other Comments (attach additional pages as necessary, being certain to comment authority)

Division	Initials	No comment	Comments	Date Review
DAQ	SH	☐	See checked boxes above.	3/20/2023
DWR-WQROS (Aquifer & Surface)		☐	It is recommended to schedule a site visit with 401 Water quality staff to discuss the proposal and to ensure compliance will be maintained per 401 surface Water requirements, surface water standards and buffer rules. If wetland, riparian buffers or stream impacts are proposed, this project will need to comply with/secure a 404 permit from the USACE, obtain a 401 Water Quality Certification authorization and a riparian buffer authorization.	/ /
DWR-PWS	SG	☐	See checked boxes above.	4/7/2023
DEMLR (LQ & SW)	CA	☐	See checked boxes above.	3/30/2023
DWM – UST	MRP	☐	See checked box above.	4/10/2023
Other Comments		☐		/ /

REGIONAL OFFICES
Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
2090 U.S. 70 Highway
Swannanoa, NC 28778-8211
Phone: 828-296-4500
Fax: 828-299-7043

☐ **Fayetteville Regional Office**
225 Green Street, Suite 714,
Fayetteville, NC 28301-5043
Phone: 910-433-3300
Fax: 910-486-0707

☐ **Mooresville Regional Office**
610 East Center Avenue, Suite 301,
Mooresville, NC 28115
Phone: 704-663-1699
Fax: 704-663-6040

☐ **Raleigh Regional Office**
3800 Barrett Drive,
Raleigh, NC 27609
Phone: 919-791-4200
Fax: 919-571-4718

☐ **Washington Regional Office**
943 Washington Square Mall,
Washington, NC 27889
Phone: 252-946-6481
Fax: 252-975-3716

☐ **Wilmington Regional Office**
127 Cardinal Drive Ext.,
Wilmington, NC 28405
Phone: 910-796-7215
Fax: 910-350-2004

☐ **Winston-Salem Regional Office**
450 Hanes Mill Road, Suite 300,
Winston-Salem, NC 27105
Phone: 336-776-9800
Fax: 336-776-9797

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: Raleigh
Project Number: 23-0186 Due Date: 4/11/2023
County: Wake

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory time limit)
☐	Mining Permit	On-site inspection usual. Surety bond filed with DEQ Bond amount varies with type mine and number of acres of affected land. Affected area greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to prepare plans, inspect construction, and certify construction is according to DEQ approved plans. May also require a permit under mosquito control program. And a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage, or the total project cost will be required upon completion.	30 days (60 days)
☐	Oil Refining Facilities	N/A	90-120 days (N/A)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with DEQ running to State of NC conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DEQ rules and regulations.	10 days N/A
☐	Geophysical Exploration Permit	Application filed with DEQ at least 10 days prior to issue of permit. Application by letter. No standard application forms.	10 days N/A
☐	State Lakes Construction Permit	Application fee based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property	15-20 days N/A
☒	401 Water Quality Certification	Compliance with the T15A 02H .0500 Certifications are required whenever construction or operation of facilities will result in a discharge into navigable water as described in 33 CFR part 323.	60 days (130 days)
☒	Compliance with Catawba, Goose Creek, Jordan Lake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Buffer requirements: http://deq.nc.gov/about/divisions/water-resources/water-resources-permits/wastewater-branch/401-wetlands-buffer-permits/401-riparian-buffer-protection-program		
☐	Nutrient Offset: Loading requirements for nitrogen and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jordan and Falls Lake watersheds, as part of the nutrient-management strategies in these areas. DWR nutrient offset information: http://deq.nc.gov/about/divisions/water-resources/planning/nonpoint-source-management/nutrient-offset-information		
☐	CAMA Permit for MAJOR development	$250.00 - $475.00 fee must accompany application	75 days (150 days)
☐	CAMA Permit for MINOR development	$100.00 fee must accompany application	22 days (25 days)
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☒	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☒	Plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the Division of Water Resources/Public Water Supply Section prior to the award of a contract or the initiation of construction as per 15A NCAC 18C .0300 et. seq., Plans and specifications should be submitted to 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. All public water supply systems must comply with state and federal drinking water monitoring requirements. For more information, contact the Public Water Supply Section, (919) 707-9100.		30 days
☒	If existing water lines will be relocated during the construction, plans for the water line relocation must be submitted to the Division of Water Resources/Public Water Supply Section at 1634 Mail Service Center, Raleigh, North Carolina 27699-1634. For more information, contact the Public Water Supply Section, (919) 707-9100.		30 days
☐	Plans and specifications for the construction, expansion, or alteration of the _____ water system must be approved through the _____ delegated plan approval authority. Please contact them at _____ for further information.		

State of North Carolina Department of Environmental Quality
INTERGOVERNMENTAL REVIEW PROJECT COMMENTS

Reviewing Regional Office: Raleigh
Project Number: 23-0186 Due Date: 4/11/2023
County: Wake

After review of this project, it has been determined that the DEQ permit(s) and/or approvals indicated may need to be obtained for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of the form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory time limit)
☐	Permit to construct & operate wastewater treatment facilities, non-standard sewer system extensions & sewer systems that do not discharge into state surface waters.	Application 90 days before begins construction or award of construction contracts. On-site inspection may be required. Post-application technical conference usual.	30 days (90 days)
☐	Permit to construct & operate, sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system	Fast-Track Permitting program consists of the submittal of an application and an engineer's certification that the project meets all applicable State rules and Division Minimum Design Criteria.	30 days (N/A)
☐	NPDES - permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begins activity. On-site inspection. Pre-application conference usual. Additionally, obtain permit to construct wastewater treatment facility granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90-120 days (N/A)
☐	Water Use Permit	Pre-application technical conference usually necessary.	30 days (N/A)
☐	Well Construction Permit	Complete application must be received, and permit issued prior to the installation of a groundwater monitoring well located on property not owned by the applicant, and for a large capacity (>100,000 gallons per day) water supply well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Pre-application conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.O100 thru 2Q.0300)	Application must be submitted, and permit received prior to construction and operation of the source. If a permit is required in an area without local zoning, then there are additional requirements and timelines (2Q.0113).	90 days
☒	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☒	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 20.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-707-5950	Please Note - The Health Hazards Control Unit (HHCU) of the N.C. Department of Health and Human Services, must be notified of plans to demolish a building, including residences for commercial or industrial expansion, even if no asbestos is present in the building.	60 days (90 days)
☒	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres are to be disturbed. Plan must be filed with and approved by applicable Regional Office (Land Quality Section) at least 30 days before beginning activity. A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements. A fee of $100 for the first acre or any part of an acre. An express review option is available with additional fees.		20 days (30 days)
☐	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets.		(30 days)
☐	Sedimentation and erosion control must be addressed in accordance with _____ Local Government's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable Stormwater conveyances and outlets.		Based on Local Program
☐	Compliance with 15A NCAC 04B .0125 – Buffers Zones for Trout Waters shall have an undisturbed buffer zone 25 feet wide or of sufficient width to confine visible siltation within the twenty-five percent (25%) of the buffer zone nearest the land-disturbing activity, whichever is greater.		
☒	Compliance with 15A NCAC 2H .0126 - NPDES Stormwater Program which regulates three types of activities: Industrial, Municipal Separate Storm Sewer System & Construction activities that disturb ≥1 acre.		30-60 days (90 days)
☐	Compliance with 15A NCAC 2H 1000 -State Stormwater Permitting Programs regulate site development and post-construction stormwater runoff control. Areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the state.		45 days (90 days)

Superfund and Brownfields Sites
Wake County NEPA project 23-0186

Summary

Name	Count	Area(acres)	Length(mi)
Certified DSCA Sites	0	N/A	N/A
Federal Remediation Branch Sites	0	N/A	N/A
Inactive Hazardous Sites	0	N/A	N/A
Pre-Regulatory Landfill Sites	0	N/A	N/A
Brownfields Program Sites	0	N/A	N/A