Environmental Assessment Determinations and Compliance Findings for HUD-assisted Projects 24 CFR Part 58

Project Information

Project Name: Garnet Place

Project Location: 271 Smith Avenue, Shallotte, Brunswick County, NC 28470

Federal Agency: U.S. Department of Housing & Urban Development (HUD)

Responsible Entity: North Carolina Office of Recovery and Resiliency (NCORR)

Project Administrator: North Carolina Housing Finance Agency (NCHFA)

Grant Recipient: Garnet Place LLC

State/Local Identifier: B-19-DV-37-0001 and B-19-DV-37-0002

Preparer: Andrea Gievers, Environmental SME, NCORR

Certifying Officer Name and Title: Laura H. Hogshead, Director, NCORR

Consultant: William B. Strayhorn, P.G., NV5 Engineers and Consultants, Inc.

Direct Comments to:

Andrea Gievers Environmental SME NCORR - Community Development <u>Andrea.L.Gievers@Rebuild.NC.gov</u> (845) 682-1700

Project Location:

The proposed project site (Subject Property) is an approximately 5.2-acre, newly subdivided Brunswick County Parcel #1820000801, and located at 271 Smith Avenue, Shallotte, NC 28470 (see **Attachment 1**). (The *original parent property* consisted of two parcels, approximately 9.88 acres, previously recorded as Brunswick County Parcel #18200008 and #1820000801.)

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Garnet Place will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, Brunswick County, North Carolina. The project was awarded Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 twobedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas. The buildings and parking lot will be nestled into the existing property fabric, by preserving as much vegetation as possible, providing buffers to adjacent properties, and employing low impact design techniques for stormwater management. The Town of Shallotte has sewer and water lines in place along Arnold Street to the southeast, and only short connections to the site will be necessary.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The Garnet Place project will provide quality, affordable housing opportunities to low- to moderate-income families and others in an area that needs it. Demand for low- to moderate-income and market-rate housing is driven by a lack of affordable housing in the Shallotte area. The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low- and moderate-income families. Therefore, funding for the proposed project will be provided in part by the HUD CDBG-DR North Carolina's Affordable Housing Development Fund Program for Hurricane Florence storm recovery activities in North Carolina.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The Subject Property is an undeveloped parcel located in a mixed-use area located between Ocean Hwy W (US 17 Bypass) and Main Street (US 17 Business) in Shallotte, North Carolina. The surrounding properties are developed with single-family residential properties, commercial properties, and undeveloped wooded areas. According to the Phase I Environmental Site Assessments (ESA) prepared for the original parent property of approximately 9.88 acres, the properties to the east of the original parent property are developed with Quality Welding and Marine Supply. The properties to the west of the original parent property are developed with a single-family home and a storage yard for B&B Crane Service. The properties to the north and south of the original parent property generally consist of undeveloped wooded areas.

The Garnet Place primary market area will consist of the southern portion of Brunswick County, including the towns of Sunset Beach, Calabash, Ocean Isle Beach, and Shallotte. The rental housing properties located within the vicinity of the planned site are occupied at a high occupancy rate, and the available rental housing properties are generally non-subsidized developments.

Multiple commercial facilities including convenience stores and restaurants are located within a two-mile radius of the Subject Property. Banks, schools, medical facilities, pharmacies, retailers, and service providers are located within several miles of the Subject Property along Ocean Hwy W (US 17 Bypass) to the west and northwest and in the surrounding downtown area to the east and southeast.

Funding Information

Grant Number	HUD Program	Funding Amount
B-19-DV-37-0001 and	HUD CDBG-DR	\$2,500,000.00
B-19-DV-37-0002		
(Different Responsible	RPP Loan (HOME Match)	\$800,000.00
Entity - NCHFA)		

Estimated Total NCORR HUD Funded Amount: \$2,500,000.00

Estimated Total HUD Funded Amount: \$3,300,000.00

Non-HUD Funding Source: Bank Loan Non-HUD Funding Amount: \$2,397,892.00 Non-HUD Funding Source: WHLP-CV Loan Non-HUD Funding Amount: \$3,677,700.00 Non-HUD Funding Source: LIHTC Non-HUD Funding Amount: \$6,377,945.00 Non-HUD Funding Source: Deferred Developer Fee Non-HUD Funding Amount: \$26,825.00

Estimated Total Non-HUD Funded Amount: \$12,480,362.00

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$15,780,362.00

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDE	RS, & REGULA	TIONS LISTED AT 24 CFR 50.4 & 58.6
Airport Hazards 24 CFR Part 51 Subpart D	Yes No	The Subject Property is not located within a Runway Protection/Clear Zone (2,500 feet from civil airport runway) or Accident Potential Zone (15,000 feet from military airport runway). The proposed project is in compliance with Airport Hazards requirements. Attachment 2 – NEPAssist Map with 15,000-foot buffer showing Airports.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes No	This proposed project is not located in or in proximity to a Coastal Barrier Resources System (CBRS) unit or Otherwise Protected Area (OPA). Therefore, this proposed project has no potential to impact a CBRS Unit or OPA and is in compliance with the Coastal Barrier Resources Act. <i>Attachment 3 – CBRS Map.</i>
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes No	According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Number 3720108800K, effective 08/28/2018, the Subject Property is located in Zone X (Area of Minimal Flood Hazard). The Subject Property is not located in a Special Flood Hazard Area (SFHA) or FEMA-designated regulatory floodway. There are no Preliminary FIRMs available at the FEMA Flood Map Service Center for Brunswick County. No structure, portions of structures, or insurable property of the proposed project will be located in a FEMA- designated SFHA. Therefore, flood insurance is not required for the proposed project. While flood insurance is not mandatory for this project, HUD strongly recommends that all insurable structures

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	maintain flood insurance under the National Flood Insurance Program (NFIP). The proposed project is in compliance with flood insurance requirements. <i>Attachment 4 – FEMA FIRMs</i> Compliance Determinations
STATUTES, EXECUTIVE OR	DERS, & REGU	LATIONS LISTED AT 24 CFR 50.4 & 58.5
		According to the EPA Nonattainment Areas for Criteria Pollutants (Green Book), Brunswick County is not listed as having any non-attainment or maintenance areas. The construction and operation of the facility is exempt from NC State air quality permit requirements under 15A NCAC 02Q. 0102(d) since emissions will be below the established thresholds. Thus, the proposed project's emissions are automatically considered de minimis (40 CFR § 93.153(c)(2)) and the proposed project is considered compliant with the State Implementation Plan. The proposed project would not exceed de minimis emissions levels for federal general conformity purposes (40 CFR § 93.153(c)(2)).
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes No	The proposed project involves new construction of a multifamily residential structure with amenities. The proposed project for 72 units of affordable housing will not generate significant levels of vehicular traffic. Most of the residents are expected to come from the area and surrounding communities. The number of vehicle trips associated with this proposed project and the anticipated airborne emissions would be relatively imperceptible within the context of the region's airshed. Public transportation is currently available to the Subject Property.

potential impacts to air quality during construction. The proposed project will conform to NC Air Quality Management regulations during and following construction. The contractor will use Best Management Practices (BMPs) to reduce fugitive dust generation and diesel emissions. BMPs can include wetting the grading site during dry conditions; maintaining vegetative cover as much as possible around cleared areas; a water truck to stabilize potential dust during high traffic times or high wind days on heavily- travelled access roads and storage areas; and operating construction vehicles and machinery at reduced speeds to reduce soil disturbance and fugitive dust potential. BMPs to mitigate the generation of emissions during construction include limiting use of vehicles and other machinery to construction hours only and removal once construction is completed.
Based on the EPA's Radon Zone Map, the Subject Property is located within Zone 3 with predicted average indoor radon screening levels less than 2 pCi/L (Low Potential). Due to the low potential for elevated indoor radon levels, no additional steps are required for radon mitigation.
Therefore, there will be no significant impact on air quality from the proposed project. The operation of the proposed project following the completion of construction activities will not increase emissions. Any air quality impacts would be short-term and localized during construction, and no significant adverse impacts to air quality are anticipated. Therefore, the proposed project is in compliance with the Clean Air Act, as amended, and 40 CFR Parts 6, 51, 93.
Attachment 5 – EPA Greenbook and EPA NC Radon Zone Map. See also, Recent Updates: Federal Register Notices Published or Effective After March 31, 2023 Green Book US EPA https://www3.epa.gov/airquality/greenbook/adde n.html

Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes No	The proposed project involves new construction and is located in a coastal zone, but it has been determined to be consistent with the State coastal management program. Therefore, the NC Division of Coastal Management (NC DCM) was contacted to determine whether the proposed project is consistent with the State coastal zone management program's consistency criteria. Mr. Dan Govoni of NC DCM reviewed the proposed project information submitted pursuant to the management objectives and enforceable policies of Subchapters 7H and 7M of Chapter 7 in Title 15A of the North Carolina Administrative Code and concurred that the proposed activity is consistent with North Carolina's approved coastal management program. NC DCM's correspondence and email determination are attached. The proposed project is in compliance with the Coastal Zone Management Maps and DCM Correspondence including response from Daniel Govoni, Federal Consistency Coordinator, dated 12/28/22.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes No	The Subject Property is not listed on an U.S. EPA Superfund National Priorities or Comprehensive Environmental Response Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list compiled by the US EPA according to NEPAssist. The Subject Property is not located within 3,000 feet of a toxic or solid waste landfill site, does not have an underground fuel storage tank, and is not known or suspected to be contaminated by hazardous materials or petroleum products (see Attachment 7). A Phase I Environmental Site Assessment (ESA) (11/07/22) and site inspection (10/22/22) were completed for the original parent property by NV5, Engineers and Consultants, Inc. The Phase I ESA revealed no evidence of recognized environmental conditions (RECs), controlled REC (CREC), or historical REC (HREC) in connection with the Subject Property. There are no buildings present on the Subject Property.

During the Phase I ESA site visit, remnants of a foundation were observed on the southwestern corner of the Subject Property. These remnants consisted of brick-and-mortar sections that were partially buried underneath the grasses. Based on a review of historical aerial photographs, a previously existing structure was present at this location until approximately 2013. The remnants of two apparent sump pumps are located in the vicinity of the foundation debris. No soil staining, unusual odors, or distressed vegetation was observed near the remnants. There were no indications of hazardous materials or petroleum products observed in the debris. Therefore, the observed debris was determined to be a de minimis condition. According to the NC DEQ comments through the State Environmental Clearinghouse, "[d]emolition 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." According to Mr. Andrew Thompson, the Brunswick County Fire Marshal, there were no records of an underground fuel storage tank located on the Subject Property. Within the ASTM minimum search radius of the Subject Property, there was a NC Hazardous Substance Disposal Site and a Leaking Underground Storage Tank (LUST) site. A review of information for these facilities in the Phase I ESA determined that these sites do not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the property. According to NC DWM comments, there are no sites identified within one-mile of the proposed project site (Attachment 29). The DWM Site Locator Tool and NEPAssist were used to review potentially hazardous sites within a 1-mile radius of the Subject Property. These sites included a total of 16 UST incidents, five non-UST incidents, four Hazardous Waste Sites, one site listed as having a NPDES discharge permit, and seven sites listed as RCRA handlers or generators of hazardous materials. The available information indicated that each of these sites were mapped downgradient and outside of the surface water

		 drainage area of the Subject Property. These sites have been determined to not pose a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the property. Based on a site visit, NEPAssist and NC DWM search results, the Phase I ESAs, and review of available environmental records for the Subject Property and surrounding area, the Subject Property is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property. Therefore, the proposed project is in compliance with Contamination and Toxic Substances, 24 CFR Part 50.3(i) & 58.5(i)(2). Attachment 7 – Addendum to Phase I ESA, NEPAssist EPA Facilities with 1-mile Buffer, NC DEQ DWM Site Locator Reports with 1-mile and
		3,000-foot Buffer, Phase I ESA (11/07/22) and Phase I ESA (12/10/21), and Attachment 29 – State Environmental Clearinghouse Comments.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes No	According to the USFWS Information for Planning and Consultation (IPaC) Official Species List prepared for the Subject Property, there are a total of fifteen threatened, endangered, or candidate species identified. The proposed Tricolored Bat is identified on the updated IPaC. The NCNHP database query report identified five State-protected and one federally-listed species within a one-mile radius of the Subject Property. However, based on the USFWS IPaC, there are no critical habitats identified within the proposed project area. Also, the NCNHP database query report identified no records for rare species, important natural communities, natural areas, and/ or conservation/ managed areas within the proposed project boundary.
		The proposed project has a "may affect, not likely to adversely affect" determination for the Northern Long-eared Bat (NLEB) and proposed Tricolored Bat. Brunswick County is identified as a NLEB known-presence county (See NLEB Map in Attachment 8). On October 19, 2022,

Ms. Judith Ratcliffe, NCNHP Zoologist, stated
"[t]here are no documented Northern Long-eared
Bat maternity roost trees within 150 feet of this
project boundary. There are no documented
Northern Long-eared Bat hibernacula within 0.25
mile of this project boundary." On April 12,
2023, Ms. Kathy Matthews, USFWS Biologist,
stated that "I ran your project through the Dkey,
and the project is not likely to adversely affect the
NLEB. Nothing else needs to be done on your
part, and the developer/grant recipient may
cut trees. The only issue will be if trees are not
removed before the tricolored bat is listed
(probably September 2023), but I assume that
the trees will be gone by then." The updated
IPaC also lists the Tricolored Bat as a proposed
species potentially at the Subject Property. Ms.
Kathy Matthews, USFWS Biologist, stated that
"[f]or tricolored bat, as long as the tree removal is
conducted before the species is listed, there
should be no ESA issues. I can't tell you exactly
when that will be, but shouldn't be earlier than
September. If the trees can't be removed before
the tricolored bat listing is effective, we will likely
have tools to expedite consultation." If trees are
not removed before the official Tricolored Bat
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		 proposed/ designated critical habitat and a "no Eagle Act permit required" for eagles. The proposed project has a "may affect, not likely to adversely affect" determination for the Northern Long-eared Bat (NLEB) and proposed Tricolored Bat. Attachment 8 – USFWS Correspondence, Updated IPaC and Species Conclusion Table, USFWS Raleigh FO 10-step Project Review Package, and NC NHP Correspondence.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes No	The proposed project does not involve the development of a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries). No aboveground storage tanks (ASTs) or explosive storage facilities were observed on or near the site during the site inspection. A review was performed of Google Earth aerial maps, USGS Topographic Maps, and street view photographs for roadways within one mile of the Subject Property. One 2,000-gallon AST (Tank 1) was identified at 5007 Northside Drive, which is located approximately 580 feet to the west of the Subject Property. The HUD Acceptable Separation Distance (ASD) for Tank 1 is 369.16 feet. Two approximately 4,000-gallon ASTs (Tanks 2) were identified at 101 Russ Street, approximately 875 feet from the Subject Property. The HUD ASD for an un-diked 4,000-gallon AST is 492.74 feet or 657.70 feet for a combined volume of 8,000 gallons. Thus, there is acceptable separation distance between the Subject Property and the three identified ASTs. Additionally, as indicated in the Phase I ESA, the Subject Property consists of mostly wooded/undeveloped land. The Brunswick County Fire Marshal, Fire Captain and Fire Chief of the Town of Shallotte Fire Department were contacted regarding current and planned AST sites within 1 mile of the Subject Property. Brunswick County Fire Marshal, Andrew Thompson, emailed that the three identified ASTs are the closest to the Subject Property.

		A completed Thermal and Explosives Hazards Worksheet indicates that the identified hazards are within an acceptable separation distance from the Subject Property. The proposed project is in compliance with Explosive and Flammable Hazards, 24 CFR Part 51 Subpart C. <i>Attachment 9</i> – Signed HUD Thermal and Explosive Hazards Worksheet, Aerial Map to Tank 1, Tank 1 ASD Calculation, Aerial Map with 1-mile Buffer and Tanks 2 Shown, Tank 2 ASD Calculation, Fire Marshal Correspondence on Planned ASTs, AST Data, and Other Supporting Documentation. See Attachment 7 – Phase I ESA site visit photographs, aerial maps, NEPAssist documentation, NC DEQ DWM documentation, and EDR in Phase I Appendix.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes No	The proposed project includes activities that could potentially convert agricultural land to a non-agricultural use, but an exemption applies. According to 7 CFR Part 658.2(a) "[f]armland does not include land already committed to urban development." According to USDA Resource Soil Scientist, Ms. Laurie Muzzy, "[t]he area in question is not subject to FPPA regulation, since the project as proposed is in an urban cluster. There is no need to continue the AD-1006 form according to the Code of Federal Regulation 7CFR 658, Farmland Protection Policy Act. The project site in question is exempt from the FPPA regulations." The proposed project is exempt from the Farmlands Protection Act and is in compliance with this section.
		NEPAssist Urbanized Areas Map and USDA NRCS Soil Survey.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes No	According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Number 3720108800K, effective 08/28/2018, the Subject Property is located in Zone X (Areas of Minimal Flood Hazard), outside of the Special Flood Hazard Area. The Subject Property is not located in a FEMA-designated regulatory floodway. There are no Preliminary FIRMs available at the FEMA Flood Map Service

		Center for Brunswick County. Thus, the proposed project is in compliance with this section.	
		Attachment 11 – FEMA FIRMs.	
Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance Determinations	
STATUTES, EXECUTIVE OR	STATUTES, EXECUTIVE ORDERS, & REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes No	The Subject Property is an approximately 5.2- acre, newly subdivided Brunswick County Parcel #1820000801, and located at 271 Smith Avenue, Shallotte, NC 28470. Historical aerial photos show two residential structures being built, prior to 1956, on the southern portion of the original property. By 2019, both structures were demolished, and the rubble removed from the property. The Subject Property is relatively flat and sparsely wooded and is typically vegetated with grasses and pine trees. The nearest mapped historic properties or districts is Shallotte Prison Camp (BW0461) located approximately 1,800 feet to the southwest. The North Carolina State Historic Preservation Office (NC SHPO) was consulted if the proposed project would have adverse effects on historic or archeological resources at the Subject Property. NCORR submitted the proposed project to the NC SHPO on October 20, 2022, and the NC SHPO responded on November 21, 2022 that they had no comment. According to the HUD Tribal Directory Assessment Tool (TDAT), the Catawba Indian Nation is the only federally-recognized tribe with interests in Onslow County, North Carolina. On October 20, 2022, NCORR consulted with the Catawba Indian Nation for discussion of historic properties in the proposed project area that may have religious and cultural significance. On November 28, 2022, the Catawba Indian Nation's Tribal Historic Preservation Office (THPO) responded that "[t]he Catawba Indian Nation's Tribal Historic Preservation Office (THPO) responded that "[t]he Catawba Indian Nation's Tribal Historic Preservation Office (THPO) responded that "[t]he Catawba Indian Nation's Tribal Historic Preservation Office (THPO) responded that "[t]he Catawba Indian Nation's the properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. However, the Catawba	

Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes No	are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project." The proposed project is in compliance with Section 106. <i>Attachment 12 – SHPO Response, NCORR</i> <i>SHPO Submission Package, HUD TDAT Results,</i> <i>Catawba Indian Nation Response, and NCORR</i> <i>Catawba Indian Nation Submission Packages.</i> The proposed project does not site a noise generating facility. The operation of the proposed project will not increase noise levels in the area. The surrounding area was screened for noise generators. According to NEPAssist and the NCDOT Annual Average Daily Traffic (AADT) Mapping Application, there are two roads Ocean Hwy W (US 17 Bypass) and Smith Avenue with NCDOT AADT data available located within 1,000 feet of the Subject Property. There are no railroads located within 3,000 feet of the Subject Property. The Odell Williamson Municipal Airport is the only airport located within 15 miles of the Subject Property (5.66 miles), and the noise worksheet and FAA 5010 Airport Master Record are in Attachment 13. According to the Traffic Forecast Memorandum (10/18/18), the growth rates are slightly lower than reflected in the NCDOT AADT forecasts used in the attached noise assessment. According to the landscaping plan, there will be one canopy tree, five understory trees, and eight shrubs per 50 LF along the property boundary facing Smith Avenue (Attachment 13). Thus, the noise level for 2035 could be lower than calculated in the noise assessment. The combined (airports, roads, and railroads) day/night noise level (DNL) for the Subject Property was calculated to be 60 dB using 2021 date avail 62 dB using 2021
		data and 62 dB using 2035 NCDOT AADT forecasts for the two Noise Assessment Locations (NALs) closest to Ocean Hwy W and Smith Avenue. The DNLs for 2021 and 2035 are less than 65 dB and, thus, within HUD's Acceptable range according to HUD regulation 24 CFR 51.103(c). No mitigation is necessary.
		Short-term construction work will adhere to local noise control standards/regulations. Construction noise will be limited to daytime hours.

Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes No	 Construction equipment will be required to meet sound control requirements. The proposed project is in compliance with the Noise Control Act of 1972, 24 CFR Part 51 Subpart B. Attachment 13 – Noise Assessment documentation. According to the EPA, sole source aquifers are not present in North Carolina. No further action is required. The proposed project is in compliance with the Safe Drinking Water Act of 1974, 40 CFR Part 149. Attachment 14 – EPA Sole Source Aquifer Map.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes No	 Attachment 14 – EPA Sole Source Aquifer Map. There are no wetlands identified on the Subject Property. There are no USFWS National Wetlands Inventory (NWI) mapped wetlands located on the Subject Property. A wetland and stream delineation map was prepared for the original parent property and surrounding area by Land Management Group. A U.S. Army Corps of Engineers (USACE) Approved Jurisdictional Determination (JD) has been issued for the original parent property (9.9 acres). The USACE JD identified a 748 LF Jurisdictional Open Water ditch onsite that exhibits an Ordinary High Water Mark (OHWM) subject to the Clean Water Act (CWA) Section 404 permit requirements (33 USC 1344) and two Non-Jurisdictional Ditches which are 1,162 LF, but this includes the original parent property towards Smith Avenue. The site plans show the limit of disturbance does not encompass the RPW. No development will be done in the RPW along the northern portions of the Subject Property. According to the NC DEQ Division of Water Resources (DWR), a CWA Section 401 water quality certification is not required. These non-wetland open water features are discussed further in Unique Natural Features, Water Resources in EA Factors.
		The proposed project activities will be completed in accordance with all applicable federal, State, and local laws, regulations, and permit requirements and conditions. Permits required

		for this proposed project shall be obtained before commencing work and appended to the ERR when received from the permitting agencies. The proposed project is in compliance with this section. Attachment 15 – USFWS NWI Maps, USACE JD, and Site Plans and Attachment 29 – State Environmental Clearinghouse Comments.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes No	According to the attached U.S. National Park Service Nationwide Rivers Inventory Map and National Wild and Scenic River System Map, there are no wild and scenic rivers located within one mile from the Subject Property. The proposed project is in compliance with this section. Attachment 16 – NEPAssist Nationwide Rivers Inventory and National Wild and Scenic River System Map.
ENVIRONMENTAL JUSTICE	<u>.</u>	
Environmental Justice Executive Order 12898	Yes No	 According to the EPA Environmental Justice Screening and Mapping Tool (EJScreen), within a one-mile radius of the Subject Property there is a 60% minority population and 35% low-income population, both of which are higher than State and national averages. However, based on the NC DEQ Community Mapping System, the Subject Property is not located in the NC DEQ Potentially Underserved Block Groups 2019. No adverse environmental impacts were identified during the proposed project's 24 CFR 58 environmental review. The proposed project does not facilitate development which would result in disproportionate adverse environmental impacts on low-income or minority populations. Rather, the proposed project will benefit low- and moderate-income residents through the new construction of safe, affordable residential rental housing. The proposed project is in compliance with Environmental Justice, Executive Order 12898.
		EJScreen ACS Summary Report, EJScreen Census 2010 Summary Report, NC DEQ

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	Community Mapping, and CDC Report. See
	Attachment 7 – Contamination and Toxic
	Substances.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27]

Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features, and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable, and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. All conditions, attenuation or mitigation measures have been clearly identified.

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact

(2) No impact anticipated

(3) Minor Adverse Impact – May require mitigation

(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOP	MENT	
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	The Subject Property was re-zoned to Multi-Family-14 (SH- MF-14) on May 4, 2021 with a Special Use Permit approved by the Town of Shallotte Board of Alderman (Board) for the 72- unit residential development. The Subject Property was previously zoned as commercial and medium-density multi- family residential (SH-HD and SH RM-10) in the Shallotte and Holden Beach jurisdictions. No compatibility, land use, or zoning issues were identified. Rather, according to the Board's Special Use Permit Findings, "this well-designed and handsomely landscaped development will be an asset to the neighborhood, which consists of a mix of vacant, residential, and commercial uses. Based on extensive research of affordable housing developments, in 2020 New York University's Furman Center concluded that 'the vast majority of studies have found that affordable housing does not depress neighboring property values, and may even raise them.' The Garnet Place apartments will be of high-quality design and construction, moderate scale, and be well managed and maintained, and therefore will not negatively impact surrounding property values." Further, the Board stated, "[n]ew multifamily housing is an appropriate and harmonious use for the Smith Avenue corridor, and will

		contribute to the vibrancy of the area's existing mix of residential and commercial uses. New apartments complement the other recent retail developments on Smith Avenue, less than one mile from the proposed project." The Town encourages projects like this one involving infill development (development of land already served by essential services and utilities). Ultimately, the Board found that the "Garnet Place proposal is consistent with the Shallotte 2018 Land Use Plan's policies and Future Land Use Map." The proposed project is compatible with local land use and zoning regulations and plans. This proposed project will provide an opportunity to create much-needed affordable housing on an ideal, vacant, infill site.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	According to USDA NRCS Web Soil Survey, onsite soils are somewhat well-suited for development with a few limiting factors. Foreston (Fo) Series soils account for 75% of the mapped onsite soils, and Baymeade Series Soils (BaB) account for 25% of the mapped onsite soils. These soils are typically well suited for most urban uses, as referenced in the Brunswick County Soil Survey. A Geotechnical Exploration Report has been completed for the Subject Property and includes detailed recommendations to assist in successful site development. The NC DEQ commented through the State Environmental Clearinghouse that the Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An Erosion and Sedimentation Control Plan will be required if one or more acres are to be disturbed. The 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. In addition, compliance with 15A NCAC 2H 1000-State Stormwater Permitting Programs that regulate site development and postconstruction stormwater runoff control might be required. Areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the state. An Erosion and Sedimentation Control Plan for the proposed project is being developed. The Town of Shallotte commented that the landscape plans and stormwater plans for the site were deemed sufficient. BMPs will be utilized during construction. According to the Town Board, "[o]n-site stormwater retention and management will be engineering to meet runoff requirements. Impervious areas will employ slopes and gutters to direct water to retention ponds."

		<i>Attachment</i> 19 – Geotechnical Exploration Report and <i>Attachment</i> 29 – State Environmental Clearinghouse Comments.
Hazards and Nuisances including Site Safety and Noise	2	Based upon the site inspection, NEPAssist and NC DWM search results, and the Phase I ESAs, no onsite or surrounding hazards were identified that could affect the health and safety of occupants or conflict with the intended utilization of the Subject Property (see Attachment 7).
		Construction related activities (land clearing, grading) could cause short-term exposures to sensitive receptors from particulate matter (PM 10) such as fugitive dust leaving the construction site and emissions from construction equipment. Mitigation measures for dust control will be implemented to reduce potential impacts to air quality during construction. Thus, there will be no significant impact to air quality from the proposed project. (See Clean Air Act section.)
		A noise assessment was completed for the Subject Property. The combined (airports, roads, and railroads) day/night noise level (DNL) for the Subject Property was calculated to be 60 dB using 2021 data and 62 dB using 2035 NCDOT AADT forecasts for the two Noise Assessment Locations (NALs) closest to Ocean Hwy W and Smith Avenue. The DNLs for 2021 and 2035 are less than 65 dB and, thus, within HUD's Acceptable range according to HUD regulation 24 CFR 51.103(c). No mitigation is necessary. The operation of the proposed project will not increase noise levels in the area.
		Short-term construction work will adhere to local noise control standards/regulations. Construction noise will be limited to daytime hours. Construction equipment will be required to meet sound control requirements.
		See Attachment 5 – Clean Air Act documentation; Attachment 7 – Contamination and Toxic Substances documentation; Attachment 13 – Noise Assessment documentation and Attachment 29 – State Environmental Clearinghouse Comments.
Energy Consumption	2	The proposed project will cause an increase in energy use as compared to the current use. However, the proposed project will be connected to an existing grid and will not require additional infrastructure. The existing power infrastructure can support the proposed project.
		The proposed project will be governed by Energy Star Multifamily New Construction Version 1 which incorporates the latest sustainability and energy efficiency guidelines. The proposed project will incorporate energy efficient LED lighting, water sense low-flow fixtures, and Energy Star Certified

		appliances. Some measures implemented will include indoor air quality, building envelope sealing, Energy Star windows, thermal building envelopes, and energy efficient HVAC mechanical systems.
Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOM		<u>I</u>
Employment and Income Patterns	2	The proposed project will provide affordable housing to low- to moderate-income families in a designated infill area. New temporary construction jobs will be created as a result of this development. New residents will help to support nearby existing and planned commercial development, which may generate additional job opportunities for these residents. The residents will provide an employee and customer base to local businesses. The proposed project will not adversely impact traffic during construction or operation. Employment options including retail, service, and industrial businesses are located near the Subject Property. Therefore, the proposed project is not expected to adversely impact the employment and income patterns for the area.
Demographic Character Changes, Displacement	2	The Subject Property is a vacant site, so there will be no occupant displacement. The proposed development of the site is compatible with the surrounding area and no demographic character changes are anticipated in connection with the development. The proposed project will not act as an isolation feature within the local area or community. Local institutions (churches, community centers, elderly centers, etc.) will not be adversely impacted by the development. The proposed project will not significantly impact the demographics of the local community. Residents are expected to come from within the community and should not contribute to demographic character changes.
Environmental	Impact	Impact Evaluation
Assessment Factor		-
COMMUNITY FA Educational and Cultural Facilities	2	There are several schools located close to the Subject Property including Supply Elementary School, Shallotte Middle School, Wet Brunswick High School, Old Sunnyside School, Royal Oak Cottage School and Southeastern Christian Academy. The Brunswick County School District was contacted regarding capacity for the proposed project and responded "[a]t this time there is excess capacities at the schools." It is anticipated that residents of the proposed project will come from within the community and potentially already be enrolled in the school system. In addition, the increased tax base from the proposed development should provide extra funding for the community. Due to the size of the development and the Town's approvals, the proposed project is not anticipated to have an adverse effect on the community's educational and cultural facilities.

		Attachment 20 – Education documentation.
Commercial Facilities	1	There are adequate commercial facilities located near the Subject Property. There are many grocery stores and pharmacies located near the Subject Property (Minuteman Food Mart, Hill's Supermarket, Food Lion, Walmart, Walgreens, and CVS). Numerous restaurants and other commercial facilities (retail, restaurants, gas stations, offices, barber shops, etc.) are located near the Subject Property. Restaurants located near the Subject Property include Chili's Grill & Bar, Starbucks, Burger King, Hwy 55 Burgers Shake & Fries, Mama Brava's Pizza Pasta & Sub, Purple Onion Cafe, Burg-Dog Grill, and Wing & Fish Company. Nearby retail stores include the Shallotte Crossing, Walmart Supercenter, Big Lots, Dollar Tree, Belk, Harbor Freight Tools, Home Depot, and Lowe's Home Improvement. The downtown area of Shallotte is located approximately 0.5 miles from the Subject Property. The development will increase the customer base for these local businesses that might still be suffering losses experienced during the Covid-19 pandemic. The residents will also provide an employee base for local businesses. According to the Town Board's Special Use Permit Findings, Garnet Place apartments will "complement the other recent retail developments on Smith Avenue, less than one mile from the proposed project. The many shopping, restaurant, and service operations there will benefit from having potential consumers and employees living within walking distance. The close proximity of these complementary uses – residential, retail, and service – will help make this area of Shallotte a walkable community." The proposed project should have a beneficial effect on local commercial facilities.
Health Care and Social Services	2	The proposed project is not likely to have an adverse effect on the local health care and social services of the area. The proposed project is located in an area with close proximity to local health care and social service providers. Additionally, the development should increase the employee availability in the local area. An increase in the tax base will support these and other services. Local health care and social services in the area include CommWell Health Shallotte, Brunswick County Health Services, Coastal Southeastern United Care, Family First Health Center, Southeastern Healthcare, Seashore Pediatrics, Brunswick County Partnership, Brunswick Family Assistance, Turning Point Services, and South Brunswick Interchurch Council. Also, Novant Health Oceanside Family Medicine is located 2.5 miles to the southwest of the Subject Property and Novant Health Brunswick Medical Center is located 9.2 miles to the northeast of the Subject Property.

Solid Waste Disposal / Recycling	2	It is anticipated that many residents of the proposed project will come from within the community and are potentially already served by these health care and social services. Therefore, there should only be a negligible increase in demand for services. <i>Attachment 22 – Health and Social Services documentation.</i> Municipal solid waste and recycling services are available to the Subject Property through Brunswick County, as provided by GFL Environmental located in Bolivia, NC. During the construction phase of the proposed project, wastes generated are expected to consist of primarily packaging from construction materials, and mixed municipal wastes generated daily by site workers. Construction debris will be taken to an appropriate, legally compliant landfill. The NC DEQ DWM, Solid Waste Section (Section) stated in its comments that "it is recommended that during any land clearing, demolition, and construction, Garnet Place 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 projects that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility permitted by the Division. The Section strongly recommends that Garnet Place require all contractors to provide proof of proper disposal for all generated waste to permitted facilities." According to the NC DEQ comments through the State Environmental Clearinghouse, "[d]emolition 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." In addition, any open burning associated with proposed project must be in compliance with 15A NCAC 2D.1900. Thus, the proposed project is unlikely to have an adverse effect on the solid waste and recycling services in the area. <i>Attachment 29 – State Environmental Clear</i>
Waste Water / Sanitary Sewers	2	Comments. The proposed project is located within the Town of Shallotte municipal limits, and service connections are currently located along Arnold Street to the southwest of the Subject Property. The Town of Shallotte's Assistant Town Manager and Planning Director, Mr. Robert Waring, responded that the "Town issued a special use permit for the project and has acknowledged that the site will be serviced with Shallotte sewer utilities and Brunswick County water." According to the Town Board's Special Use Permit Findings, the Town engineer has verified that the existing public water line and pressurized sewer lines are adequate to serve the proposed project and the Developer

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		will construct and maintain a pump station at the sewer connection at a capacity that complies with the Town code.
		A permit to construct and operate sewer extensions involving gravity sewers, pump stations and force mains discharging into a sewer collection system might be required. All applicable federal, State and local permits will be obtained for the proposed project prior to construction and activities will comply with their requirements and conditions. Therefore, the proposed project is not anticipated to have an adverse impact on waste water/ sanitary sewers and capacity onsite and in the surrounding area.
		Attachment 18 – Zoning documentation and Attachment 29 –
Water Supply	2	State Environmental Clearinghouse Comments. The proposed project is located within the Town of Shallotte municipal limits, and service connections are currently located along Arnold Street to the southwest of the Subject Property. The Town of Shallotte's Assistant Town Manager and Planning Director, Mr. Robert Waring, responded that the "Town issued a special use permit for the project and has acknowledged that the site will be serviced with Shallotte sewer utilities and Brunswick County water." According to the Town Board's Special Use Permit Findings, the Town engineer has verified that the existing public water line is adequate to serve the proposed project. In addition, lead-free pipes, solder, and flux will be used in the design and construction. According to the NC DEQ comment, plans and specifications for the construction, expansion, or alteration of a public water system must be approved by the DWR/ Public Water Supply Section prior to the award of a contract or the initiation of
water Supply		construction as per 15A NCAC 18C .0300 et. seq. In addition, all public water supply systems must comply with State and federal drinking water monitoring requirements. If any wells are discovered on the proposed project site, then abandonment of wells must be in accordance with Title 15A Subchapter 2C.0100. Further, NC DEQ notes that any relocation of existing water lines will require plans to be submitted to the DWR/ Public Water Supply Section prior to construction. All applicable federal, State and local permits will be obtained for the proposed project prior to construction and activities will comply with their requirements and conditions. Therefore, the proposed project is not anticipated to have an adverse impact on the water supply onsite and in the surrounding area.

Public Safety: Police, Fire, and Emergency Medical	2	Adequate Public Safety, Police, Fire and Emergency Medical Services (EMS) are available to the Subject Property through the Town of Shallotte and Brunswick County. The Shallotte Police Station and Shallotte Fire Station 1 are both located approximately 1.3 miles to the south of the Subject Property. It is anticipated that residents of the proposed project will be from within the community and there will be a negligible increased demand for services. According to the Town Board's Special Use Permit Findings, Garnet Place apartments will pose no threat to public health and safety; be built to meet all NC State Building Codes and Town of Shallotte design standards to ensure safety of residents, staff and neighbors; parking areas, sidewalks, and common stairwells will be well-lit; there will be a security camera at the Community Center; the site will be managed by a full-time on- site property manager; and the site will be serviced by full-time maintenance staff on-ca;; 24 hours a day, 7 days a week. Therefore, the proposed project is not anticipated to have an adverse impact on the public safety services in the surrounding area.
		<i>Attachment 23 – Public safety documentation and Attachment 18 – Zoning documentation.</i>
Parks, Open Space, and Recreation	2	The proposed project will contain a playground, Tot Lot, covered picnic area, community center, and outdoor seating for residents. Many parks, open space, trails, and recreation facilities are located nearby, including Mulberry Park, Shallotte Township and District Parks, Rourk Gardens, Riverside Park and Shallotte Riverwalk. A request for information on the area's parks was submitted to Brunswick County Parks and Recreation Director, Mr. Aaron Perkins, but a response has not been received. If a response is received, then it will be added to the ERR. It is anticipated that many residents of the proposed project will come from within the community and there will be a negligible increased demand for resources. Thus, the proposed project is not anticipated to have an adverse impact on parks, open spaces, and recreation areas.
Transportation and Accessibility	2	documentation. The Subject Property is located in an area within walking distance of businesses, churches, schools, and restaurants. According to the Town Board's Special Use Permit Findings, Garnet Place will "complement the other recent retail developments on Smith Avenue, less than one mile from the proposed project. The many shopping, restaurant, and service operations there will benefit from having potential consumers and employees living within walking distance. The close proximity of these complementary uses – residential, retail, and

		service – will help make this area of Shallotte a walkable community." The Town's Board Findings also noted "[p]lans for the development will meet the Town of Shallotte's driveway and sidewalk design standards in order to provide safe and adequate vehicular and pedestrian ingress and egress at the site. Arnold Street is a locally owned and maintained road, thus the developer with will [work] with the town to develop a safe and well-designed driveway connecting the site to Arnold Street. NC DOT engineers, who have reviewed preliminary plans, saw no need for improvements at the Arnold Street-Smith Avenue intersection."
		Brunswick Transit System, Inc. is a non-profit community transportation system serving the site and offering non-emergency transportation to the general public through a Dial-a-Ride Program. Their services are available to all residents of Brunswick County on a ride reservation schedule. Further, the proposed project is not anticipated to adversely impact traffic during temporary construction or operation. Thus, the proposed project is not anticipated to have an adverse impact on transportation and accessibility.
		<i>Attachment</i> 25 – <i>Transportation documentation and Attachment</i> 18 – <i>Zoning documentation.</i>
Environmental	Impact Code	Impact Evaluation
Assessment Factor NATURAL FEATUR		<u></u>
Unique Natural Features, Water Resources	2	According to the NC NHP database query results, there are nine managed areas and no natural areas documented within a one- mile radius of the Subject Property. The managed areas include four Brunswick County Open Spaces, three Town of Shallotte Open Spaces, an NCDOT Mitigation Site, and a NC Hazard Mitigation Buyout Property-Brunswick County. Based on the distance from the Subject Property, the managed areas will not be impacted by the proposed project. A wetland and stream delineation map was prepared for the original parent property and surrounding area by Land Management Group does not show designated wetlands, streams or buffer zones on the Subject Property. A USACE JD has been issued for the original parent property (9.9 acres). No wetlands were identified in the LMG preliminary determination or in the USACE JD. The USACE JD identified a 748 LF Jurisdictional Open Water ditch onsite that exhibits an OHWM subject to the CWA Section 404 permit requirements (33 USC 1344). The Non-Stream Relatively Permanent Waters (RPW) flow into Traditional Navigable Water (TNW) present along the northern boundary of the subject property. The RPW flows through two tributaries before entering TNW (Shallotte River). The Non-Stream waters are reportedly confined to a stable,

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	relatively straight, tributary with approximately 3-foot banks. There are also two Non-Jurisdictional Ditches which are 1,162 LF, but this includes the original parent property's area south of the Subject Property towards Smith Avenue. The site plans show the limit of disturbance does <i>not</i> encompass the RPW. <i>No</i> <i>development will be done in the RPW along the northern</i> <i>portions of the Subject Property</i> .
	The Subject Property is situated outside of the State Riparian Buffer areas. The County does have a buffer on perennial streams and ditched perennial streams. However, for ditches and RPWs, the Developer has confirmed with the County that they do not have buffers. From the County's Ordinance Section 1.17 Riparian Buffers: "Ditches and manmade conveyances other than modified natural streams" are exempt. Both the ditch and RPW do not identify with stream or wetland, the 748 LF ditch is an open water feature. They are not ditched/ straightened streams, but rather historically man-made which due to its "relatively permanent" presence of water/flow is still jurisdictional. They also do not occur in a natural drainage way. It is our interpretation that these are not buffered because they are not streams, impoundments in streams (ponds, lakes, reservoirs), or coastal surface waters. According to the NC DEQ DWR, a CWA Section 401 water quality certification is not required.
	Proper BMPs will be implemented during construction activities to prevent significant erosion from occurring and impacting water resources. An Erosion and Sedimentation Control Plan for the proposed project is being developed. However, it is unlikely that silt erosion from this proposed project will migrate into surface waters due to the distance from the Subject Property. The NC DEQ commented through the State Environmental Clearinghouse that the Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An Erosion and Sedimentation Control Plan will be required if one or more acres are to be disturbed. The 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. In addition, compliance with 15A NCAC 2H 1000-State Stormwater Permitting Programs that regulate site development and postconstruction stormwater runoff control might be required. Areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the state. The Town of Shallotte commented that the landscape plans and stormwater plans for the site were deemed sufficient.

		The proposed project activities will be completed in accordance with all applicable federal, State, and local laws, regulations, and permit requirements and conditions. Permits required for this proposed project shall be obtained before commencing work and appended to the ERR when received from the permitting agencies. See Attachment 8 – Endangered Species documentation; Attachment 15 – Wetlands Protection; Attachment 26 – Surface Water Map; and Attachment 29 – State Environmental
Vegetation, Wildlife	2	Clearinghouse Comments. It was determined using the USFWS Raleigh Ecological Services' online 10-step project review process that the proposed project would have "no effect" on proposed/ listed species and/ or proposed/ designated critical habitat and "no Eagle Act permit required." The proposed project has a "may affect, not likely to adversely affect" determination for the Northern Long-eared Bat (NLEB) and proposed Tricolored Bat. In addition, the developer will be using native grass and plantings in landscaping.
		The proposed project activities will be completed in accordance with all applicable federal, State, and local laws, regulations, and permit requirements and conditions. Permits required for this proposed project shall be obtained before commencing work and appended to the ERR when received from the permitting agencies. <i>Attachment 8 – Endangered Species documentation and</i>
		Attachment 27 – Biodiversity Map and Landscaping Plan. According to NOAA, climate change is likely increasing the intensity of tropical cyclones. The Subject Property is not located within a Special Flood Hazard Area or a coastal area. No portions of the Subject Property are located within 100- or 500-year floodplain.
Other Factors Climate Change EO 14008	1	According to the EJScreen's Climate Change Data, the Subject Property has a 0.67 average change in drought (5-year SPEI), no projected coastal flood hazards, no projected 100-year floodplain, no projected sea level rise, the census block group contains 89% properties at wildfire risk in 2022 and 85% properties at wildfire risk in 2052, and the census block group contains 0% properties at flood risk in 2022 and 44% properties at flood risk in 2052. The data from the EJScreen is representative for the area, and lower risk percentiles than some portions of the surrounding area. According to the Climate Mapping For Resilience and Adaptation Tool data for the Subject Property's census tract, there is a relatively high risk (National Risk Index Ratings) of Extreme Heat, Wildfire, and Flooding; relatively moderate risk for Drought and Coastal

		Inundation (Attachment 28). Thus, the reviewed data does not
		present any additional significant site concerns.
		The proposed development will provide much needed affordable housing rental options within the community. Due to the increased frequency of high-intensity storms and the resultant housing inventory shortage, the Subject Property was determined most suitable and necessary for providing the community with safe, affordable housing rental options.
		Attachment28ClimateChangedocumentation,https://www.climate.gov/news- features/understandingclimate/climate-change-probably- increasing-intensitytropical-cyclones, https://ejscreen.epa.gov/mapper/, and https://livingatlas.arcgis.com/assessment-tool/home
		According to the EJScreen, within a one-mile radius of the Subject Property there is a 60% minority population and 35% low-income population, both of which are higher than State and national averages. However, based on the NC DEQ Community Mapping System, the Subject Property is not located in the NC DEQ Potentially Underserved Block Groups 2019. (See EJScreen Report and NC DEQ Community Map in Attachment 17.)
Other Factors Environmental Justice Impacts	2	Most of the EJScreen indicators for a one-mile radius of the Subject Property are the lower than the State and National averages including Particulate Matter 2.5, Ozone, Diesel Particulate Matter, Air Toxics Cancer Risk, Air Toxics Respiratory Hazard Index, Traffic Proximity, Lead Paint, Superfund Proximity, Risk Management Plan (RMP) Facility Proximity, Hazardous Waste Proximity, and USTs. Only Wastewater Discharge is higher than the State average but lower than the National average. According to the EPA Green Book, Brunswick County is listed as an attainment area. The proposed project does not site a nuisance or hazard in a potential environmental justice area, but rather provides much needed safe, affordable housing.
		According to the Board's Special Use Permit Findings, "this well-designed and handsomely landscaped development will be an asset to the neighborhood, which consists of a mix of vacant, residential, and commercial uses. Based on extensive research of affordable housing developments, in 2020 New York University's Furman Center concluded that 'the vast majority of studies have found that affordable housing does not depress neighboring property values, and may even raise them.' The Garnet Place apartments will be of high-quality design and construction, moderate scale, and be well managed and maintained, and therefore will not negatively impact surrounding property values." Further, the Board stated,

		"[n]ew multifamily housing is an appropriate and harmonious use for the Smith Avenue corridor, and will contribute to the vibrancy of the area's existing mix of residential and commercial uses. New apartments complement the other recent retail developments on Smith Avenue, less than one mile from the proposed project."
		No adverse environmental impacts were identified during the proposed project's 24 CFR 58 environmental review. The proposed project does not facilitate development which would result in disproportionate adverse environmental impacts on low-income or minority populations. Rather, the proposed project will benefit low- and moderate-income residents through the new construction of safe, affordable residential rental housing. Further, this proposed project will provide much needed affordable housing rental options within the community following a decrease in housing inventory after Hurricanes Matthew and Florence. Thus, the proposed project does not contribute to or promote environmental injustice.
		Attachment 17 – EJScreen Summary Report, EJScreen ACS Summary Report, EJScreen Census 2010 Summary Report, NC DEQ Community Mapping, and CDC Report; Attachment 5 – Clean Air Act documentation; and Attachment 7 – Contamination and Toxic Substances.
Other Factors	2	No other factors were identified which would be impacted by the proposed project.

Additional Studies Performed:

- Phase I Environmental Site Assessment (ESA) dated November 7, 2022, NV5 Engineers and Consultants, Inc.
- Phase I ESA dated December 10, 2021, NV5 Engineers and Consultants, Inc.
- Geotechnical Exploration Report dated October 29, 2021, Aardvark Engineers, Inc.
- Market Feasibility Analysis of Garnet Place by Vogt Strategic Insights, March 12, 2021

Field Inspection (Date and completed by):

• Completed by William B. Strayhorn, P.G. Senior Registered Geologist on October 22, 2022 and September 16, 2021

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

- Brunswick County GIS, <u>https://www.brunswickcountync.gov/gis/</u>
- Brunswick County, North Carolina website, <u>https://www.brunswickcountync.gov/</u>
- Fact Sheet #D1: Siting HUD-Assisted Projects in Accident Potential Zones
- US EPA NEPAssist Tool, at <u>https://nepassisttool.epa.gov/nepassist/nepamap.aspx</u>
- Airport Data and Information Portal (ADIP), at https://adip.faa.gov/agis/public/#/public
- USFWS CBRS Mapper, at https://www.fws.gov/CBRA/Maps/Mapper.html
- FEMA Map Service Center, at <u>https://msc.fema.gov/portal/home</u> and <u>https://hazards.fema.gov/femaportal/prelimdownload/searchResult.action</u>
- US EPA, North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants, at <u>https://www3.epa.gov/airquality/greenbook/anayo_nc.html</u>
- US EPA, Recent Updates: Federal Register Notices Published or Effective After March 31, 2023, at https://www3.epa.gov/airquality/greenbook/adden.html
- NC DEQ CAMA Counties, <u>https://deq.nc.gov/about/divisions/coastal-management/about-coastal-management/cama-counties</u>
- USFWS NWI Mapper, at https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
- NC DEQ DWM Site Locator, at <u>https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40</u> <u>bebebfa49fc383f688</u>
- Google Maps and Google Earth
- USFWS Raleigh Field Office
- NC NHP
- USFWS Information for Planning and Consultation (IPaC), at <u>https://ipac.ecosphere.fws.gov/</u>
- NC NHP Data Explorer Tool, at <u>https://ncnhde.natureserve.org/</u>
- HUD Acceptable Separation Distance Electronic Assessment Tool, <u>https://www.hudexchange.info/programs/environmental-review/asd-calculator/.</u>
- HUD Day/Night Noise Level Calculator, https://www.hudexchange.info/programs/environmental-review/dnl-calculator/.
- NC Department of Transportation Annual Average Daily Traffic Mapping Application, <u>https://www.arcgis.com/apps/webappviewer/index.html?id=5f6fe58c1d90482ab9107</u>
- <u>ccc03026280</u>
 NC DEQ Division of Water Resources Map Locator, https://experience.arcgis.com/experience/689283d17bf342c2a96364fbab09a5d8
- USDA NRCS Soil Survey, at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx
- National Register of Historic Places, at <u>https://www.nps.gov/maps/full.html?mapId=7ad17cc9-b808-4ff8-a2f9-a99909164466</u>
- North Carolina Department of Natural and Cultural Resources HPOWEB2.0 website, <u>https://www.arcgis.com/apps/webappviewer/index.html?id=79ea671ebdcc45639f086</u> 0257d5f5ed7¢er=-8805200,4311130,102100&scale=18056514
- North Carolina State Historic Preservation Office Online GIS service, https://www.ncdcr.gov/about/history/division-historical-resources/gis-maps-and-data.
- HUD Tribal Directory Assessment Tool (TDAT), at https://egis.hud.gov/tdat/
- Catawba Indian Nation
- NC State Historic Preservation Office
- US EPA Map of Sole Source Aquifer Locations, at <u>https://www.epa.gov/dwssa/map-sole-source-aquifer-locations</u>
- TopoZone Free USGS Maps Website, <u>https://www.topozone.com/</u>

- U.S. Census Bureau, <u>https://www.census.gov/quickfacts</u>
- U.S. Census Bureau TIGERweb website, https://tigerweb.geo.census.gov/tigerwebmain/TIGERweb_main.html
- U.S. Department of Agriculture Natural Resource Conservation Service, Web Soil Survey, <u>https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm</u>
- USDA, Ms. Laurie Muzzy
- U.S. Geological Survey website, <u>https://www.usgs.gov/</u>
- North Carolina State Parks and Recreation, State Parks and Trails Map, <u>https://www.ncparks.gov/find-a-park</u>
- Nationwide Rivers Inventory Map, at https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm
- North Carolina, National and Wild Scenic Rivers System, at <u>https://www.rivers.gov/north-carolina.php</u>
- Eligible and Suitable Rivers Map, at <u>https://nps.maps.arcgis.com/apps/webappviewer/index.html?id=df0f4455dc5f41bb919a3a1a49c</u> <u>60174</u>
- EJScreen Standard Report
- EJScreen ACS Summary Report
- EJScreen Census 2010 Summary Report
- NC DEQ Community Mapping, at https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=1eb0fbe2bcfb4cccb3cc212af 8a0b8c8
- CDC, National Environmental Public Health Tracking Network, at https://ephtracking.cdc.gov/InfoByLocation/?FIPS=37065&topics=1,10,2,3,4,5,6,7,8

List of Permits To Be Obtained (later identified permits will be added to the ERR):

All applicable federal, State and local permits will be identified and obtained prior to starting construction. Permits that might be required include, but are not limited, to:

- Shallotte Site Plan Approval and Technical Review Committee Approval
- Shallotte Building Permit
- Shallotte Grading Permit
- NC DEQ Land Disturbance Permit
- NC DEQ NPDES Construction Stormwater Permit (NCG010000)
- NC DEQ State Stormwater Permit
- NC DEQ Erosion & Sedimentation Control Approval
- NC Public Water Supply Section Water Extension Permit
- NC DEQ Sewer Extension Permit
- USACE JD CWA Section 404 (Jurisdictional Open Water Ditch No proposed work in ditch)

Public Outreach [24 CFR 50.23 & 58.43]:

- Town of Shallotte Planning Board: Rezoning Recommendation March 9, 2021
- Town of Shallotte Board of Alderman: Rezoning Hearing April 6, 2021
- Town of Shallotte Board of Alderman: Special Use Permit Approval May 4, 2021

Cumulative Impact Analysis [24 CFR 58.32]:

The proposed project will be an affordable multifamily housing complex that will provide new, safe housing that is needed in the area. The proposed project and its potential environmental impacts were evaluated in accordance with 24 CFR 58 requirements to determine whether it meets federal, State, and local environmental standards. This evaluation included a review of cumulative impacts on the environment resulting from the proposed project's incremental impacts combined with other past, present, and reasonably foreseeable future actions undertaken by any party. The proposed project does not negatively impact the surrounding environment or Subject Property and will not have an adverse environmental or health effect on end users. The Subject Property was found to be a very suitable site for the development with no onsite or nearby recognized environmental conditions that would adversely affect the proposed project use or its occupants. According to the Town's Board Findings, the proposed project is a "welldesigned and handsomely landscaped development" that "will be an asset to the neighborhood, which consists of a mix of vacant, residential, and commercial uses." They also noted that Subject Property has a "close proximity" to "complementary uses - residential, retail, and service." This proposed project will provide an opportunity to create much-needed affordable housing on an ideal, vacant, infill site. The benefits of this proposed project to the local economy and low-income community in the Town of Shallotte cannot be understated.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]:

This site was chosen as the most suitable for the proposed project. According to the Town's Board Findings, the proposed project is an "appropriate and harmonious use for the Smith Avenue corridor, and will contribute to the vibrancy of the area's existing mix of residential and commercial uses." Alternatives sites were explored in Shallotte, but ultimately the Arnold Street site was chosen due to its high scoring potential in the metrics of the 2021 QAP in light of other sites as well as its lack of environmental and design constraints. The alternative sites reviewed had a variety of other challenges including the potential for environmental obstacles making their viability less clear as well as floodplain concerns. Some alternative sites were removed from consideration due to price concerns as well as the general layout constraints of the site. Other sites which were considered but ultimately rejected due to factors discussed above were located on Old Holden Beach Rd and Village Point Rd in the Town of Shallotte.

No Action Alternative [24 CFR 58.40(e)]:

With the No Action Alternative, affordable housing would not be provided for low- and moderate-income families in the local community. The Town would need to find other options to address the shortage in affordable housing inventory exacerbated by the effects of hurricanes that recently damaged or destroyed hundreds of homes in North Carolina. In the absence of the proposed project, the site is likely to remain vacant and will not be generating tax revenue, creating affordable housing for residents, and improving the character and neighborhood dynamics of the area, which are of greater benefit to the community than leaving the property vacant. Thus, the "No Action" Alternative is not feasible in relation to the desired objective of creating affordable housing options in the Town.

Summary of Findings and Conclusions:

The preceding Statutory Checklist and Environmental Assessment Checklist, and the discussion below, document that the proposed project work will comply with regulations in 24 CFR part 58 and that there are no direct or cumulative adverse environmental impacts anticipated as a result of the proposed project.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]:

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Any change to the approved scope of work will require re-evaluation by the Certifying Officer for compliance with NEPA and other laws and Executive Orders.

This review does not address all federal, state, and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state, and local environmental permits and clearances may jeopardize federal funding. Guidelines, recommendations, and requirements identified during agency and the State Environmental Clearinghouse inter-agency review shall be considered and required, where applicable.

Law, Authority, or Factor	Mitigation Measures
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Construction-related activities (land clearing, grading) can cause short-term exposures to sensitive receptors from particulate matter (PM 10) such as fugitive dust and emissions from construction equipment. Mitigation measures for dust control will be implemented to reduce potential impacts to air quality during construction. The proposed project will conform to NC Air Quality Management regulations during and following construction. The contractor will use Best Management Practices (BMPs) to reduce fugitive dust generation and diesel emissions. BMPs can include wetting the grading site during dry conditions; maintaining vegetative cover as much as possible around cleared areas; a water truck to stabilize potential dust during high traffic times or high wind days on heavily- travelled access roads and storage areas; and operating construction vehicles and machinery at reduced speeds to reduce soil disturbance and fugitive dust potential. BMPs to mitigate the generation of emissions during construction include limiting use of vehicles and other machinery to construction hours only and removal once construction is completed.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	If trees are not removed before the official USFWS Tricolored Bat listing, then the Grant Recipient, its developer, and contractors will ensure the tree cutting activities are performed in strict accordance with the applicable rules for the Tricolored Bat.

Noise Abatement and Control	
Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Short-term construction work will adhere to local noise control standards/regulations. Construction noise will be limited to daytime hours. Construction equipment will be required to meet sound control requirements.
Hazards and Nuisances including Site Safety and Site- Generated Noise	See also the Clean Air Act section's mitigation measures.
Solid Waste Disposal / Recycling	Construction debris will be taken to an appropriate, legally compliant landfill. The NC DEQ DWM, Solid Waste Section (Section) stated in its comments that "it is recommended that during any land clearing, demolition, and construction, Garnet Place 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 projects that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility permitted by the Division. The Section strongly recommends that Garnet Place require all contractors to provide proof of proper disposal for all generated waste to permitted facilities." According to the NC DEQ comments through the State Environmental Clearinghouse, "[d]emolition 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." In addition, any open burning associated with proposed project must be in compliance with 15A NCAC 2D.1900.
Unique Natural Features, Water Resources	No development will be done in the RPW along the northern portions of the Subject Property. Proper BMPs will be implemented during construction activities to prevent significant erosion from occurring and impacting water resources. An Erosion and Sedimentation Control Plan for the proposed project is being developed. However, it is unlikely that silt erosion from this proposed project will migrate into offsite surface waters due to the distance from the Subject Property. The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An Erosion and Sedimentation Control Plan will be required if one or more acres are to be disturbed. The 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. In addition, compliance with 15A NCAC 2H 1000-State Stormwater Permitting Programs that regulate site development and postconstruction stormwater runoff control might be required. Areas subject to these permit programs include all 20 coastal counties, and various other counties and watersheds throughout the state. The Town of Shallotte commented that the landscape plans and stormwater plans for the site were deemed sufficient. <i>(See Unique Natural Features, Water Resources section.)</i>

The proposed project activities will be completed in accordance with all applicable federal, State, and local laws, regulations, and permit requirements and conditions. Permits required for this proposed	
project shall be obtained before commencing work and appended the ERR when received from the permitting agencies.	

Determination:

Finding of No Significant Impact [24 CFR 58.40(g)(1); 40 CFR 15 The project will not result in a significant impact on the quality of the hum	-
Finding of Significant Impact [24 CFR 58.40(g)(2); 40 CFR 1508.2 The project may significantly affect the quality of the human environment.	-
Preparer Signature: Andrea Diwers	Date: <u>4/18/23</u>
Name/Title/Organization: <u>Andrea Gievers, Environmental SME, N</u>	CORR
Certifying Officer Signature: Lawa H. Hogsluad	Date: 4/18/2023
Name/Title: Laura H. Hogshead, Director, NCORR	

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

ATTACHMENT 1:

Proposed Project Location Maps and Site Plans

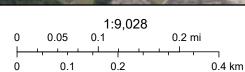
Garnet Place - Aerial Map



October 12, 2022



garnet place (1)



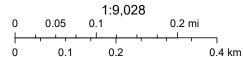
 \circledcirc 2022 Microsoft Corporation \circledcirc 2022 Maxar $\circledcirc CNES$ (2022) Distribution Airbus DS \circledcirc 2022 TomTom

Garnet Place - Street Map



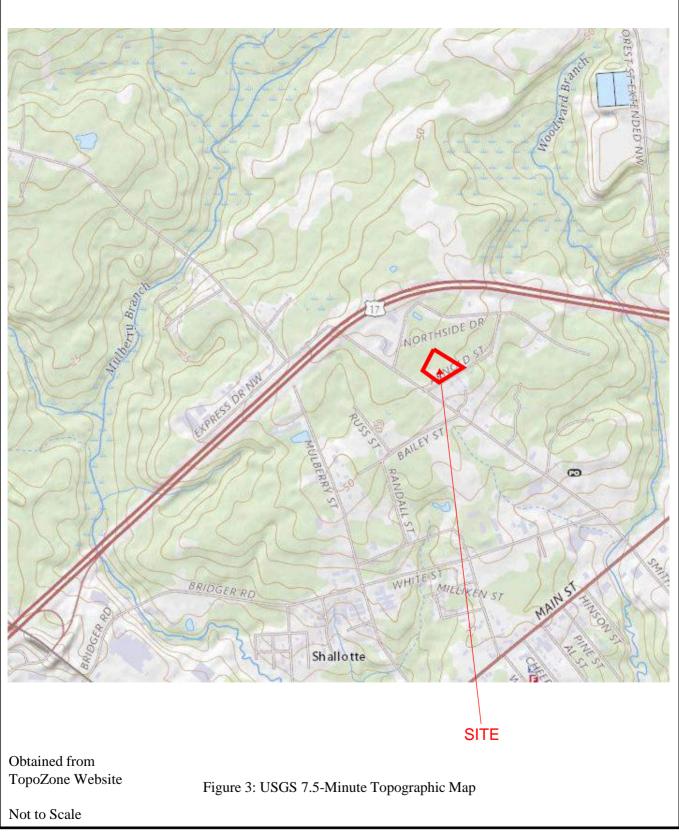
October 12, 2022

garnet place (1)



Esri Community Maps Contributors, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph,

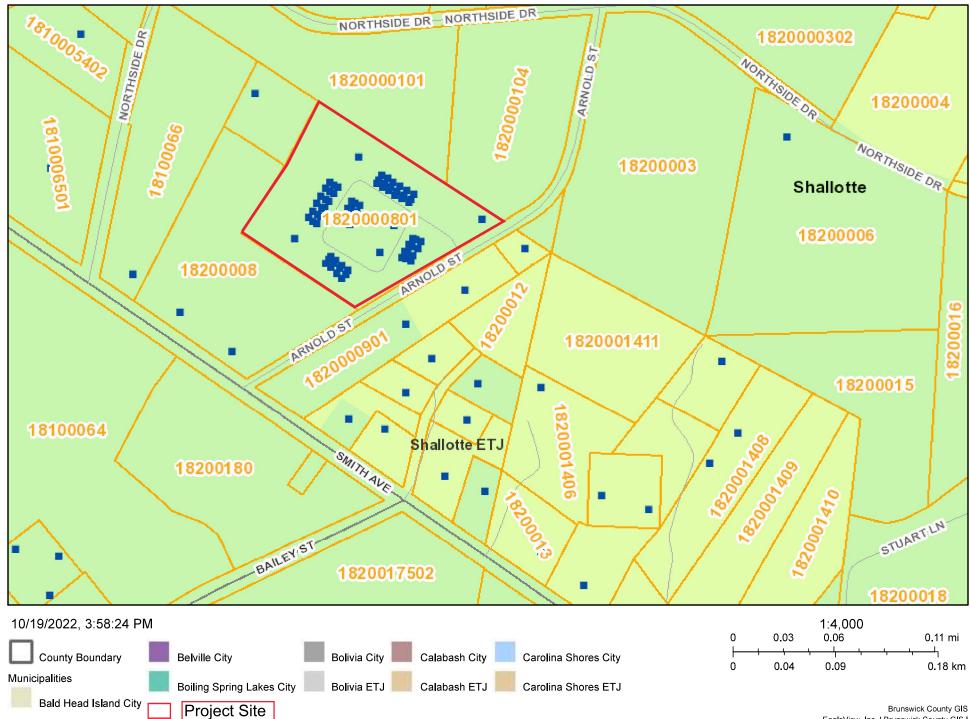
N|V|5

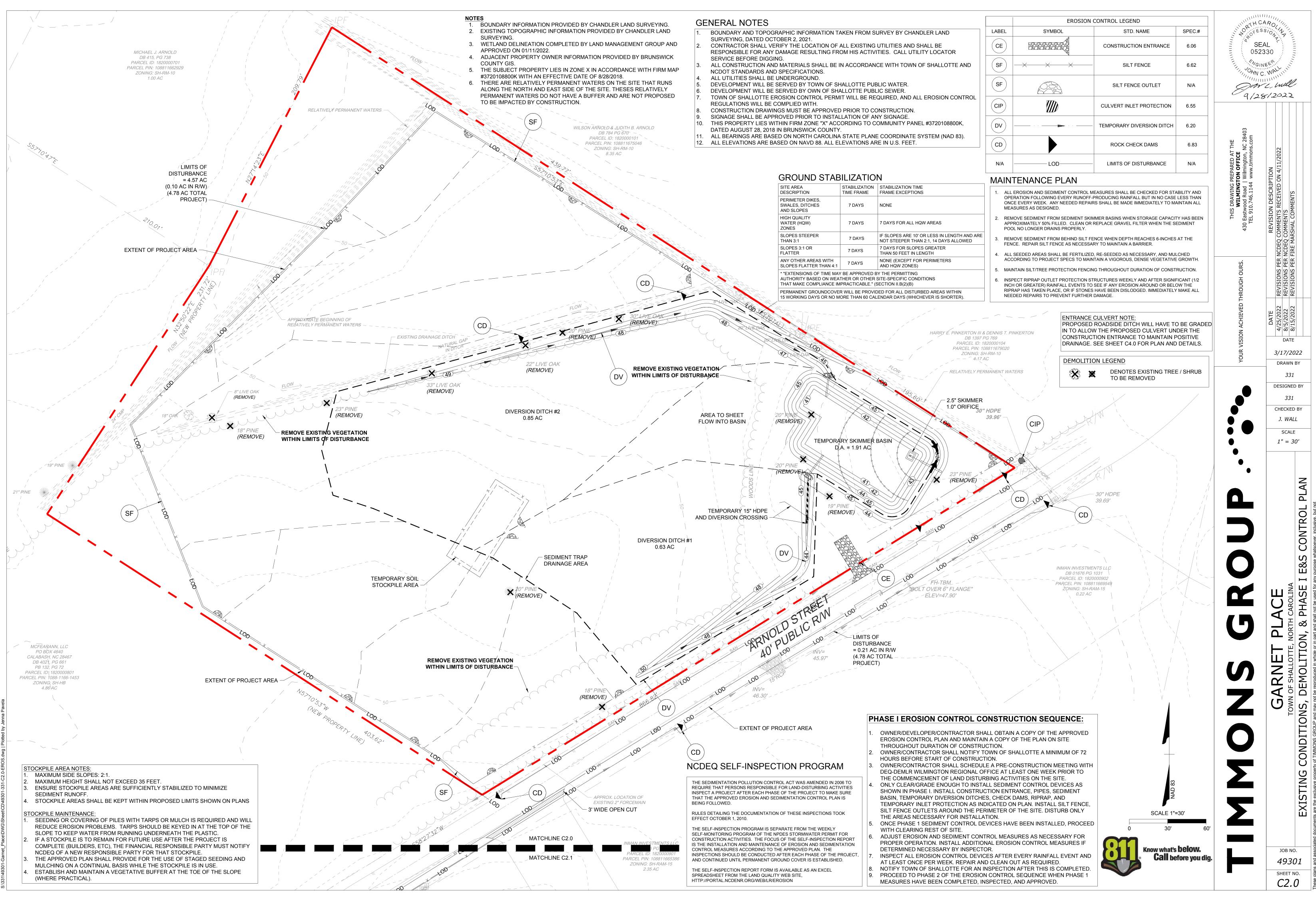


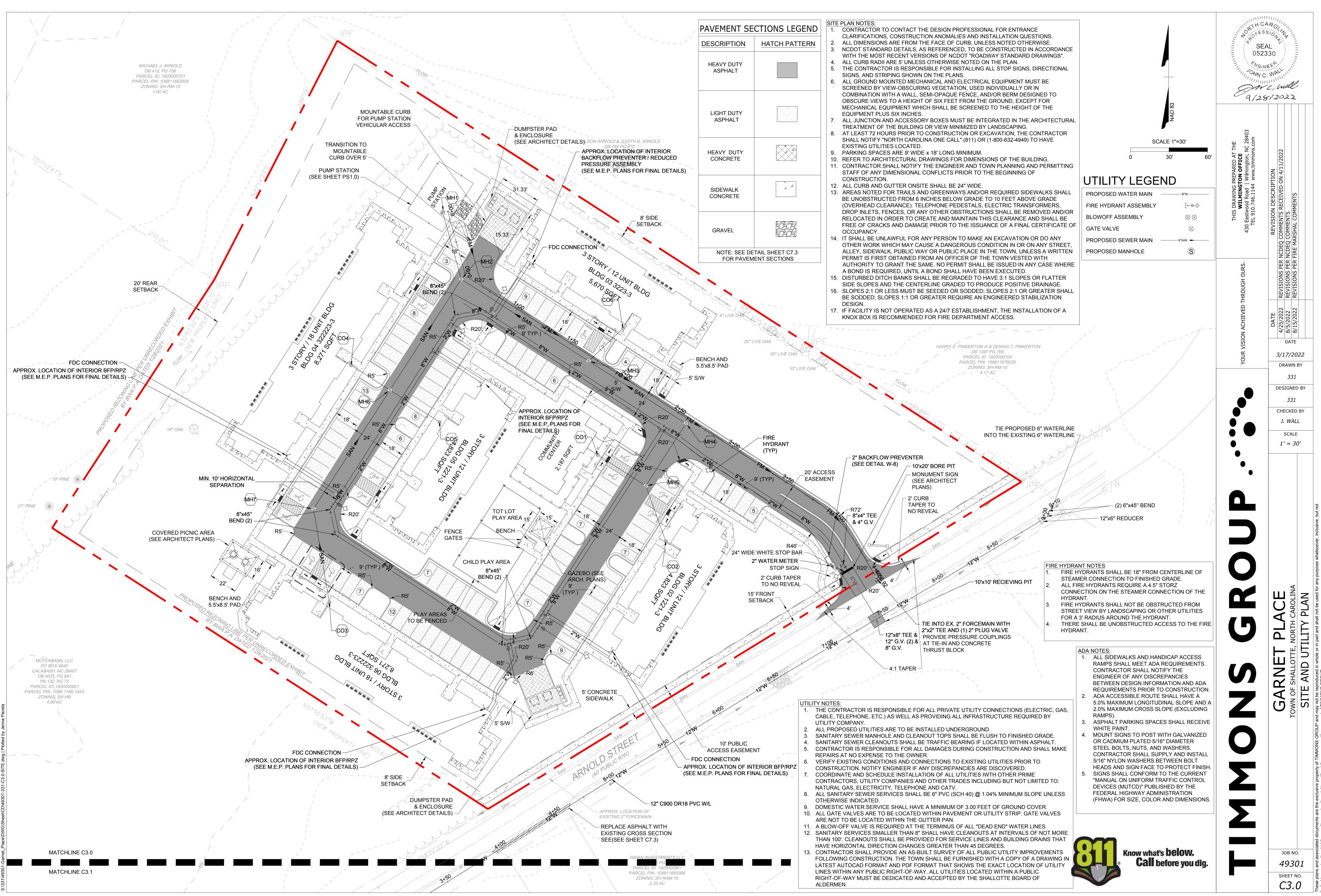
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Garnet Place - Brunswick County Parcel Viewer







ATTACHMENT 1A:

Site Visit Photographs from Phase I ESA performed on original parent property (9.88 acres)

<u>N | V | 5</u>



Photograph 1: Subject site, as viewed from the northeast along Arnold Street.

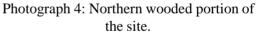


Photograph 2: Typical view of the subject site.



Photograph 3: Southern portion of the subject site.







Photograph 5: Sump pump cover, located in southern portion of the site.



Photograph 6: Interior of sump pump.

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<u>N | V | 5</u>



Photograph 7: Standing water in the creek along the northern portion of the site.



Photograph 8: Foundation remnants in the southwestern portion of the site.



Photograph 9: Welding and marine supply store to the east of the site.



Photograph 10: Typical residential homes in the vicinity of the site.



Photograph 11: Crane storage yard, as viewed from the site.



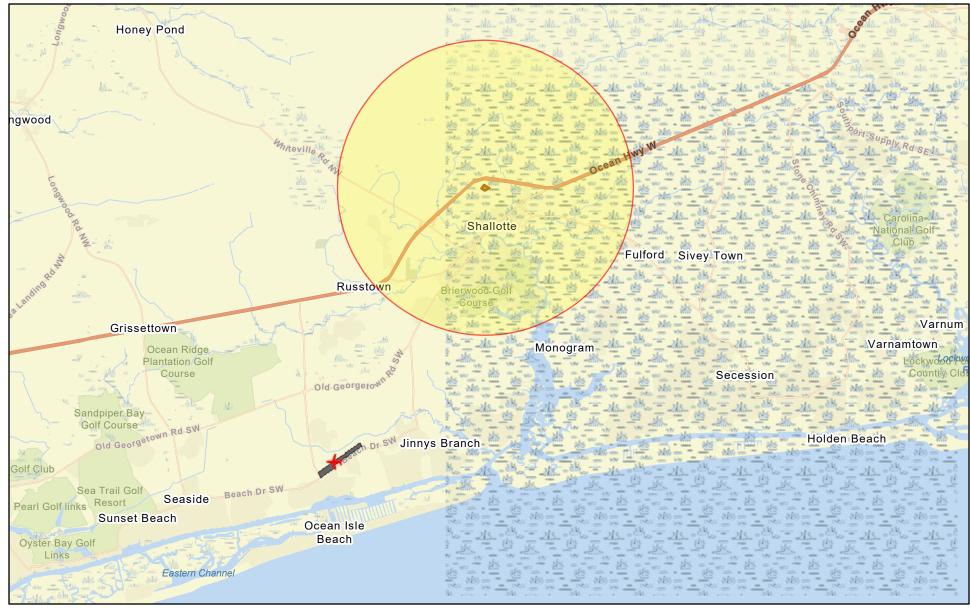
Photograph 12: Crane storage yard, as viewed from Northside Drive.

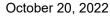
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

ATTACHMENT 2:

NEPAssist Maps with 15,000-foot Buffer Showing Airports

Garnet Place - Airports with 15,000-foot Buffer





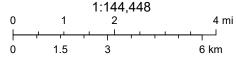
Project Buffer

Garnet Place - Airports with 15,000-foot Buffer

garnet place (1)

Airport Points

Airport Polygons



State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, EPA OEI

ATTACHMENT 3:

USFWS CBRS Map and Certification



U.S. Fish and Wildlife Service Coastal Barrier Resources System

Garnet Place



October 20, 2022

CBRS Units



Otherwise Protected Area

System Unit

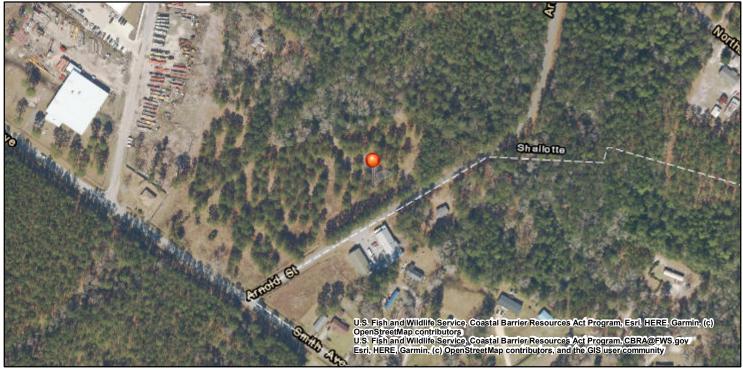
This map is for general reference only. The Coastal Barrier Resources System (CBRS) boundaries depicted on this map are representations of the controlling CBRS boundaries, which are shown on the official maps, accessible at https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps. All CBRS related data should be used in accordance with the layer metadata found on the CBRS Mapper website.

The CBRS Buffer Zone represents the area immediately adjacent to the CBRS boundary where users are advised to contact the Service for an official determination (<u>https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation</u>) as to whether the property or project site is located "in" or "out" of the CBRS.

CBRS Units normally extend seaward out to the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward This page was produced by the CBRS Mapper

U.S. Fish and Wildlife Service

Coastal Barrier Resources System Mapper Documentation



CBRS Units

- Otherwise Protected Area
- System Unit

CBRS Buffer Zone

-78.384681, 33.986285

0 65 130 260 390 ft

• The pin location displayed on the map is a point selected by the user. Failure of the user to ensure that the pin location displayed on this map correctly corresponds with the user supplied address/location description below may result in an invalid federal flood insurance policy. The U.S. Fish and Wildlife Service (Service) has not validated the pin location with respect to the user supplied address/location description below. The Service recommends that all pin locations be verified by federal agencies prior to use of this map for the provision or denial of federal funding or financial assistance . Please note that a structure bisected by the Coastal Barrier Resources System (CBRS) boundary (i.e., both "partially in" and "partially out") is within the CBRS and therefore affected by CBRA's restrictions on federal flood insurance. A pin placed on a bisected structure must be placed on the portion of the structure within the unit (including any attached features such as a deck or stairs).

User Name: Andrea Gievers User Organization: NCORR User Supplied Address/Location Description: Garnet Place, 271 Smith Avenue, Shallotte, NC 28470 Pin Location: Outside CBRS Pin Flood Insurance Prohibition Date: N/A Pin System Unit Establishment Date: N/A

The user placed pin location is not within the CBRS. The official CBRS maps are accessible at https://www.fws.gov/library/collections/official-coastal-barrier-resources-system-maps .

The CBRS information is derived directly from the CBRS web service provided by the Service. This map was exported on 10/20/2022 and does not reflect changes or amendments subsequent to this date. The CBRS boundaries on this map may become superseded by new boundaries over time.

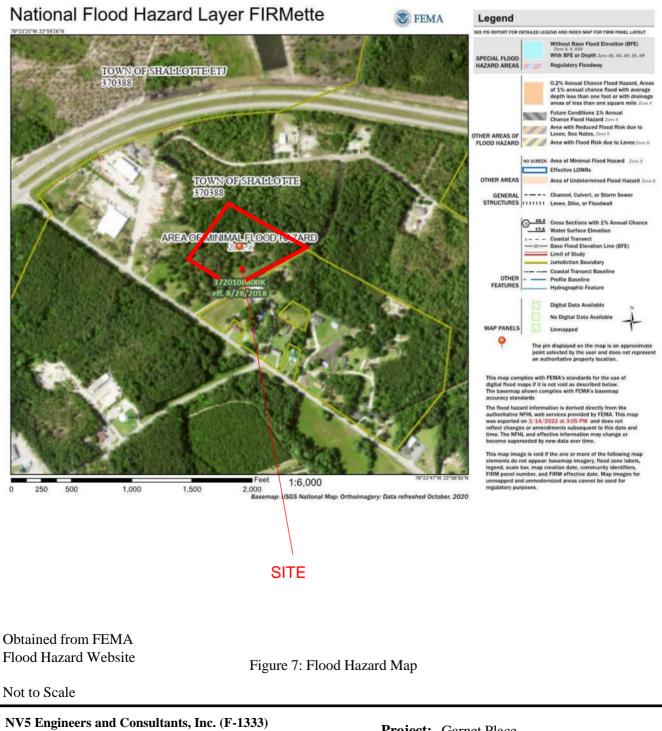
This map image may be void if one or more of the following map elements do not appear: basemap imagery, CBRS unit labels, prohibition date labels, legend, scale bar, map creation date. For additional information about flood insurance and the CBRS, visit: <u>https://www.fws.gov/node/263838</u>.



ATTACHMENT 4:

FEMA FIRMs with Parcel Boundary

N | V | 5



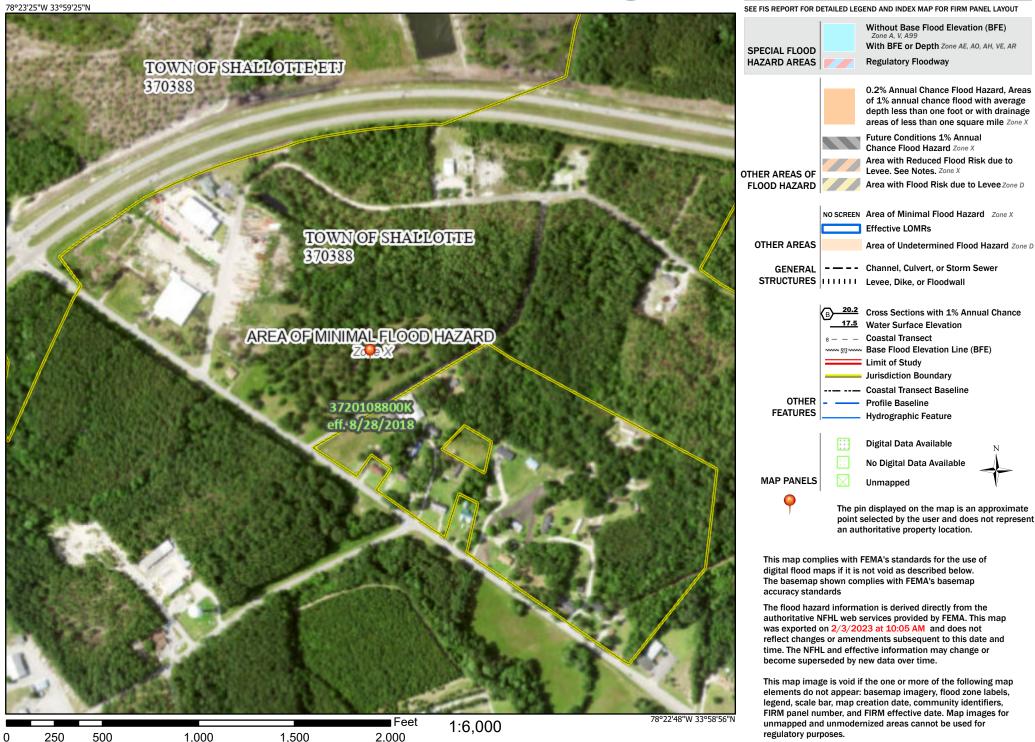
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

National Flood Hazard Layer FIRMette

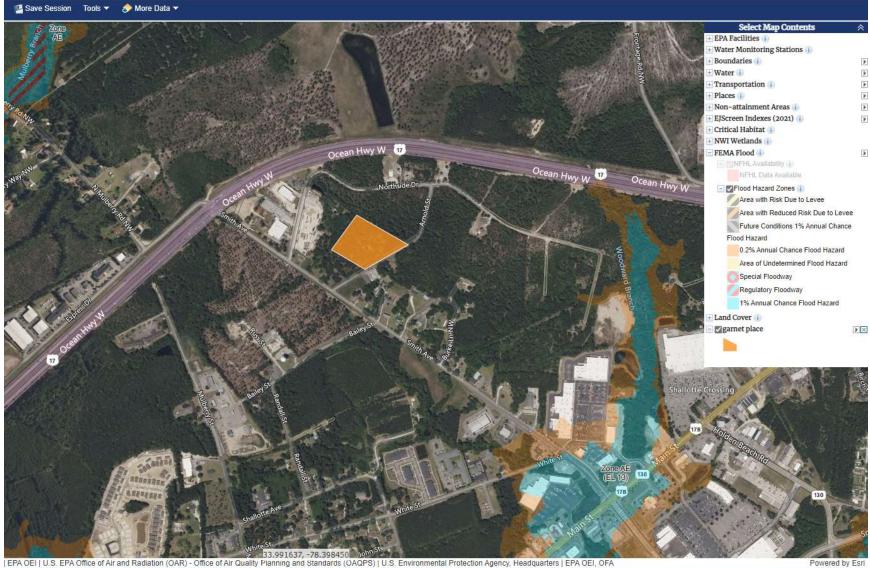


Legend



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Garnet Place – FEMA FIRM



Powered by Esri

ATTACHMENT 5:

North Carolina Nonattainment/ Maintenance Status for Each County by Year for All Criteria Pollutants and EPA NC Radon Level Map You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

North Carolina Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of March 31, 2023

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 μg/m³) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:

Brunswick County is not listed below.

Important N	lotes		Download	National Datas	set: dbf xls	Data	a dictionary	(PDF)
County		Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
NORTH C	CAROLINA	L						
Cabarrus County	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	178,011	37/025
Cabarrus County	8-Hour Ozone (2008)	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Part	176,928	37/025
Catawba County	PM-2.5 (1997)- NAAQS revoked	Hickory- Morganton- Lenoir, NC	050607080910	12/19/2011 *	Former Subpart 1	Whole	154,358	37/035
Chatham County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Part	32,372	37/037
Davidson County	1-Hour Ozone (1979)- NAAQS revoked	Greensboro- Winston- Salem-High Point, NC	02	11/08/1993	Moderate	Whole	162,878	37/057
Davidson County	PM-2.5 (1997)- NAAQS revoked	Greensboro- Winston Salem-High Point, NC	050607080010	12/19/2011 *	Former Subpart 1	Whole	162,878	37/057

County	NAAQS	Area Name		Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Davie County	1-Hour Ozone (1979)- NAAQS revoked	Greensboro- Winston- Salem-High Point, NC		11/08/1993	Moderate	Part	1	37/059
Durham County	NAAQS revoked	Raleigh- Durham, NC	9293	06/17/1994	Moderate	Whole	267,587	37/063
Durham County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	267,587	37/063
Durham County	Monoxide	Raleigh- Durham, NC	929394	09/18/1995	Moderate <= 12.7ppm	Whole	267,587	37/063
Edgecombe County	8-Hour Ozone (1997)- NAAQS revoked	Rocky Mount, NC	040506	01/05/2007	Former Subpart 1	Whole	56,552	37/065
Forsyth County	1-Hour Ozone (1979)- NAAQS revoked	Greensboro- Winston- Salem-High Point, NC	92	11/08/1993	Moderate	Whole	350,670	37/067
Forsyth County	Carbon	Winston- Salem, NC	9293	11/07/1994	Moderate <= 12.7ppm	Whole	350,670	37/067
Franklin County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	60,619	37/069
Gaston County	1-Hour Ozone (1979)- NAAQS revoked		929394	07/05/1995	Moderate	Whole	206,086	37/071
Gaston County	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	206,086	37/071
Gaston County	8-Hour Ozone	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Part	190,849	37/071

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Granville County	1-Hour Ozone (1979)- NAAQS revoked	Raleigh- Durham, NC	9293	06/17/1994	Moderate	Part	17,725	37/077
Granville County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	59,916	37/077
Guilford County	1-Hour Ozone (1979)- NAAQS revoked	Salem-High Point, NC	92	11/08/1993	Moderate	Whole	488,406	37/081
Guilford County	PM-2.5 (1997)- NAAQS revoked	Greensboro- Winston Salem-High Point, NC	050607080910	12/19/2011 *	Former Subpart 1	Whole	488,406	37/081
Haywood County	8-Hour Ozone (1997)- NAAQS revoked	Haywood and Swain Counties (Great Smoky NP), NC	040506070809	01/06/2010	Former Subpart 1	Part	985	37/087
Iredell County	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Part	68,089	37/097
Iredell County	8-Hour Ozone (2008)	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Part	65,899	37/097
Johnston County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	168,878	37/101
Lincoln County	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	78,265	37/109
Lincoln County	8-Hour Ozone (2008)	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Part	64,189	37/109

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Mecklenburg County	1-Hour Ozone (1979)- NAAQS revoked	Charlotte- Gastonia, NC	929394	07/05/1995	Moderate	Whole		37/119
Mecklenburg County	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	919,628	37/119
County	(2008)	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Whole	919,628	37/119
County	(17/1)	e ^{Charlotte,} NC	929394	09/18/1995	Not Classified	Whole	919,628	37/119
Nash County	8-Hour Ozone 7(1997)- NAAQS revoked	Rocky Mount, NC	040506	01/05/2007	Former Subpart 1	Whole	95,840	37/127
Orange County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	, 040506	12/26/2007	Former Subpart 1	Whole	133,801	37/135
Person County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	, 040506	12/26/2007	Former Subpart 1	Whole	39,464	37/145
Rowan County	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	138,428	37/159
Rowan County	8-Hour Ozone (2008)	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Part	130,057	37/159
	8-Hour Ozone (1997)- NAAQS revoked	Haywood and Swain Counties (Great Smoky NP), NC	, 040506070809	01/06/2010	Former Subpart 1	Part	3,288	37/173
Union	8-Hour Ozone (1997)- NAAQS revoked	Charlotte- Gastonia- Rock Hill, NC-SC	04050607080910111213	01/02/2014	Moderate	Whole	201,292	37/179

County	NAAQS	Area Name		Redesignation to Maintenance	Classification	Whole or/ Part County	Population (2010)	State/ County FIPS Codes
Union County	(2008)	Charlotte- Rock Hill, NC-SC		08/27/2015	Marginal	Part	176,055	37/179
Wake County	1-Hour Ozone (1979)- NAAQS revoked		9293	06/17/1994	Moderate	Whole	900,993	37/183
Wake County	8-Hour Ozone (1997)- NAAQS revoked	Raleigh- Durham- Chapel Hill, NC	040506	12/26/2007	Former Subpart 1	Whole	900,993	37/183
Wake County	Carbon Monoxide (1971)	Raleigh- Durham, NC	929394	09/18/1995	Moderate <= 12.7ppm	Whole	900,993	37/183

Important Notes

Discover.

Connect.

Ask.

Follow.

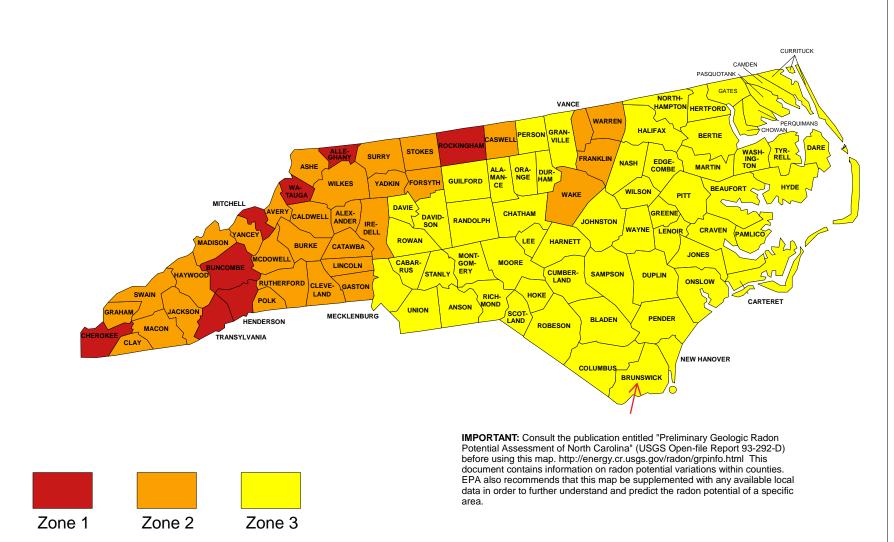
2023-03-31

NORTH CAROLINA - EPA Map of Radon Zones

The purpose of this map is to assist National, State and local organizations to target their resources and to implement radon-resistant building codes.

This map is not intended to determine if a home in a given zone should be tested for radon. Homes with elevated levels of radon have been found in all three zones.

All homes should be tested, regardless of zone designation.



http://www.epa.gov/radon/zonemap.html

ATTACHMENT 6:

Division of Coastal Zone Management Counties List and Map and NC DCM Correspondence



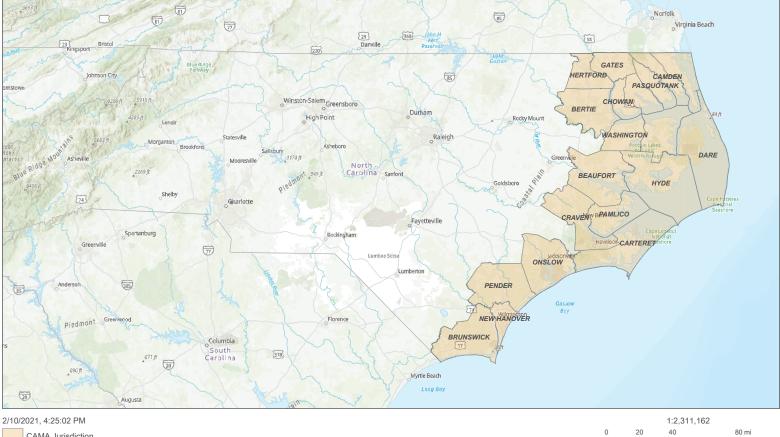
CAMA Counties

The following counties are subject to the rules and policies of the Coastal Resources Commission, which administers the Coastal Area Management Act. If you are planning to develop in one of these counties, check to see whether your project is also in an <u>Area of</u> <u>Environmental Concern (https://deq.nc.gov/about/divisions/coastal-management/coastalmanagement-rules/coastal-development-rules)</u>. If it is, you may need a CAMA permit.

CAMA Counties		
 Beaufort Bertie Brunswick Camden Carteret Chowan Craven Currituck Dare Gates 	 Hertford Hyde New Hanover Onslow Pamlico Pasquotank Pender Perquimans Tyrrell Washington 	

Showing 1 to 1 of 1 entries

About Coastal Management



Division of Coastal Management

CAMA Jurisdiction

0 37.5 75 150 km

Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS, Esri, USGS

Map generated using the North Carolina Department of Environmental Quality - Division of Coastal Management Interactive Map Viewer online at https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html.

NC Department of Environmental Quality 2017

Gievers, Andrea

From:	Govoni, Daniel
Sent:	Wednesday, December 28, 2022 11:04 AM
То:	Gievers, Andrea
Subject:	RE: CZMA Federal Consistency Determination Request - Garnet Place DCM2022064

Hello Andrea,

North Carolina's coastal zone management program consists of, but is not limited to, the Coastal Area Management Act, the State's Dredge and Fill Law, Chapter 7 of Title 15A of North Carolina's Administrative Code, and the land use plan of the County and/or local municipality in which the proposed project is located. It is the objective of the Division of Coastal Management (DCM) to manage the State's coastal resources to ensure that proposed federal actions would be compatible with safeguarding and perpetuating the biological, social, economic, and aesthetic values of the State's coastal waters.

DCM has reviewed the submitted information pursuant to the management objectives and enforceable policies of Subchapters 7H and 7M of Chapter 7 in Title 15A of the North Carolina Administrative Code and concurs that the proposed activity is consistent with North Carolina's approved coastal management program.

Prior to the initiation of the activities described, the applicant should obtain any other required State approvals or authorizations. Should the proposed action be modified further, a revised consistency determination could be necessary. This might take the form of either a supplemental consistency determination pursuant to 15 CFR 930.46, or a new consistency determination pursuant to 15 CFR 930.36. Likewise, if further project assessments reveal environmental effects not previously considered, a supplemental consistency certification may be required. If you have any questions, please contact me at (252) 515-5435. Thank you for your consideration of the North Carolina Coastal Management Program.

Daniel M. Govoni Policy Analyst Federal Consistency Coordinator NC Division of Coastal Management Department of Environmental Quality

252-515-5435 Daniel.Govoni@ncdenr.gov

400 Commerce Avenue Morehead City, NC 28557

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Sent: Thursday, October 20, 2022 5:37 PM
To: Govoni, Daniel <daniel.govoni@ncdenr.gov>
Subject: CZMA Federal Consistency Determination Request - Garnet Place

Hello Dan:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed *affordable housing* project, **Garnet Place located at 271 Smith Avenue, Shallotte, NC**

28470 (Brunswick County Parcel #1820000801). I have attached the Determination Request Letter and supporting documentation to assist in your review. Please feel free to contact me if you have any questions. Thank you so much for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM Environmental SME Community Development NC Office of Recovery and Resiliency <u>Andrea.L.Gievers@Rebuild.NC.Gov</u> (845) 682-1700

Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

Gievers, Andrea

From:	Gievers, Andrea
Sent:	Thursday, October 20, 2022 5:37 PM
То:	Govoni, Daniel
Subject:	CZMA Federal Consistency Determination Request - Garnet Place
Attachments:	NCORR CZMA Federal Consistency Letter Garnet Place pkg.pdf

Hello Dan:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed *affordable housing* project, **Garnet Place located at 271 Smith Avenue, Shallotte, NC 28470 (Brunswick County Parcel #1820000801)**. I have attached the Determination Request Letter and supporting documentation to assist in your review. Please feel free to contact me if you have any questions. Thank you so much for your time and assistance.

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM Environmental SME Community Development NC Office of Recovery and Resiliency <u>Andrea.L.Gievers@Rebuild.NC.Gov</u> (845) 682-1700



Office of Recovery and Resiliency

Roy Cooper, Governor Eddie M. Buffaloe, Jr., Secretary Laura H. Hogshead, Director

October 20, 2022

Mr. Daniel Govoni Federal Consistency Coordinator NC Division of Coastal Management 400 Commerce Avenue Morehead City, NC 28557-3421

RE: CZMA Federal Consistency Determination Request Submission Proposed Garnet Place 271 Smith Avenue Shallotte, NC 28470 (Brunswick County Parcel #1820000801)

Sent via Email to: <u>daniel.govoni@ncdenr.gov</u> State.Clearinghouse@doa.nc.gov

Dear Mr. Govoni:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed affordable housing project, **Garnet Place** located at **271 Smith Avenue**, **Shallotte**, **NC 28470** (**Brunswick County Parcel #1820000801**). The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low-income families. Therefore, funding for the proposed project will be provided in part by the HUD CDBG-DR North Carolina Affordable Housing Development Fund Program for Hurricane Florence storm recovery activities in North Carolina. NCORR is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58, and processes environmental reviews for proposed projects on a case-by-case basis. This letter serves as an official request for concurrence from NC DCM that the proposed activity is consistent with North Carolina's approved coastal management program pursuant to the management objectives and

Mailing Address: Post Office Box 110465 Durham, NC 27709



Phone: (984) 833-5350 www.ncdps.gov www.rebuild.nc.gov

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enforceable policies of Subchapters 7H and 7M of Chapter 7 in Title 15A of the North Carolina Administrative Code.

Proposed Project Location:

The proposed project site (Subject Property) is an approximately 5.2-acre, newly subdivided Brunswick County Parcel #1820000801, and located at 271 Smith Avenue, Shallotte, NC 28470. (The original parent property consisted of two parcels, approximately 9.88 acres, previously recorded as Brunswick County Parcel #18200008 and #1820000801.) The proposed project location maps are included in Attachment 1 for your review. The parcel has been zoned Multi-Family (MF-14) with a Special Use Permit from the Town of Shallotte. The proposed project site is not located within a special flood hazard zone.

The original 9.88-acre vacant land was previously developed with two residential structures from at least the late 1930s until 1999. In the aerial photographs taken between 1956 and 2019, there are mixed wooded and cleared agricultural areas with two residential homes located along Smith Avenue. Aerial photographs indicate that portions of the Subject Property may have been used for agricultural purposes between 1956 and 1983. By 2019, both structures were demolished and the rubble removed from the property. The Subject Property is the 5.2-acre portion subdivided from the original 9.88-acre site, which is relatively flat and sparsely wooded and typically vegetated with grasses and pine trees. The proposed project will be located on property with street frontage on Arnold Street, with Quality Welding to the southeast of the site, wooded and residential areas to the south and north, and B&B Crane Service Shallotte to the west. The proposed development will be a multifamily apartment complex and, therefore, typical clearing and grading will take place on the Subject Property during construction.

Proposed Project Activities:

Garnet Place will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, Brunswick County, North Carolina. The project was awarded Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas. The Town of Shallotte has sewer and water lines in place along Arnold Street to the southeast, and only short connections to the site will be necessary. The buildings and parking lot will be nestled into the existing property fabric, by preserving as much vegetation as possible, provide buffers to adjacent properties, and employing low impact design techniques for stormwater management.

The approximately 5.2-acre project site will be developed as shown in the attached Site Plans. Due to the proposed land disturbance exceeding 1 acre, a NC Division of Energy, Minerals and Land Resources NPDES NCG010000 permit is required and will ensure best management practices, such as installing silt fence, temporary sediment basins/traps and construction entrance, are installed prior undertaking land disturbance activities. The measures will be inspected at least every seven days and/or after a rain event that produces more than one inch of rain within a twenty-four-hour period. Non-potable water will be used to contain dust, during the construction process.

NC and Federal Consistency Review:

Since the proposed project involves new construction of affordable housing, it must be reviewed to determine if there are any reasonably foreseeable effects on coastal uses and/or coastal resources as defined in 15 CFR 930.11. After a comprehensive review of available data, the proposed activity is consistent with the state's coastal zone management program and, pursuant to 15 CFR Part 930, the proposed project is consistent with the requirements objectives, policies, and standards of the Coastal Area Management Act. The proposed project will be undertaken in a manner consistent to the maximum extent practicable with the enforceable policies of the management program.

Brunswick County is one of North Carolina's 20 coastal counties, but is not within an area designated as a Coastal Barrier Resource System Area. NV5 Engineers and Consultants, Inc. (NV5) has reviewed information accessed on the NCDEQ Department of Water Resources website, the NCDEQ NC Surface Water Classifications GIS website, and the Brunswick County CAMA Core Land Use Plan. NV5 has also reviewed information provided by Land Management Group discussing their Section 404/401 Delineation of the subject site. The available information indicated that the Subject Property consists of upland areas with non-jurisdictional ditches and non-stream waters located along the northern boundary of the site. The site sketch does not indicate the presence of wetlands on the subject site.

NV5 has reviewed the provided Section 404/401 delineation sketch, and information online regarding Areas of Environmental Concern related to the presence of the subject site in a Coastal County. NV5's review of available information indicates that:

- The project is not located on a marsh or wetland,
- The project is not located on the shore of navigable waters,
- The project is not located within 75 feet of the normal high water along estuarine shoreline; o Closest waters are Woodward Branch (HQW) approximately 1,800 feet E and NE;

• The site is not located within 575 feet of Outstanding Resource Waters (ORW) as defined by the Environmental Management Commission (Lake Waccamaw closest ORW at 19 miles NNW).

Additionally, review of the site plans indicates that site development will consist of minimal amounts of fill placement and will not include excavation or filling within estuarine waters, tidelands, or state-owned lakes.

The proposed project is compatible with the Brunswick County CAMA Core Land Use Plan (CLUP). As noted in the CLUP, "[t]he swiftly changing demographics, demands for infrastructure, affordable housing, and public service needs will leave Brunswick County with fiscal challenges." "Provide affordable housing" is listed as #14 on the key issues identified at a Brunswick County public information meeting on December 5, 2005, according to the CLUP, page 4. This proposed project aims to ensure affordable housing in a county that recognizes the need for it. According to the CLUP, "Brunswick County and its participating municipalities support provision of diversity in housing including price, style, and type (i.e., single-family/multifamily);" the "County and its participating municipalities will emphasize the provision of workforce/affordable housing;" and "County will explore different approaches to creating an ample workforce/ affordable housing stock within the County." The Town of Shallotte has land

use and zoning jurisdiction over all land in the municipal limits and within the Town's 1-mile extraterritorial jurisdiction (ETJ). The Town of Shallotte is noted as "not participating (including ETJ)" on the Brunswick County Future Land Use Map.

A review of the Coastal Management Policies and Objectives identified that the proposed project does not impact public beaches and waters; development of energy resources and facilities; floating structures; adverse impacts to coastal lands and waters; degradation of water quality; or use of aircraft. State and federal agencies are being consulted individually and through the State Environmental Clearinghouse, and permits will be obtained before ground disturbance occurs. The U.S. Army Corps of Engineers (USACE) was consulted for a potential wetland and manmade drainage ditches on the site. According to the USACE, "[t]here are waters of the U.S. on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344)." There is a 748 LF Jurisdictional Open Water ditch onsite that exhibits an Ordinary High Water Mark (OHWM). There are also 2 non-Jurisdictional Ditches which are 1,162 LF, but this includes area south of the Subject Property towards Smith Avenue. The site plans show the limit of disturbance does not encompass the RPW. No development will be done in the RPW along the northern and northwestern portions of the Site. The USACE was sent the site plans on October 5, 2022, and no additional comment has been received. Any buffer or other requirements from USACE will be complied with. The Subject Property is situated outside of the State Riparian Buffer areas. The Developer is not aware of any additional State buffer requirements for RPWs or ditches (only applicable ditched streams falling within the below areas). The County does have a buffer on perennial streams and ditched perennial streams. However, for ditches and RPWs, the Developer has confirmed with the County that they do not have buffers. From the County's Ordinance Section 1.17 Riparian Buffers: "Ditches and manmade conveyances other than modified natural streams" are exempt. Both the ditch and RPW do not identify with stream or wetland, the 748 LF ditch is an open water feature. They are not ditched/ straightened streams, but rather historically man-made which due to its "relatively permanent" presence of water/flow is still jurisdictional. They also do not occur in a natural drainage way. It is our interpretation that these are not buffered because they are not streams, impoundments in streams (ponds, lakes, reservoirs), or coastal surface waters. The proposed project will likely require the following permits: NCDEQ DWR will be contacted for CWA Section 401 Water Quality Certification(s) including T15A 02H .0500 certifications which are required whenever construction or operation of facilities will result in a discharge into navigable water as described in 33 CFR part 323; NCDEQ NPDES Construction Stormwater Permit (NCG010000), NCDEQ Stormwater Approval, Erosion & Sedimentation Control Approval, NCDOT Tripartite Agreement on Water Lines, NCDEQ Wastewater Extension Permit, and Town building permits.

The proposed project does not involve excavation or filling within estuarine waters, tidelands, or State-owned lakes regulated under North Carolina Dredge and Fill Law (NCGS 113-229). The proposed project site is located approximately 1,800 feet from the Woodward Branch (HQW) and approximately 19 miles from Lake Waccamaw (ORW). Thus, we are requesting during the State Environmental Clearinghouse review whether the proposed project will require a CAMA major, minor or general permit. The proposed project information has been submitted to the State Environmental Clearinghouse for DCM review.

If you have any questions or require additional information regarding this project review request, please feel free to contact Andrea Gievers at (845) 682-1700 or via email at <u>Andrea.L.Gievers@Rebuild.NC.gov</u>. Thank you for your time and assistance.

Sincerely,

andrea Simera

Andrea Gievers, JD, MSEL, ERM NCORR Environmental Subject Matter Expert

Attachments:

- 1. Aerial Map
- 2. Street Map
- 3. USGS Topographic Map
- 4. Brunswick County Parcel Map
- 5. Site Plans
- 6. Town of Shallotte Zoning Letter and original parent parcels map
- 7. Brunswick County Future Land Use Map
- 8. FEMA FIRM Map
- 9. NWI Map, USACE Jurisdictional Determination Letter, and Rapanos JD Form

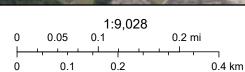
Garnet Place - Aerial Map



October 12, 2022



garnet place (1)



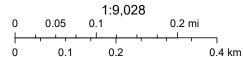
 \circledcirc 2022 Microsoft Corporation \circledcirc 2022 Maxar $\circledcirc CNES$ (2022) Distribution Airbus DS \circledcirc 2022 TomTom

Garnet Place - Street Map



October 12, 2022

garnet place (1)



Esri Community Maps Contributors, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph,

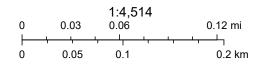
Garnet Place - Topographic Map



October 20, 2022

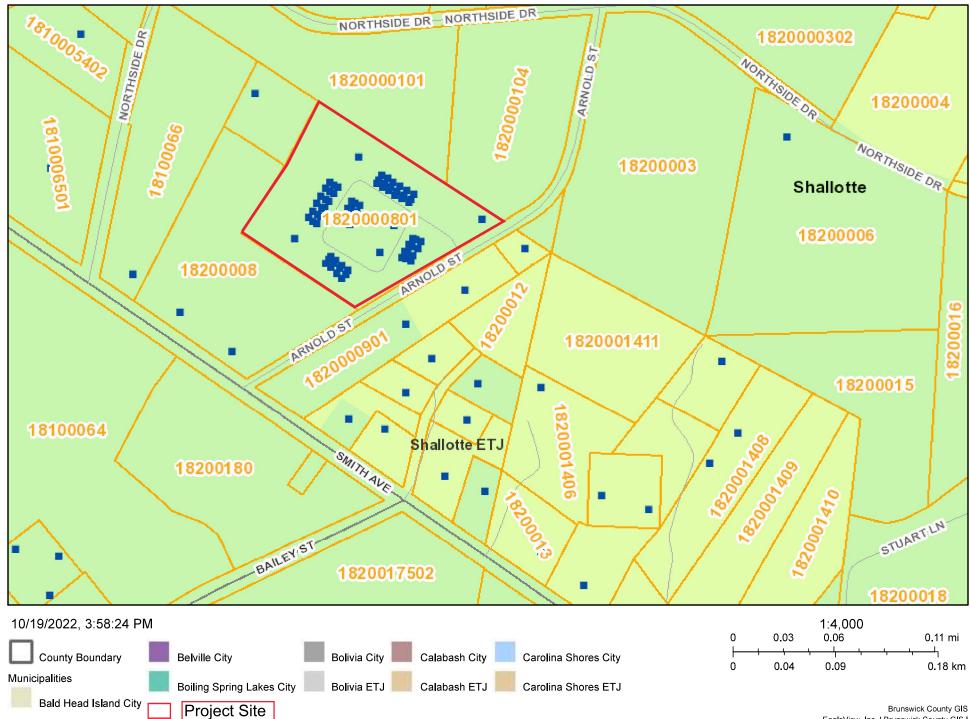
garnet place (1)

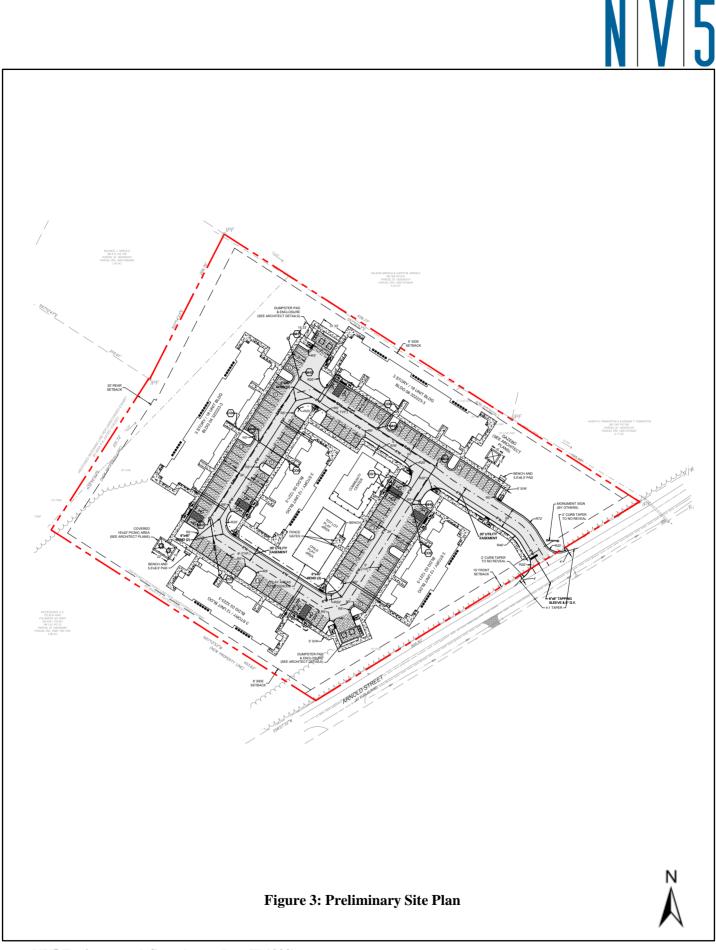


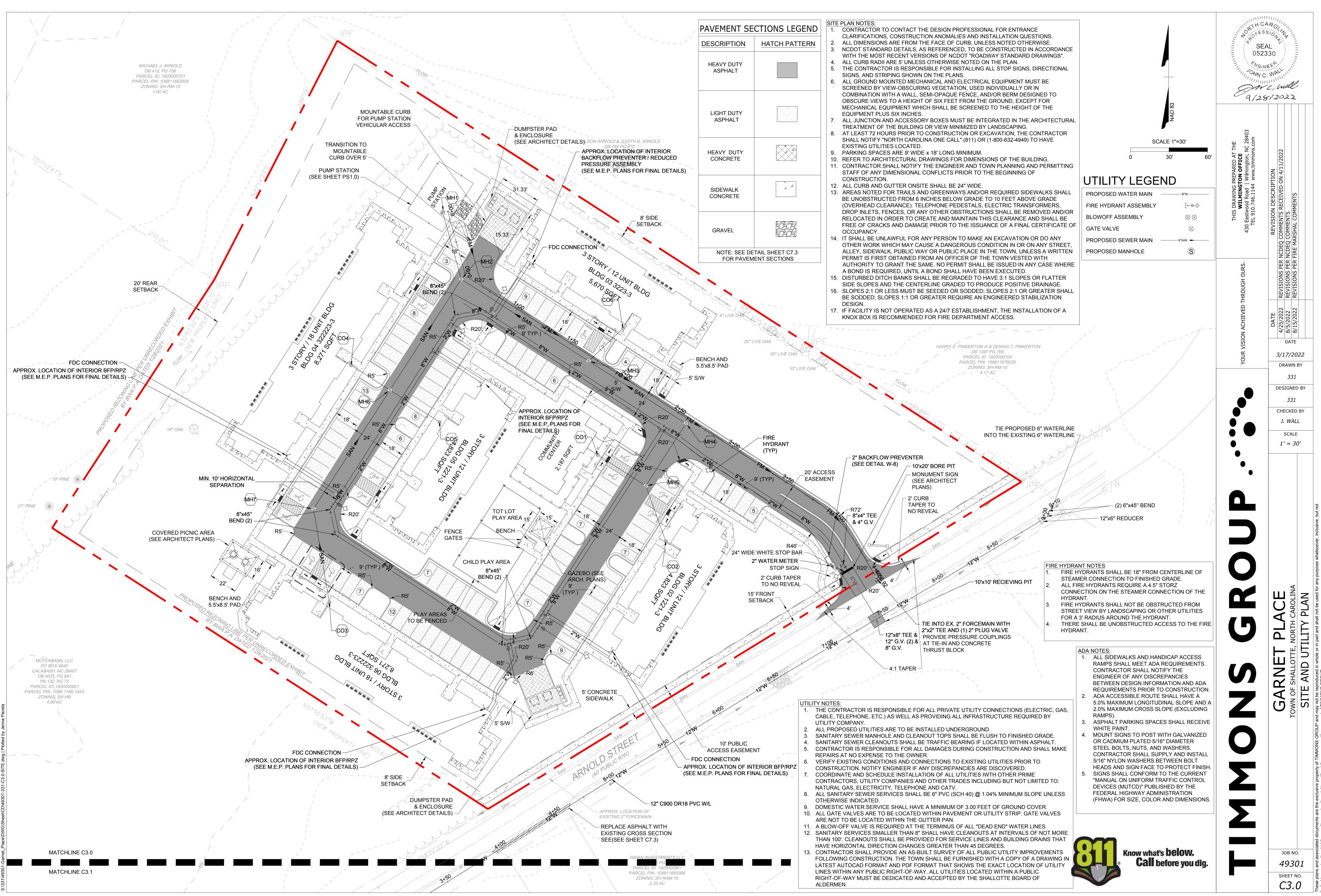


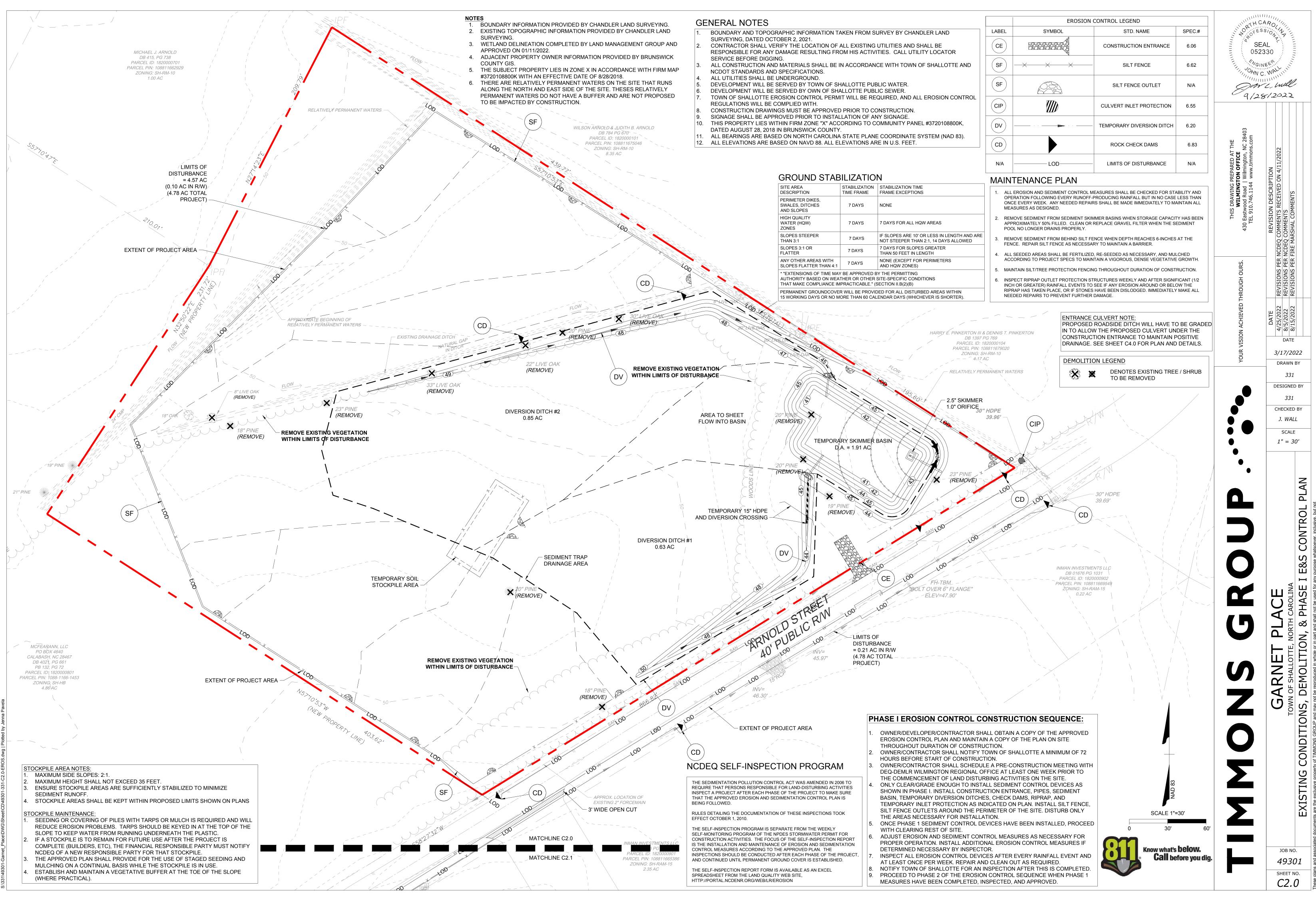
Copyright:© 2013 National Geographic Society, i-cubed

Garnet Place - Brunswick County Parcel Viewer











TOWN OF SHALLOTTE

PLANNING & ZONING DEPARTMENT Post Office Box 2287 • Shallotte, North Carolina 28459 Telephone: (910) 754-4032 • Facsimile: (910) 754-2740

To whom it may concern,

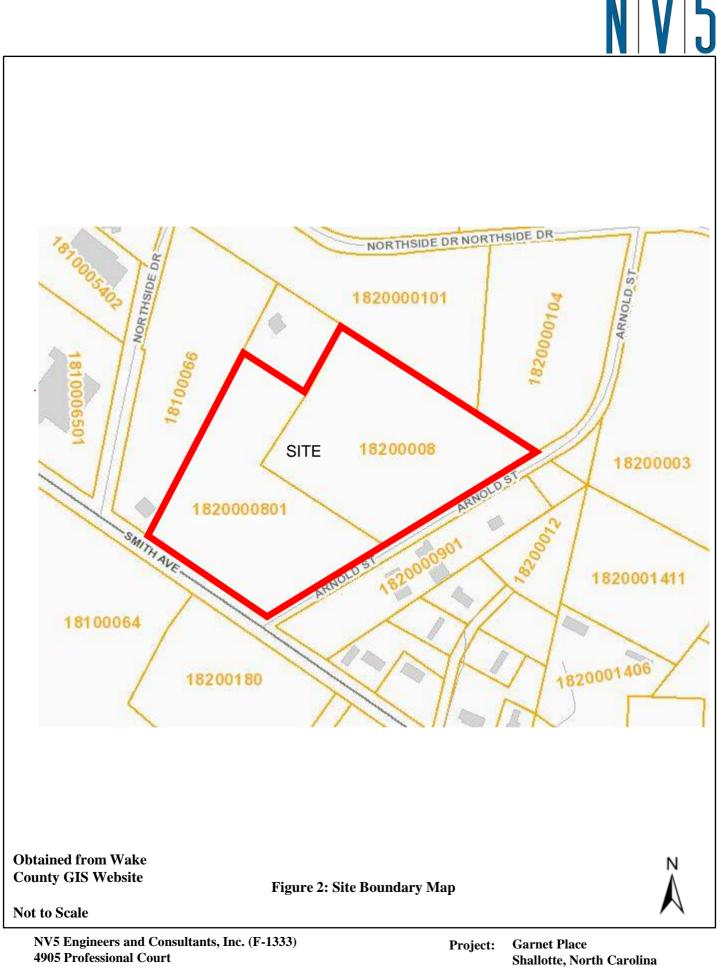
The property in question, located on Arnold Street, (parcel #18200008), is currently zoned Multi Family-14 (MF-14), where multifamily is a special use. As of May 4, 2021 a Special Use Permit was approved by the Board of Alderman for the Garnet Place multifamily development of 72 residential units at the property.

The Town of Shallotte has water and sewer capacity to serve the proposed multi-family residential development on Arnold Street and will serve. The property does affirmatively have frontage that abuts the public right of way (Arnold Street) within which the public water and sewer lines are located.

If you have any additional questions, please contact me at the contact below.

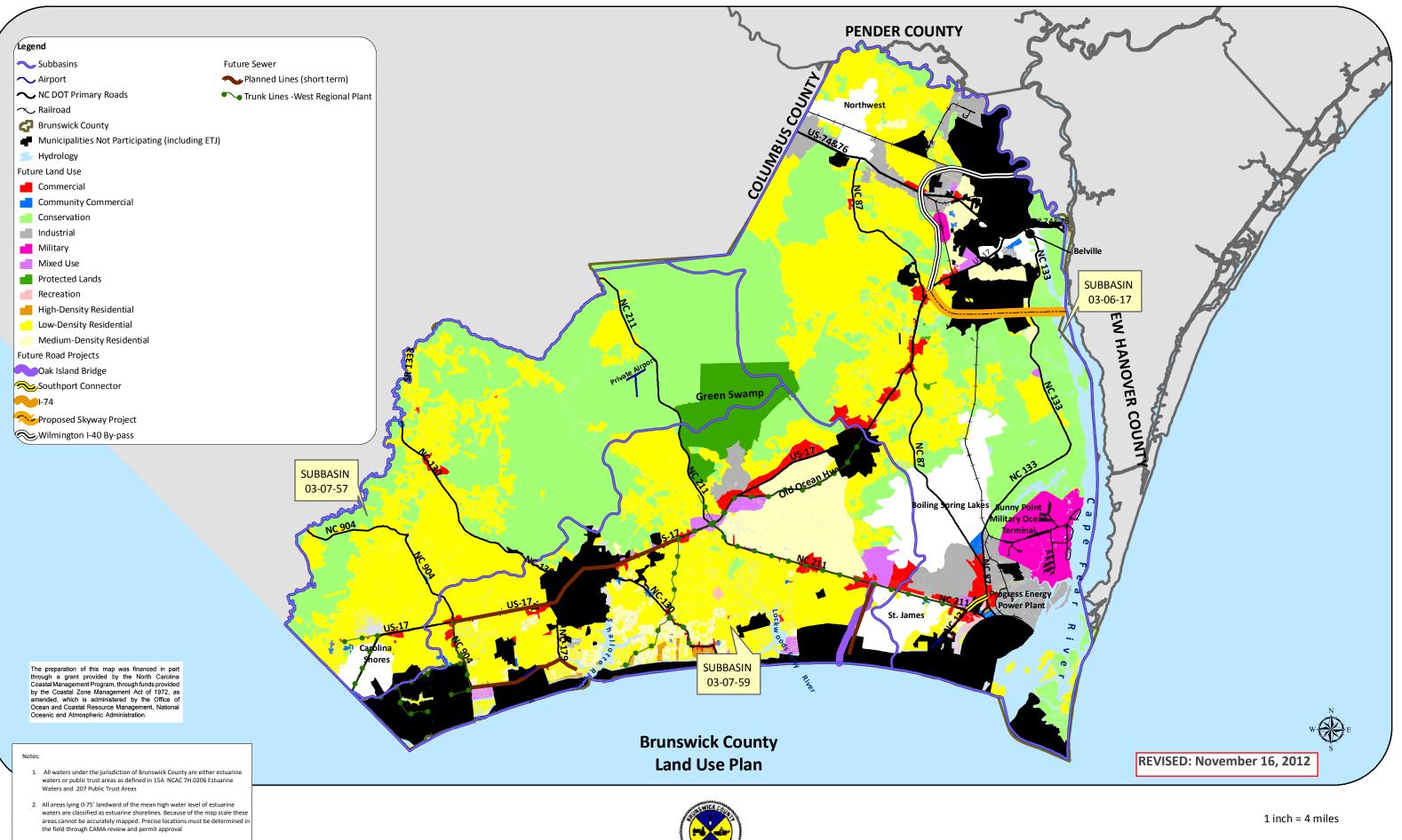
Sincerely,

Robert Waring Assistant Town Manager Planning Director Town of Shallotte <u>rwaring@townofshallotte.org</u> 106 Cheers Street, Shallotte, NC 28470 (P) 910-754-4032, (F) 910-754-2740



Raleigh, NC 27609 919-876-9799

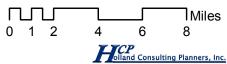
Shallotte, North Carolina Our Project Number 121-21-107110



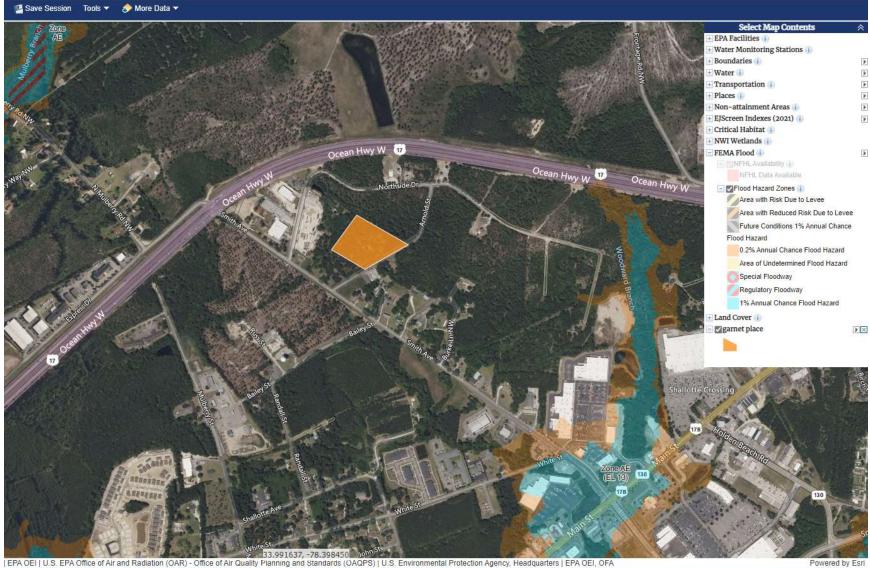
Coastal wetland areas exist in Brunswick County. Because of the map scale, coastal wetland areas must be determines though on-site analysis.

4. Conservation locations are approximate and are not precise. Conservation areas include some 404 Wetland Areas. Those areas must be determined by the US Corps of Engineers personnel through individual on-site analysis.

Future Land Use Map



Garnet Place – FEMA FIRM



Powered by Esri

Garnet Place - NWI Wetlands



October 20, 2022





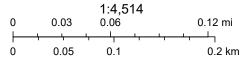
Estuarine and Marine Wetland



Freshwater Emergent Wetland

nd Other

Lake



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, @ 2022 Microsoft Corporation @ 2022 Maxar

U.S. ARMY CORPS OF ENGINEERS

WILMINGTON DISTRICT

Action Id. SAW-2021-02204 County: Brunswick County U.S.G.S. Quad: Shallotte

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Applicant:	<u>McFearann LLC</u> <u>Teresa McLamb</u>		
Address:	<u>PO Box 4640</u> <u>Calabash, NC, 28467</u>		
Telephone Number:	<u>(910) 520-9035</u>		
E-mail Address:	<u>teresamclamb@gmail.com</u>		
Nearest Waterway Mu	<u>acres</u> Ilberry Branch 140208	Nearest Town River Basin Coordinates	Shallotte, NC Lower Pee Dee Latitude: <u>33.986443</u> Longitude: <u>-78.385548</u>
Location description: <u>This</u> <u>18200008).</u>	9.9 acre project is located at 271 s	smith Avenue in	n Shallotte, Brunswick County, NC. (Parcel ID:

Indicate Which of the Following Apply:

A. Preliminary Determination

- There are waters, including wetlands, on the above described project area, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
- There are wetlands on the above described property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the waters, including wetlands, have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the waters, including wetlands, at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification. SAW-2021-02204

X There are waters of the U.S. on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

We recommend you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

X The Waters of the U.S. on your project area have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.

_ The waters of the U.S., including wetlands, have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on _____. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

_ There are no waters of the U.S., to include wetlands, present on the above described project area which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

X The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Wilmington, NC to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact <u>Gary Beecher at (910) 251-4694 or</u> <u>Gary.H.Beecher@usace.army.mil</u>.

C. Basis For Determination: <u>There is a 748 LF Jurisdictional Open Water ditch onsite that exhibits an Ordinary High</u> <u>Water Mark (OHWM).</u>

D. Remarks: <u>A desk top review was conducted on this application using information obtained from the consultant (Land</u> <u>Management Group) and from Corps generated QL2 Lidar Maps and soils maps.</u>

E. Attention USDA Program Participants

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

F. Appeals Information for Approved Jurisdiction Determinations (as indicated in Section B. above)

If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers South Atlantic Division Attn: Mr. Philip A. Shannin Administrative Appeal Review Officer 60 Forsyth Street SW, Floor M9 Atlanta, Georgia 30303-8803 <u>AND</u> <u>PHILIP.A.SHANNIN@USACE.ARMY.MIL</u>

SAW-2021-02204

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by March 11, 2022. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.

Corps Regulatory Official:

Date: January 11, 2022

Expiration Date: January 11, 2027

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete our Customer Satisfaction Survey, located online at http://corpsmapu.usace.army.mil/cm apex/f?p=136:4:0.

Copy Furnished via e-mail to:

Consultants:

Paul Farley Elizabeth Freedland Land Management Group 3805 Wrightsville Avenue, Suite 15 Wilmington, NC 28403 (910) 452-0001 pfarley@lmgroup.net efreedland@lmgroup.net

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: McFearann LLC	File Number: SAW-2021-022	204	Date: January 11, 2022
Teresa McLamb			
Attached is:		See Sect	tion below
INITIAL PROFFERED PERMIT (Standard Pern	nit or Letter of permission)		А
PROFFERED PERMIT (Standard Permit or Lett	er of permission)		В
PERMIT DENIAL			С
APPROVED JURISDICTIONAL DETERMINA	TION		D
PRELIMINARY JURISDICTIONAL DETERM	INATION		Е
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SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <u>http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx</u> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

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E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:		
If you have questions regarding this decision and/or the	If you only have questions regarding the appeal process you may	
appeal process you may contact:	also contact:	
District Engineer, Wilmington Regulatory Division,	US Army Corps of Engineers	
Attn: Gary Beecher	South Atlantic Division	
	Attn: Mr. Philip A. Shannin	
	Administrative Appeal Review Officer	
	60 Forsyth Street SW, Floor M9	
	Atlanta, Georgia 30303-8803	
	PHILIP.A.SHANNIN@USACE.ARMY.MIL	

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

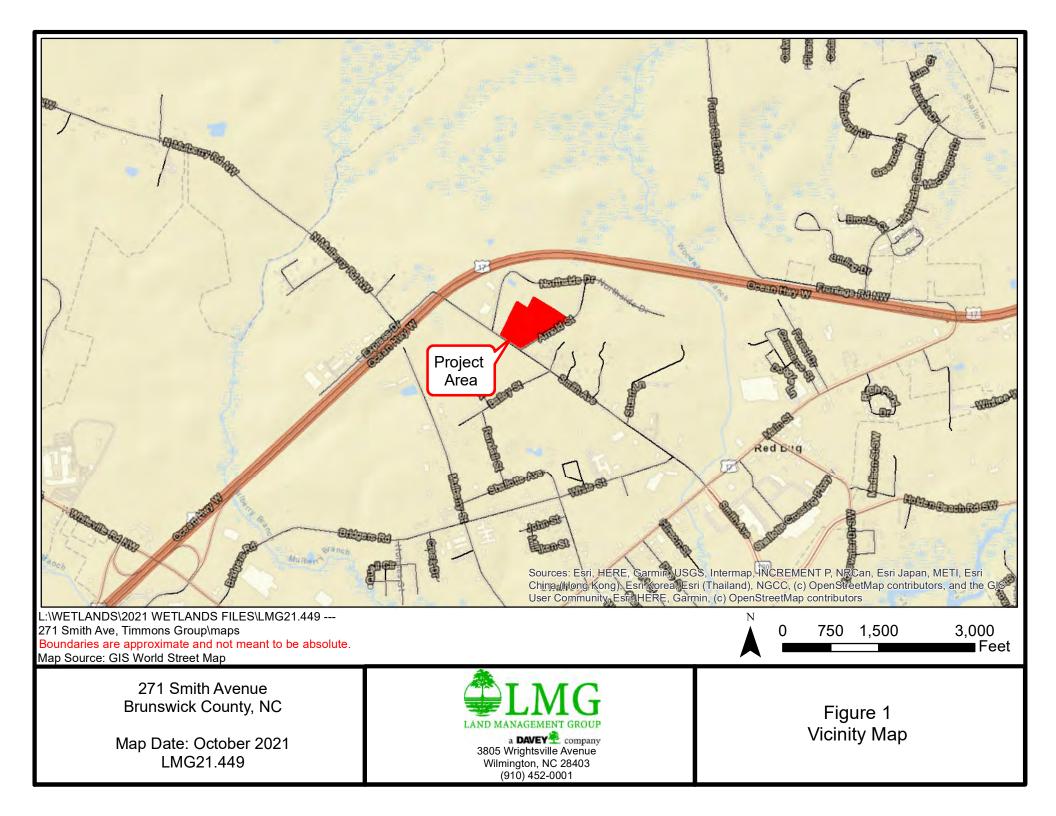
	Date:	Telephone number:
Signature of appellant or agent.		

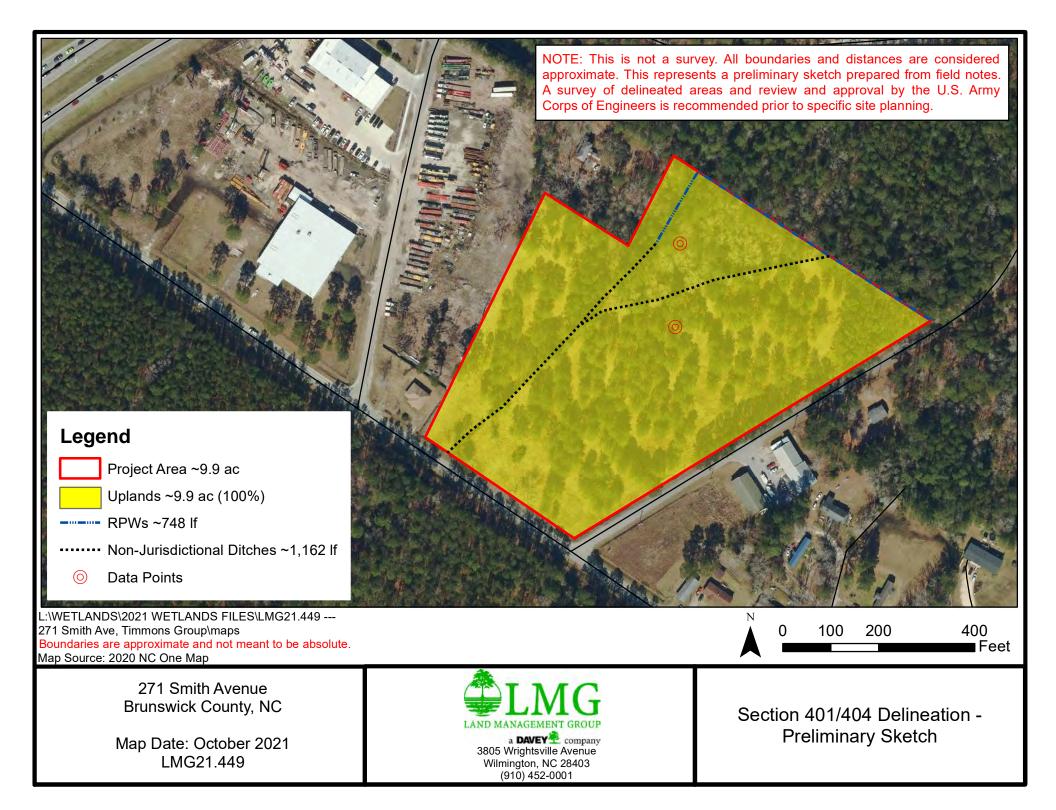
For appeals on Initial Proffered Permits send this form to:

District Engineer, Wilmington Regulatory Division, Attn: Gary Beecher, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and approved Jurisdictional Determinations send this form to:

Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Philip Shannin, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801 Phone: (404) 562-5137, <u>PHILIP.A.SHANNIN@USACE.ARMY.MIL</u>





APPROVED JURISDICTIONAL DETERMINATION FORM **U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): A.

DISTRICT OFFICE, FILE NAME, AND NUMBER: В.

PROJECT LOCATION AND BACKGROUND INFORMATION: C

State: NC County/parish/borough: Brunswick City: Shallotte Center coordinates of site (lat/long in degree decimal format): Lat. 33.986443° N, Long. -78.385548° E. Universal Transverse Mercator: 17 S 741504.76 m E 3763728.69 m N

Name of nearest waterbody: Woodward Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Shallotte River Name of watershed or Hydrologic Unit Code (HUC): 03040208

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. \boxtimes

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

- a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: ~748 linear feet: width (ft) and/or acres. Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):

Non-regulated waters/wetlands (check if applicable):³ 2.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

 (i) General Area Conditions: Watershed size: 64.56 square miles Drainage area: 1.31 square miles Average annual rainfall: 53 inches Average annual snowfall: 1 inches

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ☑ Tributary flows through 2 tributaries before entering TNW.

Project waters are 1-2 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
Project waters are 1 (or less) aerial (straight) miles from TNW.
Project waters are 1 (or less) aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: Unnamed tributary - Woodward Branch - Shallotte River. Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate): Average width: 3 feet Average depth: 3 feet Average side slopes: 2:1.
	Primary tributary substrate composition (check all that apply):
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable. Presence of run/riffle/pool complexes. Explain: Unknown. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): 1-2 %
(c)	<u>Flow:</u> Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 11-20 Describe flow regime: Other information on duration and volume:
	Surface flow is: Confined. Characteristics:
	Subsurface flow: Unknown. Explain findings: . Dye (or other) test performed: .
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): Clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. ⁷ Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Mean High Water Mark indicated by: oil or scum line along shore objects survey to available datum; fine shell or debris deposits (foreshore) physical markings; physical markings/characteristics vegetation lines/changes in vegetation types. tidal gauges other (list):
ii) Che	emical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Water is clear.

Identify specific pollutants, if known:

.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width): \square
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings: Environment for amphibians and reptiles.

Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW 2.

Physical Characteristics: (i)

- (a) General Wetland Characteristics: Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
- (b) General Flow Relationship with Non-TNW: Flow is: Pick List. Explain:

Surface flow is: Pick List Characteristics:

Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:

(c) <u>Wetland Adjacency Determination with Non-TNW:</u>

- Directly abutting
- □ Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW. Project waters are **Pick List** aerial (straight) miles from TNW. Flow is from: Pick List. Estimate approximate location of wetland as within the Pick List floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

Characteristics of all wetlands adjacent to the tributary (if any) 3.

All wetland(s) being considered in the cumulative analysis: Pick List) acres in total are being considered in the cumulative analysis. Approximately (

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

- **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
- 2. <u>RPWs that flow directly or indirectly into TNWs.</u>
 - Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 - Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: According to UGS topographic maps, field notes, and LiDAR imagery RPWs appear to flow seasonally.

Provide estimates for jurisdictional waters in the review area (check all that apply):

acres.

- Tributary waters: ~748 linear feet width (ft).
- Other non-wetland waters:
 - Identify type(s) of waters:
- 3. Non-RPWs⁸ that flow directly or indirectly into TNWs.
 - Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
 - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

- 7. Impoundments of jurisdictional waters.⁹
 - As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 - Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain:
- Other factors. Explain:

Identify water body and summarize rationale supporting determination:

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos*.

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters: linear feet width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters:

Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based <u>solely</u> on the "Migratory Bird Rule" (MBR).
 - Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

Non-wetland v	waters (i.e., rive	rs, streams):	linear feet	width (ft).	
Lakes/ponds:	acres.				
Other non-wet	land waters:	acres. List t	ype of aquatic re	source: .	
Wetlands:	acres.				

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
 - Lakes/ponds: acres.
 - Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: acres.

SECTION IV: DATA SOURCES.

- A. SUPPORTING DATA. Data reviewed for JD (check all that apply checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
 - Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
 - Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
 - Data sheets prepared by the Corps:
 - Corps navigable waters' study:
 - U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
 - U.S. Geological Survey map(s). Cite scale & quad name: 1:400, USGS Brunswick County GIS Mosaic.
 - USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS GIS Soils Data.
 - National wetlands inventory map(s). Cite name:
 - State/Local wetland inventory map(s):
 - FEMA/FIRM maps:
 - 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
 - Photographs: 🖄 Aerial (Name & Date): NAPP 1998 Infrared, 2020 NC One Map.
 - or 🗌 Other (Name & Date):
 - Previous determination(s). File no. and date of response letter:
 - Applicable/supporting case law:
 - Applicable/supporting scientific literature:
 - Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

ATTACHMENT 7:

Contamination and Toxic Substances

Addendum to Phase I ESA, NEPAssist EPA Facilities with 1-mile Buffer, NC DEQ DWM Site Locator Reports with 1-mile and 3,000-foot Buffer, Phase I ESA (11/07/22) and Phase I ESA (12/10/21) March 13, 2023

Mills Construction Company c/o Mr. Bobby Funk bobby@millsconstructionco.com

Addendum to Report of Phase I Environmental Site Assessment Garnet Place Shallotte North Carolina Our Project Number 121-22-107111

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Ladies and Gentlemen:

NV5 Engineers and Consultants, Inc. performed a Phase I Environmental Site Assessment of the above referenced property in November 2022 for Mills Construction Company. Our Report of Phase I Environmental Site Assessment was dated November 7, 2022. The subject property consists of approximately 5.2 acres located at 4925 Arnold Street in Shallotte, North Carolina (Brunswick County Parcel number 1820000801). As requested by the North Carolina Office of Recovery and Resiliency (NCORR), we have reviewed the information provided in our report, and we have reviewed information regarding regulatory listed sites in the vicinity of the subject property. This information includes information provided by our consultant, Environmental Data Resources, Inc. (EDR), at the time of our previous report, as well as information accessed on the North Carolina Department of Waste Management (NC DWM) and US EPA NEPAssist websites regarding regulatory listed sites mapped within 1 mile of the subject property.

The information provided by EDR regarding regulatory listed sites in the vicinity of the subject site indicated that the subject site and adjoining sites were not present in the reviewed regulatory listed sites. Within the ASTM minimum search radius of the site, there was a site listed as a NC Hazardous Substance Disposal Site (HSDS) and a Leaking Underground Storage Tank (LUST) site associated with the NCDOT Maintenance Yard located at 29 Mulberry Street. There was also a LUST site associated with the R.D. White & Sons, Inc. site located at 4541 White Street. Our record review indicated that the NCDOT Maintenance Yard site is mapped outside of the of the surface water drainage area for the subject site. The available information regarding the R.D. White & Sons, Inc. site indicated that this site was mapped down gradient and outside of the surface water drainage area of the subject property.

We have also reviewed information regarding regulatory listed sites mapped within 1 mile of the subject site. The reviewed information was accessed online on the NCDEQ Department of Waste Management Site Locator Tool Website and the US EPA NEPAssit website. This information is included in the attached appendix. In addition to the sites listed above, a number of petroleum product or hazardous materials sites were mapped along Main Street to the southeast of the subject site. These sites included a total of 16 UST incidents, five Non-UST incidents, four Hazardous Waste Sites, one site listed as having a NPDES discharge permit, and seven sites listed as RCRA handlers or generators of hazardous materials. The available information indicated that each of these sites were mapped down gradient and outside of the surface water drainage area of the subject site.

Therefore, based on the available information and the proximity of the sites to the subject site, it is our opinion that the probability of contamination of the soil or groundwater at the subject site above state

NV5 Engineers and Consultants, Inc. NC Engineering Corp. F-1333 | NC Geology Corp. C-585 4905 Professional Court, Raleigh, North Carolina 27609 (919) 876-9799

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Page 2

allowable levels from these sources is low, and that the probability of vapor encroachment onto the subject site from these sources is low. Therefore, we do not consider these incidents to be a Recognized Environmental Conditions associated with the subject site.

Additionally, we reviewed information available located on the NCDEQ Pre-Regulatory Landfills website. The available information indicates that no pre-regulatory landfills are mapped within 3,000 feet of the subject property.

We also performed an interview with Mr. Andrew Thompson, the Brunswick County Fire Marshal. Mr. Thompson informed us that there was no record of an underground fuel storage tank located on the subject property.

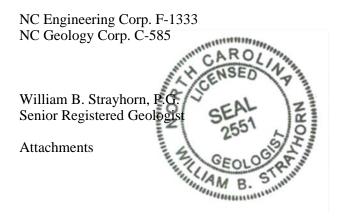
The reviewed information indicates that the subject property is not listed on an U.S. Environmental Protection Agency (EPA) Superfund National Priorities or Comprehensive Environmental Response Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list, the subject property is not located within 3,000 feet of a toxic or solid waste landfill, does not have an underground fuel storage tank, and is not known or suspected to be contaminated by hazardous materials or petroleum products.

We note that this is based on our observations from our site reconnaissance performed on October 22, 2022, our review of regulatory listed sites provided by EDR dated October 18, 2022, and review of information accessed on the NCDEQ DWM and US EPA NEPAssit websites on March 10, 2022, and does not address possible changes in conditions at the site, or the possible additions of nearby sites to the available government listings.

If you have any questions concerning this information, please do not hesitate to contact us.

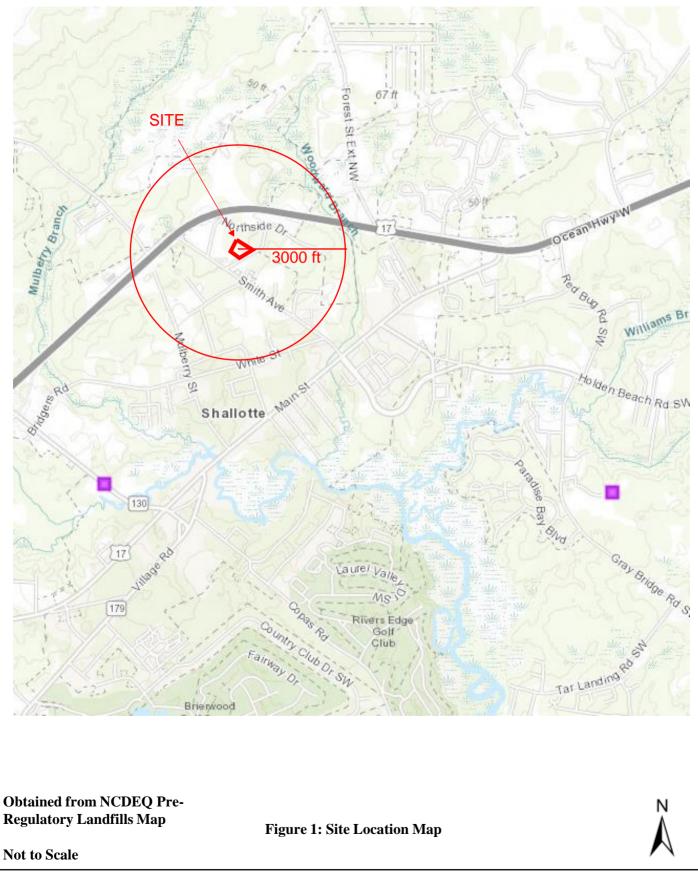
Sincerely,

NV5 Engineers and Consultants, Inc.



Justin R. Pescosolido, P.E. Principal Geotechnical Engineer

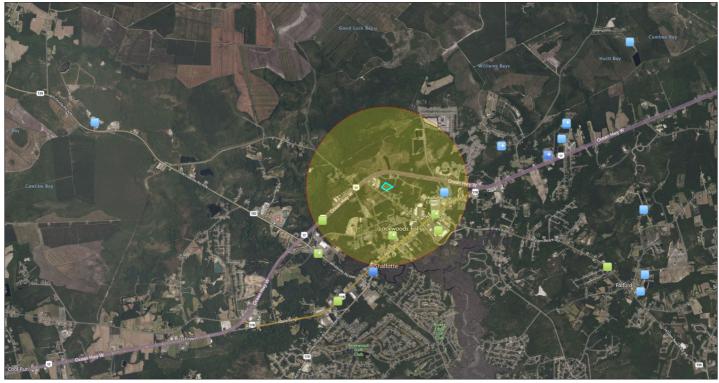
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NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

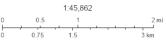
Project: Garnet Place Shallotte, North Carolina Our Project Number 121-22-107111

NEPAssist Report Garnet Place - EPA Facilities 1-mile buffer shown



October 20 2022

- ÷ Water Dischargers (NPDES)
- Water Dischargers (NPDES)
- Air Pollution (ICIS-AIR) Air Pollution (ICIS-AIR)
- 🔲 Garnet Place EPA Facilities 1-mile buffer shown 📑 Hazardous Waste (RCRAInfo) Hazardous Waste (RCRAInfo) Project Buffer garnet place (1)



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Input Coordinates: 33.986564,-78.383416,33.985871,-78.384908,33.986422,-78.386039,33.987413,-78.385186,33.986564,-78.383416

Project Area	0.01 sq mi
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	yes
Within 1 mile of an impaired waterbody?	yes
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	no
Within 1 mile of a Superfund site?	no
Within 1 mile of a Toxic Release Inventory (TRI) site?	no
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes

Within 1 mile of an air emission facility?	no
Within 1 mile of a school?	no
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	no
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	no
Within 1 mile of a Toxic Substances Control Act (TSCA) site?	no
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	yes
Within 1 mile of the service area of an In-Lieu-Fee Program?	yes

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NEPAssist

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US Environmental Protection Agency (//www.epa.gov)



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Report question: Within 1 of a Hazardous waste site? yes

Modify question by entering a new buffer distance and unit for the selected study area:

, Name

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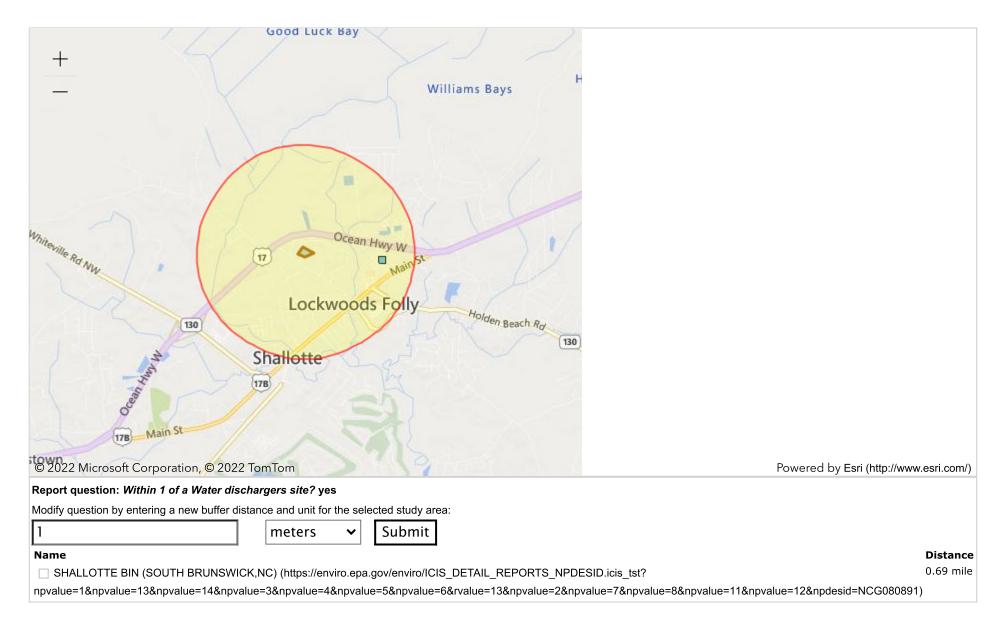
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Report of Phase I

Environmental Site Assessment

Garnet Place

Shallotte, North Carolina

prepared for

Mills Construction Company

Prepared by

NV5 Engineers and Consultants NC Engineering Corporation F-1333 NC Geology Corporation C-585 4905 Professional Court Raleigh, NC 27609 919-876-9799 November 7, 2022



Mills Construction Company c/o Mr. Bobby Funk joe.conlan@mattamycorp.com

Report of Phase I Environmental Site Assessment Garnet Place Shallotte North Carolina Our Project Number 121-21-107110

Gentlemen:

NV5 Engineers and Consultants, Inc. has completed a Phase I Environmental Site Assessment for the above referenced property. These services were requested and authorized by Mr. Bobby Funk of Mills Construction Company. Mr. Funk has informed us that this assessment is being performed for the purposes of landowner liability protection as described in ASTM E-1527(13) guidelines. The results of our assessment and findings are enclosed herein. This report and our observations are intended solely for the benefit of Mills Construction Company and their assigns and may not be used or relied upon by any other party without our prior written consent.

PURPOSE AND CONDITIONS

The primary purpose of the Phase I Environmental Site Assessment (PESA) was to evaluate the potential for present or past contamination of the soil, groundwater and/or or surface water at the site with hazardous substances. This was accomplished by performing a site reconnaissance, reviewing several databases concerning present and past site activities, and reviewing government lists of sites in the area with known hazardous substance activity.

The findings and opinions conveyed via this PESA report are based on information obtained from a variety of sources enumerated herein, and which NV5 Engineers and Consultants believes are reliable. Nevertheless, NV5 Engineers and Consultants cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

Although we performed a reconnaissance at the subject site to observe for hazardous substance activity, it is possible that evidence of such activity exists at the site which is not readily visible. Evidence of hazardous substance activity may exist below the ground surface, below a thick growth of vegetation, or at some other location where the view is obstructed, or access is prevented. In general, we expended reasonable effort to perform observations in these areas. However, we did not perform excavations, removal of vegetation, or other effort to obtain visual access to these areas.

This report is subject to the limitations in ASTM E-1527(13), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* This assessment did not include an evaluation of any additional issues, as described in section 13 of ASTM E-1527(13), such as asbestos containing materials, radon, lead based paint, lead in drinking water, and wetlands. This study also did not include any sampling or testing of groundwater, methane, or other materials at the site. In short, the site reconnaissance was intended to investigate for conditions which indicate to us the possible presence of hazardous materials at the site. Such reconnaissance does not definitively demonstrate the existence of, or the absence of, hazardous substances.

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METHODOLOGY USED

A site reconnaissance was performed to observe for indications that hazardous substances or hazardous wastes might have been stored on, disposed of, or utilized in bulk quantities on the property. Hazardous substances and hazardous wastes are many and varied. They include mineral substances such as asbestos; inorganic substances such as metals, metal salts, and acids; and organic chemicals such as fuels, pesticides, polychlorinated biphenyls (PCBs) and solvents.

The visual reconnaissance was made to observe for the presence of the following specific conditions (hereinafter the "conditions"):

- evidence of imported fill soils
- evidence of spills at the ground surface
- unnaturally stained or discolored surface soils
- areas of dead, dying, or distressed vegetation
- seepage causing obvious solids precipitation
- vertical pipes, casings, or other evidence of underground storage tanks
- unnaturally colored or milky seepage
- oil slicks or scum on surface waters
- chemical odors
- above ground storage tanks
- barrels or hazardous waste storage areas
- electrical transformers

Our consultant, Environmental Data Resources, Inc. (EDR), performed a review of pertinent federal and state regulatory agency listings. The listings provide information concerning hazardous substance and hazardous waste activity that has been reported to State or Federal regulatory agencies. We reviewed their findings and located selected unmapped sites to determine if any sites were present within ASTM minimum search distances. A copy of their report is included as Appendix III.

We reviewed aerial photographs provided by EDR and online at the Brunswick County GIS and Google Earth websites. These vertical photographs generally have a scale which ranges between 1 inch to 500 feet and 1 inch to 1,000 feet.

We reviewed chain-of-ownership information at the Brunswick County Register of Deeds website. The names of previous owners of the property can provide indications of past site usage and possibly previous hazardous substance activity at the site.

We have interviewed persons familiar with the history of the property. These interviews were conducted through written surveys with a representative of the User of the report and the current Owner of the property. We also performed a phone interview with Paul Dunwell, the City of Shallotte Fire Chief regarding record of responses to the subject property related to petroleum product or hazardous materials incidents.

We have performed an online file review of the North Carolina Department of Environmental Quality (NCDEQ) files for selected regulatory listed sites in the vicinity of the subject site as indicated by our consultant EDR.

We have reviewed our previous Report of Phase I Environmental Site Assessment dated December 10, 2021.

Page 3

SITE DESCRIPTION AND OBSERVATIONS

The subject site consists of two adjacent parcels totaling approximately 10.06 acres located immediately north of the intersection of Arnold Street and Smith Avenue in Shallotte, North Carolina. Descriptions of each parcel are provided in the table below.

Parcel ID Number	Address	Area (acres)
18200008	271 Smith Avenue	4.86
1820000801	4925 Arnold Street	5.2

The approximate site location as obtained from NC OneMap is shown on Figure 1 in Appendix I. The property boundaries, as obtained from NC OneMap is shown on Figure 2 in Appendix I. A topographic map of the site and surrounding areas, as obtained from the Brunswick County GIS Website is shown on Figure 3 in Appendix I. The surface water drainage area as obtained from the Brunswick County GIS website is approximately shown on Figure 4 in Appendix I. Photographs of the subject site are included in Appendix II.

We performed a site reconnaissance of the subject site October 22, 2022. The northern portion of the site generally consisted of a heavily wooded section that extends from the northern boundary into the central section of the site. The remaining southern portion of the site is generally vegetated with low grasses and pine trees with an approximate height of 15 to 20 feet.

A drainage ditch runs along the western boundary of the parcel, separating a densely wooded area from the grassy area. The ditch is approximately 3 to 4 feet deep and runs along the entirety of the property. We observed surface algae at multiple locations on the surface of the water. The water in the ditch was not flowing at this time. We did not observe any surface scum or sheen on the surface of the water, nor did we detect any unusual odors. A dry drainage ditch was observed along the eastern edge of the parcel, running along Arnold Street.

We observed remnants of a foundation on the southwest corner of the subject site. These remnants consisted of brick-and-mortar sections that were partially buried underneath the grasses. Based on our review of historical aerial photographs, a previously existing structure was present at this location until approximately 2013. We observed remnants of two apparent sump pumps located in the vicinity of the foundation debris. No soil staining, unusual odors, or distressed vegetation was observed near the remnants. We did not observe any indications of hazardous materials or petroleum products in the debris. Therefore, it is our opinion that the observed debris is a *de minimis* condition.

We observed telecommunication markings, including utility signs, along the eastern boundary of the subject site. Other than this, we did not observe any signs or markings indicating the presence of underground utilities at the subject site. However, based on the previous presence of residential homes at the location of the subject site within the Town of Shallotte municipal limits, underground water and sewer utilities are likely present. Additionally, a review of the parcel tax appraisal card indicated that the homes that were previously located on the site utilized electrical baseboard heat.

The properties to the east of the subject site are developed with Quality Welding and Marine Supply. The properties to the west of the subject site are developed with a single-family home and a storage yard for B&B Crane Service. The properties to the north and south of the site generally consist of undeveloped wooded areas. We observed several plastic approximately 500-gallon containers storing liquids on the parcel developed as Quality Welding and Marine Supply. Based on our observation from the subject we did not observe any staining or distressed vegetation surrounding the containers. We did not observe any indications of storage of petroleum products or hazardous materials on the remainder of the adjoining sites.

Other than the conditions noted in the preceding paragraphs, none of the "environmental conditions" described on page 2 of this report were observed at the site. Photographs of the conditions observed are provided in Appendix II.

RECORDS REVIEW

We have reviewed topographic information for the site and surrounding area through site observations, and as shown on the Brunswick County GIS website. Based on our site observations and review of the topographic maps, it appears that the ground surface of the subject site has an overall relief of approximately 8 feet, sloping from the western boundary of the site towards Arnold Street along the eastern boundary of the site. The lowest elevation, 44 feet above sea level, lies along Arnold Street at the northeast corner of the parcel. A copy of the Brunswick County GIS topographic map is included as Figure 3 in Appendix I

Based on our review of geologic maps, the site is located in the Coastal Plain Geologic Province. The soils in this area generally consist of marine sediments deposited during successive periods of fluctuating shoreline. The formations tend to dip slightly seaward, and several are exposed at the surface in bands paralleling the coast. Many beds exist only as fragmented, erosional remnants with more continuous strata located above and below. The soils typically classify as sands, silts, and clays, with irregular deposits of shells. Some of the existing formations contain predominantly plastic clays interbedded with strata of sands and poorly consolidated limestones. Others contain predominantly sands with localized deposits of highly plastic clays.

Groundwater is often a means of transporting contaminants from one area to another. Since groundwater flow often mirrors surface water drainage patterns, the direction of groundwater flow can sometimes be estimated by ground surface topography. Based on the topographic maps reviewed, and our observations at the site, the topography at the subject site generally slopes towards the northeastern corner of the site. Topography in the vicinity of the site appears to slope towards the southeast from a knoll located to the northwest of the site. In general, surface water, and possibly groundwater, at the subject site is generally expected to flow to the east and northeast. However, a detailed analysis of ground water flow is beyond the scope of this study. Additionally, the direction of ground water flow may change depending on seasonal fluctuations and other hydrogeologic factors.

Based on our observations during our site reconnaissance and a review of the Brunswick County GIS topographic map, the boundaries for the surface water drainage area for the subject site consist of the southern, eastern and northern boundaries of the subject site and a knoll located near Northside Drive to the northwest of the subject site. Development within the surface water drainage area generally consists of the single-family residential properties and the gravel storage yard associated with B&B Crane Service located to the north and west of the subject site. The surface water drainage area is approximately shown as Figure 4 in Appendix I.

We have reviewed aerial photographs of the site and surrounding properties from the previously referenced EDR report. The reviewed photographs include EDR Aerials from the USGS and USDA/NAIP dated 1956, 1958, 1964, 1975, 1983, 1987, 1993, 1998, 1999, 2006, 2009, 2012 and 2016. Additionally, we observed aerial photographs from Google Earth dated 1993, 1999, 2005 through 2011, 2013, 2014, 2016, and 2019. We also reviewed Google Street view photographs from 2008, 2013, and 2019 through 2021.

The subject site appears as mixed wooded and cleared agricultural areas with two residential homes located along Smith Avenue in the aerial photograph taken between 1956 and 2019. A drainage ditch is also visible sloping from the southwestern corner of the western house towards the north. The drainage ditch turns to the northeast near the northwestern corner of the property and continues across the subject site until terminating near the wooded area to the north of the subject site. Arnold Street and the structures to the east of the subject site are first visible in the photograph from 1975. Warehouse buildings to the west of the site

Page 4

Page 5

and a home and associated outbuildings to the northwest of the site are also first visible in 1975. Scattered debris is shown near the turn in the drainage ditch in the aerial photograph from 1993. A shed is first visible near the western home in the photograph from 1999. The eastern home is no longer present in the photograph from 2005, and the eastern portion of the subject site appears to have been cleared. The scattered pine trees observed during our site reconnaissance first appear in the photograph from 2007. The western home appears to have been demolished prior to the photograph from February 2014, and the foundation remnants are visible in the photographs taken until 2016. The gravel storage lot located on the eastern side of Northside Drive associated with B&B Crane Service to the west of the site is first visible in the photograph from 2016. The subject site and surrounding properties appear generally consistent with the conditions observed during our site reconnaissance in the aerial photographs taken between 2016 and 2021. Aerial photographs prior to 1956 and subsequent to 2021 were not reasonably ascertainable.

We have reviewed chain of ownership information available from the Brunswick County Register of Deeds and the Brunswick County GIS websites. The current owner of the property located at 271 Smith Avenue is McFearann, LLC. Past owners of the subject site have included: Meadowlands Golf Club, Inc. Mac Construction Company, Rufus C. Arnold, Susan A. Arnold, Berta Frink Arnold, J.G. Arnold, Wilson Arnold, Charlie Arnold, Georgia Mae Arnold Clemmons, and Georgia White Arnold. This information dates to 1944. Earlier listings of the subject site were not reasonably ascertainable. This ownership information provides no indication to us, based solely on the names mentioned, of past use, storage or disposal of hazardous materials or petroleum products at this site.

User and Owner surveys were provided to Mr. Bobby Funk with Mills Construction Company to be completed by the appropriate parties. Mr. Funk responded as the User indicating that she was unaware of any environmental liens or environmental concerns related to the subject site. We also understand from Mr. Funk that the purchase price for the subject site was not reduced below the fair market value due to known environmental concerns. We received a completed Owner survey from Ms. Teresa McLamb, managing member of McFearann, LLC. Ms. McLamb stated that, to her knowledge, there are no known environmental liens on the property, there are no known activities and use limitations (AUL's) at the property, and the purchase price reflects the fair market value for the property. Ms. McLamb also stated in the survey that to her knowledge, the purchase price of the property has not been reduced below fair market value due to known or suspected environmental concerns.

We conducted a brief interview with Paul Dunwell, the City of Shallotte Fire Chief. We were informed that according to the City of Shallotte database the previously existing single-family home located on the southwest corner of the subject site was used as a controlled burn exercise in 2013. All debris was cleared, and the remaining structure was removed. According to their records, no hazardous material or petroleum products were observed while onsite. Additionally, no incidents have been reported at or immediately adjacent to the subject property.

Information regarding regulatory listed sites in the vicinity of the subject site was obtained by reviewing information provided by our consultants, EDR. This information is provided in Appendix III. The subject site and adjoining sites were not present in the reviewed regulatory listed sites. Within the ASTM minimum search radius of the site, there was a site listed as a NC Hazardous Substance Disposal Site (HSDS) and a Leaking Underground Storage Tank (LUST) site associated with the NCDOT Maintenance Yard located at 29 Mulberry Street. There was also a LUST site associated with the R.D. White & Sons, Inc. site located at 4541 White Street. The available information regarding the NCDOT Maintenance Yard site indicated that two tanks containing petroleum products (one 550-gallon tank and one 2,0000-gallon tank) were removed from the site on December 18, 1998. Testing of the soils at the NCCOT Maintenance Yard site, following the removal of the tanks and any encountered petroleum impacted soils, indicated that the concentrations of petroleum constituents in the tested soils did not exceed the NCDEQ action levels established at that time and NCDEQ closed their file with no further action required by the responsible party on February 5, 2001. Our record review indicated that the NCDOT Maintenance Yard maintains two

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additional Underground Storage Tanks (USTs). This location is outside of the of the mapped surface water drainage area for the subject site. The available information regarding the R.D. White & Sons, Inc. site indicated that a release was discovered in May 2021. This site was mapped down gradient and outside of the surface water drainage area of the subject property.

We have also reviewed information regarding regulatory listed sites in the vicinity of the subject site available online on the NCDEQ Department of Waste Management Site Locator Tool Website. In addition to the sites listed above, a number of petroleum product or hazardous materials sites were mapped along Main Street to the southeast of the subject site. These sites were mapped down gradient and outside of the surface water drainage area of the subject site.

We reviewed a previous Report of Phase I Environmental Site Assessment dated December 10, 2021. At the time of our previous report, there were no identified RECs that warranted additional investigation.

FINDINGS

Based on the assessment procedures described herein, we provide the following summary of environmental conditions related to the subject property:

- 1. A number of hazardous material or petroleum products sites were present in the reviewed government listings that are within the minimum search distance of the subject property. The available information indicated that following remediation at the NCDOT Maintenance Yard LUST site, NCDEQ closed their incident file with no further action being required by the responsible party at that time. Additionally, information available regarding each of the remaining regulatory sites mapped them down gradient and outside of the surface water drainage area of the subject site. Therefore, based on the available information and the proximity of the sites to the subject site, it is our opinion that the probability of contamination of the soil or groundwater at the subject site above state allowable levels from these sources is low, and that the probability of vapor encroachment onto the subject site from these sources is low. Therefore, we do not consider these incidents to be a Recognized Environmental Conditions associated with the subject site.
- 2. We observed remnants of foundation debris in the southwestern portion of the site. The observed debris generally consisted of brick and concrete fragments. No soil staining, unusual odors, or distressed vegetation was observed near the scattered debris. We did not observe any indications of hazardous materials or petroleum products in the debris. Therefore, it is our opinion that the observed debris is a *de minimis* condition.
- 3. We observed two sump pumps located along the southern portion of the site. Based on our review of aerial photographs, houses were previously located in the vicinity of the observed sump pumps, and these pumps were likely used in relation to the previous homes. Additionally, we did not observe any indications of hazardous materials or petroleum products in the vicinity of these sump pumps. Therefore, the presence of these sump pumps is not considered a Recognized Environmental Condition associated with the subject site.
- 4. The parcel located east of the subject site had several plastic approximately 500-gallon containers storing liquids that were visible from the subject site. We did not observe markings indicating the contents of these containers, however, each of the containers appeared to be properly maintained and we did not observe any staining on the pavements surrounding the containers. Additionally, the parcel is outside of the surface water drainage area of the site. Therefore, it is our opinion that the presence of these containers is not considered a Recognized Environmental Condition in association with the subject property.
- 5. We observed a pole-mounted transformer on the adjacent property to the southeast. We did not observe a "NON-PBC" sticker on the outside of the transformer. From the subject site, we did not observe any signs of distressed vegetation directly beneath the transformer. Therefore, it is our

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opinion that the presence of this pole-mounted transformer is not considered a Recognized Environmental Condition in association with the subject property.

- 6. Aerial photographs indicate that portions of the subject site may have been used for agricultural purposes between 1956 and 1983, indicating that agricultural chemicals may have been used at the site. There were no visible indications of agricultural chemicals at the site at the time of our visit and no information to indicate the excessive use of agricultural chemicals or leaks or spills of agricultural chemicals at the subject site. Additionally, site grading operations at the subject site have altered site topography and have possibly relocated the previously near-surface soils. It is our opinion that historical use of property for agricultural purposes, and the possible use of agricultural chemicals, with no other indications of excessive use or spills, is a business environmental risk, which is not an issue required to be investigated by ASTM E-1527(13).
- 7. Given the apparent age of the homes that were previously present on the property, there is a potential that oil was previously used at the site for heating purposes. Since the survey completed by the owner does not indicate any knowledge of a heating oil tank and we did not observe evidence of a tank, we do not consider this a Recognized Environmental Condition at this time. However, this should be considered a business environmental risk. If a tank is discovered during development of the property, it should be removed in accordance with NCDEQ guidelines.

CONCLUSIONS

We have performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527(13) of the property located at 271 Smith Avenue in Shallotte, North Carolina. Any exceptions to, or deletions from this practice are described in the Purpose and Conditions section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

* * * * *

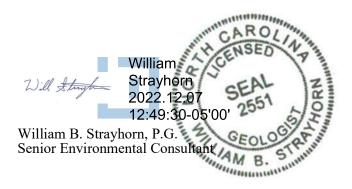
We have appreciated the opportunity to provide these services. If you have any questions concerning this information, or if we may be of additional service, please do not hesitate to contact us.

Sincerely,

NV5 Engineers and Consultants, Inc. Engineering Corp. (F-1333) Geology Corp. (C-585)

Jaxon C. Dean Associate Project Manager

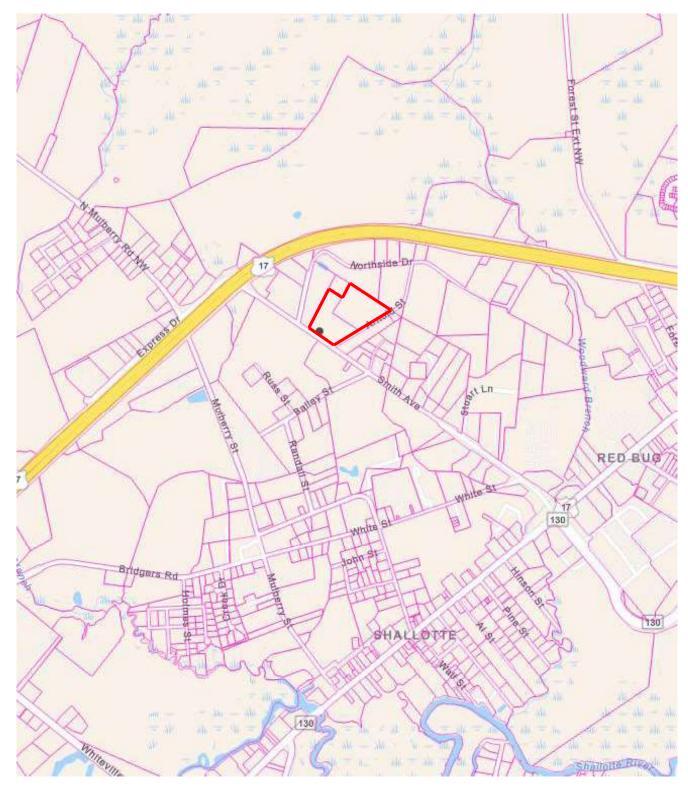
Attachments



APPENDIX I

SITE MAPS

<u>N V 5</u>



Obtained from NC OneMAP

Figure 1: Site Location Map

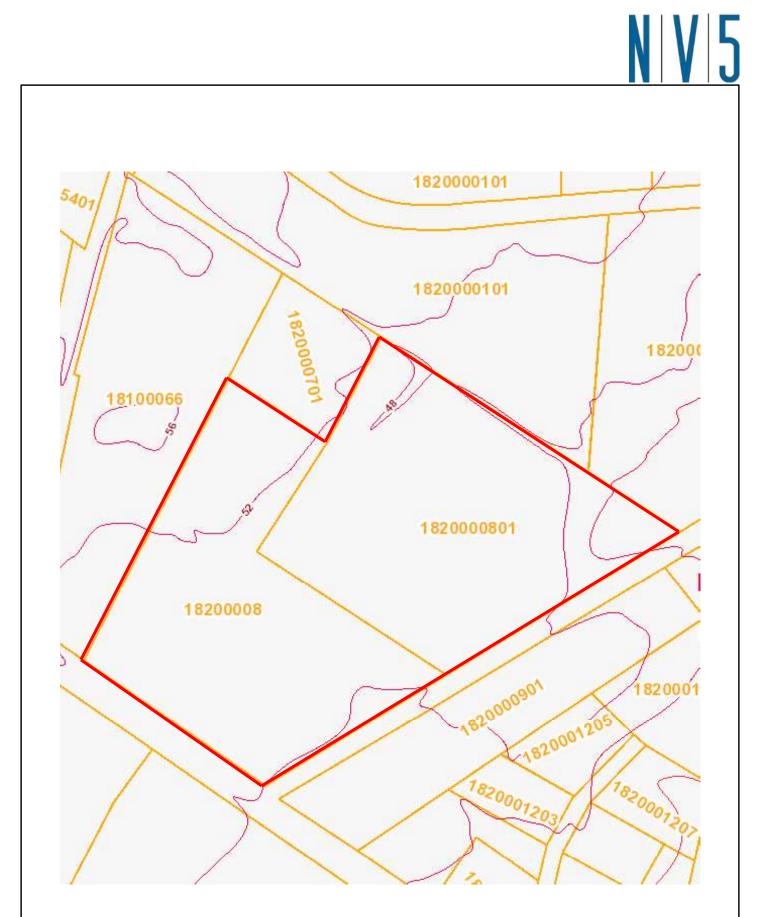
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799 Project: Garnet Place Shallotte, North Carolina Our Project Number 121-22-107111



Obtained from NC OneMAP

Figure 2: Site Boundary Map

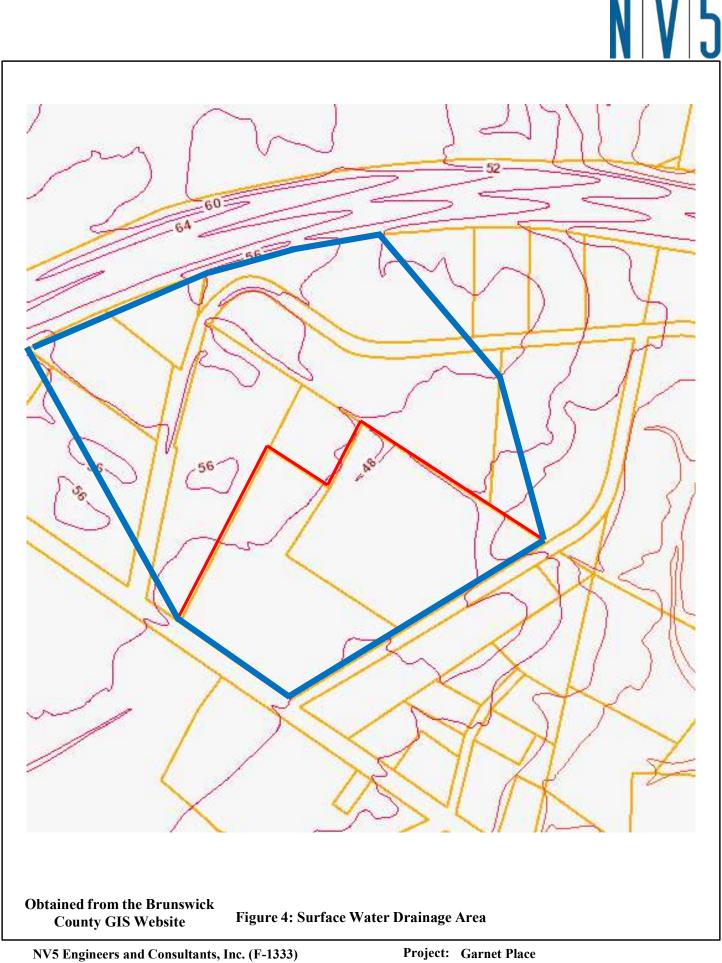
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799 Project: Garnet Place Shallotte, North Carolina Our Project Number 121-22-107111



Obtained from the Brunswick County GIS Website

Figure 3: Site Topographic Map

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NV5 Engineers and Consultants, Inc. (F-1333 4905 Professional Court Raleigh, NC 27609 919-876-9799 ect: Garnet Place Shallotte, North Carolina Our Project Number 121-22-107111

APPENDIX II

SITE PHOTOGRAPHS



Photograph 1:Subject site (North down Arnold St.)



Photograph 3: Access road leading off Smith Ave.



Photograph 5: Drainage ditch along western edge of the subject site. (Upstream)



Photograph 2: Subject site (East down Smith Ave.)



Photograph 4: Drainage ditch along western edge of the subject site. (Downstream)



Photograph 6: Standing water in western drainage ditch.

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Photograph 7: Grassy area on southern portion of the site.



Photograph 9 Brick foundation remnants on southwest corner of site. (1)



Photograph 11: Dry drainage ditch along Arnold St.



Photograph 8: Partially wooded area towards northern portion of the site.



Photograph 10: Brick foundation remnants on southwest corner of site. (2)



Photograph 12:Quality Welding and Marine Supply as viewed from the subject site.

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APPENDIX III

ENVIRONMENTAL DATA RESOURCES REPORT OF

REGULATORY LISTINGS

Garnet Place

271 Smith Avenue Shallotte, NC 28470

Inquiry Number: 7151923.2s October 18, 2022

The EDR Radius Map[™] Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBE-ASH

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GEOCHECK ADDENDUM

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Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

271 SMITH AVENUE SHALLOTTE, NC 28470

COORDINATES

Latitude (North):	33.9866480 - 33 59 11.93"
Longitude (West):	78.3849170 - 78^ 23' 5.70"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	741572.2
UTM Y (Meters):	3763564.0
Elevation:	50 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	13742070 SHALLOTTE, NC
Version Date:	2019
Northeast Map:	13702310 SUPPLY, NC
Version Date:	2019
Southeast Map: Version Date:	13702180 HOLDEN BEACH, NC 2019
Northwest Map:	13702258 EXUM, NC
Version Date:	2019

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140520
Source:	USDA

Target Property Address: 271 SMITH AVENUE SHALLOTTE, NC 28470

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
Reg	NC DOT MAINTENANCE Y		NC HSDS	Same	1561, 0.296, SW
A1	NCDOT - SHALLOTTE	29 MULBERRY ST.	LUST, IMD	Lower	1828, 0.346, SW
A2	DOT - SHALLOTTE (WAS	MULLBERRY STREET BOX	IMD	Higher	1853, 0.351, SW
3	R.D. WHITE & SONS, I	4541 WHITE STREET	LUST	Lower	2562, 0.485, SSE

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	

Lists of Federal Delisted NPL sites

Delisted NPL_____ National Priority List Deletions

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY_____ Federal Facility Site Information listing SEMS______ Superfund Enterprise Management System

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE_____ Superfund Enterprise Management System Archive

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS_____ Corrective Action Report

Lists of Federal RCRA TSD facilities

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Lists of Federal RCRA generators

RCRA-LQG	_ RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity
	Generators)

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System

US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROLS	Institutional Controls Sites List

Federal ERNS list

ERNS_____ Emergency Response Notification System

Lists of state- and tribal hazardous waste facilities

SHWS_____ Inactive Hazardous Sites Inventory

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF	List of Solid Waste Facilities
DEBRIS	Solid Waste Active Disaster Debris Sites Listing
OLI	Old Landfill Inventory
	Land-Clearing and Inert Debris (LCID) Landfill Notifications

Lists of state and tribal leaking storage tanks

LAST	Leaking Aboveground Storage Tanks
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
LUST TRUST	

Lists of state and tribal registered storage tanks

FEMA UST	. Underground Storage Tank Listing
UST	Petroleum Underground Storage Tank Database
AST	AST Database
INDIAN UST	Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL...... No Further Action Sites With Land Use Restrictions Monitoring

Lists of state and tribal voluntary cleanup sites

INDIAN VCP...... Voluntary Cleanup Priority Listing VCP...... Responsible Party Voluntary Action Sites

Lists of state and tribal brownfield sites

BROWNFIELDS..... Brownfields Projects Inventory

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF...... Solid Waste Facility Listing SWRCY...... Recycling Center Listing

INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
ODI	Open Dump Inventory
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Listing

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	Spills Incident Listing
SPILLS 90	SPILLS 90 data from FirstSearch
SPILLS 80	SPILLS 80 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
DOD	_ Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	. 2020 Corrective Action Program List
TSCA	_ Toxic Substances Control Act
TRIS	. Toxic Chemical Release Inventory System
SSTS	_ Section 7 Tracking Systems
ROD	_ Records Of Decision
RMP	_ Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System
MLTS	_ Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	. Coal Combustion Residues Surface Impoundments List
	. PCB Transformer Registration Database
	- Radiation Information Database
	. FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	_ Superfund (CERCLA) Consent Decrees
INDIAN RESERV	
FUSRAP	Formerly Utilized Sites Remedial Action Program
UMTRA	_ Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem

UXO DOCKET HWC ECHO FUELS PROGRAM AIRS ASBESTOS COAL ASH DRYCLEANERS Financial Assurance NPDES UIC AOP PCSRP	Abandoned Mines Facility Index System/Facility Registry System Unexploded Ordnance Sites Hazardous Waste Compliance Docket Listing Enforcement & Compliance History Information EPA Fuels Program Registered Listing Air Quality Permit Listing ASBESTOS Coal Ash Disposal Sites Drycleaning Sites Financial Assurance Information Listing NPDES Facility Location Listing Underground Injection Wells Listing Animal Operation Permits Listing Petroleum-Contaminated Soil Remediation Permits
PCSRP	
MINES MRDS	Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Lists of state- and tribal (Superfund) equivalent sites

NC HSDS: The Hazardous Substance Disposal Sites list contains locations of uncontrolled and unregulated hazardous waste sites. The file contains sites on the national priority list as well as the state priority list. The data source is the North Carolina Center for Geographic Information and Analysis.

A review of the NC HSDS list, as provided by EDR, and dated 08/09/2011 has revealed that there is 1 NC HSDS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NC DOT MAINTENANCE Y		SW 1/4 - 1/2 (0.296 mi.)	0	8

Lists of state and tribal leaking storage tanks

LUST: The Leaking Underground Storage Tank Incidents Management Database contains an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environment, & Natural Resources' Incidents by Address.

A review of the LUST list, as provided by EDR, and dated 04/29/2022 has revealed that there are 2 LUST sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NCDOT - SHALLOTTE Incident Phase: CO Incident Number: 19721 Current Status: File Located in Archives	29 MULBERRY ST.	SW 1/4 - 1/2 (0.346 mi.)	A1	8
R.D. WHITE & SONS, I Incident Phase: RE Incident Number: 47809 Current Status: File Located in House	4541 WHITE STREET	SSE 1/4 - 1/2 (0.485 mi.)	3	12

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

IMD: Incident Management Database.

A review of the IMD list, as provided by EDR, and dated 04/29/2022 has revealed that there are 2 IMD sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DOT - SHALLOTTE (WAS Facility Id: 00-0-0000024728	MULLBERRY STREET BOX	SW 1/4 - 1/2 (0.351 mi.)	A2	11
Lower Elevation	Address	Direction / Distance	Map ID	Page
NCDOT - SHALLOTTE	29 MULBERRY ST.	SW 1/4 - 1/2 (0.346 mi.)	A1	8

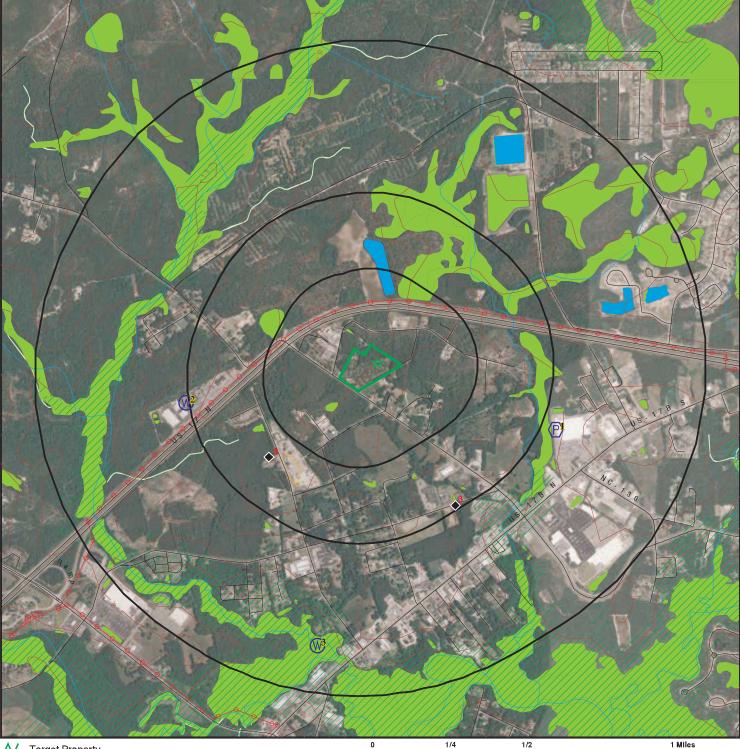
Facility Id: 19721

Database(s) SHWS LUST LUST

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name		
MULBERRY ROAD		
IRENE G. CLIFTON		
GLENN PARKER PROPERTY		

OVERVIEW MAP - 7151923.2S



- Target Property \mathcal{N}
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

- - Indian Reservations BIA
 - Power transmission lines Special Flood Hazard Area (1%)
 - 0.2% Annual Chance Flood Hazard
 - National Wetland Inventory
 - State Wetlands

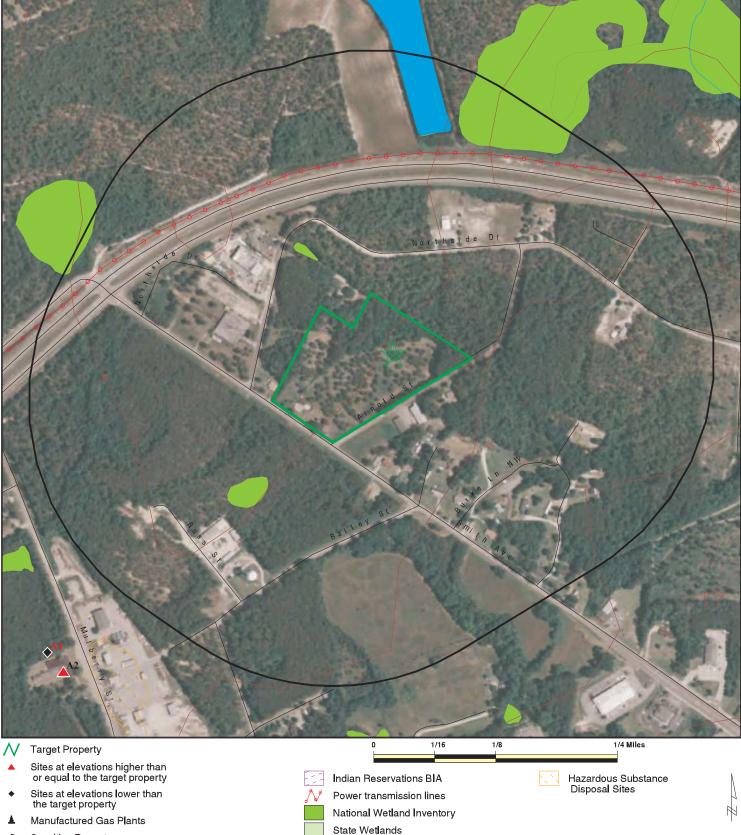
This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

Ħ

Hazardous Substance Disposal Sites

	Garnet Place 271 Smith Avenue	CLIENT: TerraTech CONTACT: Jaxon Dean
LAT/LONG:	Shallotte NC 28470 33.986648 / 78.384917	INQUIRY #: 7151923.2s DATE: October 18, 2022 3:18 pm

DETAIL MAP - 7151923.2S



Sensitive Receptors 4

- National Priority List Sites
- Dept. Defense Sites

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

	Garnet Place 271 Smith Avenue	CLIENT: TerraTech CONTACT: Jaxon Dean
	Shallotte NC 28470	INQUIRY #: 7151923.2s
LAT/LONG:	33.986648 / 78.384917	DATE: October 18, 2022 3:19 pm

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted	
STANDARD ENVIRONMEN	STANDARD ENVIRONMENTAL RECORDS								
Lists of Federal NPL (Su	perfund) sites	:							
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0	
Lists of Federal Delisted	I NPL sites								
Delisted NPL	1.000		0	0	0	0	NR	0	
Lists of Federal sites su CERCLA removals and ('S							
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0	
Lists of Federal CERCLA	A sites with NF	RAP							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0	
Lists of Federal RCRA fa undergoing Corrective A									
CORRACTS	1.000		0	0	0	0	NR	0	
Lists of Federal RCRA T	SD facilities								
RCRA-TSDF	0.500		0	0	0	NR	NR	0	
Lists of Federal RCRA g	enerators								
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0	
Federal institutional con engineering controls reg									
LUCIS US ENG CONTROLS US INST CONTROLS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0	
Federal ERNS list									
ERNS	TP		NR	NR	NR	NR	NR	0	
Lists of state- and tribal (Superfund) equivalent s									
NC HSDS	1.000		0	0	1	0	NR	1	
Lists of state- and tribal hazardous waste facilitie									
SHWS	1.000		0	0	0	0	NR	0	
Lists of state and tribal and solid waste disposa									
SWF/LF	0.500		0	0	0	NR	NR	0	

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DEBRIS OLI LCID	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Lists of state and tribal	leaking stora	ge tanks						
LAST LUST INDIAN LUST LUST TRUST	0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 2 0 0	NR NR NR NR	NR NR NR NR	0 2 0 0
Lists of state and tribal	registered sto	orage tanks						
FEMA UST UST AST INDIAN UST State and tribal instituti	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
control / engineering co		es						
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal	voluntary clea	anup sites						
INDIAN VCP VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Lists of state and tribal		tes						
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONME	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Waste Disposal Sites			0	0	0			U
HIST LF SWRCY INDIAN ODI DEBRIS REGION 9 ODI IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0
Local Lists of Hazardou Contaminated Sites	ıs waste /							
US HIST CDL US CDL PFAS	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency	-	orts						
HMIRS	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	<u>1/2 - 1</u>	> 1	Total Plotted
SPILLS	TP		NR	NR	NR	NR	NR	0
IMD SPILLS 90	0.500 TP		0 NR	0 NR	2 NR	NR NR	NR NR	2 0
SPILLS 80	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Red								Ū
			•					
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS DOD	1.000 1.000		0 0	0 0	0 0	0 0	NR NR	0 0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	Õ
TSCA	TP		NR	NR	NR	NR	NR	Õ
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS COAL ASH DOE	TP TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		NR 0	NR 0	NR 0	NR NR	NR NR	0 0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	ŏ
DOT OPS	TP		NR	NR	NR	NR	NR	Ő
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
USAIRS	TP		NR	NR	NR	NR	NR	0
	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250				NR	NR	NR	0
FINDS UXO	TP 1.000		NR 0	NR 0	NR 0	NR 0	NR NR	0 0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	õ
AIRS	TP		NR	NR	NR	NR	NR	Õ
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
AOP	TP		NR	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
PCSRP SEPT HAULERS MINES MRDS CCB	0.500 TP TP 0.500		0 NR NR 0	0 NR NR 0	0 NR NR 0	NR NR NR NR	NR NR NR NR	0 0 0 0
EDR HIGH RISK HISTORICA								
EDR Exclusive Records								
EDR MGP EDR Hist Auto EDR Hist Cleaner	1.000 0.125 0.125		0 0 0	0 NR NR	0 NR NR	0 NR NR	NR NR NR	0 0 0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS RGA LF RGA LUST	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
- Totals		0	0	0	5	0	0	5

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction		MAP FINDINGS		
Distance Elevation	Site		Database(s)	EDR ID Number EPA ID Number
HSDS Region SW	NC DOT MAINTENANCE YARD PCB		NC HSDS	S102442985 N/A
1/4-1/2 1561 ft.				
	HSDS: Name: Address: City: Site Type: Superfun Number: Total area in coverage units: Total area in coverage units: Total perimeter in coverage units: X-value coordinate in feet: Y-value coordinate in feet: Sites designated as superfund cleanup si Length of feature in internal units: Area of feature in internal units squared:	NC DOT MAINTENANCE YARD PCB Not reported Not reported 9955.72070312 446.33972167 2184949.75 84826.8359375 tes: 883 446.339760139 9955.72225		
A1 SW 1/4-1/2 0.346 mi. 1828 ft.	NCDOT - SHALLOTTE 29 MULBERRY ST. SHALLOTTE, NC 28459 Site 1 of 2 in cluster A		LUST IMD	S105766144 N/A
Relative:	LUST:			
Lower	Name:	NCDOT - SHALLOTTE		
Actual: 49 ft.	Address: City,State,Zip: Facility ID: UST Number: Incident Number: Source Type: Date Reported: Closure Request: Close Out: Level Of Soil Cleanup Achieved: # Of Supply Wells: Commercial/NonCommercial UST Site: Risk Classification: Risk Class Based On Review: Corrective Action Plan Type: NOV Issue Date: Site Priority: Phase Of LSA Req: Site Risk Reason: Land Use: MTBE: MTBE1: Flag: Flag1: LUR Filed: GPS Confirmed: Current Status: RBCA GW: PETOPT: RPL: CD Num: Reel Num:	Not reported 00 00-000 WI-1659 19721 3 02/02/1999 Not reported 04/24/2001 S1 0 C L Not reported 07/12/2000 20 Not reported Not reported RES Not reported U 0 0 Not reported RES Not reported Q 0 <tr< th=""><th></th><th></th></tr<>		

MAP FINDINGS

Database(s)

EDR ID Number **EPA ID Number**

S105766144

NCDOT - SHALLOTTE (Continued)

RPOW: False RPOP: False Error Flag: 0 Error Code: Not reported Valid: False Not reported Testlat: Regional Officer Project Mgr: DTM NCDOT Company: Telephone: 9197332220 5 Min Quad: Not reported LUST: ERR Type: Not reported UST Number: WI-1659 Facility Id: 19721 Date Occurred: 12/18/1998 Date Reported: 2/16/1999 Owner/Operator: ERIC MOTZNO, ENV. ENG. Ownership: 7 Operation Type: 1 Type: 4 Location: 1 Priority Update: 3/3/1999 Wells Affected Y/N: Not reported Samples Include: Not reported 7#5 Minute Quad: Not reported 5 Minute Quad: Not reported Pirf/Min Soil: Not reported Release Code: Not reported Source Code: MIN SOIL Err Type: Not reported Cause: Not reported Source: Not reported UST Number: Not reported LUST: Incident Number: 19721 6/5/2001 Last Modified: Incident Phase: CO Not reported NOV Issued: NORR Issued: Not reported 45 Day Report: Not reported Public Meeting Held: Not reported Not reported SOC Signed: Reclassification Report: Not reported **RS** Designation: Not reported Closure Request Date: Not reported 4/24/2001 Close-out Report: IMD: Facility ID: 19721 NCDOT - SHALLOTTE Name: Address: 29 MULBERRY ST. SHALLOTTE, NC City,State,Zip: Date Occurred: 12/18/1998 2/16/1999 Submit Date:

MAP FINDINGS

EDR ID Number EPA ID Number

Database(s)

NCDOT - SHALLOTTE (Continued)

S105766144

Incident Desc:	UST CLOSURE REPORT DOCUMENTS SOIL CONTAM. AROUND AN OLD HEATING OIL TANK; DOT PLANS TO EXCAVATE ABOUT 20-30 CUBIC YARDS OF SOIL AND RESAMPLE
Operator:	MR. ERIC MOTZNO
UST ID:	Not reported
Incident ID:	Not reported
Initials of UST Regional Contact:	Not reported
Regional Office:	Not reported
Responsible Party/Company Name:	Not reported
Ownership:	7
Responsible Party Contact Name:	Not reported
Operation:	1
Responsible Party Mailing Address:	Not reported
Responsible Party City,State,Zip:	Not reported
Ownership:	State
Operation Type:	Public Service
Responsible Party County:	Not reported
Source of Contamination:	GASOLINE/DIESEL/KEROSENE
Source:	3

Ownership:	7
Responsible Party Contact Name:	Not reported
Operation:	1
Responsible Party Mailing Address:	Not reported
Responsible Party City,State,Zip:	Not reported
Ownership:	State
Operation Type:	Public Service
Responsible Party County:	Not reported
Source of Contamination:	GASOLINE/DIESEL/
Source:	3
Туре:	3
Location:	1
Petroleum Type:	Not reported
Date Incident Reported:	Not reported
Whether Tank is Commercial or Non Commercial:	Not reported
Site Priority:	20L
Whether Tank is Regulated:	Not reported
Priority Update:	3/3/1999
Notice of Regulatory Requirement:	Not reported
Wells Affected:	Not reported
Notice of Violation:	Not reported
Phase 1 or Phase 2:	Not reported
Num Affected:	Not reported
Site Priority:	Not reported
Type:	GASOLINE/DIESEL
Location:	Facility
Current Risk Condition:	Not reported
Sampled By:	Not reported
Samples Include:	Not reported
Initial reported risk of incident (never changes):	Not reported
7.5 Min Quad:	Not reported
5 Min Quad:	Not reported
Intermediate Condition Present:	Not reported
Latitude:	33.98222222
Longitude:	-78.39111111
Use of Land, Industrial:	Not reported
Corrective Action Plan Selected - up to 5:	Not reported
RBCA:	Not reported
Date Close Review Requested From RP or Owner:	Not reported
Date Case Closed:	Not reported
Extent of Contamination:	Not reported
Number of Supply Wells Located on Property:	Not reported
MTBE in Well Y/N/U Yes, No or Unknown:	Not reported
Facility Phone Number:	Not reported
MTBE in Groundwater Y/N/U Yes, No or Unknown:	Not reported
Date Land Use Restriction Filed:	Not reported
Date Cleanup Initiated:	Not reported
Record Status:	Not reported
	Not reported

A2

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

S105766144

NCDOT - SHALLOTTE (Continued)

DOT - SHALLOTTE (WASTE OIL TANK)

RBCA GW Codes: RBCA GW: Pollutant Type Present: Reference Number for Media Disk for Ar RP Owner?: RP Operator?: RP Landowner?:	Not reported Not reported Not reported chived Record: Not reported Not reported Not reported Not reported
Status:	
Facility ID:	19721
Last Modified:	2001-06-05 00:00:00
Incident Phase:	CO
NOV Issued:	Not reported
NORR Issued:	Not reported
45 Day Report:	Not reported
Public Meeting Held:	Not reported
Corrective Action Planned:	Not reported
SOC Sighned:	Not reported
Reclassification Report:	Not reported
RS Designation:	Not reported
Closure Request Date:	Not reported
Close-out Report:	2001-04-24 00:00:00

IMD S127488939 N/A

SW 1/4-1/2 0.351 mi.	MULLBERRY STREET BOX 1450 SHALLOTTE, NC 28459		
1853 ft.	Site 2 of 2 in cluster A		
Relative: Higher Actual: 50 ft.	IMD: Facility ID: Name: Address: City,State,Zip: Date Occurred: Submit Date: Incident Desc: Operator: UST ID: Incident ID: Incident ID: Incident ID: Incident ID: Incident ID: Responsible Party/Company Name: Ownership: Responsible Party Contact Name: Operation: Responsible Party Contact Name: Operation: Responsible Party Mailing Address: Responsible Party City,State,Zip: Ownership: Operation Type: Responsible Party County: Source of Contamination: Source: Type: Location: Petroleum Type:	Not reported	00-0-0000024728 DOT - SHALLOTTE (WASTE OIL TANK) MULLBERRY STREET BOX 1450 SHALLOTTE, NC 28459 Not reported Not reported WI-7100 Not reported JDP WIL NC DEPT. OF TRANSPORTATION Not reported ERIC MOTZNO Not reported 4809 BERYL ROAD RALEIGH, NC 27606 Not reported Not reported
	Date Incident Reported:		2006-04-19 00:00:00

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

DOT - SHALLOTTE (WASTE OIL TANK) (Continued)

Whether Tank is Commercial or Non Commercial: COMMERCIAL Site Priority: Not reported Whether Tank is Regulated: REGULATED Priority Update: Not reported Notice of Regulatory Requirement: Not reported Wells Affected: Not reported Notice of Violation: Not reported Phase 1 or Phase 2: Not reported Num Affected: Not reported Site Priority: Not reported Type: Not reported Not reported Location: Current Risk Condition: Not reported Sampled By: Not reported Samples Include: Not reported Initial reported risk of incident (never changes): 7.5 Min Quad: Not reported 5 Min Quad: Not reported Intermediate Condition Present: Not reported 33.98191599999998 Latitude: Longitude: -78.39081600000001 Use of Land, Industrial: Not reported Corrective Action Plan Selected - up to 5: Not reported RBCA: Not reported Date Close Review Requested From RP or Owner: Not reported Date Case Closed: 2006-04-19 00:00:00 Extent of Contamination: None Number of Supply Wells Located on Property: 0 MTBE in Well Y/N/U Yes, No or Unknown: 0 Facility Phone Number: 9197332220 MTBE in Groundwater Y/N/U Yes, No or Unknown: U Date Land Use Restriction Filed: Not reported Date Cleanup Initiated: 2006-04-19 00:00:00 **Record Status:** ARCHIVED RECORD **RBCA GW Codes:** Not reported **RBCA GW:** Not reported Pollutant Type Present: OTHER PETROLEUM PROD. Reference Number for Media Disk for Archived Record: 477 RP Owner?: True **RP Operator?:** True **RP Landowner?:** True

S127488939

3 SSE 1/4-1/2 0.485 mi. 2562 ft.

Actual:

18 ft.

Relative: Lower LUST: Name: Address: City,State,Zip: Facility ID: UST Number: Incident Number: Source Type: Date Reported: Closure Request:

R.D. WHITE & SONS, INC.

4541 WHITE STREET

SHALLOTTE, NC 28459

R.D. WHITE & SONS, INC. 4541 WHITE STREET SHALLOTTE, NC 28459 00-0-000 WI-28564 47809 3 05/26/2021 Not reported LUST S127734266 N/A

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

R.D. WHITE & SONS, INC. (Continued)

Close Out: Level Of Soil Cleanup Achieved: # Of Supply Wells: Commercial/NonCommercial UST Site: **Risk Classification:** Risk Class Based On Review: Corrective Action Plan Type: NOV Issue Date: Site Priority: Phase Of LSA Req: Site Risk Reason: Land Use: MTBE: MTBE1: Flag: Flag1: LUR Filed: GPS Confirmed: Current Status: RBCA GW: PETOPT: RPL: CD Num: Reel Num: RPOW: RPOP: Error Flag: Error Code: Valid: Testlat: Regional Officer Project Mgr: Company: Telephone: 5 Min Quad: LUST: ERR Type: UST Number: Facility Id: Date Occurred: Date Reported: Owner/Operator: Ownership: Operation Type: Type: Location: Priority Update: Wells Affected Y/N: Samples Include: 7#5 Minute Quad: 5 Minute Quad: Pirf/Min Soil: Release Code: Source Code: Err Type: Cause: Source: UST Number:

Not reported Not reported 0 С Т Not reported Not reported Not reported Not reported Not reported Not reported 0 U 0 Not reported Not reported 3 С Not reported 3 True Not reported Not reported True True Not reported Ν False Not reported LEP R.D. White & Sons, Inc. 9107546415 Not reported Not reported Not reported 47809 Not reported Not reported Not reported 4 6 3 1 Not reported Ν Not reported Υ Not reported Not reported Not reported Not reported 1 9 А 2

S127734266

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

R.D. WHITE & SONS, INC. (Continued)

LUST:
Incident

Number: Last Modified: Incident Phase: NOV Issued: NORR Issued: 45 Day Report: Public Meeting Held: SOC Signed: Reclassification Report: RS Designation: Closure Request Date: Close-out Report:

47809 6/7/2021 RE Not reported S127734266

	Database(s)	LUST LUST SHWS					
	Zip I	6 6					
		łway w. łway w. Nw					
	Site Address	7105 OCEAN HIGHWAY W. 7102 OCEAN HIGHWAY W. N MULBERRY RD NW					
MARY							
ORPHAN SUMMARY		РЕКТҮ					
	Site Name	IRENE G. CLIFTON GLENN PARKER PROPERTY MULBERRY ROAD					
	EDR ID	889 890 074					
Count: 3 records.	City	GRISSETTOWN GRISSETTOWN SHALLOTTE					

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TC7151923.2s Page 15

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Lists of Federal NPL (Superfund) sites

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/26/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 20 Source: EPA Telephone: N/A Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/09/2023 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/26/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 20 Source: EPA Telephone: N/A Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/09/2023 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Lists of Federal Delisted NPL sites

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/26/2022SDate Data Arrived at EDR: 08/02/2022DDate Made Active in Reports: 08/22/2022Number of Days to Update: 20

Source: EPA Telephone: N/A Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/09/2023 Data Release Frequency: Quarterly

Lists of Federal sites subject to CERCLA removals and CERCLA orders

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 05/25/2021 Date Data Arrived at EDR: 06/24/2021 Date Made Active in Reports: 09/20/2021 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 09/06/2022 Next Scheduled EDR Contact: 01/10/2023 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/26/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 20 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/23/2023 Data Release Frequency: Quarterly

Lists of Federal CERCLA sites with NFRAP

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/26/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 20 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/23/2023 Data Release Frequency: Quarterly

Lists of Federal RCRA facilities undergoing Corrective Action

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/20/2022	Source: EPA
Date Data Arrived at EDR: 06/21/2022	Telephone: 800-424-9346
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

Lists of Federal RCRA TSD facilities

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/20/2022 Date Data Arrived at EDR: 06/21/2022 Date Made Active in Reports: 06/28/2022 Number of Days to Update: 7 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Quarterly

Lists of Federal RCRA generators

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022 Date Data Arrived at EDR: 06/21/2022 Date Made Active in Reports: 06/28/2022 Number of Days to Update: 7 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/20/2022 Date Data Arrived at EDR: 06/21/2022 Date Made Active in Reports: 06/28/2022 Number of Days to Update: 7 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators) RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/20/2022 Date Data Arrived at EDR: 06/21/2022 Date Made Active in Reports: 06/28/2022 Number of Days to Update: 7 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/16/2022Source: Department of the NavyDate Data Arrived at EDR: 05/19/2022Telephone: 843-820-7326Date Made Active in Reports: 07/29/2022Last EDR Contact: 08/03/2022Number of Days to Update: 71Next Scheduled EDR Contact: 11/21/2022Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/16/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/24/2022	Telephone: 703-603-0695
Date Made Active in Reports: 07/29/2022	Last EDR Contact: 08/17/2022
Number of Days to Update: 66	Next Scheduled EDR Contact: 12/05/2022
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/16/2022 Date Data Arrived at EDR: 05/24/2022 Date Made Active in Reports: 07/29/2022 Number of Days to Update: 66 Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 08/17/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2022Source: National Response Center, United States Coast GuardDate Data Arrived at EDR: 06/15/2022Telephone: 202-267-2180Date Made Active in Reports: 06/21/2022Last EDR Contact: 09/20/2022Number of Days to Update: 6Next Scheduled EDR Contact: 01/02/2023Data Release Frequency: Quarterly

Lists of state- and tribal (Superfund) equivalent sites

HSDS: Hazardous Substance Disposal Site

Locations of uncontrolled and unregulated hazardous waste sites. The file includes sites on the National Priority List as well as those on the state priority list.

Date of Government Version: 08/09/2011	Source: North Carolina Center for Geographic Information and Analysis
Date Data Arrived at EDR: 11/08/2011	Telephone: 919-754-6580
Date Made Active in Reports: 12/05/2011	Last EDR Contact: 10/11/2022
Number of Days to Update: 27	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: No Update Planned

Lists of state- and tribal hazardous waste facilities

SHWS: Inactive Hazardous Sites Inventory

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 06/01/2022	Source: Department of Environment, Health and Natural Resources
Date Data Arrived at EDR: 06/07/2022	Telephone: 919-508-8400
Date Made Active in Reports: 06/08/2022	Last EDR Contact: 09/06/2022
Number of Days to Update: 1	Next Scheduled EDR Contact: 12/19/2022
	Data Release Frequency: Quarterly

Lists of state and tribal landfills and solid waste disposal facilities

SWF/LF: List of Solid Waste Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/12/2021	Source: Department of Environment and Natural Resources
Date Data Arrived at EDR: 12/16/2021	Telephone: 919-733-0692
Date Made Active in Reports: 03/11/2022	Last EDR Contact: 09/22/2022
Number of Days to Update: 85	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Varies

DEBRIS: Solid Waste Active Disaster Debris Sites Listing

NCDEQ Division of Waste Management Solid Waste Section Temporary Disaster Debris Staging Site (TDDSS) Locations which are available to be activated in a disaster or emergency. Disaster Debris Sites can only be used for temporary disaster debris storage if the site's responsible party activates the site for use by notifying the NCDEQ DWM Solid Waste Section staff during an emergency

Date of Government Version: 06/13/2022	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/14/2022	Telephone: 919-707-8247
Date Made Active in Reports: 08/30/2022	Last EDR Contact: 09/12/2022
Number of Days to Update: 77	Next Scheduled EDR Contact: 12/26/2022
	Data Release Frequency: Varies

OLI: Old Landfill Inventory Old landfill inventory location information. (Does not include no further action sites and other agency lead sites).			
	Date of Government Version: 09/11/2020 Date Data Arrived at EDR: 10/09/2020 Date Made Active in Reports: 12/30/2020 Number of Days to Update: 82	Source: Department of Environment & Natural Resources Telephone: 919-733-4996 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies	
LCIE	LCID: Land-Clearing and Inert Debris (LCID) Landfill Notifications A list all of the Land-Clearing and Inert Debris (LCID) Landfill Notification facilities (under 2 acres in size) in North Carolina.		
	Date of Government Version: 07/05/2022 Date Data Arrived at EDR: 07/06/2022 Date Made Active in Reports: 09/19/2022 Number of Days to Update: 75	Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 10/03/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies	
List	s of state and tribal leaking storage tanks		
LAS	T: Leaking Aboveground Storage Tanks A listing of leaking aboveground storage tank s	ite locations.	
	Date of Government Version: 04/29/2022 Date Data Arrived at EDR: 05/04/2022 Date Made Active in Reports: 07/26/2022 Number of Days to Update: 83	Source: Department of Environment & Natural Resources Telephone: 877-623-6748 Last EDR Contact: 08/01/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Quarterly	
LUS		om the Regional Offices. It provides a more detailed explanation s, as well as what was previously found in the Incident Management Numbers are considered LUSTs.	
	Date of Government Version: 04/29/2022 Date Data Arrived at EDR: 05/04/2022 Date Made Active in Reports: 07/26/2022 Number of Days to Update: 83	Source: Department of Environment and Natural Resources Telephone: 919-707-8200 Last EDR Contact: 08/01/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Quarterly	
INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.			
	Date of Government Version: 04/20/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies	
INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land A listing of leaking underground storage tank locations on Indian Land.			
	Date of Government Version: 04/28/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021	Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023	

Next Scheduled EDR Contact: 01/30/2023

Data Release Frequency: Varies

Number of Days to Update: 88

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.				
Date of Government Version: 06/02/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/31/2022 Number of Days to Update: 79	Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies			
INDIAN LUST R7: Leaking Underground Storage Ta LUSTs on Indian land in Iowa, Kansas, and Ne				
Date of Government Version: 04/14/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies			
INDIAN LUST R6: Leaking Underground Storage Ta LUSTs on Indian land in New Mexico and Okla				
Date of Government Version: 04/28/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64	Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies			
INDIAN LUST R9: Leaking Underground Storage Ta LUSTs on Indian land in Arizona, California, N				
Date of Government Version: 04/08/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies			
INDIAN LUST R10: Leaking Underground Storage LUSTs on Indian land in Alaska, Idaho, Oregor				
Date of Government Version: 04/20/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies			
INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.				
Date of Government Version: 04/11/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies			
LUST TRUST: State Trust Fund Database This database contains information about claims against the State Trust Funds for reimbursements for expenses incurred while remediating Leaking USTs.				
Date of Government Version: 07/01/2022 Date Data Arrived at EDR: 07/06/2022 Date Made Active in Reports: 09/19/2022 Number of Days to Update: 75	Source: Department of Environment and Natural Resources Telephone: 919-733-1315 Last EDR Contact: 10/03/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Quarterly			

Lists of state and tribal registered storage tanks

FEMA UST: Underground Storage Tank Listing A listing of all FEMA owned underground storage tanks.

Date of Government Version: 10/14/2021	Source: FEMA
Date Data Arrived at EDR: 11/05/2021	Telephone: 202-646-5797
Date Made Active in Reports: 02/01/2022	Last EDR Contact: 09/27/2022
Number of Days to Update: 88	Next Scheduled EDR Contact: 01/16/2023
	Data Release Frequency: Varies

UST: Petroleum Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 07/29/2022Source: Department of Environment and Natural ResourcesDate Data Arrived at EDR: 08/01/2022Telephone: 919-733-1308Date Made Active in Reports: 10/17/2022Last EDR Contact: 08/01/2022Number of Days to Update: 77Next Scheduled EDR Contact: 11/14/2022Date Release Frequency: Quarterly

AST: AST Database

Facilities with aboveground storage tanks that have a capacity greater than 21,000 gallons.

Date of Government Version: 05/17/2022	Source: Department of Environment and Natural Resources
Date Data Arrived at EDR: 06/10/2022	Telephone: 919-715-6183
Date Made Active in Reports: 08/29/2022	Last EDR Contact: 09/08/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 12/26/2022
	Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/20/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64 Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 06/13/2022 Next Scheduled EDR Contact: 10/31/2022 Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/14/2022Source: IDate Data Arrived at EDR: 06/13/2022TelephonDate Made Active in Reports: 08/16/2022Last EDRNumber of Days to Update: 64Next Sche

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/28/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64 Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2022
Date Data Arrived at EDR: 06/13/2022
Date Made Active in Reports: 08/16/2022
Number of Days to Update: 64

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 06/02/2022	Source: EPA Region 4
Date Data Arrived at EDR: 06/13/2022	Telephone: 404-562-9424
Date Made Active in Reports: 08/31/2022	Last EDR Contact: 10/17/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/07/2022 Date Data Arrived at EDR: 06/13/2022 Date Made Active in Reports: 08/16/2022 Number of Days to Update: 64 Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/11/2022	Source:
Date Data Arrived at EDR: 06/13/2022	Telepho
Date Made Active in Reports: 08/16/2022	Last ED
Number of Days to Update: 64	Next Sch

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 10/17/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/20/2022	Source: EPA Region 8
Date Data Arrived at EDR: 06/13/2022	Telephone: 303-312-6137
Date Made Active in Reports: 08/16/2022	Last EDR Contact: 10/17/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: No Further Action Sites With Land Use Restrictions Monitoring A land use restricted site is a property where there are limits or requirements on future use of the property due to varying levels of cleanup possible, practical, or necessary at the site.

Date of Government Version: 06/01/2022	Source: Department of Environmental Quality
Date Data Arrived at EDR: 06/07/2022	Telephone: 919-508-8400
Date Made Active in Reports: 08/25/2022	Last EDR Contact: 09/06/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 12/19/2022
	Data Release Frequency: Quarterly

Lists of state and tribal voluntary cleanup sites

VCP: Responsible Party Voluntary Action Sites Responsible Party Voluntary Action site locations.

Date of Government Version: 06/01/2022	Source: Department of Environment and Natural Resources
Date Data Arrived at EDR: 06/07/2022	Telephone: 919-508-8400
Date Made Active in Reports: 08/25/2022	Last EDR Contact: 09/06/2022
Number of Days to Update: 79	Next Scheduled EDR Contact: 12/19/2022
	Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 07/08/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015 Date Data Arrived at EDR: 09/29/2015 Date Made Active in Reports: 02/18/2016 Number of Days to Update: 142 Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 09/13/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Varies

Lists of state and tribal brownfield sites

BROWNFIELDS: Brownfields Projects Inventory

A brownfield site is an abandoned, idled, or underused property where the threat of environmental contamination has hindered its redevelopment. All of the sites in the inventory are working toward a brownfield agreement for cleanup and liabitly control.

Date of Government Version: 06/01/2022	Source: Department of Environment and Natural Resources
Date Data Arrived at EDR: 06/27/2022	Telephone: 919-733-4996
Date Made Active in Reports: 06/29/2022	Last EDR Contact: 09/27/2022
Number of Days to Update: 2	Next Scheduled EDR Contact: 01/10/2023 Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 02/23/2022 Date Data Arrived at EDR: 03/10/2022 Date Made Active in Reports: 03/10/2022 Number of Days to Update: 0 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 09/09/2022 Next Scheduled EDR Contact: 12/26/2022 Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Center Listing A listing of recycling center locations.	
Date of Government Version: 01/31/2022 Date Data Arrived at EDR: 02/02/2022 Date Made Active in Reports: 04/29/2022 Number of Days to Update: 86	Source: Department of Environment & Natural Resources Telephone: 919-707-8137 Last EDR Contact: 07/19/2022 Next Scheduled EDR Contact: 11/07/2022 Data Release Frequency: Varies
HIST LF: Solid Waste Facility Listing A listing of solid waste facilities.	
Date of Government Version: 11/06/2006 Date Data Arrived at EDR: 02/13/2007 Date Made Active in Reports: 03/02/2007 Number of Days to Update: 17	Source: Department of Environment & Natural Resources Telephone: 919-733-0692 Last EDR Contact: 01/19/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
INDIAN ODI: Report on the Status of Open Dumps Location of open dumps on Indian land.	on Indian Lands
Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52	Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 07/21/2022 Next Scheduled EDR Contact: 11/07/2022 Data Release Frequency: Varies
ODI: Open Dump Inventory An open dump is defined as a disposal facility Subtitle D Criteria.	that does not comply with one or more of the Part 257 or Part 258
Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39	Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.	
Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137	Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 10/11/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: No Update Planned
IHS OPEN DUMPS: Open Dumps on Indian Land A listing of all open dumps located on Indian Land in the United States.	
Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 08/06/2014 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 176	Source: Department of Health & Human Serivces, Indian Health Service Telephone: 301-443-1452 Last EDR Contact: 07/21/2022 Next Scheduled EDR Contact: 11/07/2022 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 04/30/2022 Date Data Arrived at EDR: 05/24/2022 Date Made Active in Reports: 07/29/2022 Number of Days to Update: 66 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 08/18/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 04/30/2022 Date Data Arrived at EDR: 05/24/2022 Date Made Active in Reports: 07/29/2022 Number of Days to Update: 66 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 08/18/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Listing List of PFAS facilities

> Date of Government Version: 05/18/2022 Date Data Arrived at EDR: 05/18/2022 Date Made Active in Reports: 08/08/2022 Number of Days to Update: 82

Source: Department of Environmental Quality Telephone: 919-707-8233 Last EDR Contact: 07/27/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Varies

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/26/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 20 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/09/2023 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/19/2022
Date Data Arrived at EDR: 09/19/2022
Date Made Active in Reports: 09/30/2022
Number of Days to Update: 11

Source: U.S. Department of Transportation Telephone: 202-366-4555 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Quarterly

SPILLS: Spills Incident Listing

A listing spills, hazardous material releases, sanitary sewer overflows, wastewater treatment plant bypasses and upsets, citizen complaints, and any other environmental emergency calls reported to the agency.

Date of Government Version: 06/21/2022 Date Data Arrived at EDR: 06/22/2022 Date Made Active in Reports: 07/01/2022 Number of Days to Update: 9

Source: Department of Environment & Natural Resources Telephone: 919-807-6308 Last EDR Contact: 09/22/2022 Next Scheduled EDR Contact: 12/19/2022 Data Release Frequency: Quarterly

IMD: Incident Management Database Groundwater and/or soil contamination incidents

Date of Government Version: 04/29/2022 Date Data Arrived at EDR: 05/04/2022	Source: Department of Environment and Natural Resources Telephone: 877-623-6748
Date Made Active in Reports: 07/25/2022	Last EDR Contact: 08/01/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 11/14/2022
	Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 09/27/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/06/2013 Number of Days to Update: 62

Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 06/14/2001 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/06/2013 Number of Days to Update: 62

Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/20/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/21/2022	Telephone: (404) 562-8651
Date Made Active in Reports: 06/28/2022	Last EDR Contact: 09/19/2022
Number of Days to Update: 7	Next Scheduled EDR Contact: 01/02/2023
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/11/2022 Date Data Arrived at EDR: 08/11/2022 Date Made Active in Reports: 09/30/2022 Number of Days to Update: 50

Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 08/11/2022 Next Scheduled EDR Contact: 11/28/2022 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 06/07/2021	Source: USGS
Date Data Arrived at EDR: 07/13/2021	Telephone: 888-275-8747
Date Made Active in Reports: 03/09/2022	Last EDR Contact: 10/13/2022
Number of Days to Update: 239	Next Scheduled EDR Contact: 01/23/2023
	Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018Source: U.S. Geological SurveyDate Data Arrived at EDR: 04/11/2018Telephone: 888-275-8747Date Made Active in Reports: 11/06/2019Last EDR Contact: 10/03/2022Number of Days to Update: 574Next Scheduled EDR Contact: 01/16/2023Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 63 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 08/03/2022 Next Scheduled EDR Contact: 11/21/2022 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/20/2022 Date Data Arrived at EDR: 06/21/2022 Date Made Active in Reports: 08/31/2022 Number of Days to Update: 71 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 09/20/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 07/29/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 73 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 08/04/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 06/17/2020 Date Made Active in Reports: 09/10/2020 Number of Days to Update: 85 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 09/12/2022 Next Scheduled EDR Contact: 12/26/2022 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 08/14/2020 Date Made Active in Reports: 11/04/2020 Number of Days to Update: 82 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 08/11/2022 Next Scheduled EDR Contact: 11/28/2022 Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 07/18/2022 Date Data Arrived at EDR: 07/18/2022 Date Made Active in Reports: 07/29/2022 Number of Days to Update: 11

Source: EPA Telephone: 202-564-4203 Last EDR Contact: 07/18/2022 Next Scheduled EDR Contact: 10/31/2022 Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/26/2022		
Date Data Arrived at EDR: 08/02/2022		
Date Made Active in Reports: 08/22/2022		
Number of Days to Update: 20		

Source: EPA Telephone: 703-416-0223 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 12/12/2022 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/27/2022 Date Data Arrived at EDR: 05/04/2022 Date Made Active in Reports: 05/10/2022 Number of Days to Update: 6 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 10/11/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 07/26/2022	Source: EPA
Date Data Arrived at EDR: 08/02/2022	Telephone: 202-564-6023
Date Made Active in Reports: 08/31/2022	Last EDR Contact: 10/05/2022
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/14/2022
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2022	Source: EPA
Date Data Arrived at EDR: 01/20/2022	Telephone: 202-566-0500
Date Made Active in Reports: 03/25/2022	Last EDR Contact: 10/06/2022
Number of Days to Update: 64	Next Scheduled EDR Contact: 01/16/2023
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 09/27/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/10/2022	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 06/14/2022	Telephone: 301-415-7169
Date Made Active in Reports: 08/22/2022	Last EDR Contact: 10/11/2022
Number of Days to Update: 69	Next Scheduled EDR Contact: 01/30/2023
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2020	Source: Department of Energy
Date Data Arrived at EDR: 11/30/2021	Telephone: 202-586-8719
Date Made Active in Reports: 02/22/2022	Last EDR Contact: 08/25/2022
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/12/2022
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017 Date Data Arrived at EDR: 03/05/2019 Date Made Active in Reports: 11/11/2019 Number of Days to Update: 251 Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 08/25/2022 Next Scheduled EDR Contact: 12/12/2022 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 08/04/2022
Number of Days to Update: 96	Next Scheduled EDR Contact: 11/14/2022
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019 Date Data Arrived at EDR: 07/01/2019 Date Made Active in Reports: 09/23/2019 Number of Days to Update: 84 Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 09/21/2022 Next Scheduled EDR Contact: 01/10/2023 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40

Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2007 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transporation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 07/21/2022
Number of Days to Update: 80	Next Scheduled EDR Contact: 11/07/2022
	Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2022 Date Data Arrived at EDR: 07/21/2022 Date Made Active in Reports: 09/30/2022 Number of Days to Update: 71 Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 09/27/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2019 Date Data Arrived at EDR: 03/02/2022 Date Made Active in Reports: 03/25/2022 Number of Days to Update: 23 Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 10/06/2022
Number of Days to Update: 546	Next Scheduled EDR Contact: 01/16/2023
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/26/2021 Date Data Arrived at EDR: 07/27/2021 Date Made Active in Reports: 10/22/2021 Number of Days to Update: 87 Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 07/26/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 74 Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 08/24/2022 Next Scheduled EDR Contact: 11/28/2022 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/26/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 20

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/09/2023 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually	
US AIRS MINOR: Air Facility System Data A listing of minor source facilities.		
Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually	
MINES VIOLATIONS: MSHA Violation Assessmer Mines violation and assessment information.	nt Data Department of Labor, Mine Safety & Health Administration.	
Date of Government Version: 08/01/2022 Date Data Arrived at EDR: 08/02/2022 Date Made Active in Reports: 09/30/2022 Number of Days to Update: 59	Source: DOL, Mine Safety & Health Admi Telephone: 202-693-9424 Last EDR Contact: 10/04/2022 Next Scheduled EDR Contact: 12/12/2022 Data Release Frequency: Quarterly	
US MINES: Mines Master Index File Contains all mine identification numbers issue violation information.	ed for mines active or opened since 1971. The data also includes	
Date of Government Version: 08/03/2022 Date Data Arrived at EDR: 08/17/2022 Date Made Active in Reports: 08/31/2022 Number of Days to Update: 14	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 08/17/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: Semi-Annually	
US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.		
Date of Government Version: 05/06/2020 Date Data Arrived at EDR: 05/27/2020 Date Made Active in Reports: 08/13/2020 Number of Days to Update: 78	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/17/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: Varies	
US MINES 3: Active Mines & Mineral Plants Database Listing Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.		
Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011 Number of Days to Update: 97	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/17/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: Varies	
ABANDONED MINES: Abandoned Mines An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.		

Date of Government Version: 06/14/2022 Date Data Arrived at EDR: 06/15/2022 Date Made Active in Reports: 08/22/2022 Number of Days to Update: 68 Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 09/13/2022 Next Scheduled EDR Contact: 12/19/2022 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/13/2022 Date Data Arrived at EDR: 05/18/2022 Date Made Active in Reports: 05/31/2022 Number of Days to Update: 13 Source: EPA Telephone: (404) 562-9900 Last EDR Contact: 08/25/2022 Next Scheduled EDR Contact: 12/12/2022 Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/25/2022	Source: Environmental Protection Agency
Date Data Arrived at EDR: 07/01/2022	Telephone: 202-564-2280
Date Made Active in Reports: 09/30/2022	Last EDR Contact: 09/30/2022
Number of Days to Update: 91	Next Scheduled EDR Contact: 01/16/2023
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2020	Source: Department of Defense
Date Data Arrived at EDR: 01/11/2022	Telephone: 703-704-1564
Date Made Active in Reports: 02/14/2022	Last EDR Contact: 10/05/2022
Number of Days to Update: 34	Next Scheduled EDR Contact: 01/
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 202-564-0527
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/22/2022
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/05/2022
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/11/2022 Date Data Arrived at EDR: 08/11/2022 Date Made Active in Reports: 09/30/2022 Number of Days to Update: 50 Source: EPA Telephone: 800-385-6164 Last EDR Contact: 08/11/2022 Next Scheduled EDR Contact: 11/28/2022 Data Release Frequency: Quarterly

/23/2023

AIRS: Air Quality Permit Listing

A listing of facilities with air quality permits.

	Date of Government Version: 06/01/2022 Date Data Arrived at EDR: 06/07/2022 Date Made Active in Reports: 08/25/2022 Number of Days to Update: 79	Source: Department of Environmental Quality Telephone: 919-707-8726 Last EDR Contact: 08/31/2022 Next Scheduled EDR Contact: 12/19/2022 Data Release Frequency: Varies
	STOS: ASBESTOS Asbestos notification sites	
	Date of Government Version: 04/30/2022 Date Data Arrived at EDR: 05/17/2022 Date Made Active in Reports: 08/08/2022 Number of Days to Update: 83	Source: Department of Health & Human Services Telephone: 919-707-5973 Last EDR Contact: 10/11/2022 Next Scheduled EDR Contact: 01/30/2023 Data Release Frequency: Varies
COAL ASH: Coal Ash Disposal Sites A listing of coal combustion products distribution permits issued by the Division for the treatment, storage, transportation, use and disposal of coal combustion products.		
	Date of Government Version: 11/12/2021 Date Data Arrived at EDR: 12/16/2021 Date Made Active in Reports: 03/11/2022 Number of Days to Update: 85	Source: Department of Environment & Natural Resources Telephone: 919-807-6359 Last EDR Contact: 09/22/2022 Next Scheduled EDR Contact: 01/02/2023 Data Release Frequency: Varies
DRYCLEANERS: Drycleaning Sites Potential and known drycleaning sites, active and abandoned, that the Drycleaning Solvent Cleanup Program has knowledge of and entered into this database.		nd abandoned, that the Drycleaning Solvent Cleanup Program has
	Date of Government Version: 12/06/2021 Date Data Arrived at EDR: 12/13/2021 Date Made Active in Reports: 02/25/2022 Number of Days to Update: 74	Source: Department of Environment & Natural Resources Telephone: 919-508-8400 Last EDR Contact: 09/16/2022 Next Scheduled EDR Contact: 12/26/2022 Data Release Frequency: Varies
Financial Assurance 1: Financial Assurance Information Listing A listing of financial assurance information for underground storage tank facilities. Financial assurance is intende to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.		
	Date of Government Version: 04/29/2022 Date Data Arrived at EDR: 05/04/2022 Date Made Active in Reports: 07/22/2022 Number of Days to Update: 79	Source: Department of Environment & Natural Resources Telephone: 919-733-1322 Last EDR Contact: 08/01/2022 Next Scheduled EDR Contact: 11/14/2022 Data Release Frequency: Quarterly
Financial Assurance 2: Financial Assurance Information Listing Information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.		
	Date of Government Version: 10/02/2012 Date Data Arrived at EDR: 10/03/2012 Date Made Active in Reports: 10/26/2012 Number of Days to Update: 23	Source: Department of Environmental & Natural Resources Telephone: 919-508-8496 Last EDR Contact: 09/19/2022 Next Scheduled EDR Contact: 01/02/2023

Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Hazardous waste financial assurance information.

Date of Government Version: 01/12/2022 Date Data Arrived at EDR: 03/10/2022 Date Made Active in Reports: 06/03/2022 Number of Days to Update: 85	Source: Department of Environment & Natural Resources Telephone: 919-707-8222 Last EDR Contact: 08/09/2022 Next Scheduled EDR Contact: 12/19/2022 Data Release Frequency: Varies	
NPDES: NPDES Facility Location Listing General information regarding NPDES(Natio	onal Pollutant Discharge Elimination System) permits.	
Date of Government Version: 04/01/2022 Date Data Arrived at EDR: 04/27/2022 Date Made Active in Reports: 07/18/2022 Number of Days to Update: 82	Source: Department of Environment & Natural Resources Telephone: 919-733-7015 Last EDR Contact: 07/25/2022 Next Scheduled EDR Contact: 11/07/2022 Data Release Frequency: Varies	
UIC: Underground Injection Wells Listing A listing of uncerground injection wells locations.		
Date of Government Version: 02/22/2022 Date Data Arrived at EDR: 03/01/2022 Date Made Active in Reports: 05/27/2022 Number of Days to Update: 87	Source: Department of Environment & Natural Resources Telephone: 919-807-6412 Last EDR Contact: 09/01/2022 Next Scheduled EDR Contact: 12/12/2022 Data Release Frequency: Quarterly	
AOP: Animal Operation Permits Listing This listing includes animal operations that a	are required to be permitted by the state.	
Date of Government Version: 04/01/2020 Date Data Arrived at EDR: 05/26/2020 Date Made Active in Reports: 05/27/2020 Number of Days to Update: 1	Source: Department of Environmental Quality Telephone: 919-707-9129 Last EDR Contact: 09/09/2022 Next Scheduled EDR Contact: 12/19/2022 Data Release Frequency: Varies	
SEPT HAULERS: Permitted Septage Haulers Listing This list of all active and permitted Septage Land Application Site (SLAS) and Septage Detention and Treatment Facility (SDTF) sites in North Carolina. The purpose of this map is to provide the public and government entities a visual overview of the businesses that manage septage and septage facilities throughout the state.		
Date of Government Version: 07/07/2022 Date Data Arrived at EDR: 07/07/2022 Date Made Active in Reports: 07/19/2022 Number of Days to Update: 12	Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 10/11/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies	
CCB: Coal Ash Structural Fills (CCB) Listing These are not permitted Coal Ash landfills A list all of the now closed Coal Ash Structural Fills (CCB) in North Carolina, in point data form. The purpose is to provide the public and other government entities a visual overv of coal ash structural fills throughout the state and increase public awareness of their current locations.		
Date of Government Version: 05/10/2021 Date Data Arrived at EDR: 07/02/2021 Date Made Active in Reports: 09/27/2021 Number of Days to Update: 87	Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 10/06/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies	
MINES MRDS: Mineral Resources Data System Mineral Resources Data System		
Date of Government Version: 04/06/2018 Date Data Arrived at EDR: 10/21/2019 Date Made Active in Reports: 10/24/2019 Number of Days to Update: 3	Source: USGS Telephone: 703-648-6533 Last EDR Contact: 08/17/2022 Next Scheduled EDR Contact: 12/05/2022 Data Release Frequency: Varies	

Data Release Frequency: Varies

PCSRP: Petroleum-Contaminated Soil Remediation Permits To treat petroleum-contaminated soil in order to protect North Carolinaa??s environment and the health of the	
citizens of North Carolina. Date of Government Version: 07/05/2022 Date Data Arrived at EDR: 07/06/2022 Date Made Active in Reports: 09/19/2022 Number of Days to Update: 75	Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 10/03/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies
PCS INACTIVE: Listing of Inactive PCS Permits An inactive permit is a facility that has shut down or is no longer discharging.	
Date of Government Version: 11/05/2014 Date Data Arrived at EDR: 01/06/2015 Date Made Active in Reports: 05/06/2015 Number of Days to Update: 120	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/28/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Semi-Annually
PCS: Permit Compliance System PCS is a computerized management information system that contains data on National Pollutant Discharge Eliminati System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.	
Date of Government Version: 07/14/2011 Date Data Arrived at EDR: 08/05/2011 Date Made Active in Reports: 09/29/2011 Number of Days to Update: 55	Source: EPA, Office of Water Telephone: 202-564-2496 Last EDR Contact: 09/28/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Semi-Annually
PCS ENF: Enforcement data No description is available for this data	
Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 02/05/2015 Date Made Active in Reports: 03/06/2015 Number of Days to Update: 29	Source: EPA Telephone: 202-564-2497 Last EDR Contact: 09/28/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment, Health and Natural Resources in North Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/24/2013 Number of Days to Update: 176 Source: Department of Environment, Health and Natural Resources Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment, Health and Natural Resources in North Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/13/2014 Number of Days to Update: 196 Source: Department of Environment, Health and Natural Resources Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment, Health and Natural Resources in North Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/20/2013 Number of Days to Update: 172 Source: Department of Environment, Health and Natural Resources Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.		
Date of Government Version: 05/08/2022 Date Data Arrived at EDR: 05/09/2022 Date Made Active in Reports: 07/28/2022 Number of Days to Update: 80	Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 08/08/2022 Next Scheduled EDR Contact: 11/21/2022 Data Release Frequency: No Update Planned	
NJ MANIFEST: Manifest Information Hazardous waste manifest information.		
Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/16/2019 Number of Days to Update: 36	Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 10/03/2022 Next Scheduled EDR Contact: 01/16/2023 Data Release Frequency: Annually	
NY MANIFEST: Facility and Manifest Data Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.		
Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 10/29/2021 Date Made Active in Reports: 01/19/2022 Number of Days to Update: 82	Source: Department of Environmental Conservation Telephone: 518-402-8651 Last EDR Contact: 07/29/2022 Next Scheduled EDR Contact: 11/07/2022 Data Release Frequency: Quarterly	
PA MANIFEST: Manifest Information Hazardous waste manifest information.		
Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/19/2019 Date Made Active in Reports: 09/10/2019 Number of Days to Update: 53	Source: Department of Environmental Protection Telephone: 717-783-8990 Last EDR Contact: 10/05/2022 Next Scheduled EDR Contact: 01/23/2023 Data Release Frequency: Annually	
RI MANIFEST: Manifest information Hazardous waste manifest information		
Date of Government Version: 12/31/2020 Date Data Arrived at EDR: 11/30/2021 Date Made Active in Reports: 02/18/2022 Number of Days to Update: 80	Source: Department of Environmental Management Telephone: 401-222-2797 Last EDR Contact: 08/10/2022 Next Scheduled EDR Contact: 11/28/2022 Data Release Frequency: Annually	
WI MANIFEST: Manifest Information Hazardous waste manifest information.		
Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/19/2019 Date Made Active in Reports: 09/03/2019 Number of Days to Update: 76	Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 08/29/2022 Next Scheduled EDR Contact: 12/19/2022 Data Release Frequency: Annually	

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States. Daycare Centers: Child Care Facility List

Source: Department of Health & Human Services

Telephone: 919-662-4499

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory Source: US Fish & Wildlife Service Telephone: 703-358-2171

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK [®]- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

GARNET PLACE 271 SMITH AVENUE SHALLOTTE, NC 28470

TARGET PROPERTY COORDINATES

Latitude (North):	33.986648 - 33 59 11.93"
Longitude (West):	78.384917 - 78^ 23' 5.70"
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	741572.2
UTM Y (Meters):	3763564.0
Elevation:	50 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	13742070 SHALLOTTE, NC
Version Date:	2019
Northeast Map:	13702310 SUPPLY, NC
Version Date:	2019
Southeast Map: Version Date:	13702180 HOLDEN BEACH, NC 2019
Northwest Map:	13702258 EXUM, NC
Version Date:	2019

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

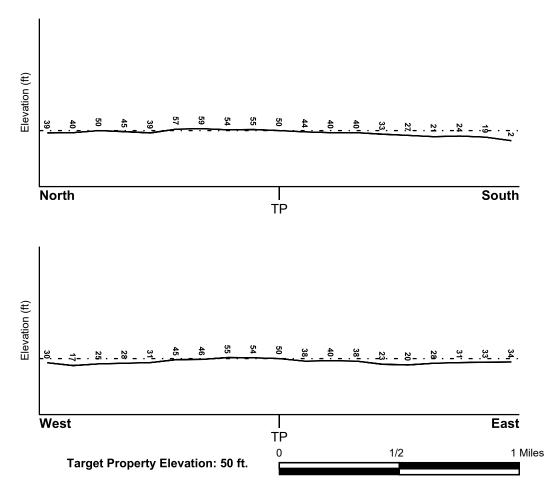
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type	
3720108800J	FEMA FIRM Flood data	
Additional Panels in search area:	FEMA Source Type	
3720108900J 3720109900J 3720109800J	FEMA FIRM Flood data FEMA FIRM Flood data FEMA FIRM Flood data	
<u>NWI Quad at Target Property</u> SHALLOTTE	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map	

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Cenozoic Category:	Stratifed Sequence
System:	Quaternary	
Series:	Pleistocene	
Code:	Qp (decoded above as Era, System & Series)	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

	Soil Component Name:	AUTRYVILLE
	Soil Surface Texture:	sand
	Hydrologic Group:	Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.
	Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.
Hydric Status: Soil does not meet the requirements for a hydric soil.		
	Corrosion Potential - Uncoated Steel:	LOW
	Depth to Bedrock Min:	> 60 inches

Depth to Bedrock Max: > 60 inches

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

	Soil Layer Information							
	Boundary Classification							
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)	
1	0 inches	26 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 6.50 Min: 4.50	
2	26 inches	41 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 5.50 Min: 4.50	
3	41 inches	58 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 5.50 Min: 4.50	
4	58 inches	85 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50	

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:	loamy sand loamy fine sand loam sandy loam
Surficial Soil Types:	loamy sand loamy fine sand loam sandy loam
Shallow Soil Types:	loamy sand sand sandy clay loam fine sandy loam
Deeper Soil Types:	sandy clay loam

GEOCHECK[®] - PHYSICAL SETTING SOURCE SUMMARY

stratified sand sandy clay

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS Federal FRDS PWS	1.000 Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2 3	USGS40000881713 USGS40000881689	1/2 - 1 Mile WSW 1/2 - 1 Mile SSW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	NC0410527	1/2 - 1 Mile ESE

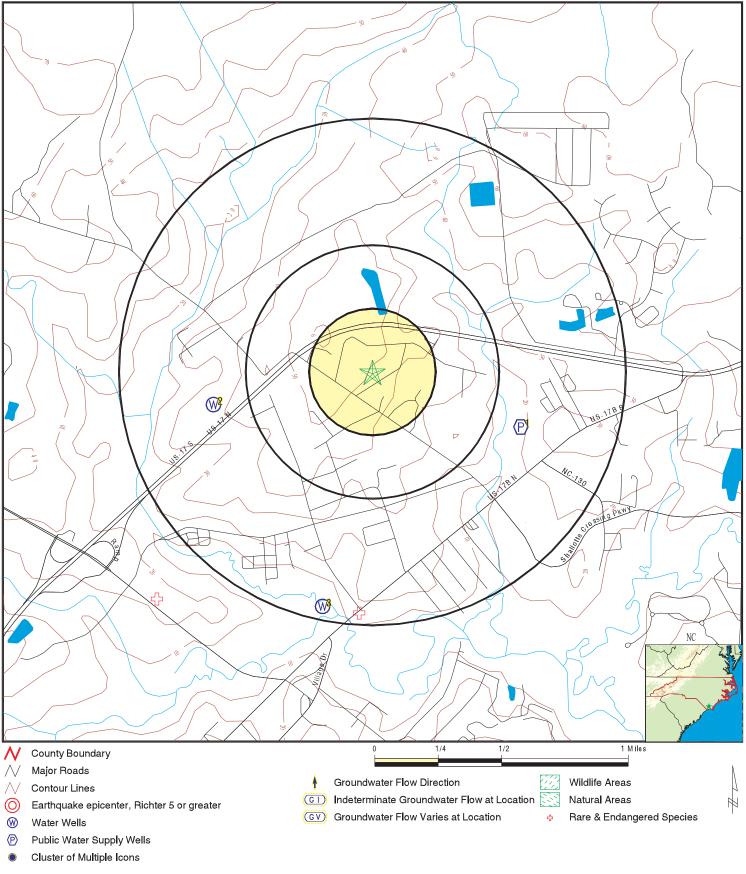
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

PHYSICAL SETTING SOURCE MAP - 7151923.2s



ADDRESS:	Shallotte NC 28470	CLIENT: TerraTech CONTACT: Jaxon Dean INQUIRY #: 7151923.2s
LAT/LONG:	33.986648 / 78.384917	DATE: October 18, 2022 3:19 pm

Map ID Direction Distance Elevation

listance levation			Database	EDR ID Number
SE /2 - 1 Mile ower			FRDS PWS	NC0410527
Epa region:	04	State:	NC	
Pwsid:	NC0410527	Pwsname:		KS TIRE SERVICE
		Stateserved:	NC	NO TIRE SERVICE
Cityserved:	Not Reported Not Reported	Fipscounty:	3701	0
Zipserved: Status:	Closed	Retpopsrvd:	100	9
				adwatar
Pwssvcconn:	1 TNCWS	Psource longname:	Priva	ndwater
Pwstype:		Owner:		
Contact:	BENTON, RICKY	Contactorgname:		FON, RICKY
Contactphone:	910-642-4131	Contactaddress1:		OX 919
Contactaddress2:	Not Reported	Contactcity:		EVILLE
Contactstate:	NC	Contactzip:	28472	2
Pwsactivitycode:	I			
PWS ID:	NC0410527	PWS type:	Syste	m Owner/Responsible Pa
PWS name:	CATHERINE CLEMMONS OR MGR	PWS address:	Not F	Reported
PWS city:	SHALLOTTE	PWS state:	NC	
PWS zip:	28459	PWS ID:	NC04	10527
PWS type:	System Owner/Responsible Party			
PWS name:	Not Reported	PWS address:	Not F	Reported
PWS city:	SHALLOTTE	PWS state:	NC	•
PWS zip:	28459	PWS ID:	NC04	10527
Activity status:	Active	Date system activated:	8506	
Date system deactivated:	Not Reported	Retail population:	0000	0050
System name:	CLEM'S TEXACO	System address:	Not F	Reported
System city:	SHALLOTTE	System state:	NC	•
System zip:	28459	5		
County FIPS:	010	City served:	SHAL	LOTTE
Population served:	Under 101 Persons	Treatment:	Untre	ated
Latitude:	335900	Longitude:	0782	230
Violation id:	501	Orig code:	S	
State:	NC	Violation Year:	2007	
Contamination code:	3100	Contamination Name:	Colifo	orm (TCR)
Violation code:	23	Violation name:	Monit	oring, Routine Major (TC
Rule code:	110	Rule name:	TCR	
Violation measur:	Not Reported	Unit of measure:	Not F	Reported
State mcl:	Not Reported	Cmp bdt:	07/01	/2007
Cmp edt:	09/30/2007			
Violation ID:	199	Orig Code:	S	
Enforcemnt FY:	2000	Enforcement Action:		/2000
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Reso	
Violation ID:	299	Orig Code:	S	
Enforcemnt FY:	2000	Enforcement Action:		/2000
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Reso	
Violation ID:	300	Orig Code:	S	
Enforcemnt FY:	2000	Enforcement Action:		/2000
Enforcement Detail:	St Compliance achieved	Enforcement Category:	Reso	
		Emorement Calegory.	Res0	iving .
Violation ID:	400	Orig Code:	S	

Enforcemnt FY: Enforcement Detail:

Violation ID: Enforcemnt FY: Enforcement Detail: Enforcement Category:

Violation ID: Enforcemnt FY: Enforcement Detail: 2000 St Compliance achieved

400 2000 St Formal NOV issued

400 2000 St Public Notif requested

500 2000 St Formal NOV issued

500 2000 St Public Notif requested

500 2003 St Compliance achieved

501 2008 St Formal NOV issued

501 2008 St Formal NOV issued

501 2008 St Public Notif requested

501 2013 State No Longer Subject to Rule Resolving 501

2008 St Public Notif requested Enforcement Action: Enforcement Category:

Orig Code: Enforcement Action:

Orig Code: Enforcement Action: Enforcement Category: 07/31/2000 Resolving

S 02/04/2000 Informal

S 02/04/2000 Informal

S 03/07/2000 Informal

S 03/07/2000 Informal

S 06/19/2003 Resolving

S 02/19/2008 Informal

S 02/19/2008 Informal

S 02/19/2008 Informal

S 10/24/2012

S 02/19/2008 Informal

2 WSW 1/2 - 1 Mile Lower

Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Formation Type: Construction Date: Well Depth Units: Well Hole Depth Units:

USGS-NC USGS North Carolina Water Science Center **BR-288 HOLIDAY INN** Type: Well Not Reported HUC: 03040207 Not Reported Drainage Area Units: Not Reported Not Reported Contrib Drainage Area Unts: Not Reported Northern Atlantic Coastal Plain aquifer system Peedee Formation Aquifer Type: Confined multiple aquifer 19990715 Well Depth: 40 40 ft Well Hole Depth: ft

FED USGS USGS40000881713

Ground water levels, Number of Measurements: Feet below surface: 14.50 Note: Not Reported

3 SSW 1/2 - 1 Mile Lower

Organization Name:

Contrib Drainage Area:

Well Hole Depth Units:

Construction Date:

Well Depth Units:

Monitor Location:

Description:

Aquifer: Formation Type:

Drainage Area:

1

Level reading date: Feet to sea level:

2000-10-17 Not Reported

USGS40000881689

FED USGS

Organization ID:

USGS-NC USGS North Carolina Water Science Center BR-040 Type: Well HUC: 03040207 Not Reported Not Reported Drainage Area Units: Not Reported Not Reported Contrib Drainage Area Unts: Not Reported Northern Atlantic Coastal Plain aquifer system **Upper Cretaceous Series** Aquifer Type: Not Reported Not Reported Well Depth: Not Reported Not Reported Well Hole Depth: Not Reported Not Reported

Map ID Ľ

Edr id:

Direction Distance			Database	EDR ID Number
Elclass: Eostat: Edr id:	P X NC50002369	Precision1: Gisid:	NC_NHEO M 82782	NC50002369
Elclass: Eostat:	A E	Precision1: Gisid:	NC_NHEO M 891249	NC50018050

NC50018050

GEOCHECK[®] - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for BRUNSWICK County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for BRUNSWICK COUNTY, NC

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.575 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory Source: US Fish & Wildlife Service Telephone: 703-358-2171

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

North Carolina Public Water Supply Wells Source: Department of Environmental Health Telephone: 919-715-3243

OTHER STATE DATABASE INFORMATION

North Carolina Wildlife Resources/Game Lands

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

All publicly owned game lands managed by the North Carolina Wildlife Resources Commission and as listed in Hunting and Fishing Maps.

NC Natural Heritage Sites: Natural Heritage Element Occurrence Sites

Source: Natural Heritage Occurrence Sites Center for Geographic Information and Analysis Telephone: 919-733-2090

A point coverage identifying locations of rare and endangered species, occurrences of exemplary or unique natural ecosystems (terrestrial or aquatic), and special animal habitats (e.g., colonial waterbird nesting sites).

NC Natural Areas: Significant Natural Heritage Areas

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

A polygon converage identifying sites (terrestrial or aquatic) that have particular biodiversity significance. A site's significance may be due to the presence of rare species, rare or high quality natural communities, or other important ecological features.

RADON

State Database: NC Radon Source: Department of Environment & Natural Resources Telephone: 919-733-4984 Radon Statistical and Non Statiscal Data

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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February 28, 2023

Mills Construction Company c/o Mr. Bobby Funk joe.conlan@mattamycorp.com

Addendum to Report of Phase I Environmental Site Assessment Garnet Place Shallotte North Carolina Our Project Number 121-22-107111

Gentlemen:

NV5 Engineers and Consultants, Inc. performed a Phase I Environmental Site Assessment of the above referenced property in November 2022 for Mills Construction Company. Our Report of Phase I Environmental Site Assessment was dated November 7, 2022. As part of our evaluation, we reviewed aerial photographs provided by Environmental Data Resources, Inc. (EDR). These vertical photographs generally have a scale which ranges between 1 inch to 500 feet and 1 inch to 1,000 feet. The reviewed photographs are provided in the attachment to this letter.

If you have any questions concerning this information, please do not hesitate to contact us.

Sincerely,

NV5 Engineers and Consultants, Inc. NC Engineering Corp. F-1333 NC Geology Corp. C-585

Will Stight

William B. Strayhorn, P.G. Senior Registered Geologist

Attachments

NV5 Engineers and Consultants, Inc. NC Engineering Corporation F-1333 4905 Professional Court, Raleigh, North Carolina 27609 (919) 876-9799

Garnet Place

271 Smith Avenue Shallotte, NC 28470

Inquiry Number: 6661997.5 September 17, 2021

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

EDR Aerial Photo Decade Package

Site Name:

Client Name:

Garnet Place 271 Smith Avenue Shallotte, NC 28470 EDR Inquiry # 6661997.5 TerraTech 4905 Professional Court Raleigh, NC 27609 Contact: Will Strayhorn



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:				
<u>Year</u>	<u>Scale</u>	Details	Source	
2016	1"=500'	Flight Year: 2016	USDA/NAIP	
2012	1"=500'	Flight Year: 2012	USDA/NAIP	
2009	1"=500'	Flight Year: 2009	USDA/NAIP	
2006	1"=500'	Flight Year: 2006	USDA/NAIP	
1999	1"=500'	Acquisition Date: January 01, 1999	USGS/DOQQ	
1998	1"=750'	Flight Date: March 11, 1998	USGS	
1993	1"=500'	Acquisition Date: February 19, 1993	USGS/DOQQ	
1987	1"=500'	Flight Date: March 03, 1987	USGS	
1983	1"=500'	Flight Date: March 02, 1983	NHAP	
1975	1"=500'	Flight Date: March 01, 1975	USGS	
1964	1"=500'	Flight Date: September 14, 1964	USGS	
1958	1"=500'	Flight Date: January 01, 1958	USGS	
1956	1"=500'	Flight Date: March 25, 1956	USDA	

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

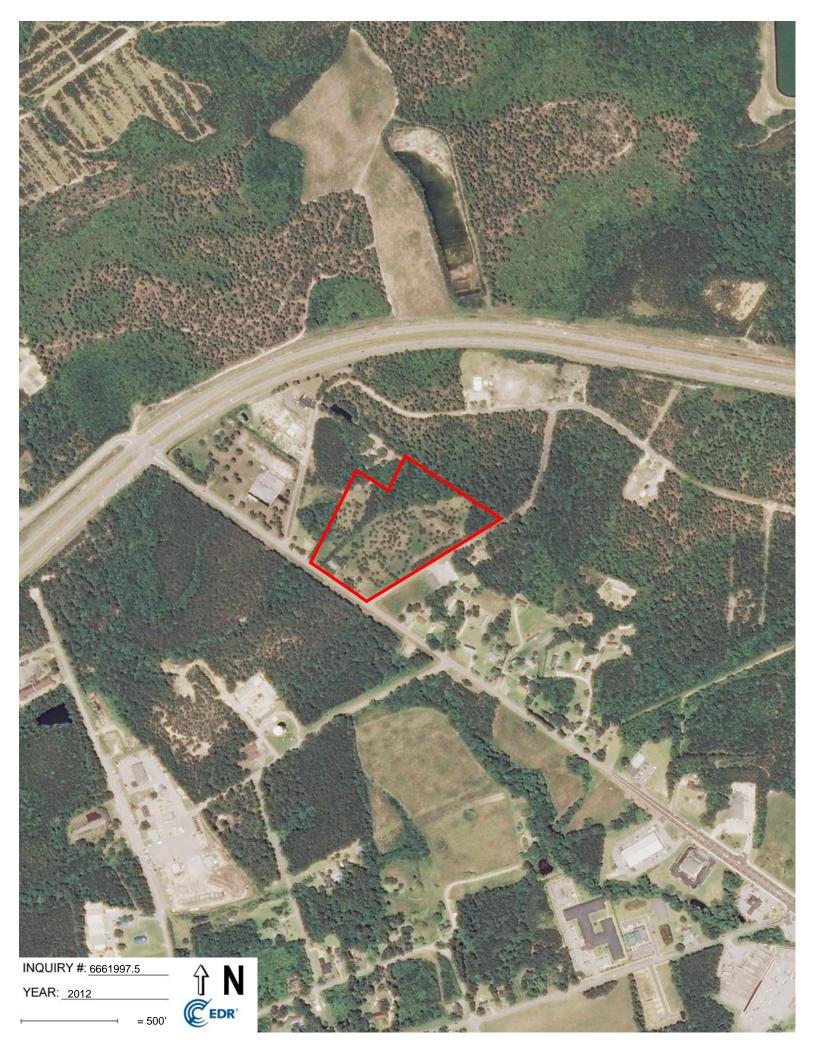
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This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing on prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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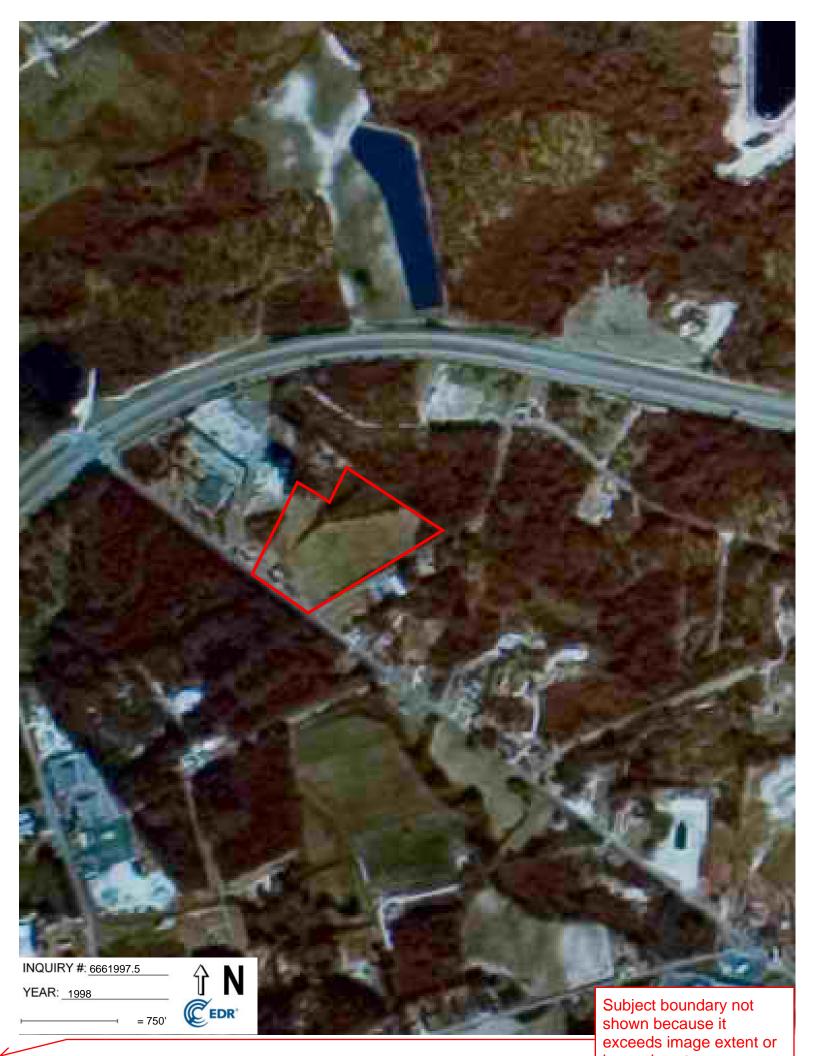








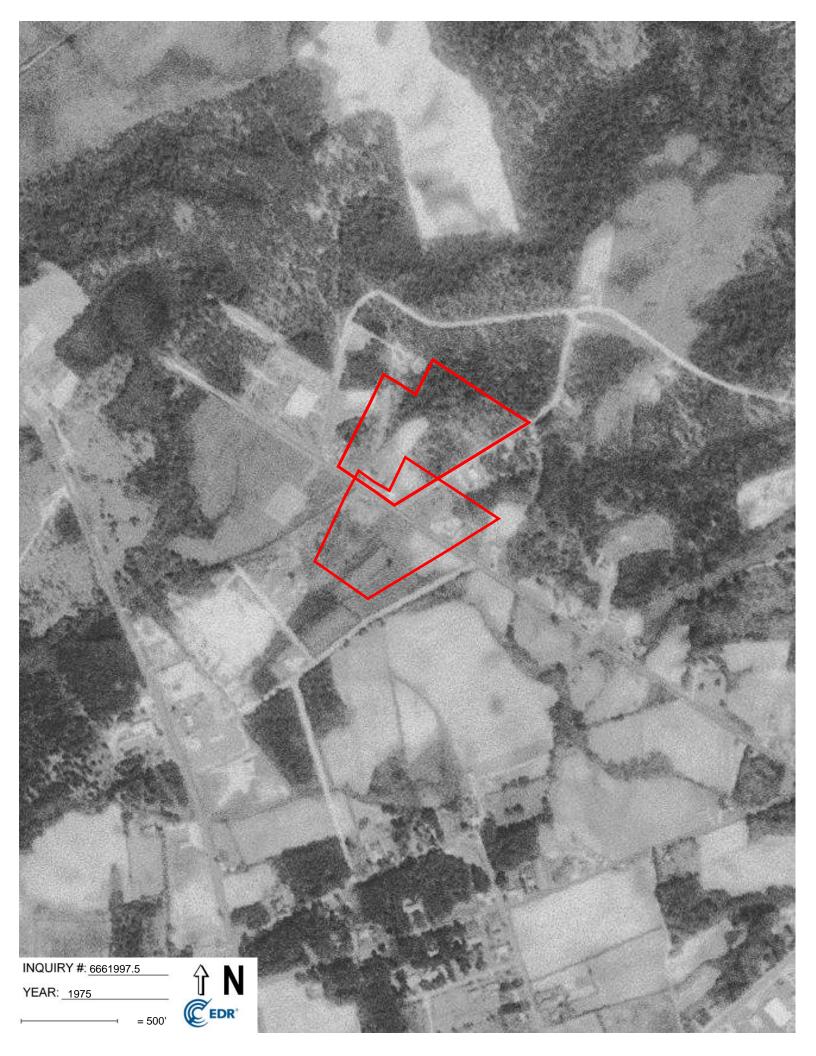


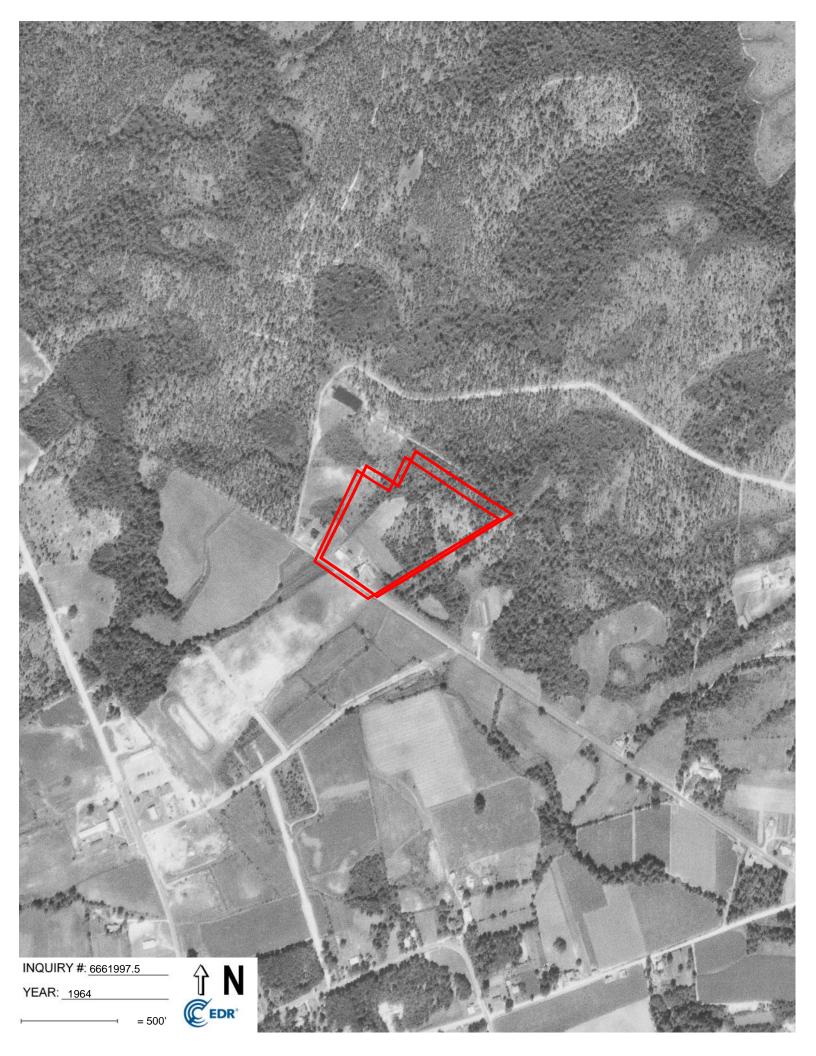


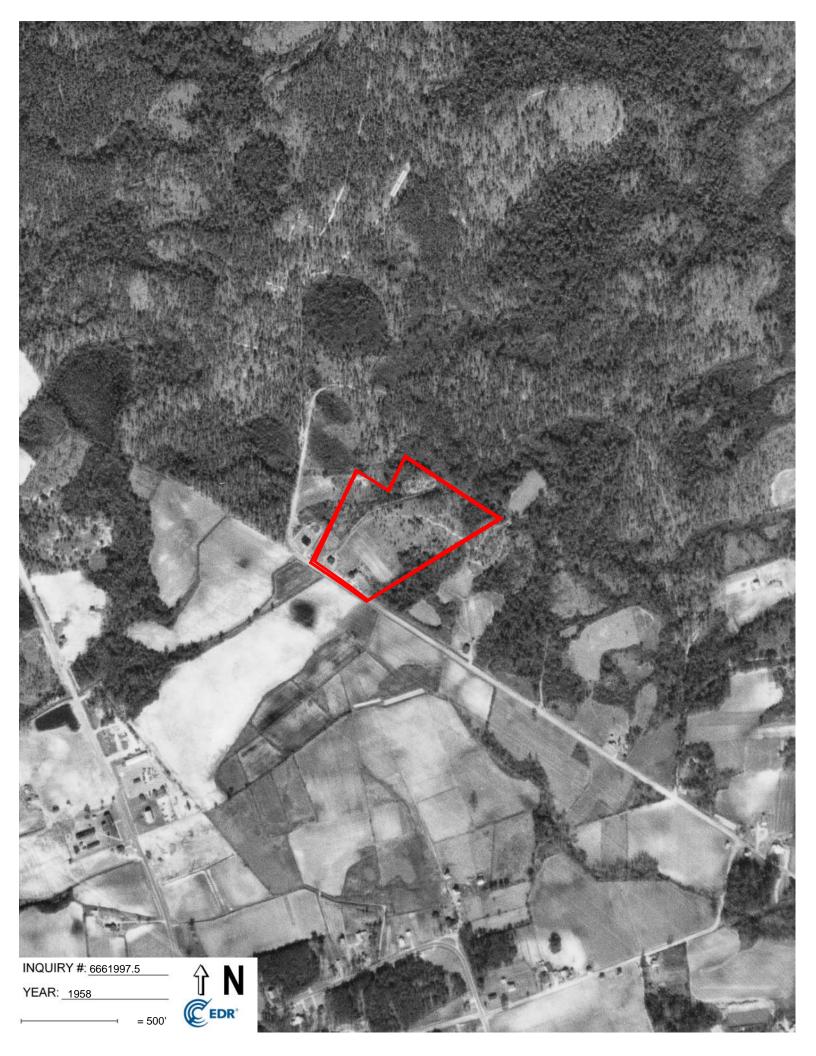




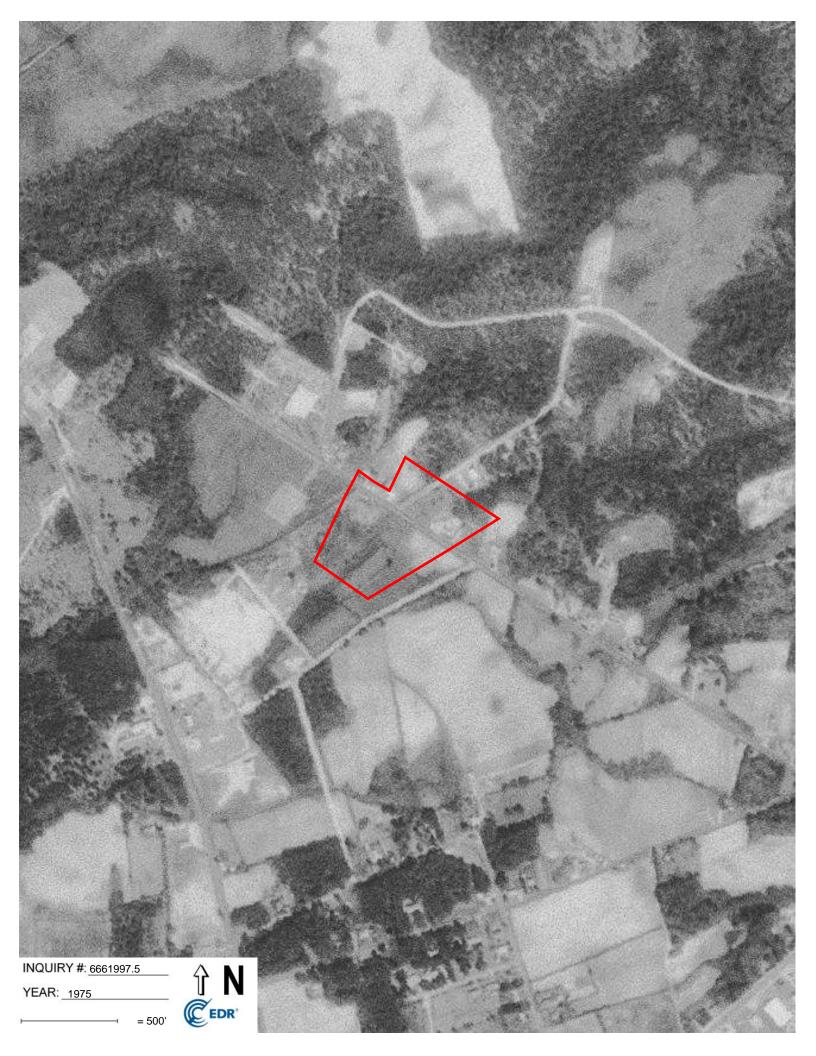


















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APPENDIX IV

STATEMENT OF QUALIFICATIONS

WILLIAM B. STRAYHORN, P.G. ENVIRONMENTAL RESUME

REFERENCES



Environmental Professional Statement

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR §312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

NV5 Engineers and Consultants, Inc.

Will Stryte

William B. Strayhorn, P.G. Senior Registered Geologist



EDUCATION: B. S. in Geological Sciences University of North Carolina at Chapel Hill, 2014

WILLIAM B. STRAYHORN, P.G. Senior Registered Geologist

REGISTRATION:

Licensed Geologist in NC (License #2551)

EXPERIENCE:

Seven years experience in environmental consulting, geotechnical engineering and construction materials testing. Organized and managed subsurface exploration programs for a variety of geotechnical engineering projects. Performed geotechnical engineering evaluations of shallow and deep foundations, including bearing capacity and settlement. Performed and evaluated Phase I and Phase II Environmental Site Assessments, Limited Site Assessments, and underground storage tank assessments. Performed and evaluated Environmental Reviews for U.S. Housing and Urban Development and United States Department of Agriculture Rural Development funded projects.

REPRESENTATIVE PROJECTS:

Commercial:

<u>Pennington Grove Apartments in Garner, North Carolina:</u> Phase I Environmental Site Assessment and U.S. Housing and Urban Development Environmental Review per 24 CFR 58. Performed soils testing for possible contamination following the completion of the Phase I ESA.

WFINV, LLC Property, 2024 Wait Avenue in Wake Forest, North Carolina: Guided Initial Abatement Actions, performed a Limited Site Assessment, a Comprehensive Site Assessment, and groundwater and drinking water monitoring in accordance with NCDEQ guidelines for a former filling station. Coordinated testing with NCDEQ UST Section to determine the extent of contamination and evaluate the risk to properties in the vicinity of the release; successfully closed the incident and achieved letter of No Further Action.

<u>2812 Hillsborough Street-J&J Automotive:</u> Performed a Phase I Environmental Site Assessment, Tank Closure by Removal and a Limited Site Assessment in accordance with current NCDEQ requirements for an urban site that has been utilized as an filling station and service station since the 1920s.

Governmental:

<u>610 First Street and 608 Town Commons in Lumberton North Carolina:</u> Phase II Environmental Site Assessment, Initial Site Assessment, and Notification of Hazardous Substance Reports for a vacant industrial complex in downtown Lumberton, North Carolina. Services included soil and ground water sampling and organizing asbestos testing and communicating initial site remediation measures with NC DEQ.



REFERENCES:

Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, American Society for Testing Materials (ASTM) 100 Barr Harbor Drive, West Conshohocken, PA, 19428-2529 <u>http://www.astm.org/</u>

Environmental Data Resources, Environmental Database Management, 6 Armstrong Road, 4th Floor, Shelton, CT 06484, phone: 1-800-352-0050 <u>http://www.edrnet.com/</u>

North Carolina Department of Environmental Quality (NCDEQ), 127 Cardinal Drive, Wilmington, NC 28405 phone: (910) 796-7215, <u>http://www.enr.state.nc.us/</u>

Brunswick County Register of Deeds Online, https://rod.brunsco.net/

Brunswick County GIS Website: <u>https://www.brunswickcountync.gov/gis/maps/</u>

Google Maps, 2021 http://www.google.com/maps/

NCDWM Site Locator Tool https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html

TopoZone Topographic Map Website www.topozone.com

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Report of Phase I

Environmental Site Assessment

Garnet Place

Shallotte, North Carolina

prepared for

Mills Construction Company

Prepared by

NV5 Engineers and Consultants NC Engineering Corporation F-1333 NC Geology Corporation C-585 4905 Professional Court Raleigh, NC 27609 919-876-9799

December 10, 2021

Mr. Bobby Funk Mills Construction Company bobby@millsconstructionco.com

Report of Phase I Environmental Site Assessment Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Gentlemen:

NV5 Engineers and Consultants, Inc. has completed a Phase I Environmental Site Assessment for the above referenced property. These services were requested and authorized by Mr. Bobby Funk of Mills Construction Company. Mr. Funk has informed us that this assessment is being performed for the purposes of landowner liability protection as described in ASTM E-1527(13) guidelines. The results of our assessment and findings are enclosed herein. This report and our observations are intended solely for the benefit of Mills Construction Company and may not be used or relied upon by any other party without our prior written consent.

PURPOSE AND CONDITIONS

The primary purpose of the Phase I Environmental Site Assessment (PESA) was to evaluate the potential for present or past contamination of the soil, groundwater and/or or surface water at the site with hazardous substances. This was accomplished by performing a site reconnaissance, reviewing several databases concerning present and past site activities, and reviewing government lists of sites in the area with known hazardous substance activity.

The findings and opinions conveyed via this PESA report are based on information obtained from a variety of sources enumerated herein, and which NV5 Engineers and Consultants believes are reliable. Nevertheless, NV5 Engineers and Consultants cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

Although we performed a reconnaissance at the subject site to observe for hazardous substance activity, it is possible that evidence of such activity exists at the site which is not readily visible. Evidence of hazardous substance activity may exist below the ground surface, below a thick growth of vegetation, or at some other location where the view is obstructed, or access is prevented. In general, we expended reasonable effort to perform observations in these areas. However, we did not perform excavations, removal of vegetation, or other effort to obtain visual access to these areas.

This report is subject to the limitations in ASTM E-1527(13), *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* This assessment did not include an evaluation of any additional issues, as described in section 13 of ASTM E-1527(13), such as asbestos containing materials, radon, lead based paint, lead in drinking water, and wetlands. This study also did not include any sampling or testing of groundwater, methane, or other materials at the site. In short, the site reconnaissance was intended to investigate for conditions which indicate to us the possible presence of hazardous materials at the site. Such reconnaissance does not definitively demonstrate the existence of, or the absence of, hazardous substances.

NV5 Engineers and Consultants, Inc. NC Engineering Corporation F-1333 4905 Professional Court, Raleigh, North Carolina 27609 (919) 876-9799

Page 2

METHODOLOGY USED

A site reconnaissance was performed to observe for indications that hazardous substances or hazardous wastes might have been stored on, disposed of, or utilized in bulk quantities on the property. Hazardous substances and hazardous wastes are many and varied. They include mineral substances such as asbestos; inorganic substances such as metals, metal salts, and acids; and organic chemicals such as fuels, pesticides, polychlorinated biphenyls (PCB's) and solvents.

The visual reconnaissance was made to observe for the presence of the following specific conditions (hereinafter the "conditions"):

- evidence of imported fill soils
- evidence of spills at the ground surface
- areas of dead, dying or distressed vegetation
- unnaturally stained or discolored surface soils
- unnaturally colored or milky seepage or seepage causing obvious precipitation of solids
- oil slicks or scum on surface waters
- chemical odors
- above ground storage tanks
- vertical pipes, casings, or other evidence of underground storage tanks
- barrels or hazardous waste storage areas
- electrical transformers

Our consultant, Environmental Data Resources, Inc. (EDR), performed a review of pertinent federal and state regulatory agency listings. The listings provide information concerning hazardous substance and hazardous waste activity that has been reported to State or Federal regulatory agencies. We reviewed their findings and located selected unmapped sites to determine if any sites were present within ASTM minimum search distances.

We reviewed aerial photographs provided by EDR and online at the Brunswick County GIS website. These vertical photographs generally have a scale which ranges between 1 inch to 500 feet and 1 inch to 1,000 feet.

We reviewed chain-of-ownership information at the Brunswick County Register of Deeds website. The names of previous owners of the property can provide indications of past site usage and possibly previous hazardous substance activity at the site.

We have interviewed persons familiar with the history of the property. These interviews were conducted through written surveys with a representative of the User of the report and the current Owner of the property.

We have performed an online file review of the North Carolina Department of Environmental Quality (NCDEQ) files for selected regulatory listed sites in the vicinity of the subject site as indicated by our consultant EDR.

SITE DESCRIPTION AND OBSERVATIONS

The subject site consists of two parcels totaling approximately 9.88 acres located at 271 Smith Avenue in Shallotte, North Carolina (Brunswick County Parcel ID: 18200008 and 1820000801). The approximate site location is shown on Figure 1 in Appendix I. The property boundaries, as obtained from the Brunswick County GIS website, are shown on Figure 2 in Appendix I. A topographic map of the site and surrounding areas, as obtained from the Brunswick County GIS Website is shown on Figure 3 in Appendix I.

Page 3

We performed a site reconnaissance of the subject site on September 16, 2021. At the time of our observations, the subject site consisted of an undeveloped parcel vegetated with low-lying grasses and scattered mature pine trees. We observed two sump pumps located along the southern portion of the site. Based on our review of aerial photographs, houses were previously located in the vicinity of the observed sump pumps. We also observed remnants of foundation debris in the southwestern portion of the site. The observed debris generally consisted of brick and concrete fragments. No soil staining, unusual odors, or distressed vegetation was observed near the scattered debris. We did not observe any indications of hazardous materials or petroleum products in the debris. Therefore, it is our opinion that the observed debris is a *de minimis* condition.

We did not observe any signs or paint markings indicating the presence of underground utilities at the subject site. However, based on the previous presence of residential homes at the location of the subject site within the Town of Shallotte municipal limits, underground water and sewer utilities are likely present. Additionally, a review of the parcel tax appraisal card indicated that the homes that were previously located on the site utilized electrical baseboard heat.

The northern portion of the site consisted of wooded areas vegetated with mature pine and deciduous trees and shrubs. We observed a drainage ditch with standing water located along the boundary between the grassy area and the wooded areas. We did not observe any surface sheen or scum on the standing water in the drainage ditch. We also observed dry drainage ditches along the roads on the southern and eastern boundary of the site.

The properties to the east of the subject site are developed with Quality Welding and Marine Supply. The properties to the west of the subject site are developed with a single-family home and a storage yard for B&B Crane Service. The properties to the north and south of the site generally consist of undeveloped wooded areas. Our observations did not indicate the use or storage of petroleum products or hazardous materials on nearby properties, as visible from the subject site.

Other than the conditions noted in the preceding paragraphs, none of the "environmental conditions" described on page 2 of this report were observed at the site. Photographs of the conditions observed are provided in Appendix II.

RECORDS REVIEW

We have reviewed topographic information for the site and surrounding area through site observations, and as shown on the Brunswick County GIS website. Based on our site observations and review of the topographic map, it appears that the ground surface of the subject site has an overall relief of approximately 8 feet sloping from the western boundary of the site towards Arnold Street along the eastern boundary of the site. A copy of the Brunswick County GIS topographic map is included as Figure 3 in Appendix I.

Based on our review of geologic maps, the site is located in the Coastal Plain Geologic Province. The soils in this area generally consist of marine sediments deposited during successive periods of fluctuating shoreline. The formations tend to dip slightly seaward, and several are exposed at the surface in bands paralleling the coast. Many beds exist only as fragmented, erosional remnants with more continuous strata located above and below. The soils typically classify as sands, silts, and clays, with irregular deposits of shells. Some of the existing formations contain predominantly plastic clays interbedded with strata of sands and poorly consolidated limestones. Others contain predominantly sands with localized deposits of highly plastic clays.

Groundwater is often a means of transporting contaminants from one area to another. Since groundwater flow often mirrors surface water drainage patterns, the direction of groundwater flow can sometimes be

Page 4

estimated by ground surface topography. Based on the topographic maps reviewed, and our observations at the site, the topography at the subject site generally slopes towards the northeastern corner of the site. Topography in the vicinity of the site appears to slope towards the southeast from a knoll located to the northwest of the site. In general, surface water, and possibly groundwater, at the subject site is generally expected to flow to the east and northeast. However, a detailed analysis of groundwater flow is beyond the scope of this study. Additionally, the direction of groundwater flow may change depending on seasonal fluctuations and other hydrogeologic factors.

Based on our observations during our site reconnaissance and a review of the Brunswick County GIS topographic map, the boundaries for the surface water drainage area for the subject site consist of the southern, eastern and northern boundaries of the subject site and a knoll located near Northside Drive to the northwest of the subject site. Development within the surface water drainage area generally consists of the single-family residential properties and the gravel storage yard associated with B&B Crane Service located to the north and west of the subject site.

We have reviewed aerial photographs of the site and surrounding properties from the previously referenced EDR report. The reviewed photographs include EDR Aerials from the USGS and USDA/NAIP dated 1956, 1958, 1964, 1975, 1983, 1987, 1993, 1998, 1999, 2006, 2009, 2012 and 2016. Additionally, we observed aerial photographs from Google Earth dated 1993, 1999, 2005 through 2011, 2013, 2014, 2016, and 2019. We also reviewed Google Street view photographs from 2008, 2013 and 2019.

The subject site appears as mixed wooded and cleared agricultural areas with two residential homes located along Smith Avenue in the aerial photograph taken between 1956 and 2019. A drainage ditch is also visible sloping from the southwestern corner of the western house towards the north. The drainage ditch turns to the northeast near the northwestern corner of the property and continues across the subject site until terminating near the wooded area to the north of the subject site. Arnold Street and the structures to the east of the subject site are first visible in the photograph from 1975. Warehouse buildings to the west of the site and a home and associated outbuildings to the northwest of the site are also first visible in 1975. Scattered debris is shown near the turn in the drainage ditch in the aerial photograph from 1993. A shed is first visible near the western home in the photograph from 1999. The eastern home is no longer present in the photograph from 2005, and the eastern portion of the subject site appears to have been cleared. The scattered pine trees observed during our site reconnaissance first appear in the photograph from 2007. The western home appears to have been demolished prior to the photograph from February 2014, and the foundation remnants are visible in the photographs taken until 2016. The gravel storage lot located on the eastern side of Northside Drive associated with B&B Crane Service to the west of the site is first visible in the photograph from 2016. The subject site and surrounding properties appear generally consistent with the conditions observed during our site reconnaissance in the aerial photographs taken between 2016 and 2019. Aerial photographs prior to 1956 and subsequent to 2019 were not reasonably ascertainable.

We have reviewed chain of ownership information available from the Brunswick County Register of Deeds and the Brunswick County GIS websites. The current owner of the property located at 271 Smith Avenue is McFearann, LLC. Past owners of the subject site have included: Meadowlands Golf Club, Inc. Mac Construction Company, Rufus C. Arnold, Susan A. Arnold, Berta Frink Arnold, J.G. Arnold, Wilson Arnold, Charlie Arnold, Georgia Mae Arnold Clemmons, and Georgia White Arnold. This information dates to 1944. Earlier listings of the subject site were not reasonably ascertainable. This ownership information provides no indication to us, based solely on the names mentioned, of past use, storage or disposal of hazardous materials or petroleum products at this site.

User and Owner surveys were provided to Mr. Bobby Funk with Mills Construction Company. The User survey was completed by Mr. Funk and returned to us. The Owner survey was completed by Ms. Teresa A. McLamb, managing member of McFearann, LLC, and returned to us by Mr. Funk. The available

Page 5

information indicates that the User and Owner are unaware of any environmental liens against the property. We also understand that the previous purchase price for the subject site was not reduced below the fair market value due to known environmental concerns.

We requested information from the Brunswick County Fire Department on any hazardous spills or leaks on or immediately adjacent to the subject sites. At the time of this report, we have not received a response. We will contact the appropriate parties if we receive a response indicating the release of hazardous materials or petroleum products. This lack of response is not considered a significant data gap since a review of the Incident Management Database was performed by EDR.

Information regarding regulatory listed sites in the vicinity of the subject site was obtained by reviewing information provided by our consultants, EDR. This information is provided in Appendix III. The subject site and adjoining sites were not present in the reviewed regulatory listed sites. Within the ASTM minimum search radius of the site, there was a site listed as a NC Hazardous Substance Disposal Site (HSDS) and a Leaking Underground Storage Tank (LUST) site associated with the NCDOT Maintenance Yard located at 29 Mulberry Street. The available information indicates that following remedial measures, the concentrations of petroleum constituents were sufficiently low that NCDEQ closed their incident file with no further action being required by the responsible party at that time. Additionally, this site was mapped outside the surface water drainage area of the subject site.

We have also reviewed information regarding regulatory listed sites in the vicinity of the subject site available online on the NCDEQ Department of Waste Management Site Locator Tool Website. In addition to the sites listed above, a number of petroleum product or hazardous materials sites were mapped along Main Street to the southeast of the subject site. These sites were mapped down gradient and outside of the surface water drainage area of the subject site.

FINDINGS

Based on the assessment procedures described herein, we provide the following summary of environmental conditions related to the property:

- 1. We observed remnants of foundation debris in the southwestern portion of the site. The observed debris generally consisted of brick and concrete fragments. No soil staining, unusual odors, or distressed vegetation was observed near the scattered debris. We did not observe any indications of hazardous materials or petroleum products in the debris. Therefore, it is our opinion that the observed debris is a *de minimis* condition.
- 2. We observed two sump pumps located along the southern portion of the site. Based on our review of aerial photographs, houses were previously located in the vicinity of the observed sump pumps, and these pumps were likely used in relation to the previous homes. Additionally, we did not observe any indications of hazardous materials or petroleum products in the vicinity of these sump pumps. Therefore, the presence of these sump pumps is not considered a Recognized Environmental Condition associated with the subject site.
- 3. A number of hazardous material or petroleum products sites were present in the reviewed government listings that are within the minimum search distance of the subject property. The available information indicated that following remediation at the LUST site, NCDEQ closed their incident file with no further action being required by the responsible party at that time. Additionally, information available regarding each of the regulatory sites mapped them down-gradient and outside of the surface water drainage area of the subject site. Therefore, based on the available information and the proximity of the sites to the subject site, it is our opinion that the probability of contamination of the soil or groundwater at the subject site above state allowable levels from these sources is low, and that the probability of vapor encroachment onto the subject site from these

Page 6

sources is low. Therefore, we do not consider these incidents to be a Recognized Environmental Conditions associated with the subject site.

- 4. Aerial photographs indicate that portions of the subject site may have been used for agricultural purposes between 1956 and 1983, indicating that agricultural chemicals may have been used at the site. There were no visible indications of agricultural chemicals at the site at the time of our visit and no information to indicate the excessive use of agricultural chemicals or leaks or spills of agricultural chemicals at the subject site. Additionally, site grading operations at the subject site have altered site topography and have possibly relocated the previously near-surface soils. It is our opinion that historical use of property for agricultural purposes, and the possible use of agricultural chemicals, with no other indications of excessive use or spills, is a business environmental risk, which is not an issue required to be investigated by ASTM E-1527(13).
- 5. Given the apparent age of the homes that were previously present on the property, there is a potential that oil was previously used at the site for heating purposes. Since the survey completed by the owner does not indicate any knowledge of a heating oil tank and we did not observe evidence of a tank, we do not consider this a Recognized Environmental Condition at this time. However, this should be considered a business environmental risk. If a tank is discovered during development of the property, it should be removed in accordance with NCDEQ guidelines.

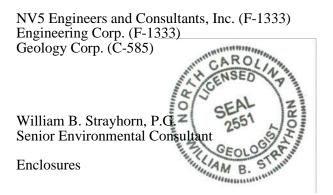
CONCLUSIONS

We have performed a Phase 1 Environmental Site Assessment in conformance with the scope and limitations of ASTM E-1527(13) of the property located at 271 Smith Avenue in Shallotte, North Carolina. Any exceptions to, or deletions from this practice are described in the Purpose and Conditions section of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property.

* * * * *

We have appreciated the opportunity to provide these services. If you have any questions concerning this information, or if we may be of additional service, please do not hesitate to contact us.

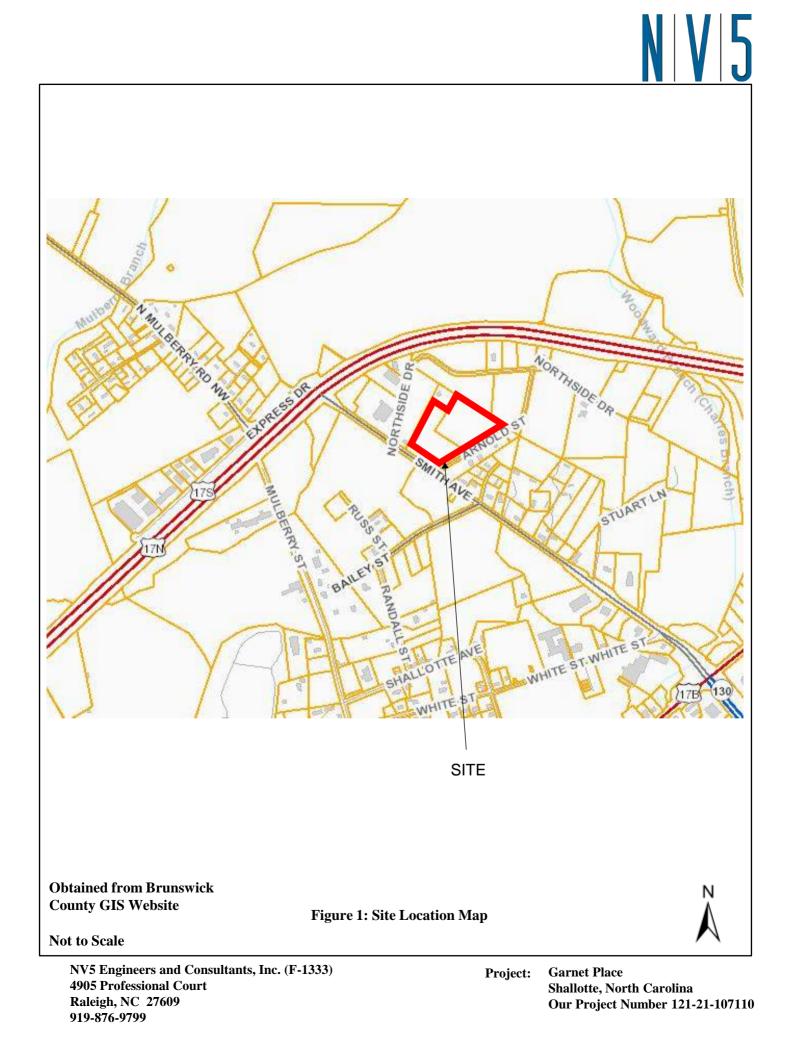
Sincerely,

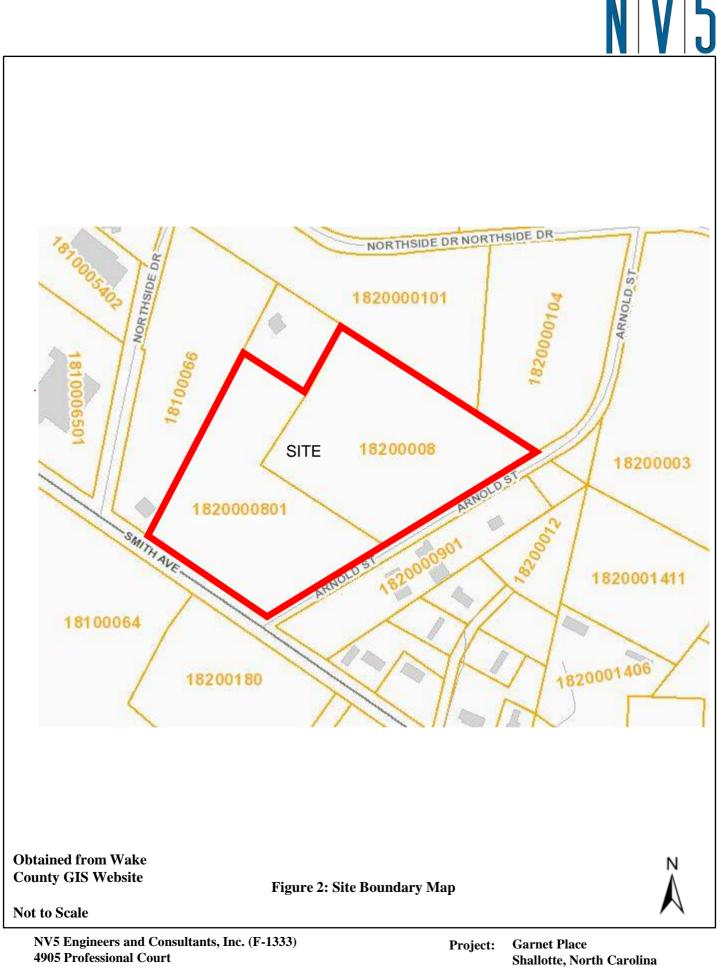


Erwin T. Williams, III, P.E. Principal Environmental Consultant

APPENDIX I

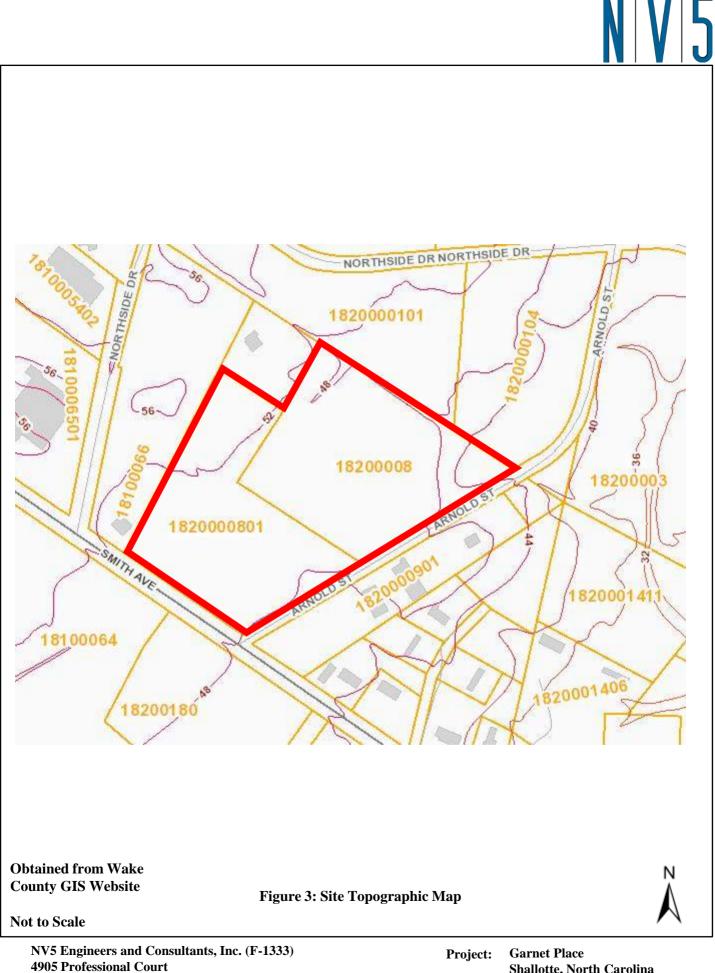
SITE MAPS





Raleigh, NC 27609 919-876-9799

Shallotte, North Carolina Our Project Number 121-21-107110



Raleigh, NC 27609

919-876-9799

Shallotte, North Carolina Our Project Number 121-21-107110

APPENDIX II

SITE PHOTOGRAPHS

<u>N | V | 5</u>



Photograph 1: Subject site, as viewed from the northeast along Arnold Street.

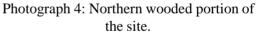


Photograph 2: Typical view of the subject site.



Photograph 3: Southern portion of the subject site.







Photograph 5: Sump pump cover, located in southern portion of the site.



Photograph 6: Interior of sump pump.

NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

<u>N | V | 5</u>



Photograph 7: Standing water in the creek along the northern portion of the site.



Photograph 8: Foundation remnants in the southwestern portion of the site.



Photograph 9: Welding and marine supply store to the east of the site.



Photograph 10: Typical residential homes in the vicinity of the site.



Photograph 11: Crane storage yard, as viewed from the site.



Photograph 12: Crane storage yard, as viewed from Northside Drive.

NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

N | V | 5

APPENDIX III

ENVIRONMENTAL DATA RESOURCES REPORT OF

REGULATORY LISTINGS

Garnet Place

271 Smith Avenue Shallotte, NC 28470

Inquiry Number: 6661997.2s September 15, 2021

The EDR Radius Map[™] Report with GeoCheck®



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBD-DVV

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GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
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Physical Setting Source Records Searched	PSGR-1

Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

271 SMITH AVENUE SHALLOTTE, NC 28470

COORDINATES

Latitude (North):	33.9864270 - 33° 59' 11.13"
Longitude (West):	78.3854810 - 78° 23' 7.73''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	741520.7
UTM Y (Meters):	3763538.2
Elevation:	51 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5946123 SHALLOTTE, NC
Version Date:	2013
Northeast Map:	5945167 SUPPLY, NC
Version Date:	2013
Southeast Map:	5946117 HOLDEN BEACH, NC
Version Date:	2013
Northwest Map:	5944846 EXUM, NC
Version Date:	2013

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140520
Source:	USDA

Target Property Address: 271 SMITH AVENUE SHALLOTTE, NC 28470

Click on Map ID to see full detail.

MAP				RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
Reg	NC DOT MAINTENANCE Y		NC HSDS	Same	1560, 0.295, SW
1	NCDOT - SHALLOTTE	29 MULBERRY ST.	LUST, IMD	Lower	1829, 0.346, SW

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL	National Priority List
	Proposed National Priority List Sites
NPL LIENS	Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL_____ National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY______ Federal Facility Site Information listing SEMS______ Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE...... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG	RCRA - Large Quantity Generators
RCRA-SQG	RCRA - Small Quantity Generators
RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity
	Generators)

Federal institutional controls / engineering controls registries

LUCIS...... Land Use Control Information System

US ENG CONTROLS	Engineering Controls Sites List
US INST CONTROLS	Institutional Controls Sites List

Federal ERNS list

ERNS_____ Emergency Response Notification System

State- and tribal - equivalent CERCLIS

SHWS_____ Inactive Hazardous Sites Inventory

State and tribal landfill and/or solid waste disposal site lists

SWF/LF	List of Solid Waste Facilities
DEBRIS	Solid Waste Active Disaster Debris Sites Listing
OLI.	Old Landfill Inventory
LCID.	Land-Clearing and Inert Debris (LCID) Landfill Notifications

State and tribal leaking storage tank lists

LAST	Leaking Aboveground Storage Tanks
INDIAN LUST	Leaking Underground Storage Tanks on Indian Land
LUST TRUST	State Trust Fund Database

State and tribal registered storage tank lists

FEMA UST	Underground Storage Tank Listing
	Petroleum Underground Storage Tank Database
AST	AST Database
INDIAN UST	. Underground Storage Tanks on Indian Land

State and tribal institutional control / engineering control registries

INST CONTROL...... No Further Action Sites With Land Use Restrictions Monitoring

State and tribal voluntary cleanup sites

VCP......Responsible Party Voluntary Action Sites INDIAN VCP......Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS_____ Brownfields Projects Inventory

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF	Solid Waste Facility Listing
SWRCY	Recycling Center Listing

INDIAN ODI	Report on the Status of Open Dumps on Indian Lands
ODI	Open Dump Inventory
DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations
IHS OPEN DUMPS	Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL	Delisted National Clandestine Laboratory Register
	National Clandestine Laboratory Register

Local Land Records

LIENS 2_____ CERCLA Lien Information

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
SPILLS	
SPILLS 90	SPILLS 90 data from FirstSearch
SPILLS 80	. SPILLS 80 data from FirstSearch

Other Ascertainable Records

FUDS DOD SCRD DRYCLEANERS US FIN ASSUR EPA WATCH LIST 2020 COR ACTION TSCA TRIS SSTS ROD RMP RAATS PRP PADS ICIS	2020 Corrective Action Program List Toxic Substances Control Act Toxic Chemical Release Inventory System Section 7 Tracking Systems Records Of Decision
MLTS. COAL ASH DOE. COAL ASH EPA. PCB TRANSFORMER. RADINFO. HIST FTTS. DOT OPS. CONSENT. INDIAN RESERV. FUSRAP. UMTRA. LEAD SMELTERS.	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System Steam-Electric Plant Operation Data Coal Combustion Residues Surface Impoundments List PCB Transformer Registration Database Radiation Information Database FIFRA/TSCA Tracking System Administrative Case Listing Incident and Accident Data Superfund (CERCLA) Consent Decrees Indian Reservations Formerly Utilized Sites Remedial Action Program Uranium Mill Tailings Sites Lead Smelter Sites Aerometric Information Retrieval System Facility Subsystem

ABANDONED MINES FINDS DOCKET HWC	Abandoned Mines Facility Index System/Facility Registry System Hazardous Waste Compliance Docket Listing
UXO	
	Enforcement & Compliance History Information
	_ EPA Fuels Program Registered Listing
AIRS	
ASBESTOS	
COAL ASH	
DRYCLEANERS	
	Financial Assurance Information Listing
	. NPDES Facility Location Listing
	Underground Injection Wells Listing
	. Animal Operation Permits Listing
	. Coal Ash Structural Fills (CCB) Listing
	Mineral Resources Data System
SEPT HAULERS	Permitted Septage Haulers Listing
PCSRP	Petroleum-Contaminated Soil Remediation Permits

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	_ EDR Proprietary Manufactured Gas Plants
EDR Hist Auto	_ EDR Exclusive Historical Auto Stations
EDR Hist Cleaner	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent NPL

NC HSDS: The Hazardous Substance Disposal Sites list contains locations of uncontrolled and unregulated hazardous waste sites. The file contains sites on the national priority list as well as the state priority list. The data source is the North Carolina Center for Geographic Information and Analysis.

A review of the NC HSDS list, as provided by EDR, and dated 08/09/2011 has revealed that there is 1 NC HSDS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NC DOT MAINTENANCE Y		SW 1/4 - 1/2 (0.295 mi.)	0	8

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incidents Management Database contains an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environment, & Natural Resources' Incidents by Address.

A review of the LUST list, as provided by EDR, and dated 04/30/2021 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NCDOT - SHALLOTTE	29 MULBERRY ST.	SW 1/4 - 1/2 (0.346 mi.)	1	8
Incident Phase: Closed Out				
Product Type: PETROLEUM				
Incident Number: 19721				
Current Status: File Located in Archives				

ADDITIONAL ENVIRONMENTAL RECORDS

Records of Emergency Release Reports

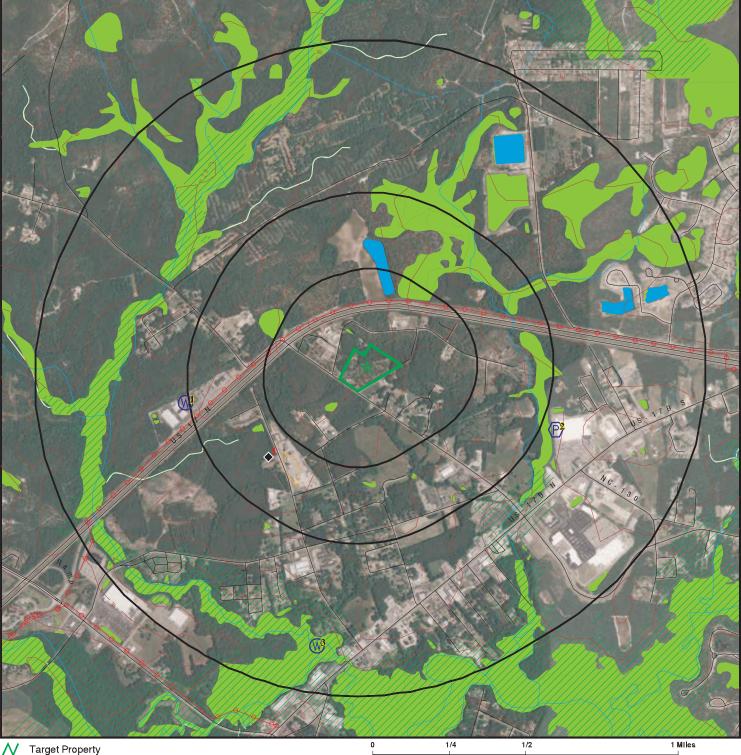
IMD: Incident Management Database.

A review of the IMD list, as provided by EDR, and dated 07/30/2021 has revealed that there is 1 IMD site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NCDOT - SHALLOTTE	29 MULBERRY ST.	SW 1/4 - 1/2 (0.346 mi.)	1	8
Facility Id: 19721				

There were no unmapped sites in this report.

OVERVIEW MAP - 6661997.2S



- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

- - Indian Reservations BIA
 - Power transmission lines Special Flood Hazard Area (1%)
 - 0.2% Annual Chance Flood Hazard
 - National Wetland Inventory
 - State Wetlands

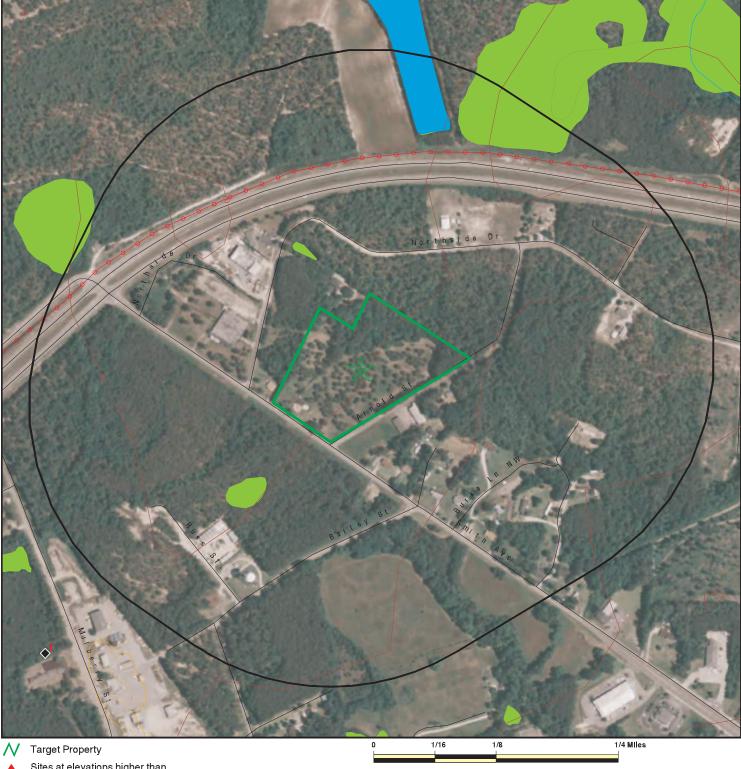
This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

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Hazardous Substance Disposal Sites

 Garnet Place 271 Smith Avenue	CLIENT: TerraTech CONTACT: Will Stravhorn
 Shallotte NC 28470 33.986427 / 78.385481	INQUIRY #: 6661997.2s DATE: September 15, 2021 1:43 am

DETAIL MAP - 6661997.2S



- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors 4
- National Priority List Sites
- Dept. Defense Sites



Indian Reservations BIA Power transmission lines National Wetland Inventory State Wetlands

Hazardous Substance Disposal Sites

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This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

ADDRESS: 271 Smith Avenue CC Shallotte NC 28470 INC	LIENT: TerraTech ONTACT: Will Strayhorn IQUIRY #: 6661997.2s ATE: September 15, 2021 1:44 am
--	---

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Federal Delisted NPL sit	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities l	ist						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD	facilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	rs list							
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional cor engineering controls re								
LUCIS US ENG CONTROLS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list	0.004		0					0
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equiva			0	0	4	0		4
NC HSDS	1.000	•	0	0	1	0	NR	1
State- and tribal - equive		5	0	0	0	0		0
SHWS State and tribal landfill a solid waste disposal sit			0	0	0	0	NR	0
SWF/LF DEBRIS OLI LCID	0.500 0.500 0.500 0.500 0.500		0 0 0 0	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	0 0 0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted		
State and tribal leaking storage tank lists										
LUST LAST INDIAN LUST LUST TRUST	0.500 0.500 0.500 0.500		0 0 0	0 0 0 0	1 0 0 0	NR NR NR NR	NR NR NR NR	1 0 0 0		
State and tribal register	ed storage ta	nk lists								
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0		
State and tribal instituti control / engineering co		95								
INST CONTROL	0.500		0	0	0	NR	NR	0		
State and tribal volunta	ry cleanup sit	es								
VCP INDIAN VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0		
State and tribal Brownfi	ields sites									
BROWNFIELDS	0.500		0	0	0	NR	NR	0		
ADDITIONAL ENVIRONME	NTAL RECORD	<u>s</u>								
Local Brownfield lists										
US BROWNFIELDS	0.500		0	0	0	NR	NR	0		
Local Lists of Landfill / Waste Disposal Sites	Solid									
HIST LF SWRCY INDIAN ODI ODI DEBRIS REGION 9 IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0		
Local Lists of Hazardou Contaminated Sites	is waste /									
US HIST CDL US CDL	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0		
Local Land Records										
LIENS 2	0.001		0	NR	NR	NR	NR	0		
Records of Emergency	-	orts								
HMIRS SPILLS IMD	0.001 0.001 0.500		0 0 0	NR NR 0	NR NR 1	NR NR NR	NR NR NR	0 0 1		

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SPILLS 90 SPILLS 80	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS SSTS	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		Ő	NR	NR	NR	NR	Õ
PADS	0.001		Õ	NR	NR	NR	NR	Õ
ICIS	0.001		Õ	NR	NR	NR	NR	Õ
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
	1.000		0	0	0	0	NR	0
INDIAN RESERV FUSRAP	1.000		0	0	0	0	NR NR	0
UMTRA	1.000 0.500		0 0	0 0	0 0	0 NR	NR	0 0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		Ő	0	NR	NR	NR	õ
ABANDONED MINES	0.250		Ō	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
ASBESTOS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
NPDES UIC	0.001 0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0
AOP	0.001		0	NR	NR	NR	NR	0
CCB	0.500		0	0	0	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted	
SEPT HAULERS PCSRP	0.001 0.500		0 0	NR 0	NR 0	NR NR	NR NR	0 0	
EDR HIGH RISK HISTORICAL RECORDS									
EDR Exclusive Records									
EDR MGP EDR Hist Auto EDR Hist Cleaner	1.000 0.125 0.125		0 0 0	0 NR NR	0 NR NR	0 NR NR	NR NR NR	0 0 0	
EDR RECOVERED GOVERNMENT ARCHIVES									
Exclusive Recovered Go	vt. Archives								
RGA HWS RGA LF RGA LUST	0.001 0.001 0.001		0 0 0	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0	
- Totals		0	0	0	3	0	0	3	

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction Distance Elevation	Site	IAP FINDINGS	Database(s)	EDR ID Number EPA ID Number
HSDS Region SW 1/4-1/2 1560 ft.	NC DOT MAINTENANCE YARD PCB		NC HSDS	S102442985 N/A
	HSDS: Name: Address: City: Site Type: Superfun Number: Total area in coverage units: Total area in coverage units: X-value coordinate in feet: Y-value coordinate in feet: Y-value coordinate in feet: Sites designated as superfund cleanup sites: Length of feature in internal units: Area of feature in internal units squared:	NC DOT MAINTENANCE YARD PCB Not reported 1 Not reported 9955.72070312 446.33972167 2184949.75 84826.8359375 883 446.339760139 9955.72225		
1 SW 1/4-1/2 0.346 mi. 1829 ft.	NCDOT - SHALLOTTE 29 MULBERRY ST. SHALLOTTE, NC 28459		LUST IMD	S105766144 N/A
Relative: Lower	LUST: Name: NCD	OT - SHALLOTTE		

NCDOT - SHALLOTTE Name: Address: 29 MULBERRY ST. Actual: SHALLOTTE, NC 28459 City,State,Zip: 00-0-000 Facility ID: UST Number: WI-1659 Incident Number: 19721 Contamination Type: Soil Source Type: Leak-underground Product Type: PETROLEUM Date Reported: 02/02/1999 Date Occur: 12/18/1998 Cleanup: 12/18/1998 **Closure Request:** Not reported Close Out: 04/24/2001 Level Of Soil Cleanup Achieved: Residential Tank Regulated Status: REGULATED # Of Supply Wells: 0 Commercial/NonCommercial UST Site: COMMERCIAL Risk Classification: L Risk Class Based On Review: L Corrective Action Plan Type: Not reported NOV Issue Date: 07/12/2000 02/16/1999 NORR Issue Date: Site Priority: 20 Phase Of LSA Req: Not reported Site Risk Reason: Not reported Land Use: Residential MTBE: Not reported MTBE1: Unknown Flag: No Flag1: No LUR Filed: Not reported

0

Release Detection:

49 ft.

MAP FINDINGS

File Located in Archives

Database(s)

EDR ID Number EPA ID Number

S105766144

NCDOT - SHALLOTTE (Continued)

Current Status: RBCA GW: PETOPT: RPL: CD Num: Reel Num: RPOW: RPOP: Error Flag: Error Code: Valid: Lat/Long Decimal: Testlat: Regional Officer Project Mgr: Region: Company: Contact Person: Telephone: **RP Address:** RP City,St,Zip: **RP** County: Comments: 5 Min Quad: PIRF: Facility Id: Date Occurred: Date Reported: **Description Of Incident:** Owner/Operator: Ownership: Operation Type: Type: Location: Site Priority: Priority Update: Wells Affected Y/N: Samples Include: 7#5 Minute Quad: 5 Minute Quad: Pirf/Min Soil: Release Code: Source Code: Err Type: Cause: Source: Ust Number: Last Modified: Incident Phase: NOV Issued: NORR Issued: 45 Day Report:

Public Meeting Held: Corrective Action Planned:

SOC Signed:

Not reported Not reported False 140 3911 False False 0 Not reported False 33.9822 -78.3911 Not reported DTM WIL NCDOT MR. ERIC MOTZNO 9197332220 4809 BERYL RD. RALEIGH, NC 27606 Not reported File pulled for archiving on 9/7/11 by GJ Not reported 19721 12/18/1998 2/16/1999 UST CLOSURE REPORT DOCUMENTS SOIL CONTAM. AROUND AN OLD HEATING OIL TANK; DOT PLANS TO EXCAVATE ABOUT 20-30 CUBIC YARDS OF SOIL AND RESAMPLE ERIC MOTZNO, ENV. ENG. 7 1 4 1 20L 3/3/1999 Not reported Not reported Not reported Not reported Not reported Not reported MIN_SOIL Not reported Not reported Not reported Not reported 6/5/2001 **Closed Out** Not reported Not reported Not reported Not reported Not reported Not reported

MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

S105766144

NCDOT - SHALLOTTE (Continued)

Reclassification Report:	Not reported
RS Designation:	Not reported
Closure Request Date:	Not reported
Close-out Report:	4/24/2001

Click here to access the North Carolina DEQ records for this facility:

Facility ID:	19721
Name:	NCDOT - SHALLOTTE
Address:	29 MULBERRY ST.
City,State,Zip:	SHALLOTTE, NC
Date Occurred:	12/18/1998
Submit Date:	2/16/1999
	REPORT DOCUMENTS SOIL CONTAM. AROUND AN OLD HEATING OIL
	IS TO EXCAVATE ABOUT 20-30 CUBIC YARDS OF SOIL AND
RESAMPLE	
Operator:	MR. ERIC MOTZNO
UST ID:	Not reported
Incident ID:	Not reported
Initials of UST Regional Contact:	Not reported
Regional Office:	Not reported
Responsible Party/Company Name:	Not reported
Ownership:	7
Responsible Party Contact Name:	Not reported
Operation:	1
Responsible Party Mailing Address:	Not reported
Responsible Party City, State, Zip:	Not reported
Ownership:	State
Operation Type:	Public Service
Responsible Party County:	Not reported
Source of Contamination:	GASOLINE/DIESEL/KEROSENE
Source:	3
Туре:	3
Location:	1
Petroleum Type:	Not reported
Date Incident Reported:	Not reported
Whether Tank is Commercial or Non Commercial:	Not reported
Site Priority:	20L
Whether Tank is Regulated:	Not reported
Priority Update:	3/3/1999
Notice of Regulatory Requirement:	Not reported
Wells Affected:	Not reported
Notice of Violation:	Not reported
Phase 1 or Phase 2:	Not reported
Num Affected:	Not reported
Site Priority:	Not reported
Туре:	GASOLINE/DIESEL
Location:	Facility
Current Risk Condition:	Not reported
Sampled By:	Not reported
Samples Include:	Not reported
Initial reported risk of incident (never changes):	Not reported
7.5 Min Quad:	Not reported
5 Min Quad:	Not reported
Intermediate Condition Present:	Not reported
Latitude:	33.98222222

MAP FINDINGS

Not reported

. Not reported

Not reported Not reported Not reported Not reported

2001-04-24 00:00:00

Database(s)

EDR ID Number EPA ID Number

NCDOT - SHALLOTTE (Continued)

45 Day Report: Public Meeting Held:

Corrective Action Planned:

SOC Sighned: Reclassification Report: RS Designation:

Closure Request Date: Close-out Report:

	Longitude: Use of Land, Industrial: Corrective Action Plan Selected - up to 5: RBCA: Date Close Review Requested From RP or Date Case Closed: Extent of Contamination: Number of Supply Wells Located on Prope MTBE in Well Y/N/U Yes, No or Unknown Facility Phone Number: MTBE in Groundwater Y/N/U Yes, No or U Date Land Use Restriction Filed: Date Cleanup Initiated: Record Status: RBCA GW Codes: RBCA GW: Pollutant Type Present: Reference Number for Media Disk for Arch RP Owner?:	rty: : Jnknown:	Not reported
	RP Operator?:		Not reported
	RP Landowner?:		Not reported
:	Status: Facility ID: Last Modified: Incident Phase: NOV Issued: NORR Issued: 45 Day Report:	19721 2001-06-05 CO Not reported Not reported Not reported	3
	· · · · · · · · · · · · · · · · · · ·		

S105766144

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)

NO SITES FOUND

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: EPA Telephone: N/A Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 EPA Region 6 Telephone: 214-655-6659

EPA Region 7 Telephone: 913-551-7247

EPA Region 8 Telephone: 303-312-6774

EPA Region 9 Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: EPA Telephone: N/A Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: EPA Telephone: N/A Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 02/22/2021 Date Data Arrived at EDR: 03/30/2021 Date Made Active in Reports: 06/17/2021 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 06/23/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/25/2021 Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/25/2021 Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/22/2021	Source: EPA
Date Data Arrived at EDR: 03/23/2021	Telephone: 800-424-9346
Date Made Active in Reports: 05/19/2021	Last EDR Contact: 06/21/2021
Number of Days to Update: 57	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/22/2021 Date Data Arrived at EDR: 03/23/2021 Date Made Active in Reports: 05/19/2021 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021 Date Data Arrived at EDR: 03/23/2021 Date Made Active in Reports: 05/19/2021 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/22/2021 Date Data Arrived at EDR: 03/23/2021 Date Made Active in Reports: 05/19/2021 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators) RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/22/2021 Date Data Arrived at EDR: 03/23/2021 Date Made Active in Reports: 05/19/2021 Number of Days to Update: 57 Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/10/2021	Source: Department of the Navy
Date Data Arrived at EDR: 05/13/2021	Telephone: 843-820-7326
Date Made Active in Reports: 08/03/2021	Last EDR Contact: 08/05/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 11/22/2021
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 05/17/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 703-603-0695
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/23/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 05/17/2021 Date Data Arrived at EDR: 05/21/2021 Date Made Active in Reports: 08/11/2021 Number of Days to Update: 82 Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 08/23/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/14/2021	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 06/17/2021	Telephone: 202-267-2180
Date Made Active in Reports: 08/17/2021	Last EDR Contact: 06/17/2021
Number of Days to Update: 61	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

HSDS: Hazardous Substance Disposal Site

Locations of uncontrolled and unregulated hazardous waste sites. The file includes sites on the National Priority List as well as those on the state priority list.

Date of Government Version: 08/09/2011	Source: North Carolina Center for Geographic Information and Analysis
Date Data Arrived at EDR: 11/08/2011	Telephone: 919-754-6580
Date Made Active in Reports: 12/05/2011	Last EDR Contact: 07/13/2021
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/01/2021
	Data Release Frequency: No Update Planned

State- and tribal - equivalent CERCLIS

SHWS: Inactive Hazardous Sites Inventory

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 05/12/2021	Source: Department of Environment, Health and Natural Resources
Date Data Arrived at EDR: 06/10/2021	Telephone: 919-508-8400
Date Made Active in Reports: 09/02/2021	Last EDR Contact: 09/09/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: List of Solid Waste Facilities

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/10/2020 Date Data Arrived at EDR: 09/23/2020 Date Made Active in Reports: 12/14/2020 Number of Days to Update: 82 Source: Department of Environment and Natural Resources Telephone: 919-733-0692 Last EDR Contact: 06/22/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Varies

OLI: Old Landfill Inventory

Old landfill inventory location information. (Does not include no further action sites and other agency lead sites).

Date of Government Version: 09/11/2020	Source: Department of Environment & Natural Resources
Date Data Arrived at EDR: 10/09/2020	Telephone: 919-733-4996
Date Made Active in Reports: 12/30/2020	Last EDR Contact: 07/09/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Varies

DEBRIS: Solid Waste Active Disaster Debris Sites Listing

NCDEQ Division of Waste Management Solid Waste Section Temporary Disaster Debris Staging Site (TDDSS) Locations which are available to be activated in a disaster or emergency.. Disaster Debris Sites can only be used for temporary disaster debris storage if the site's responsible party activates the site for use by notifying the NCDEQ DWM Solid Waste Section staff during an emergency

Date of Government Version: 01/06/2021 Date Data Arrived at EDR: 03/16/2021 Date Made Active in Reports: 06/02/2021 Number of Days to Update: 78	Source: Department of Environmental Quality Telephone: 919-707-8247 Last EDR Contact: 06/17/2021 Next Scheduled EDR Contact: 09/27/2021 Data Beloase Fraguency: Varias
	Data Release Frequency: Varies

LCID: Land-Clearing and Inert Debris (LCID) Landfill Notifications

A list all of the Land-Clearing and Inert Debris (LCID) Landfill Notification facilities (under 2 acres in size) in North Carolina.

Date of Government Version: 04/30/2020 Date Data Arrived at EDR: 07/09/2020 Date Made Active in Reports: 09/23/2020 Number of Days to Update: 76 Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 07/02/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies

State and tribal leaking storage tank lists

LAST: Leaking Aboveground Storage Tanks

A listing of leaking aboveground storage tank site locations.

Date of Government Version: 04/30/2021	Source: Departme
Date Data Arrived at EDR: 05/03/2021	Telephone: 877-62
Date Made Active in Reports: 07/20/2021	Last EDR Contact:
Number of Days to Update: 78	Next Scheduled ED

Source: Department of Environment & Natural Resources Telephone: 877-623-6748 Last EDR Contact: 08/03/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Quarterly

LUST: Regional UST Database

This database contains information obtained from the Regional Offices. It provides a more detailed explanation of current and historic activity for individual sites, as well as what was previously found in the Incident Management Database. Sites in this database with Incident Numbers are considered LUSTs.

Date of Government Version: 04/30/2021 Date Data Arrived at EDR: 05/03/2021 Date Made Active in Reports: 07/21/2021 Number of Days to Update: 79 Source: Department of Environment and Natural Resources Telephone: 919-707-8200 Last EDR Contact: 08/03/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/28/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 10/02/2020	Source: EPA Region 4
Date Data Arrived at EDR: 12/18/2020	Telephone: 404-562-8677
Date Made Active in Reports: 03/12/2021	Last EDR Contact: 06/17/2021
Number of Days to Update: 84	Next Scheduled EDR Contact: 11/01/2021
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage	Tanks on Indian Land	
	on Indian Land in Michigan, Minnesota and Wisconsin.	
Date of Government Version: 04/06/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA, Region 5 Telephone: 312-886-7439 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN LUST R10: Leaking Underground Storage LUSTs on Indian land in Alaska, Idaho, Oreg		
Date of Government Version: 04/27/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN LUST R8: Leaking Underground Storage LUSTs on Indian land in Colorado, Montana,	Tanks on Indian Land North Dakota, South Dakota, Utah and Wyoming.	
Date of Government Version: 05/27/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.		
Date of Government Version: 05/17/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada		
Date of Government Version: 05/27/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN LUST R7: Leaking Underground Storage LUSTs on Indian land in Iowa, Kansas, and N		
Date of Government Version: 06/01/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
LUST TRUST: State Trust Fund Database This database contains information about cla incurred while remediating Leaking USTs.	ims against the State Trust Funds for reimbursements for expenses	
Date of Government Version: 04/02/2021 Date Data Arrived at EDR: 04/06/2021 Date Made Active in Reports: 06/25/2021 Number of Days to Update: 80	Source: Department of Environment and Natural Resources Telephone: 919-733-1315 Last EDR Contact: 07/02/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Quarterly	

State and tribal registered storage tank lists

F	FEMA UST: Underground Storage Tank Listing A listing of all FEMA owned underground storage tanks.		
	Date of Government Version: 01/29/2021 Date Data Arrived at EDR: 02/17/2021 Date Made Active in Reports: 03/22/2021 Number of Days to Update: 33	Source: FEMA Telephone: 202-646-5797 Last EDR Contact: 06/29/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies	
U		ase 's are regulated under Subtitle I of the Resource Conservation and Recovery tate department responsible for administering the UST program. Available	
	Date of Government Version: 04/30/2021 Date Data Arrived at EDR: 05/03/2021 Date Made Active in Reports: 07/20/2021 Number of Days to Update: 78	Source: Department of Environment and Natural Resources Telephone: 919-733-1308 Last EDR Contact: 08/03/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Quarterly	
A	ST: AST Database Facilities with aboveground storage tanks that	t have a capacity greater than 21,000 gallons.	
	Date of Government Version: 05/18/2021 Date Data Arrived at EDR: 06/09/2021 Date Made Active in Reports: 08/30/2021 Number of Days to Update: 82	Source: Department of Environment and Natural Resources Telephone: 919-715-6183 Last EDR Contact: 09/09/2021 Next Scheduled EDR Contact: 12/27/2021 Data Release Frequency: Semi-Annually	
INDIAN UST R1: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).		database provides information about underground storage tanks on Indian	
	Date of Government Version: 04/28/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN UST R10: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).			
	Date of Government Version: 04/27/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	
INDIAN UST R5: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indiar land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).		database provides information about underground storage tanks on Indian	
	Date of Government Version: 04/06/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88	Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies	

Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian Iand in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 06/01/2021	:
Date Data Arrived at EDR: 06/11/2021	-
Date Made Active in Reports: 09/07/2021	1
Number of Days to Update: 88	I

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/27/2021	Source: EPA Region 8
Date Data Arrived at EDR: 06/11/2021	Telephone: 303-312-6137
Date Made Active in Reports: 09/07/2021	Last EDR Contact: 06/11/2021
Number of Days to Update: 88	Next Scheduled EDR Contact: 11/01/2021
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 10/02/2020 Date Data Arrived at EDR: 12/18/2020 Date Made Active in Reports: 03/12/2021 Number of Days to Update: 84 Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 06/17/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/17/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88 Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 05/27/2021 Date Data Arrived at EDR: 06/11/2021 Date Made Active in Reports: 09/07/2021 Number of Days to Update: 88 Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 06/11/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

INST CONTROL: No Further Action Sites With Land Use Restrictions Monitoring A land use restricted site is a property where there are limits or requirements on future use of the property due to varying levels of cleanup possible, practical, or necessary at the site.

Date of Government Version: 09/04/2020	Source: Department of Environmental Quality
Date Data Arrived at EDR: 09/09/2020	Telephone: 919-508-8400
Date Made Active in Reports: 12/03/2020	Last EDR Contact: 09/10/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 12/20/2021
	Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng A listing of voluntary cleanup priority sites loca	
Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008 Number of Days to Update: 27	Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 07/08/2021 Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies
INDIAN VCP R1: Voluntary Cleanup Priority Listing A listing of voluntary cleanup priority sites loca	
Date of Government Version: 07/27/2015 Date Data Arrived at EDR: 09/29/2015 Date Made Active in Reports: 02/18/2016 Number of Days to Update: 142	Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 06/15/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Varies
VCP: Responsible Party Voluntary Action Sites Responsible Party Voluntary Action site location	ons.
Date of Government Version: 05/12/2021 Date Data Arrived at EDR: 06/07/2021 Date Made Active in Reports: 08/30/2021	Source: Department of Environment and Natural Telephone: 919-508-8400 Last EDR Contact: 09/09/2021

State and tribal Brownfields sites

Number of Days to Update: 84

BROWNFIELDS: Brownfields Projects Inventory

A brownfield site is an abandoned, idled, or underused property where the threat of environmental contamination has hindered its redevelopment. All of the sites in the inventory are working toward a brownfield agreement for cleanup and liabitly control.

Next Scheduled EDR Contact: 12/20/2021

Data Release Frequency: Quarterly

Date of Government Version: 03/01/2021Source: Department of Environment and Natural ResourcesDate Data Arrived at EDR: 03/30/2021Telephone: 919-733-4996Date Made Active in Reports: 06/23/2021Last EDR Contact: 06/24/2021Number of Days to Update: 85Next Scheduled EDR Contact: 10/11/2021Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/10/2021 Date Data Arrived at EDR: 06/10/2021 Date Made Active in Reports: 08/17/2021 Number of Days to Update: 68 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 06/10/2021 Next Scheduled EDR Contact: 09/27/2021 Data Release Frequency: Semi-Annually Resources

Local Lists of Landfill / Solid Waste Disposal Sites

HIST LF: Solid Waste Facility Listing A listing of solid waste facilities.	
Date of Government Version: 11/06/2006 Date Data Arrived at EDR: 02/13/2007 Date Made Active in Reports: 03/02/2007 Number of Days to Update: 17	Source: Department of Environment & Natural Resources Telephone: 919-733-0692 Last EDR Contact: 01/19/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
SWRCY: Recycling Center Listing A listing of recycling center locations.	
Date of Government Version: 01/28/2021 Date Data Arrived at EDR: 01/29/2021 Date Made Active in Reports: 04/23/2021 Number of Days to Update: 84	Source: Department of Environment & Natural Resources Telephone: 919-707-8137 Last EDR Contact: 07/21/2021 Next Scheduled EDR Contact: 11/08/2021 Data Release Frequency: Varies
INDIAN ODI: Report on the Status of Open Dump Location of open dumps on Indian land.	os on Indian Lands
Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52	Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 07/20/2021 Next Scheduled EDR Contact: 11/08/2021 Data Release Frequency: Varies
ODI: Open Dump Inventory An open dump is defined as a disposal facilit Subtitle D Criteria.	ty that does not comply with one or more of the Part 257 or Part 258
Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39	Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned
DEBRIS REGION 9: Torres Martinez Reservation A listing of illegal dump sites location on the County and northern Imperial County, Califor	Torres Martinez Indian Reservation located in eastern Riverside
Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137	Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 07/13/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: No Update Planned
IHS OPEN DUMPS: Open Dumps on Indian Lanc A listing of all open dumps located on Indian	
Date of Government Version: 04/01/2014 Date Data Arrived at EDR: 08/06/2014 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 176	Source: Department of Health & Human Serivces, Indian Health Service Telephone: 301-443-1452 Last EDR Contact: 07/20/2021 Next Scheduled EDR Contact: 11/08/2021 Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2021 Date Data Arrived at EDR: 05/18/2021 Date Made Active in Reports: 08/03/2021 Number of Days to Update: 77 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 08/17/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2021 Date Data Arrived at EDR: 05/18/2021 Date Made Active in Reports: 08/03/2021 Number of Days to Update: 77 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 08/17/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/22/2021	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/24/2021	Telephone: 202-366-4555
Date Made Active in Reports: 06/17/2021	Last EDR Contact: 09/13/2021
Number of Days to Update: 85	Next Scheduled EDR Contact: 10/04/2021
	Data Release Frequency: Quarterly

SPILLS: Spills Incident Listing

A listing spills, hazardous material releases, sanitary sewer overflows, wastewater treatment plant bypasses and upsets, citizen complaints, and any other environmental emergency calls reported to the agency.

Date of Government Version: 06/07/2021	
Date Data Arrived at EDR: 06/08/2021	
Date Made Active in Reports: 08/30/2021	
Number of Days to Update: 83	

Source: Department of Environment & Natural Resources Telephone: 919-807-6308 Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 12/20/2021 Data Release Frequency: Quarterly

IMD: Incident Management Database

Groundwater and/or soil contamination incidents

Date of Government Version: 07/30/2021 Date Data Arrived at EDR: 08/03/2021 Date Made Active in Reports: 08/06/2021 Number of Days to Update: 3

Source: Department of Environment and Natural Resources Telephone: 877-623-6748 Last EDR Contact: 08/03/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: No Update Planned

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 09/27/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/06/2013 Number of Days to Update: 62

Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

SPILLS 80: SPILLS80 data from FirstSearch

Spills 80 includes those spill and release records available from FirstSearch databases prior to 1990. Typically, they may include chemical, oil and/or hazardous substance spills recorded before 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 80.

Date of Government Version: 06/14/2001	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 03/06/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 62	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/22/2021 Date Data Arrived at EDR: 03/23/2021 Date Made Active in Reports: 05/19/2021 Number of Days to Update: 57

Source: Environmental Protection Agency Telephone: (404) 562-8651 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/04/2021 Date Data Arrived at EDR: 05/18/2021 Date Made Active in Reports: 08/11/2021 Number of Days to Update: 85

Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 08/17/2021 Next Scheduled EDR Contact: 11/29/2021 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 62

Source: USGS Telephone: 888-275-8747 Last EDR Contact: 07/13/2021 Next Scheduled EDR Contact: 10/25/2021 Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018	Source: U.S. Geological Survey
Date Data Arrived at EDR: 04/11/2018	Telephone: 888-275-8747
Date Made Active in Reports: 11/06/2019	Last EDR Contact: 07/09/2021
Number of Days to Update: 574	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: N/A
SCRD DRYCLEANERS: State Coalition for Rem	nediation of Drycleaners Listing
The State Coalition for Remediation of Dryc	cleaners was established in 1998, with support from the U.S.
of Superfund Remediation and Technology	Innovation. It is comprised of representatives of states with

S. EPA Office established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017 Date Data Arrived at EDR: 02/03/2017 Date Made Active in Reports: 04/07/2017 Number of Days to Update: 63

Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 08/06/2021 Next Scheduled EDR Contact: 11/22/2021 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/22/2021 Date Data Arrived at EDR: 03/23/2021 Date Made Active in Reports: 06/17/2021 Number of Days to Update: 86

Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88

Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 07/26/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017 Date Data Arrived at EDR: 05/08/2018 Date Made Active in Reports: 07/20/2018 Number of Days to Update: 73

Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 08/06/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016 Date Data Arrived at EDR: 06/17/2020 Date Made Active in Reports: 09/10/2020 Number of Days to Update: 85 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 06/17/2021 Next Scheduled EDR Contact: 09/27/2021 Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 08/14/2020 Date Made Active in Reports: 11/04/2020 Number of Days to Update: 82 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 08/17/2021 Next Scheduled EDR Contact: 11/29/2021 Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 04/19/2021 Date Data Arrived at EDR: 04/20/2021 Date Made Active in Reports: 07/16/2021 Number of Days to Update: 87 Source: EPA Telephone: 202-564-4203 Last EDR Contact: 07/19/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2021 Date Data Arrived at EDR: 08/04/2021 Date Made Active in Reports: 08/31/2021 Number of Days to Update: 27 Source: EPA Telephone: 703-416-0223 Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 12/13/2021 Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/07/2021 Date Data Arrived at EDR: 05/13/2021 Date Made Active in Reports: 08/03/2021 Number of Days to Update: 82 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 07/14/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 12/30/2020	Source: EPA
Date Data Arrived at EDR: 01/14/2021	Telephone: 202-564-6023
Date Made Active in Reports: 03/05/2021	Last EDR Contact: 09/01/2021
Number of Days to Update: 50	Next Scheduled EDR Contact: 11/15/2021
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/19/2020	Source: EPA
Date Data Arrived at EDR: 01/08/2021	Telephone: 202-566-0500
Date Made Active in Reports: 03/22/2021	Last EDR Contact: 07/09/2021
Number of Days to Update: 73	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 06/29/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 08/18/2017
Number of Days to Update: 25	Next Scheduled EDR Contact: 12/04/2017
	Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/08/2021	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 03/11/2021	Telephone: 301-415-7169
Date Made Active in Reports: 05/11/2021	Last EDR Contact: 07/14/2021
Number of Days to Update: 61	Next Scheduled EDR Contact: 11/01/2021
	Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2019	Source: Department of Energy
Date Data Arrived at EDR: 12/01/2020	Telephone: 202-586-8719
Date Made Active in Reports: 02/09/2021	Last EDR Contact: 09/03/2021
Number of Days to Update: 70	Next Scheduled EDR Contact: 12/13/2021
	Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017	
Date Data Arrived at EDR: 03/05/2019	
Date Made Active in Reports: 11/11/2019	
Number of Days to Update: 251	

Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 08/31/2021 Next Scheduled EDR Contact: 12/13/2021 Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/06/2019	Telephone: 202-566-0517
Date Made Active in Reports: 02/10/2020	Last EDR Contact: 08/06/2021
Number of Days to Update: 96	Next Scheduled EDR Contact: 11/15/2021
	Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019 Date Data Arrived at EDR: 07/01/2019 Date Made Active in Reports: 09/23/2019 Number of Days to Update: 84 Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 06/22/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40

Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2007 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007 Number of Days to Update: 40 Source: Environmental Protection Agency Telephone: 202-564-2501 Last EDR Contact: 12/17/2008 Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020	Source: Department of Transporation, Office of Pipeline Safety
Date Data Arrived at EDR: 01/28/2020	Telephone: 202-366-4595
Date Made Active in Reports: 04/17/2020	Last EDR Contact: 07/23/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 11/08/2021
	Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2021 Date Data Arrived at EDR: 07/14/2021 Date Made Active in Reports: 07/16/2021 Number of Days to Update: 2 Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 07/02/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017 Date Data Arrived at EDR: 06/22/2020 Date Made Active in Reports: 11/20/2020 Number of Days to Update: 151 Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 06/21/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 07/02/2021
Number of Days to Update: 546	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 07/23/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019 Date Data Arrived at EDR: 11/15/2019 Date Made Active in Reports: 01/28/2020 Number of Days to Update: 74 Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 08/12/2021 Next Scheduled EDR Contact: 11/29/2021 Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2021Source: EnviroDate Data Arrived at EDR: 08/04/2021Telephone: 70Date Made Active in Reports: 08/31/2021Last EDR ComNumber of Days to Update: 27Next Schedule

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 10/11/2021 Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36 Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually		
US AIRS MINOR: Air Facility System Data A listing of minor source facilities.			
Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 09/26/2017 Next Scheduled EDR Contact: 01/08/2018 Data Release Frequency: Annually		
MINES VIOLATIONS: MSHA Violation Assessmer Mines violation and assessment information.	nt Data Department of Labor, Mine Safety & Health Administration.		
Date of Government Version: 05/27/2021 Date Data Arrived at EDR: 05/27/2021 Date Made Active in Reports: 06/10/2021 Number of Days to Update: 14	Source: DOL, Mine Safety & Health Admi Telephone: 202-693-9424 Last EDR Contact: 09/09/2021 Next Scheduled EDR Contact: 12/13/2021 Data Release Frequency: Quarterly		
US MINES: Mines Master Index File Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.			
Date of Government Version: 05/03/2021 Date Data Arrived at EDR: 05/25/2021 Date Made Active in Reports: 08/11/2021 Number of Days to Update: 78	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 08/24/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: Semi-Annually		
This map layer includes ferrous (ferrous meta ore or molybdenum) and nonferrous (Nonferr	US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.		
Date of Government Version: 05/06/2020 Date Data Arrived at EDR: 05/27/2020 Date Made Active in Reports: 08/13/2020 Number of Days to Update: 78	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/26/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: Varies		
US MINES 3: Active Mines & Mineral Plants Database Listing Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.			
Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011 Number of Days to Update: 97	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 08/26/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: Varies		
ABANDONED MINES: Abandoned Mines An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.			

Date of Government Version: 06/15/2021 Date Data Arrived at EDR: 06/16/2021 Date Made Active in Reports: 08/17/2021 Number of Days to Update: 62 Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 08/31/2021 Next Scheduled EDR Contact: 12/20/2021 Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 05/05/2021 Date Data Arrived at EDR: 05/18/2021 Date Made Active in Reports: 08/17/2021 Number of Days to Update: 91 Source: EPA Telephone: (404) 562-9900 Last EDR Contact: 08/31/2021 Next Scheduled EDR Contact: 12/13/2021 Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 04/04/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/06/2021	Telephone: 202-564-2280
Date Made Active in Reports: 06/25/2021	Last EDR Contact: 07/01/2021
Number of Days to Update: 80	Next Scheduled EDR Contact: 10/18/2021
	Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018	Source: Department of Defense
Date Data Arrived at EDR: 07/02/2020	Telephone: 703-704-1564
Date Made Active in Reports: 09/17/2020	Last EDR Contact: 07/07/2021
Number of Days to Update: 77	Next Scheduled EDR Contact: 10/25/2021
	Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/06/2021	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/21/2021	Telephone: 202-564-0527
Date Made Active in Reports: 08/11/2021	Last EDR Contact: 08/26/2021
Number of Days to Update: 82	Next Scheduled EDR Contact: 12/06/2021
	Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/14/2021 Date Data Arrived at EDR: 05/14/2021 Date Made Active in Reports: 08/03/2021 Number of Days to Update: 81 Source: EPA Telephone: 800-385-6164 Last EDR Contact: 08/13/2021 Next Scheduled EDR Contact: 11/29/2021 Data Release Frequency: Quarterly

AIRS: Air Quality Permit Listing

A listing of facilities with air quality permits.

	Date of Government Version: 06/07/2021 Date Data Arrived at EDR: 06/07/2021 Date Made Active in Reports: 08/27/2021 Number of Days to Update: 81	Source: Department of Environmental Quality Telephone: 919-707-8726 Last EDR Contact: 09/08/2021 Next Scheduled EDR Contact: 12/20/2021 Data Release Frequency: Varies		
ASB	ESTOS: ASBESTOS Asbestos notification sites			
	Date of Government Version: 04/30/2021 Date Data Arrived at EDR: 05/17/2021 Date Made Active in Reports: 08/03/2021 Number of Days to Update: 78	Source: Department of Health & Human Services Telephone: 919-707-5973 Last EDR Contact: 07/14/2021 Next Scheduled EDR Contact: 11/01/2021 Data Release Frequency: Varies		
COA	L ASH: Coal Ash Disposal Sites A listing of coal combustion products distributio transportation, use and disposal of coal combu	on permits issued by the Division for the treatment, storage, stion products.		
	Date of Government Version: 09/10/2020 Date Data Arrived at EDR: 09/23/2020 Date Made Active in Reports: 12/14/2020 Number of Days to Update: 82	Source: Department of Environment & Natural Resources Telephone: 919-807-6359 Last EDR Contact: 06/22/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Varies		
DRY	DRYCLEANERS: Drycleaning Sites Potential and known drycleaning sites, active and abandoned, that the Drycleaning Solvent Cleanup Program ha knowledge of and entered into this database.			
	Date of Government Version: 03/31/2021 Date Data Arrived at EDR: 06/03/2021 Date Made Active in Reports: 08/26/2021 Number of Days to Update: 84	Source: Department of Environment & Natural Resources Telephone: 919-508-8400 Last EDR Contact: 06/03/2021 Next Scheduled EDR Contact: 09/27/2021 Data Release Frequency: Varies		
Fina		underground storage tank facilities. Financial assurance is intended or the cost of closure, post-closure care, and corrective measures		
	Date of Government Version: 04/30/2021 Date Data Arrived at EDR: 05/03/2021 Date Made Active in Reports: 07/20/2021 Number of Days to Update: 78	Source: Department of Environment & Natural Resources Telephone: 919-733-1322 Last EDR Contact: 08/03/2021 Next Scheduled EDR Contact: 11/15/2021 Data Release Frequency: Quarterly		
Fina		ation Listing assurance is intended to ensure that resources are available e, and corrective measures if the owner or operator of a regulated		
	Date of Government Version: 10/02/2012 Date Data Arrived at EDR: 10/03/2012 Date Made Active in Reports: 10/26/2012 Number of Days to Update: 23	Source: Department of Environmental & Natural Resources Telephone: 919-508-8496 Last EDR Contact: 06/15/2021 Next Scheduled EDR Contact: 10/04/2021 Data Release Frequency: Varies		

Data Release Frequency: Varies

Financial Assurance 3: Financial Assurance Information Hazardous waste financial assurance information.

Date of Government Version: 06/02/2021 Date Data Arrived at EDR: 06/03/2021 Date Made Active in Reports: 08/25/2021 Number of Days to Update: 83	Source: Department of Environment & Natural Resources Telephone: 919-707-8222 Last EDR Contact: 08/31/2021 Next Scheduled EDR Contact: 12/19/2021 Data Release Frequency: Varies
NPDES: NPDES Facility Location Listing General information regarding NPDES(Nation	al Pollutant Discharge Elimination System) permits.
Date of Government Version: 04/02/2021 Date Data Arrived at EDR: 04/27/2021 Date Made Active in Reports: 07/15/2021 Number of Days to Update: 79	Source: Department of Environment & Natural Resources Telephone: 919-733-7015 Last EDR Contact: 07/26/2021 Next Scheduled EDR Contact: 11/08/2021 Data Release Frequency: Varies
UIC: Underground Injection Wells Listing A listing of uncerground injection wells location	ns.
Date of Government Version: 10/26/2020 Date Data Arrived at EDR: 11/30/2020 Date Made Active in Reports: 12/07/2020 Number of Days to Update: 7	Source: Department of Environment & Natural Resources Telephone: 919-807-6412 Last EDR Contact: 09/03/2021 Next Scheduled EDR Contact: 12/13/2021 Data Release Frequency: Quarterly
AOP: Animal Operation Permits Listing This listing includes animal operations that are	e required to be permitted by the state.
Date of Government Version: 04/01/2020 Date Data Arrived at EDR: 05/26/2020 Date Made Active in Reports: 05/27/2020 Number of Days to Update: 1	Source: Department of Environmental Quality Telephone: 919-707-9129 Last EDR Contact: 09/10/2021 Next Scheduled EDR Contact: 12/20/2021 Data Release Frequency: Varies
	ion system that contains data on National Pollutant Discharge Elimination S tracks the permit, compliance, and enforcement status of NPDES
Date of Government Version: 07/14/2011 Date Data Arrived at EDR: 08/05/2011 Date Made Active in Reports: 09/29/2011 Number of Days to Update: 55	Source: EPA, Office of Water Telephone: 202-564-2496 Last EDR Contact: 06/30/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Semi-Annually
PCS ENF: Enforcement data No description is available for this data	
Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 02/05/2015 Date Made Active in Reports: 03/06/2015 Number of Days to Update: 29	Source: EPA Telephone: 202-564-2497 Last EDR Contact: 06/30/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies
Carolina, in point data form. The purpose is to	ist all of the now closed Coal Ash Structural Fills (CCB) in North provide the public and other government entities a visual overview and increase public awareness of their current locations.

Date of Government Version: 02/27/2020 Date Data Arrived at EDR: 07/07/2020 Date Made Active in Reports: 09/23/2020 Number of Days to Update: 78 Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 07/02/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System Mineral Resources Data System

Date of Government Version: 04/06/2018 Date Data Arrived at EDR: 10/21/2019 Date Made Active in Reports: 10/24/2019 Number of Days to Update: 3 Source: USGS Telephone: 703-648-6533 Last EDR Contact: 08/26/2021 Next Scheduled EDR Contact: 12/06/2021 Data Release Frequency: Varies

PCSRP: Petroleum-Contaminated Soil Remediation Permits

To treat petroleum-contaminated soil in order to protect North Carolinaa??s environment and the health of the citizens of North Carolina.

Date of Government Version: 04/05/2021 Date Data Arrived at EDR: 04/06/2021 Date Made Active in Reports: 06/24/2021 Number of Days to Update: 79 Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 07/02/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies

SEPT HAULERS: Permitted Septage Haulers Listing

This list of all active and permitted Septage Land Application Site (SLAS) and Septage Detention and Treatment Facility (SDTF) sites in North Carolina. The purpose of this map is to provide the public and government entities a visual overview of the businesses that manage septage and septage facilities throughout the state.

Date of Government Version: 03/25/2021 Date Data Arrived at EDR: 04/06/2021 Date Made Active in Reports: 06/24/2021 Number of Days to Update: 79 Source: Department of Environmental Quality Telephone: 919-707-8248 Last EDR Contact: 07/02/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits

An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014 Date Data Arrived at EDR: 01/06/2015 Date Made Active in Reports: 05/06/2015 Number of Days to Update: 120 Source: EPA Telephone: 202-564-2496 Last EDR Contact: 06/30/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Semi-Annually

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment, Health and Natural Resources in North Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/24/2013 Number of Days to Update: 176 Source: Department of Environment, Health and Natural Resources Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment, Health and Natural Resources in North Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/13/2014 Number of Days to Update: 196 Source: Department of Environment, Health and Natural Resources Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environment, Health and Natural Resources in North Carolina.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 12/20/2013 Number of Days to Update: 172 Source: Department of Environment, Health and Natural Resources Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

MANIFEST: Hazardous Waste Manifest Data Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.		
Date of Government Version: 03/24/2021 Date Data Arrived at EDR: 05/11/2021 Date Made Active in Reports: 07/28/2021 Number of Days to Update: 78	Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 08/10/2021 Next Scheduled EDR Contact: 11/22/2021 Data Release Frequency: No Update Planned	
NJ MANIFEST: Manifest Information Hazardous waste manifest information.		
Date of Government Version: 12/31/2018 Date Data Arrived at EDR: 04/10/2019 Date Made Active in Reports: 05/16/2019 Number of Days to Update: 36	Source: Department of Environmental Protection Telephone: N/A Last EDR Contact: 07/09/2021 Next Scheduled EDR Contact: 10/18/2021 Data Release Frequency: Annually	
NY MANIFEST: Facility and Manifest Data Manifest is a document that lists and tracks had facility.	zardous waste from the generator through transporters to a TSD	
Date of Government Version: 01/01/2019 Date Data Arrived at EDR: 04/29/2020 Date Made Active in Reports: 07/10/2020 Number of Days to Update: 72	Source: Department of Environmental Conservation Telephone: 518-402-8651 Last EDR Contact: 07/29/2021 Next Scheduled EDR Contact: 11/08/2021 Data Release Frequency: Quarterly	
PA MANIFEST: Manifest Information Hazardous waste manifest information.		
Date of Government Version: 06/30/2018 Date Data Arrived at EDR: 07/19/2019 Date Made Active in Reports: 09/10/2019 Number of Days to Update: 53	Source: Department of Environmental Protection Telephone: 717-783-8990 Last EDR Contact: 07/07/2021 Next Scheduled EDR Contact: 10/25/2021 Data Release Frequency: Annually	
RI MANIFEST: Manifest information Hazardous waste manifest information		
Date of Government Version: 12/31/2019 Date Data Arrived at EDR: 02/11/2021 Date Made Active in Reports: 02/24/2021 Number of Days to Update: 13	Source: Department of Environmental Management Telephone: 401-222-2797 Last EDR Contact: 08/11/2021 Next Scheduled EDR Contact: 11/29/2021 Data Release Frequency: Annually	
WI MANIFEST: Manifest Information Hazardous waste manifest information.		
Date of Government Version: 05/31/2018 Date Data Arrived at EDR: 06/19/2019 Date Made Active in Reports: 09/03/2019 Number of Days to Update: 76	Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 09/01/2021 Next Scheduled EDR Contact: 12/20/2021 Data Release Frequency: Annually	

Oil/Gas Pipelines

Source: Endeavor Business Media

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data

Source: Endeavor Business Media

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are

comparable across all states.

Private Schools

Source: National Center for Education Statistics Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States. Daycare Centers: Child Care Facility List

Source: Department of Health & Human Services

Telephone: 919-662-4499

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory Source: US Fish & Wildlife Service Telephone: 703-358-2171

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

GARNET PLACE 271 SMITH AVENUE SHALLOTTE, NC 28470

TARGET PROPERTY COORDINATES

Latitude (North):	33.986427 - 33° 59' 11.14''
Longitude (West):	78.385481 - 78° 23' 7.73''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	741520.7
UTM Y (Meters):	3763538.2
Elevation:	51 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5946123 SHALLOTTE, NC
Version Date:	2013
Northeast Map:	5945167 SUPPLY, NC
Version Date:	2013
Southeast Map: Version Date:	5946117 HOLDEN BEACH, NC 2013
Northwest Map:	5944846 EXUM, NC
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

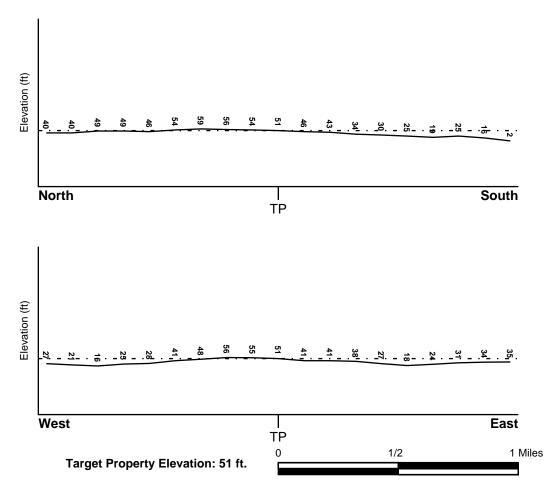
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
3720108800J	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
3720108900J 3720109900J 3720109800J	FEMA FIRM Flood data FEMA FIRM Flood data FEMA FIRM Flood data
NATIONAL WETLAND INVENTORY	
NWI Quad at Target Property SHALLOTTE	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

GEOLOGIC AGE IDENTIFICATION

Era:	Cenozoic Category:	Stratifed Sequence
System:	Quaternary	
Series:	Pleistocene	
Code:	Qp (decoded above as Era, System & Series)	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	AUTRYVILLE		
Soil Surface Texture:	sand		
Hydrologic Group:	Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.		
Soil Drainage Class:	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet.		
Hydric Status: Soil does not meet the requirements for a hydric soil.			
Corrosion Potential - Uncoated Steel:	LOW		
Depth to Bedrock Min:	> 60 inches		

Depth to Bedrock Max: > 60 inches

Soil Layer Information							
Boundary				Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	26 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 6.50 Min: 4.50
2	26 inches	41 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 6.00 Min: 2.00	Max: 5.50 Min: 4.50
3	41 inches	58 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 20.00 Min: 6.00	Max: 5.50 Min: 4.50
4	58 inches	85 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 4.50

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:	loamy sand loamy fine sand loam sandy loam
Surficial Soil Types:	loamy sand loamy fine sand loam sandy loam
Shallow Soil Types:	loamy sand sand sandy clay loam fine sandy loam
Deeper Soil Types:	sandy clay loam

stratified sand sandy clay

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS Federal FRDS PWS	1.000 Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000881713	1/2 - 1 Mile West
3	USGS40000881689	1/2 - 1 Mile South

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
2	NC0410527	1/2 - 1 Mile ESE

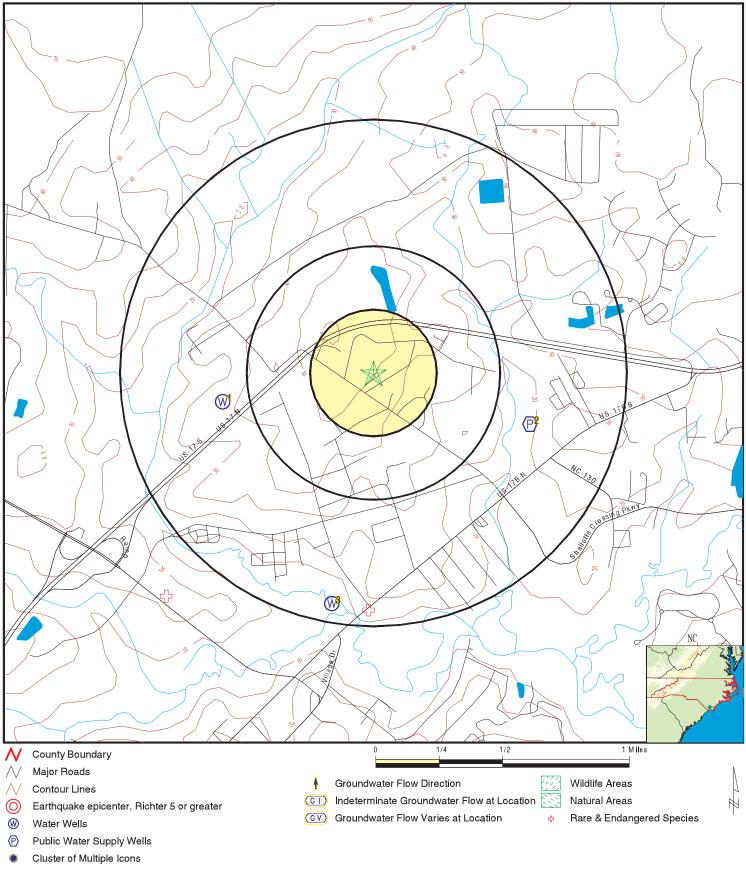
Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

PHYSICAL SETTING SOURCE MAP - 6661997.2s



	CLIENT: TerraTech CONTACT: Will Strayhorn
Shallotte NC 28470	INQUIRY #: 6661997.2s
LAT/LONG: 33.986427 / 78.385481	DATE: September 15, 2021 1:45 am

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction				
Distance Elevation			Database	EDR ID Number
1 West 1/2 - 1 Mile Lower			FED USGS	USGS40000881713
Lower Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Formation Type: Construction Date: Well Depth Units: Well Hole Depth Units: Well Hole Depth Units: Ground water levels,Number Feet below surface: Note:	USGS-NC USGS North Carolina Water Science BR-288 HOLIDAY INN Not Reported Not Reported Northern Atlantic Coastal Plain aquife Peedee Formation 19990715 ft ft ft of Measurements: 1 14.50 Not Reported	Type: HUC: Drainage Area Units: Contrib Drainage Area Ur	Not I Not I Conf 40 40 2000	10207 Reported Reported fined multiple aquifer 0-10-17 Reported
2 ESE 1/2 - 1 Mile Lower			FRDS PWS	NC0410527
Epa region: Pwsid: Cityserved: Zipserved: Status: Pwssvcconn: Pwstype: Contact: Contactphone: Contactphone: Contactaddress2: Contactstate: Pwsactivitycode:	04 NC0410527 Not Reported Closed 1 TNCWS BENTON, RICKY 910-642-4131 Not Reported NC	State: Pwsname: Stateserved: Fipscounty: Retpopsrvd: Psource longname: Owner: Contactorgname: Contactorgname: Contactaddress1: Contactcity: Contactzip:	NC 3701 100 Grou Priva BEN PO E WHI 2847	undwater ate TON, RICKY 3OX 919 TEVILLE 72
PWS ID: PWS name: PWS city: PWS zip: PWS type: PWS name: PWS city: PWS zip: Activity status: Date system deactivated: System name: System city: System zip:	NC0410527 CATHERINE CLEMMONS OR MGR SHALLOTTE 28459 System Owner/Responsible Party Not Reported SHALLOTTE 28459 Active Not Reported CLEM'S TEXACO SHALLOTTE 28459	PWS type: PWS address: PWS state: PWS ID: PWS address: PWS state: PWS ID: Date system activated: Retail population: System address: System state:	Not I NC NC0 Not I NC NC0 8506 0000	em Owner/Responsible Party Reported 410527 Reported 410527 5 30050 Reported
County FIPS:	010	City served:	SHA	LLOTTE
Population served:	Under 101 Persons	Treatment:	Untro	eated
Latitude:	335900	Longitude:	0782	2230

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Violation id: State: Contamination code: Violation code: Rule code: Violation measur: State mcl: Cmp edt:

Violation ID: Enforcemnt FY: Enforcement Detail:

Violation ID: Enforcemnt FY: Enforcement Detail: Enforcement Category: NC 3100 23 110 Not Reported Not Reported 09/30/2007

501

199 2000 St Compliance achieved

299 2000 St Compliance achieved

300 2000 St Compliance achieved

400 2000 St Compliance achieved

400 2000 St Formal NOV issued

400 2000 St Public Notif requested

500 2000 St Formal NOV issued

500 2000 St Public Notif requested

500 2003 St Compliance achieved

501 2008 St Public Notif requested

501 2008 St Formal NOV issued

501 2008 St Formal NOV issued

501 2013 State No Longer Subject to Rule Resolving Orig code: Violation Year: Contamination Name: Violation name: Rule name: Unit of measure: Cmp bdt:

Orig Code: Enforcement Action: Enforcement Category:

Orig Code: Enforcement Action: S 2007 Coliform (TCR) Monitoring, Routine Major (TCR) TCR Not Reported 07/01/2007

S 01/31/2000 Resolving

S 01/31/2000 Resolving

S 07/31/2000 Resolving

S 07/31/2000 Resolving

S 02/04/2000 Informal

S 02/04/2000 Informal

S 03/07/2000 Informal

S 03/07/2000 Informal

S 06/19/2003 Resolving

S 02/19/2008 Informal

S 02/19/2008 Informal

S 02/19/2008 Informal

S 10/24/2012

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Violation ID: Enforcemnt FY: Enforcement Detail: 501 2008 St Public Notif requested Orig Code: Enforcement Action: Enforcement Category: S 02/19/2008 Informal

FED USGS USGS40000881689

Organization ID: Organization Name: Monitor Location: Description: Drainage Area: Contrib Drainage Area: Aquifer: Formation Type:

Construction Date: Well Depth Units: Well Hole Depth Units:

3 South 1/2 - 1 Mile Lower

USGS-NC		
USGS North Carolina Water Science	ce Center	
BR-040	Туре:	Well
Not Reported	HUC:	03040207
Not Reported	Drainage Area Units:	Not Reported
Not Reported	Contrib Drainage Area Unts:	Not Reported
Northern Atlantic Coastal Plain aqu	ifer system	
Upper Cretaceous Series	Aquifer Type:	Not Reported
Not Reported	Well Depth:	Not Reported
Not Reported	Well Hole Depth:	Not Reported
Not Reported		

GEOCHECK®- PHYSICAL SETTING SOURCE MAP FINDINGS

Edr id:

Direction Distance			Database	EDR ID Number
Elclass: Eostat: Edr id:	P X NC50002369	Precision1: Gisid:	NC_NHEO M 82782	NC50002369
Elclass: Eostat:	A E	Precision1: Gisid:	NC_NHEO M 891249	NC50018050

NC50018050

GEOCHECK[®] - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for BRUNSWICK County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for BRUNSWICK COUNTY, NC

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.575 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory Source: US Fish & Wildlife Service Telephone: 703-358-2171

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

North Carolina Public Water Supply Wells Source: Department of Environmental Health Telephone: 919-715-3243

OTHER STATE DATABASE INFORMATION

North Carolina Wildlife Resources/Game Lands

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

All publicly owned game lands managed by the North Carolina Wildlife Resources Commission and as listed in Hunting and Fishing Maps.

NC Natural Heritage Sites: Natural Heritage Element Occurrence Sites

Source: Natural Heritage Occurrence Sites Center for Geographic Information and Analysis Telephone: 919-733-2090

A point coverage identifying locations of rare and endangered species, occurrences of exemplary or unique natural ecosystems (terrestrial or aquatic), and special animal habitats (e.g., colonial waterbird nesting sites).

NC Natural Areas: Significant Natural Heritage Areas

Source: Center for Geographic Information and Analysis

Telephone: 919-733-2090

A polygon converage identifying sites (terrestrial or aquatic) that have particular biodiversity significance. A site's significance may be due to the presence of rare species, rare or high quality natural communities, or other important ecological features.

RADON

State Database: NC Radon Source: Department of Environment & Natural Resources Telephone: 919-733-4984 Radon Statistical and Non Statiscal Data

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones Source: EPA Telephone: 703-356-4020 Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

STREET AND ADDRESS INFORMATION

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APPENDIX IV

STATEMENT OF QUALIFICATIONS

ERWIN T. WILLIAMS, III, P.E. ENVIRONMENTAL RESUME

WILLIAM B. STRAYHORN, P.G. ENVIRONMENTAL RESUME

REFERENCES



Environmental Professional Statement

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR §312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

NV5 Engineers and Consultants, Inc.

C-Win=0

Erwin T. Williams, III, P.E. Principal Environmental Consultant

N|V|5

EDUCATION:

B. S. in Civil Engineering N.C. State University, 1983 Master of Civil Engineering N.C. State University, 1988

ERWIN T. WILLIAMS III, P.E. Executive Vice President Sr. Principal Geotechnical Engineer

REGISTRATION:

Professional Engineer in North Carolina, South Carolina, Virginia and Georgia

SPECIALTIES:

Geotechnical engineering, including analysis of deep and shallow foundations, settlement analysis, and slope stability analysis; Environmental geotechnics and Environmental Site Assessments; Construction materials engineering.

EXPERIENCE:

Thirty-six years experience in geotechnical and environmental engineering. Organized and managed subsurface exploration programs for a variety of geotechnical engineering projects. Performed geotechnical engineering evaluations of shallow and deep foundations, including bearing capacity and settlement, slope stability analyses, and earth dam design and construction. Performed and evaluated numerous Phase I environmental site assessments, Phase II environmental testing programs, and underground storage tank assessments. Performed materials engineering evaluations for various projects including asphalt and concrete mix designs, and rigid and flexible pavement design.

REPRESENTATIVE ENVIRONMENTAL PROJECTS:

Commercial:

<u>Wachovia Bank in Aurora, North Carolina.</u> Monitored removal of underground storage tank at retail banking facility. Performed appropriate testing of soils and ground water to determine extent of contamination. Developed Corrective Action Plan for submittal to State regulatory agency. Monitored implementation of corrective action plan, and maintained correspondence with State. Obtained reimbursement from State Trust Fund for expenditures.

Wachovia Bank in Greenville, North Carolina. Worked closely with Wachovia and State regulatory agency to close underground storage tank in-place, preventing costly and unnecessary removal of tank.

<u>Proposed Waste Industries Site in Goldsboro, North Carolina.</u> Performed Phase I environmental site assessment. Also performed environmental testing of soils and ground water at the proposed site to determine the presence of hazardous constituents, including pesticides and herbicides, and heavy metals.

Governmental:

<u>Clayton Police Headquarters in Clayton, North Carolina.</u> Performed environmental consulting services for old Public Works Garage site related to underground storage tanks. Services included evaluation of vertical and horizontal extent of petroleum contamination in both soils and ground water.

<u>Block A-21, Raleigh, North Carolina.</u> Performed Phase I environmental site assessment of downtown city block being redeveloped by City. Further evaluation was required and performed to determine extent of petroleum, solvent and heavy metals contamination in soils and ground water related to past uses of the property.

PROFESSIONAL AFFILIATIONS:

American Society of Civil Engineers American Society for Testing Materials



EDUCATION: B. S. in Geological Sciences University of North Carolina at Chapel Hill, 2014 WILLIAM B. STRAYHORN, P.G. Engineering Geologist

REGISTRATION:

Licensed Geologist in NC

EXPERIENCE:

Six years experience in environmental consulting, geotechnical engineering and construction materials testing. Organized and managed subsurface exploration programs for a variety of geotechnical engineering projects. Performed geotechnical engineering evaluations of shallow and deep foundations, including bearing capacity and settlement. Performed and evaluated Phase I and Phase II Environmental Site Assessments, Limited Site Assessments, and underground storage tank assessments. Performed and evaluated Environmental Reviews for U.S. Housing and Urban Development and United States Department of Agriculture Rural Development funded projects.

REPRESENTATIVE PROJECTS:

Commercial:

<u>Pennington Grove Apartments in Garner, North Carolina:</u> Phase I Environmental Site Assessment and U.S. Housing and Urban Development Environmental Review per 24 CFR 58. Performed soils testing for possible contamination following the completion of the Phase I ESA.

WFINV, LLC Property, 2024 Wait Avenue in Wake Forest, North Carolina: Guided Initial Abatement Actions, performed a Limited Site Assessment, a Comprehensive Site Assessment, and groundwater and drinking water monitoring in accordance with NCDEQ guidelines for a former filling station. Coordinated testing with NCDEQ UST Section to determine the extent of contamination and evaluate the risk to properties in the vicinity of the release; successfully closed the incident and achieved letter of No Further Action.

<u>2812 Hillsborough Street-J&J Automotive:</u> Performed a Phase I Environmental Site Assessment, Tank Closure by Removal and a Limited Site Assessment in accordance with current NCDEQ requirements for an urban site that has been utilized as an filling station and service station since the 1920s.

Governmental:

<u>610 First Street and 608 Town Commons in Lumberton North Carolina:</u> Phase II Environmental Site Assessment, Initial Site Assessment, and Notification of Hazardous Substance Reports for a vacant industrial complex in downtown Lumberton, North Carolina. Services included soil and ground water sampling and organizing asbestos testing and communicating initial site remediation measures with NC DEQ.



REFERENCES:

Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, Designation E1527-13, American Society for Testing Materials (ASTM) 100 Barr Harbor Drive, West Conshohocken, PA, 19428-2529 <u>http://www.astm.org/</u>

Environmental Data Resources, Environmental Database Management, 6 Armstrong Road, 4th Floor, Shelton, CT 06484, phone: 1-800-352-0050 <u>http://www.edrnet.com/</u>

North Carolina Department of Environmental Quality (NCDEQ), 127 Cardinal Drive, Wilmington, NC 28405 phone: (910) 796-7215, <u>http://www.enr.state.nc.us/</u>

Brunswick County Register of Deeds Online, https://rod.brunsco.net/

Brunswick County GIS Website: <u>https://www.brunswickcountync.gov/gis/maps/</u>

Google Maps, 2021 http://www.google.com/maps/

NCDWM Site Locator Tool https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html

TopoZone Topographic Map Website <u>www.topozone.com</u>

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APPENDIX IV NEPA CHECK BY EDR, INC.

Garnet

271 Smith Avenue Shallotte, NC 28470

Inquiry Number: 7130419.1s September 27, 2022

EDR NEPASearch™ Map Report



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

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Thank you for your business. Please contact EDR at 1-800-352-0050 with any questions or comments.

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EDR NEPASearch DESCRIPTION

The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies include in their decision-making processes appropriate and careful consideration of all environmental effects and actions, analyze potential environmental effects of proposed actions and their alternatives for public understanding and scrutiny, avoid or minimize adverse effects of proposed actions, and restore and enhance environmental quality as much as possible.

The EDR NEPASearch Map Report provides information which may be used, in conjunction with additional research, to determine whether a proposed site or action will have significant environmental effect.

TARGET PROPERTY ADDRESS

GARNET 271 SMITH AVENUE SHALLOTTE, NC 28470 Inquiry #: 7130419.1s Date: 9/27/22

TARGET PROPERTY COORDINATES

Latitude (North):	33.986202 - 33 59' 10.3"
Longitude (West):	78.386108 - 78^ 23' 10.0''
Universal Tranverse Mercator:	Zone 17
UTM X (Meters):	741463.0
UTM Y (Meters):	3763511.8

The report provides maps and data for the following items (where available). Search results are provided in the Map Findings Summary on page 2 of this report.

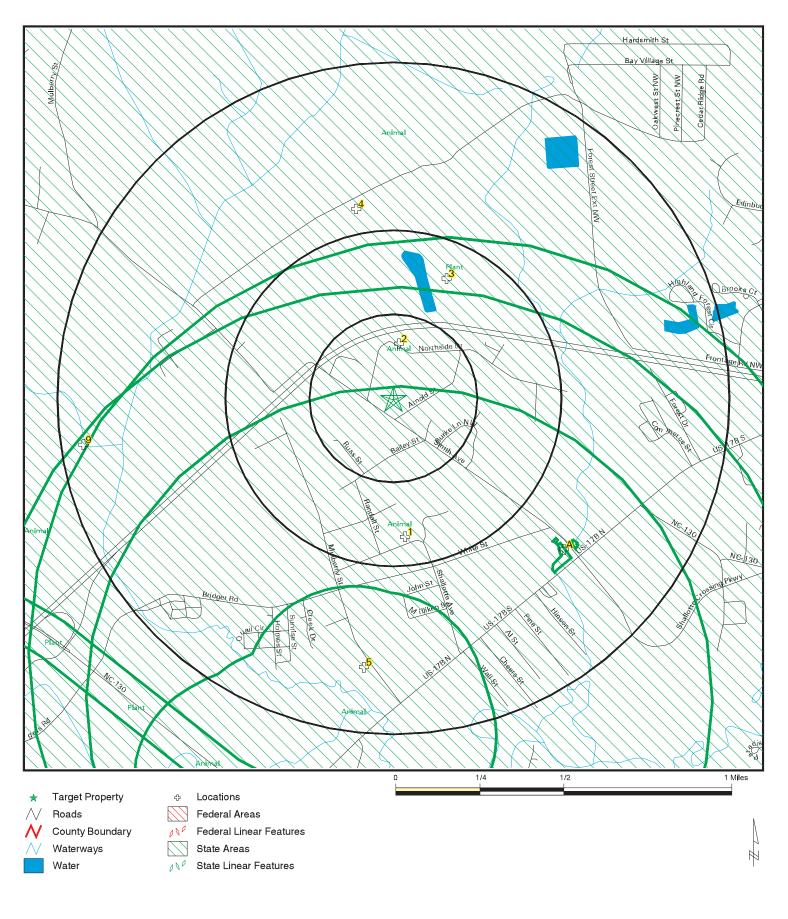
Section Natural Areas Map • Federal Lands Data: - Officially designated wilderness areas - Officially designated wildlife preserves, sanctuaries	Regulation 47 CFR 1.1307(1) 47 CFR 1.1307(2)
and refuges - Wild and scenic rivers - Fish and Wildlife • Threatened or Endangered Species, Fish and Wildlife, Critical Habitat Data (where available)	40 CFR 6.302(e) 40 CFR 6.302 47 CFR 1.1307(3); 40 CFR 6.302
Historic Sites Map • National Register of Historic Places • State Historic Places (where available) • Indian Reservations	47 CFR 1.1307(4); 40 CFR 6.302
Flood Plain Map • National Flood Hazard Layer Data (where available) • FEMA Q3 Flood Data (where available)	47 CFR 1.1307(6); 40 CFR 6.302 47 CFR 1.1307(6); 40 CFR 6.302
Wetlands Map • National Wetlands Inventory Data (where available) • State Wetlands Data (where available)	47 CFR 1.1307(7); 40 CFR 6.302 47 CFR 1.1307(7); 40 CFR 6.302
 FCC & FAA Map FCC antenna/tower sites, FAA Markings and Obstructions, Airports, Topographic gradient 	47 CFR 1.1307(8)
Key Contacts and Government Records Searched	

MAP FINDINGS SUMMARY

The databases searched in this report are listed below. Database descriptions and other agency contact information is contained in the Key Contacts and Government Records Searched section on page 56 of this report.

Applicable Regulation from 47 CFR/FCC Checklist	Database	Search Distance (Miles)	Within Search	Within 1/8 Mile
		4.00		NO
1.1307a (1) Officially Designated Wilderness Area	US Federal Lands US Wilderness Preservation	1.00 1.00	NO NO	NO NO
1.1307a (2) Officially Designated Wildlife Preserve	US Federal Lands	1.00	NO	NO
	NC Natural Areas	1.00	NO	NO
	NC Natural Heritage Areas	1.00	NO	NO
	NC Managed Areas	1.00	YES	NO
	US ACEC	1.00	NO	NO
	US Proclamation Boundaries US Scenic River	1.00 1.00	NO NO	NO
	Conservation Easements	1.00	NO	NO NO
	US NCED	1.00	NO	NO
	US Critical Water Habitat	1.00	NO	NO
	US Critical Land Habitat	1.00	NO	NO
1.1307a (3) Threatened or Endangered Species or Critical Habitat	US Endangered Species	County	YES	N/A
1.1307a (3) Threatened or Endangered Species or Critical Habitat	Natural Heritage Element Occur	1.00	YES	YES
HISTORIC SITES MAP				
1.1307a (4) Listed or eligible for National Register	NC NR, SL, DOE Boundaries	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	NC Historic Preservation Sites	1.00	YES	NO
1.1307a (4) Listed or eligible for National Register	NC Local District Boundaries	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	Potomac Heritage National Scen	1.00	NO	NO
1.1307a (4) Listed or eligible for National Register	Natchez Trace National Scenic	1.00	NO	NO
1 1207a (4) Listed as aligible for National Degister	Indian Reservations US Trails	1.00	NO NO	NO NO
1.1307a (4) Listed or eligible for National Register 1.1307a (4) Listed or eligible for National Register	National Register of Hist. Pla	1.00 1.00	NO	NO
	National Register of Hist. Fia	1.00	NO	NO
FLOOD PLAIN MAP				
1.1307 (6) Located in a Flood Plain	Special Flood Hazard Area (1%)	1.00	YES	NO
1.1307 (6) Located in a Flood Plain	0.2% Annual Chance Flood Hazar	1.00	YES	NO
WETLANDS MAP				
1.1307 (7) Change in surface features (wetland fill)	NWI	1.00	YES	YES
1.1307 (7) Change in surface features (wetland fill)	STATE	1.00	NO	NO
	NC COASTAL ZONE	20.00	YES	NO
FCC & FAA SITES MAP				
	Cellular	1.00	NO	NO
	Antenna Structure Registration	1.00	YES	NO
	AM Antenna	1.00	YES	NO
	FM Antenna	1.00	NO	NO
	FAA DOF	1.00	YES	NO
	Airports Power Lines	1.00 1.00	NO YES	
	FUWEI LINES	1.00	IES	

Natural Areas Map



SITE NAME:	Garnet	CLIENT:	TerraTech	
ADDRESS:	271 Smith Avenue	CONTACT:	Will Strayhorn	
LAT/LONG:	Shallotte NC 28470 33.986201 / 78.386112	INQUIRY #: DATE:	7130419.1s September 27, 2022	TC7130419.1s Page 3 of 64

Federal Endangered Species from the U.S. Fish and Wildlife for BRUNSWICK County Group:Birds

Common Name: Red knot Status: Threatened	Scientific Name: Calidris canutus rufa
Common Name: Piping Plover Status: Threatened	Scientific Name: Charadrius melodus
Common Name: Wood stork Status: Threatened	Scientific Name: Mycteria americana
Common Name: Red-cockaded woodpecker Status: Endangered	Scientific Name: Picoides borealis
Group:Fishes	
Common Name: Atlantic sturgeon Status: Endangered	Scientific Name: Acipenser oxyrinchus oxyrinchus
Common Name: Shortnose sturgeon Status: Endangered	Scientific Name: Acipenser brevirostrum
Group:Flowering Plants	
Common Name: Rough-leaved loosestrife Status: Endangered	Scientific Name: Lysimachia asperulaefolia
Common Name: Seabeach amaranth Status: Threatened	Scientific Name: Amaranthus pumilus
Common Name: Cooley's meadowrue Status: Endangered	Scientific Name: Thalictrum cooleyi
Group:Mammals	
Common Name: West Indian Manatee Status: Endangered	Scientific Name: Trichechus manatus
Group:Reptiles	
Common Name: American alligator Status: Similarity of Appearance (Threatened)	Scientific Name: Alligator mississippiensis
Common Name: Green sea turtle Status: Threatened	Scientific Name: Chelonia mydas
Common Name: Kemp's ridley sea turtle Status: Endangered	Scientific Name: Lepidochelys kempii
Common Name: Leatherback sea turtle Status: Endangered	Scientific Name: Dermochelys coriacea
Common Name: Hawksbill sea turtle Status: Endangered	Scientific Name: Eretmochelys imbricata
Common Name: Loggerhead sea turtle Status: Threatened	Scientific Name: Caretta caretta

Common Name: Magnificent ramshorn Scientific Name: Planorbella magnifica Foreur-Endangered Species from the U.S. Fish and Wildlife IV C State Group-Amphibians Common Name: Seepage salamander Scientific Name: Desmognathus aeneus Status: Under Review Scientific Name: Cryptobranchus alleganiensis alleganiensis Common Name: Eastern Hellbender Scientific Name: Cryptobranchus alleganiensis Status: Under Review Scientific Name: Cryptobranchus alleganiensis Common Name: Hellbender Scientific Name: Cryptobranchus alleganiensis Status: Under Review Scientific Name: Cryptobranchus alleganiensis Common Name: Carolina crawfish frog Scientific Name: Aneides aeneus Status: Under Review Scientific Name: Plethodon meridianus Status: Under Review Scientific Name: Plethodon cheoah Status: Under Review Scientific Name: Neutrus lewisi	Federal Endangered Species from the U.S. Fish and Wildlife for BRUNSWICK County (Continued) Group:Snails		
Group: Amphibians Scientific Name: Desmognathus aeneus Status: Under Review Scientific Name: Cryptobranchus alleganiensis alleganiensis Common Name: Eastern Hellbender Scientific Name: Cryptobranchus alleganiensis Status: Under Review Scientific Name: Cryptobranchus alleganiensis Common Name: Hellbender Scientific Name: Cryptobranchus alleganiensis Status: Under Review Scientific Name: Cryptobranchus alleganiensis Common Name: Carolina crawfish frog Scientific Name: Rana areolata capito Status: Under Review Scientific Name: Aneides aeneus Common Name: South Mountain gray-cheeked salamander Scientific Name: Plethodon meridianus Status: Under Review Common Name: Cheoah Bald salamander Scientific Name: Plethodon cheoah Status: Under Review Scientific Name: Necturus lewisi Common Name: Cheoah Bald salamander Scientific Name: Necturus lewisi Status: Under Review Scientific Name: Necturus lewisi Common Name: Cheoah Bald Salamander Scientific Name: Status: Lewisi Status: Under Review Scientific Name: Necturus lewisi Common Name: Cheoah Bald Salamander Scientific Name: Lewisi Status: Under Review Scientific Name: Necturus lewisi Group:Arachnids Scientific N		Scientific Name: Planorbella magnifica	
Status: Under ReviewScientific Name: Cryptobranchus alleganiensis alleganiensisCommon Name: Eastern Hellbender Status: Species of ConcernScientific Name: Cryptobranchus alleganiensisCommon Name: Carolina crawfish frog Status: Under ReviewScientific Name: Cryptobranchus alleganiensisCommon Name: Carolina crawfish frog Status: Species of ConcernScientific Name: Rana areolata capitoCommon Name: Creen salamander 		or NC State	
Status:Species of ConcernCommon Name:Hellbender Status:Scientific Name:Cryptobranchus alleganiensisStatus:Under ReviewScientific Name:Rana areolata capitoCommon Name:Caroina crawfish frog Status:Scientific Name:Rana areolata capitoStatus:Species of ConcernScientific Name:Aneides aeneusCommon Name:Coren salamander Status:Scientific Name:Aneides aeneusStatus:Under ReviewScientific Name:Plethodon meridianusCommon Name:South Mountain gray-cheeked salamanderScientific Name:Plethodon cheoahStatus:Under ReviewScientific Name:Plethodon cheoahStatus:Under ReviewScientific Name:Neutrus lewisiCommon Name:Cheuse River waterdog Status:Scientific Name:Neutrus lewisiStatus:Under ReviewScientific Name:Eurycea chamberlainiGroup:Status:Under ReviewScientific Name:Neutrus lewisiGroup:Status:Under ReviewScientific Name:Neutrus lewisiGroup:Status:Scientific Name:Neutrus lewisiScientific Name:Scientific Name:Group:BirdsScientific Name:Laterallus jamaicensisStatus:Status:Status:Scientific Name:Scientific Na		Scientific Name: Desmognathus aeneus	
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Status: Under ReviewCommon Name: South Mountain gray-cheeked salamander Scientific Name: Plethodon meridianus Status: Under ReviewCommon Name: Cheoah Bald salamander Status: Under ReviewScientific Name: Plethodon cheoah Status: Under ReviewCommon Name: Neuse River waterdog Status: Under ReviewScientific Name: Necturus lewisiCommon Name: Neuse River waterdog Status: Under ReviewScientific Name: Necturus lewisiCommon Name: Chamberlain's Dwarf salamander Status: Under ReviewScientific Name: Necturus lewisiCommon Name: Chamberlain's Dwarf salamander Status: Under ReviewScientific Name: Eurycea chamberlainiGroup:ArachnidsScientific Name: Nesticus cooperiCommon Name: Lost Nantahala Cave spider Status: Species of ConcernScientific Name: Nesticus cooperiGroup:BirdsScientific Name: Laterallus jamaicensis Status: Under ReviewCommon Name: Elack Rail Status: Species of ConcernScientific Name: Passerina ciris ciris Status: Species of ConcernCommon Name: Elack-capped petrel Status: Under ReviewScientific Name: Lanius ludovicianus migransCommon Name: Black-capped petrel Status: Species of ConcernScientific Name: Petrodroma hasitata		Scientific Name: Rana areolata capito	
Status: Under Review Common Name: Cheoah Bald salamander Status: Under Review Scientific Name: Plethodon cheoah Common Name: Neuse River waterdog Status: Under Review Scientific Name: Necturus lewisi Common Name: Chamberlain's Dwarf salamander Status: Under Review Scientific Name: Necturus lewisi Common Name: Chamberlain's Dwarf salamander Status: Under Review Scientific Name: Eurycea chamberlaini Group:Arachnids Scientific Name: Eurycea chamberlaini Common Name: Lost Nantahala Cave spider Status: Species of Concern Scientific Name: Nesticus cooperi Group:Birds Common Name: Black Rail Status: Under Review Scientific Name: Laterallus jamaicensis Common Name: Eastern painted bunting Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Eastern painted bunting Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Black-capped petrel Status: Under Review Scientific Name: Lanius Iudovicianus migrans Common Name: Black-capped petrel Status: Under Review Scientific Name: Pterodroma hasitata Common Name: Golden-winged warbler Scientific Name: Vermivora chrysoptera		Scientific Name: Aneides aeneus	
Status: Under Review Common Name: Neuse River waterdog Scientific Name: Necturus lewisi Common Name: Chamberlain's Dwarf salamander Scientific Name: Necturus lewisi Status: Under Review Scientific Name: Eurycea chamberlaini Group:Arachnids Scientific Name: Nesticus cooperi Common Name: Lost Nantahala Cave spider Scientific Name: Nesticus cooperi Status: Species of Concern Scientific Name: Nesticus cooperi Group:Birds Common Name: Black Rail Common Name: Black Rail Scientific Name: Laterallus jamaicensis Status: Under Review Scientific Name: Laterallus jamaicensis Common Name: Eastern painted bunting Scientific Name: Passerina ciris ciris Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Migrant loggerhead shrike Scientific Name: Lanius Iudovicianus migrans Status: Under Review Scientific Name: Pterodroma hasitata Common Name: Black-capped petrel Scientific Name: Pterodroma hasitata Status: Under Review Scientific Name: Vermivora chrysoptera		r Scientific Name: Plethodon meridianus	
Status: Under Review Scientific Name: Eurycea chamberlaini Common Name: Chamberlain's Dwarf salamander Status: Under Review Scientific Name: Eurycea chamberlaini Group:Arachnids Common Name: Lost Nantahala Cave spider Status: Species of Concern Scientific Name: Nesticus cooperi Group:Birds Common Name: Black Rail Status: Under Review Scientific Name: Laterallus jamaicensis Common Name: Eastern painted bunting Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Migrant loggerhead shrike Status: Species of Concern Scientific Name: Lanius ludovicianus migrans Common Name: Black-capped petrel Status: Under Review Scientific Name: Perodroma hasitata Common Name: Black-capped petrel Status: Under Review Scientific Name: Perodroma hasitata Common Name: Black-capped petrel Status: Under Review Scientific Name: Perodroma hasitata		Scientific Name: Plethodon cheoah	
Status: Under Review Group:Arachnids Common Name: Lost Nantahala Cave spider Status: Species of Concern Scientific Name: Nesticus cooperi Group:Birds Scientific Name: Nesticus cooperi Common Name: Black Rail Status: Under Review Scientific Name: Laterallus jamaicensis Common Name: Eastern painted bunting Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Eastern painted bunting Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Migrant loggerhead shrike Status: Species of Concern Scientific Name: Lanius Iudovicianus migrans Common Name: Black-capped petrel Status: Under Review Scientific Name: Pterodroma hasitata Common Name: Golden-winged warbler Scientific Name: Vermivora chrysoptera		Scientific Name: Necturus lewisi	
Common Name: Lost Nantahala Cave spider Status: Species of ConcernScientific Name: Nesticus cooperiGroup:BirdsScientific Name: Laterallus jamaicensis Status: Under ReviewCommon Name: Black Rail Status: Under ReviewScientific Name: Laterallus jamaicensisCommon Name: Eastern painted bunting Status: Species of ConcernScientific Name: Passerina ciris cirisCommon Name: Migrant loggerhead shrike Status: Species of ConcernScientific Name: Lanius ludovicianus migransCommon Name: Black-capped petrel Status: Under ReviewScientific Name: Pterodroma hasitataCommon Name: Black-capped petrel Status: Under ReviewScientific Name: Vermivora chrysoptera		Scientific Name: Eurycea chamberlaini	
Status: Species of Concern Group:Birds Common Name: Black Rail Status: Under Review Scientific Name: Laterallus jamaicensis Common Name: Eastern painted bunting Status: Species of Concern Scientific Name: Passerina ciris ciris Common Name: Migrant loggerhead shrike Status: Species of Concern Scientific Name: Lanius ludovicianus migrans Common Name: Black-capped petrel Status: Under Review Scientific Name: Pterodroma hasitata Common Name: Black-capped petrel Status: Under Review Scientific Name: Pterodroma hasitata Common Name: Golden-winged warbler Scientific Name: Vermivora chrysoptera	Group:Arachnids		
Common Name: Black Rail Status: Under ReviewScientific Name: Laterallus jamaicensisCommon Name: Eastern painted bunting Status: Species of ConcernScientific Name: Passerina ciris cirisCommon Name: Migrant loggerhead shrike Status: Species of ConcernScientific Name: Lanius ludovicianus migransCommon Name: Black-capped petrel Status: Under ReviewScientific Name: Pterodroma hasitataCommon Name: Black-capped petrel Status: Under ReviewScientific Name: Pterodroma hasitataCommon Name: Golden-winged warblerScientific Name: Vermivora chrysoptera		Scientific Name: Nesticus cooperi	
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Status: Species of Concern Scientific Name: Lanius Iudovicianus migrans Common Name: Migrant loggerhead shrike Scientific Name: Lanius Iudovicianus migrans Status: Species of Concern Scientific Name: Pterodroma hasitata Common Name: Black-capped petrel Scientific Name: Pterodroma hasitata Status: Under Review Scientific Name: Vermivora chrysoptera		Scientific Name: Laterallus jamaicensis	
Status: Species of Concern Scientific Name: Pterodroma hasitata Common Name: Black-capped petrel Scientific Name: Pterodroma hasitata Status: Under Review Scientific Name: Vermivora chrysoptera Common Name: Golden-winged warbler Scientific Name: Vermivora chrysoptera	Common Name: Eastern painted bunting Status: Species of Concern	Scientific Name: Passerina ciris ciris	
Status: Under Review Common Name: Golden-winged warbler Scientific Name: Vermivora chrysoptera		Scientific Name: Lanius Iudovicianus migrans	
		Scientific Name: Pterodroma hasitata	
Status: Under Review	Common Name: Golden-winged warbler Status: Under Review	Scientific Name: Vermivora chrysoptera	

r NC State (Continued) Scientific Name: Calidris canutus rufa
Scientific Name: Lasmigona subviridis
Scientific Name: Elliptio judithae
Scientific Name: Elliptio sp.
Scientific Name: Toxolasma pullus
Scientific Name: Elliptio lanceolata
Scientific Name: Fusconaia subrotunda
Scientific Name: Medionidus conradicus
Scientific Name: Villosa nebulosa
Scientific Name: Pleuronaia barnesiana
Scientific Name: Lampsilis cariosa
Scientific Name: Fusconaia masoni
Scientific Name: Alasmidonta varicosa
Scientific Name: Tsuga caroliniana
Scientific Name: Cambarus georgiae
Scientific Name: Dactylocythere prinsi
Scientific Name: Procambarus medialis

Federal Endangered Species from the U.S. Fish and Wildlife for Common Name: Grayson crayfish ostracod Status: Species of Concern	or NC State (Continued) Scientific Name: Ascetocthere cosmeta
Common Name: Oconee crayfish ostracod Status: Species of Concern	Scientific Name: Cymocythere clavata
Common Name: New River riffle crayfish Status: Status Undefined	Scientific Name: Cambarus chasmodactylus
Common Name: Yancey sideswimmer Status: Species of Concern	Scientific Name: Stygobromus carolinensis
Common Name: Pee Dee lotic crayfish Status: Species of Concern	Scientific Name: Procambarus lepidodactylus
Common Name: Carolina well diacyclops Status: Species of Concern	Scientific Name: Diacyclops jeanneli putei
Common Name: Tidewater amphipod Status: Under Review	Scientific Name: Stygobromus indentatus
Common Name: Bennets Mill Cave water slater Status: Species of Concern	Scientific Name: Caecidotea carolinensis
Common Name: Chauga crayfish Status: Under Review	Scientific Name: Cambarus chaugaensis
Common Name: Grandfather Mountain crayfish Status: Under Review	Scientific Name: Cambarus eeseeohensis
Common Name: Hiwassee crayfish Status: Species of Concern	Scientific Name: Cambarus hiwasseensis
Common Name: French Broad crayfish Status: Species of Concern	Scientific Name: Cambarus reburrus
Common Name: Carolina skistodiaptomus Status: Species of Concern	Scientific Name: Skistodiaptomus carolinensis
Common Name: Chowanoke crayfish Status: Under Review	Scientific Name: Orconectes virginiensis
Common Name: Croatan crayfish Status: Species of Concern	Scientific Name: Procambarus plumimanus
Common Name: [Unnamed] ostracod Status: Species of Concern	Scientific Name: Waltoncythere acuta
Common Name: Parrish crayfish Status: Under Review	Scientific Name: Cambarus parrishi
Common Name: [Unnamed] ostracod Status: Species of Concern	Scientific Name: Dactylocythere isabelae
Group:Ferns and Allies	

Federal Endangered Species from the U.S. Fish and Wildlife fo Common Name: Thin-wall quillwort Status: Under Review	or NC State (Continued) Scientific Name: Isoetes microvela
Common Name: Winter quillwort Status: Under Review	Scientific Name: Isoetes hyemalis
Common Name: Hall's Pocket moss Status: Under Review	Scientific Name: Fissidens hallii
Common Name: Appalachian Fissidens moss Status: Under Review	Scientific Name: Fissidens appalachensis
Common Name: Sp. nov. ined. (Appalachian) oak fern Status: Species of Concern	Scientific Name: Gymnocarpium sp.
Common Name: Dwarf polypody Status: Species of Concern	Scientific Name: Grammitis nimbata
Common Name: Hornwort Status: Under Review	Scientific Name: Megaceros aenigmaticus
Common Name: [Unnamed] spleenwort Status: Species of Concern	Scientific Name: Asplenium heteroresiliens
Group:Fishes	
Common Name: Sickle darter Status: Under Review	Scientific Name: Percina williamsi
Common Name: Carolina madtom Status: Under Review	Scientific Name: Noturus furiosus
Common Name: Longhead darter Status: Under Review	Scientific Name: Percina macrocephala
Common Name: Spotted madtom Status: Species of Concern	Scientific Name: Noturus insignis ssp.
Common Name: Kanawha minnow Status: Species of Concern	Scientific Name: Phenacobius teretulus
Common Name: Robust redhorse Status: Under Review	Scientific Name: Moxostoma robustum
Group:Flowering Plants	
Common Name: No common name Status: Species of Concern	Scientific Name: Paxistima canbyi
Common Name: No common name Status: Species of Concern	Scientific Name: Hexastylis contracta
Common Name: Bigleaf scurf-pea Status: Species of Concern	Scientific Name: Orbexilum macrophyllum
Common Name: Carolina lead-plant	Scientific Name: Amorpha georgiana confusa

Federal Endangered Species from the U.S. Fish and Wildlife for NC State (Continued...) Status: Species of Concern

Common Name: Anderson's brachymenium Status: Species of Concern

Common Name: No common name Status: Species of Concern

Common Name: [Unnamed] pondweed Status: Species of Concern

Common Name: No common name Status: Species of Concern

Common Name: Large-flowered Barbara's buttons Status: Under Review

Common Name: White-wicky Status: Species of Concern

Common Name: No common name Status: Species of Concern

Common Name: Alexander's rock-aster Status: Species of Concern

Common Name: Gray's lily Status: Species of Concern

Common Name: [Unnamed] beaked-rush Status: Species of Concern

Common Name: Smooth bog-asphodel Status: Species of Concern

Common Name: Hirst Brothers' Panic grass Status: Candidate

Common Name: Ravine sedge Status: Under Review

Common Name: Pine barrens boneset Status: Species of Concern

Common Name: No common name Status: Species of Concern

Common Name: No common name Status: Species of Concern

Common Name: Fraser's yellow loosestrife Status: Species of Concern

Common Name: Bog bluegrass Status: Species of Concern Scientific Name: Brachymenium andersonii

Scientific Name: Eurhychium pringlei

Scientific Name: Potamogeton confervoides

Scientific Name: Porella appalachiana

Scientific Name: Marshallia grandiflora

Scientific Name: Kalmia cuneata

Scientific Name: Plagiochila virginica euryphylla

Scientific Name: Eurybia avita

Scientific Name: Lilium grayi

Scientific Name: Rhynchospora decurrens

Scientific Name: Tofieldia glabra

Scientific Name: Dichanthelium (=Panicum) hirstii

Scientific Name: Carex impressinervia

Scientific Name: Eupatorium resinosum

Scientific Name: Cheilolejeunea evansii

Scientific Name: Trillium pusillum pusillum

Scientific Name: Lysimachia fraseri

Scientific Name: Poa paludigena

Federa	al Endangered Species from the U.S. Fish and Wildlife for Common Name: Sp. nov. ined. blue curls	or NC State (Continued) Scientific Name: Trichostema sp.
	Status: Species of Concern	
	Common Name: Wireleaf dropseed Status: Under Review	Scientific Name: Sporobolus teretifolius
	Common Name: [Unnamed] liverwort Status: Species of Concern	Scientific Name: Plagiochila sullivantii
	Common Name: Wavyleaf wild-quinine Status: Species of Concern	Scientific Name: Parthenium integrifolium
	Common Name: Sandhills milk-vetch Status: Species of Concern	Scientific Name: Astragalus michauxii
	Common Name: Pickering's morning-glory Status: Species of Concern	Scientific Name: Stylisma pickeringii
	Common Name: Pygmypipes Status: Species of Concern	Scientific Name: Monotropsis odorata
	Common Name: Awned meadowbeauty Status: Species of Concern	Scientific Name: Rhexia aristosa
	Common Name: Gorge moss Status: Species of Concern	Scientific Name: Bryocrumia vivicolor
	Common Name: [Unnamed] liverwort Status: Species of Concern	Scientific Name: Plagiochila virginica var. caroliniana
	Common Name: No common name Status: Species of Concern	Scientific Name: Myriophyllum laxum
	Common Name: No common name Status: Species of Concern	Scientific Name: Rugelia nudicaulis
	Common Name: Piedmont meadow-rue Status: Species of Concern	Scientific Name: Thalictrum macrostylum
	Common Name: Heller's bird's-foot trefoil Status: Species of Concern	Scientific Name: Lotus unifoliolatus var. helleri
	Common Name: Carolina goldenrod Status: Species of Concern	Scientific Name: Solidago pulchra
	Common Name: Purpuledisk honeycombhead Status: Species of Concern	Scientific Name: Balduina atropurpurea
	Common Name: [Unnamed] sedge Status: Species of Concern	Scientific Name: Carex schweinitzii
	Common Name: Pineland plantain Status: Species of Concern	Scientific Name: Plantago sparsiflora
	Common Name: No common name Status: Species of Concern	Scientific Name: Plagiochila echinata

Federal Endangered Species from the U.S. Fish and Wildli	fe for NC State (Continued)
Common Name: Gorge leafy liverwort Status: Under Review	Scientific Name: Plagiochila caduciloba
Common Name: Sharp's leafy liverwort Status: Under Review	Scientific Name: Plagiochila sharpii
Common Name: Piratebush Status: Species of Concern	Scientific Name: Buckleya distichophylla
Common Name: [Unnamed] liverwort Status: Species of Concern	Scientific Name: Cylindrocolea andersonii
Common Name: No common name Status: Species of Concern	Scientific Name: Lophocolea appalachiana
Common Name: Carolina mnium Status: Species of Concern	Scientific Name: Plagiomnium carolinianum
Common Name: Bog spicebush Status: Under Review	Scientific Name: Lindera subcoriacea
Common Name: Mt. Leconte moss Status: Species of Concern	Scientific Name: Leptothymenium sharpii
Common Name: Tall larkspur Status: Species of Concern	Scientific Name: Delphinium exaltatum
Common Name: No common name Status: Species of Concern	Scientific Name: Lotus purshianus helleri
Common Name: Short-styled oconee-bells Status: Species of Concern	Scientific Name: Shortia galacifolia brevistyla
Common Name: Carolina birds-in-a-nest Status: Under Review	Scientific Name: Macbridea caroliniana
Common Name: No common name Status: Species of Concern	Scientific Name: Cephaloziella obtusilobula
Common Name: Manhart's sedge Status: Species of Concern	Scientific Name: Carex manhartii
Common Name: Wooly berry Status: Species of Concern	Scientific Name: Vaccinium hirsutum
Common Name: No common name Status: Species of Concern	Scientific Name: Bazzania nudicaulis
Common Name: Smoky Mountains manna grass Status: Species of Concern	Scientific Name: Glyceria nubigena
Common Name: [Unnamed] liverwort Status: Species of Concern	Scientific Name: Sphenolobopsis pearsoni
Common Name: Cain's reedgrass Status: Species of Concern	Scientific Name: Calamagrostis cainii

Federal Endangered Species from the U.S. Fish and Wildlif Common Name: Mountain bittercress Status: Species of Concern	fe for NC State (Continued) Scientific Name: Cardamine clematitis
Common Name: Georgia lead-plant Status: Under Review	Scientific Name: Amorpha georgiana georgiana
Common Name: Ammon's tortula Status: Species of Concern	Scientific Name: Tortula ammonsiana
Common Name: Blue Ridge catchfly Status: Species of Concern	Scientific Name: Silene ovata
Common Name: [Unnamed] venus' fly-trap Status: Species of Concern	Scientific Name: Dionaea muscipula
Common Name: Bent avens Status: Species of Concern	Scientific Name: Geum geniculatum
Common Name: Godfryo?=s stitchwort Status: Under Review	Scientific Name: Minuartia godfreyi
Common Name: Spring-flowering goldenrod Status: Species of Concern	Scientific Name: Solidago verna
Common Name: Butternut Status: Species of Concern	Scientific Name: Juglans cinerea
Common Name: Highlands moss Status: Species of Concern	Scientific Name: Schlotheimia lancifolia
Common Name: Well's pixie-moss Status: Species of Concern	Scientific Name: Pyxidanthera barbulata brevifolia
Common Name: Gray's saxifrage Status: Species of Concern	Scientific Name: Saxifraga caroliniana
Common Name: Swamp justiceweed Status: Under Review	Scientific Name: Eupatorium paludicola
Common Name: Long Beach seedbox Status: Under Review	Scientific Name: Ludwigia brevipes
Common Name: Raven's seedbox Status: Under Review	Scientific Name: Ludwigia ravenii
Common Name: Yellow Pond lily Status: Under Review	Scientific Name: Nuphar lutea ssp. sagittifolia
Common Name: Carolina bishopweed Status: Under Review	Scientific Name: Ptilimnium ahlesii
Common Name: Mountain Purple pitcherplant Status: Under Review	Scientific Name: Sarracenia purpurea var. montana
Common Name: Savannah campylopus Status: Species of Concern	Scientific Name: Campylopus carolinae

	ndangered Species from the U.S. Fish and Wildlife for mmon Name: No common name	or NC State (Continued) Scientific Name: Oxypolis ternata
Sta	atus: Species of Concern	
	ommon Name: [Unnamed] sedge atus: Species of Concern	Scientific Name: Carex roanensis
	ommon Name: Darlington's spurge atus: Species of Concern	Scientific Name: Euphorbia purpurea
	ommon Name: Thorne's beaked-rush atus: Under Review	Scientific Name: Rhynchospora thornei
	ommon Name: No common name atus: Species of Concern	Scientific Name: Plagiochila columbiana
	ommon Name: Keever's bristle-moss atus: Species of Concern	Scientific Name: Orthotrichum keeverae
	ommon Name: Serpentine aster atus: Species of Concern	Scientific Name: Symphyotrichum depauperatum
	ommon Name: Piedmont ragwort atus: Species of Concern	Scientific Name: Packera millefolia
	ommon Name: Riverbank vervain atus: Species of Concern	Scientific Name: Verbena riparia
	ommon Name: No common name atus: Species of Concern	Scientific Name: Lejeunea blomquistii
	ommon Name: French Broad heartleaf atus: Species of Concern	Scientific Name: Hexastylis rhombiformis
	ommon Name: Oconee-bells atus: Species of Concern	Scientific Name: Shortia galacifolia
Grou	p:Insects	
	ommon Name: American sandburrowing mayfly atus: Species of Concern	Scientific Name: Dolania americana
	ommon Name: Black lordithon rove beetle atus: Species of Concern	Scientific Name: Lordithon niger
	ommon Name: Midget snaketail atus: Species of Concern	Scientific Name: Ophiogomphus howei
	ommon Name: Lenat's ceraclean caddisfly atus: Species of Concern	Scientific Name: Ceraclea sp.
	ommon Name: Annointed sallow noctuid moth atus: Species of Concern	Scientific Name: Pyreferra ceromatica
	ommon Name: Gammon's stenelmis riffle beetle atus: Species of Concern	Scientific Name: Stenelmis gammoni

Federal Endangered Sp Common Name: Status: Species of		or NC State (Continued) Scientific Name: Pyrgus centaureae
Common Name: Status: Species o	Carter's noctuid moth of Concern	Scientific Name: Spartiniphaga carterae
Common Name: Status: Species o	Venus flytrap noctuid of Concern	Scientific Name: Hemipachnolia subporphyria subporphyria
Common Name: Status: Under Re	Margarita River skimmer eview	Scientific Name: Macromia margarita
Common Name: Status: Species of	Variegated clubtail of Concern	Scientific Name: Progomphus bellei
Common Name: Status: Species of		Scientific Name: Speyeria diana
Common Name: Status: Under Re		Scientific Name: Speyeria idalia
Common Name: Status: Species of		Scientific Name: Stylurus townesi
Common Name: Status: Under Re		Scientific Name: Problema bulenta
Common Name: Status: Species of	Mary Alice's smallheaded fly of Concern	Scientific Name: Eulonchus marialiciae
Common Name: Status: Species of	Buchholz' dart moth of Concern	Scientific Name: Agrotis buchholzi
Common Name: Status: Species of		Scientific Name: Gomphus parvidens carolinus
Common Name: Status: Under Re		Scientific Name: Danaus plexippus plexippus
Common Name: Status: Under Re	Smokies snowfly eview	Scientific Name: Allocapnia fumosa
Common Name: Status: Under Re	Smokies needlefly eview	Scientific Name: Megaleuctra williamsae
Common Name: Status: Under Re	Appalachian snaketail eview	Scientific Name: Ophiogomphus incurvatus
Common Name: Status: Species of	[Unnamed] looper moth of Concern	Scientific Name: Euchlaena milnei
Common Name: Status: Species of	Eastern beard grass Skipper of Concern	Scientific Name: Atrytone arogos arogos
Common Name: Status: Under Re	Septima's clubtail sview	Scientific Name: Gomphus septima

Federal Endangered Species from the U.S. Fish and Wildlife for Common Name: [Unnamed] caddisfly Status: Species of Concern	or NC State (Continued) Scientific Name: Helicopsyche paralimnella
Common Name: [Unnamed] ghost moth Status: Species of Concern	Scientific Name: Hepialus sciophanes
Common Name: [Unnamed] noctuid moth Status: Species of Concern	Scientific Name: Schinia indiana
Common Name: Barrens Dagger Moth Status: Species of Concern	Scientific Name: Acronicta albarufa
Common Name: Edmund's snaketail Status: Under Review	Scientific Name: Ophiogomphus edmundo
Common Name: [Unnamed] caddisfly Status: Species of Concern	Scientific Name: Hydroptila englishi
Common Name: Tawny crescent Status: Species of Concern	Scientific Name: Phyciodes batesii
Common Name: [Unnamed] caddisfly Status: Species of Concern	Scientific Name: Agapetus jocassee
Common Name: Fraser fir geometrid moth Status: Species of Concern	Scientific Name: Semiothisa fraserata
Group:Lichens	
Common Name: Bluff Mountain Reindeer Lichen Status: Species of Concern	Scientific Name: Cladonia psoromica
Group:Mammals	
Common Name: Southern rock vole Status: Species of Concern	Scientific Name: Microtus chrotorrhinus carolinensis
Common Name: Indiana bat Status: Endangered	Scientific Name: Myotis sodalis
Common Name: Red wolf Status: Endangered	Scientific Name: Canis rufus
Common Name: Southern water shrew Status: Species of Concern	Scientific Name: Sorex palustris punctulatus
Common Name: Southeastern myotis Status: Species of Concern	Scientific Name: Myotis austroriparius
Common Name: Southern Appalachian eastern woodrat Status: Species of Concern	Scientific Name: Neotoma floridana haematoreia
Common Name: Carolina northern flying squirrel Status: Endangered	Scientific Name: Glaucomys sabrinus coloratus
Group:Reptiles	

Federal Endangered Species from the U.S. Fish and Wildlife f Common Name: Southern hognose snake Status: Under Review	or NC State (Continued) Scientific Name: Heterodon simus
Common Name: Northern Red-bellied cooter Status: Under Review	Scientific Name: Pseudemys rubriventris
Common Name: Eastern diamondback rattlesnake Status: Under Review	Scientific Name: Crotalus adamanteus
Common Name: Mimic glass lizard Status: Species of Concern	Scientific Name: Ophisaurus mimicus
Common Name: American alligator Status: Similarity of Appearance (Threatened)	Scientific Name: Alligator mississippiensis
Common Name: Northern pine snake Status: Species of Concern	Scientific Name: Pituophis melanoleucus melanoleucus
Common Name: Northern diamondback terrapin Status: Species of Concern	Scientific Name: Malaclemys terrapin terrapin
Group:Snails	
Common Name: Magnificent ramshorn Status: Candidate	Scientific Name: Planorbella magnifica
Common Name: Smooth rocksnail Status: Status Undefined	Scientific Name: Leptoxis virgata
Common Name: Cape Fear threetooth Status: Species of Concern	Scientific Name: Triodopsis soelneri
Common Name: Clingman covert Status: Species of Concern	Scientific Name: Mesodon clingmanicus
Common Name: Knotty elimia Status: Species of Concern	Scientific Name: Elimia interrupta
Common Name: Sculpted supercoil Status: Species of Concern	Scientific Name: Paravitrea ternaria
Common Name: Roan supercoil Status: Species of Concern	Scientific Name: Paravitrea varidens
Common Name: Fragile supercoil Status: Species of Concern	Scientific Name: Glyphyalinia clingmani
Common Name: Panhandle pebblesnail Status: Species of Concern	Scientific Name: Somatogyrus virginicus

Direction Distance Distance (f	t.)	EDR ID Database
1 North 0-1/8 mi 0	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	NCESP0000607287 Natural Heritage Element Occurrence 18818 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	19503 Plant Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	33738 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed. Rank Uncertain. To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	35944 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
2 North 0-1/8 mi 178	Element Occurrence ID:	NCESP0000607090 Natural Heritage Element Occurrence

Element Occurrence ID: 18818 Taxonomic Group: Animal EO Status: Historical EO Rank: EO is old, if surveyed recently, surveys failed to find it but there

Note:	is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	 33738 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed. Rank Uncertain. To determine the listed species, contact the agency with your Element Occurrence ID.
Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	19503 Plant Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.

3 North 1/4-1/2 mi 1727	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	NCESP0000607018 Natural Heritage Element Occurrence 19503 Plant Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	33738 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed. Rank Uncertain. To determine the listed species, contact the agency with your Element Occurrence ID.

4 NNW 1/4-1/2 mi 2429

NCESP0000587367 Natural Heritage Element Occurrence

33738
Animal
Historical
EO is old, if surveyed recently, surveys failed to find it but there
is no evidence it is destroyed. Rank Uncertain.
To determine the listed species, contact the agency with your Element
Occurrence ID.

5 South 1/2-1 mi 2992	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	NCESP0000607592 Natural Heritage Element Occurrence 19503 Plant Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	18818 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	35944 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	35675 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed. Rank Uncertain. To determine the listed species, contact the agency with your Element Occurrence ID.
	Element Occurrence ID: Taxonomic Group: EO Status:	33738 Animal Historical

EO Rank:

Note:

EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed. Rank Uncertain. To determine the listed species, contact the agency with your Element Occurrence ID.

A6 SE 1/2-1 mi 3361

Area ID: Owner: Owner Type: Category: GAP Status:

2492 NC Department of Transportation State Other 2 - managed for biodiversity - disturbance events suppressed

A7 SE 1/2-1 mi 3456

Area ID: Owner: Owner Type: Category: GAP Status:

2492 NC Department of Transportation State Other 2 - managed for biodiversity - disturbance events suppressed

NCMAREA20106840 NC Managed Areas

NCMAREA20106838 NC Managed Areas

A8 SE 1/2-1 mi Area ID: Owner: Owner Type: Category: GAP Status:

2492 NC Department of Transportation State Other 2 - managed for biodiversity - disturbance events suppressed

NCMAREA20106839 NC Managed Areas

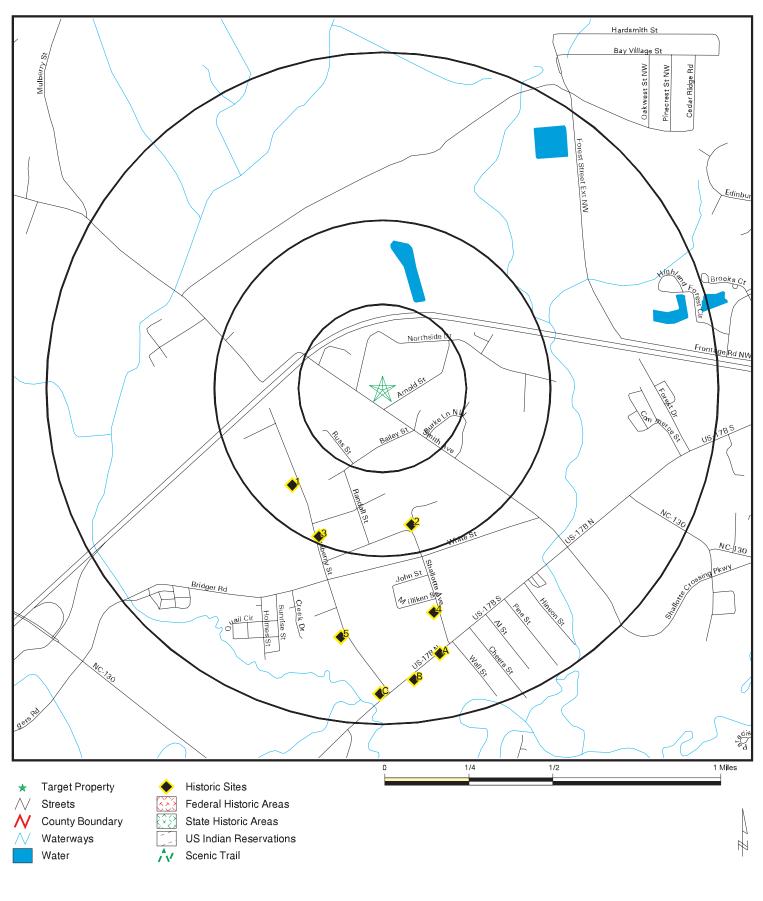
9 West 1/2-1 mi 4246

3590

NCESP0000607316 Natural Heritage Element Occurrence

Element Occurrence ID: Taxonomic Group: EO Status: EO Rank: Note:	 33738 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no evidence it is destroyed. Rank Uncertain. To determine the listed species, contact the agency with your Element Occurrence ID.
Element Occurrence ID: Taxonomic Group: EO Status: EO Rank:	18818 Animal Historical EO is old, if surveyed recently, surveys failed to find it but there is no ovidence it is destroyed
Note:	is no evidence it is destroyed To determine the listed species, contact the agency with your Element Occurrence ID.

Historic Sites Map



SITE NAME: Garnet	CLIENT: TerraTech
	CONTACT: Will Strayhorn INQUIRY #: 7130419.1s
LAT/LONG: 33.986201 / 78.386112	DATE: September 27, 2022 TC7130419.1s Page 22 of 64

Map ID
Direction
Distance
Distance (ft.)

EDR ID Database

1 SW 1/4-1/2 mi 2076	Shallotte Prison Camp 430 Mulberry Street Shallotte Lockwoods Folly , NC	NCX100000010814 NC Historic Preservation Sites
	Site ID:	BW0461
	Description:	1950 Art Deco brick load-bearing Masonry
	Year on National Register:	Not Reported
	Year Listed:	Not Reported
	Year on Study List:	Not Reported
	Year Determined Eligible:	Not Reported
	Year of Survey:	Not Reported
	County:	Brunswick
	Local Status:	None
	Year Designated Locally:	Not Reported
	Historic District Status:	None
	Notes:	Not Reported
	Photo:	http://images.archives.ncdcr.gov/BW0461.jpg
	URL:	Not Reported
	Alt URL:	Not Reported

2 SSE 1/4-1/2 mi 2191	Bailey and Edna Russ House 4700 Shallotte Avenue Shallotte Lockwoods Folly , NC	NC I
	Site ID:	BW0481
	Description:	1938 Period cottage
	Year on National Register:	Not Reported
	Year Listed:	Not Reported
	Year on Study List:	Not Reported
	Year Determined Eligible:	Not Reported
	Year of Survey:	Not Reported
	County:	Brunswick
	Local Status:	None
	Year Designated Locally:	Not Reported
	Historic District Status:	None
	Notes:	Not Reported
	Photo:	http://images.archives.ncdcr.gov/BW0481.jpg
	URL:	Not Reported

Not Reported

NCX10000009403 NC Historic Preservation Sites

3Charles and Mary Hemingway HouseSSW339 Mulberry Street Shallotte1/4-1/2 miLockwoods Folly , NC2532

Alt URL:

NCX10000010821 NC Historic Preservation Sites

Map ID Direction Distance Distance (ft.)

EDR ID Database

Site ID: Description: Year on National Register: Year Listed: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally: Historic District Status: Notes: Photo: URL: Alt URL: BW0479 c. 1900 trad/vern Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported None Not Reported http://images.archives.ncdcr.gov/BW0479.jpg Not Reported Not Reported

4 SSE 1/2-1 mi 3613

Lockwoods Folly, NC Site ID: Description: Year on National Register: Year Listed: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally: Historic District Status: Notes: Photo: URL: Alt URL:

120 Shallotte Avenue Shallotte

W. A. Frink House

BW0480 1892 Victorian-other Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported None Not Reported http://images.archives.ncdcr.gov/BW0480.jpg Not Reported Not Reported

5 South 1/2-1 mi 3961 Brunswick Cold Storage 152 Mulberry Street Shallotte Lockwoods Folly , NC

Site ID: Description: Year on National Register: Year Listed: Year on Study List: BW0462 c. 1940-45 Std Comm/Indust brick load-bearing Masonry Not Reported Not Reported Not Reported

NCX100000010822 NC Historic Preservation Sites

NCX100000010815 NC Historic Preservation Sites

Map ID Direction Distance Distance (ft.)

A6

EDR ID Database

Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally: Historic District Status: Notes: Photo: URL: Alt URL: Not Reported Not Reported Brunswick None Not Reported Not Reported http://images.archives.ncdcr.gov/BW0462.jpg Not Reported Not Reported

SSE 4718 Main Street Shallotte 1/2-1 mi Lockwoods Folly, NC 4109 Site ID: Description: Year on National Register: Year Listed: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally: Historic District Status: Notes: Photo: URL: Alt URL:

Shady Park Service Station

NCX100000010798 NC Historic Preservation Sites

BW0407 1941 Std Comm/Indust brick load-bearing Masonry Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported None Not Reported http://images.archives.ncdcr.gov/BW0407.jpg Not Reported Not Reported

A7 SSE 1/2-1 mi 4321

Lockwoods Folly , NC Site ID: Description: Year on National Reg Year Listed:

Year on National Register: Year on National Register: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally:

Robert S. White Store

4729 Main St, Shallotte

BW0578 c. 1945 Std Comm/Indust brick Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported NCX100000011401 NC Historic Preservation Sites

Map ID Direction Distance Distance (ft.)

A8

B9

EDR ID Database

Historic District Status: Notes: Photo: URL: Alt URL:

None Not Reported http://images.archives.ncdcr.gov/BW0578.jpg Not Reported Not Reported

Shallotte Theatre South 4733 Main Street Shallotte 1/2-1 mi Lockwoods Folly , NC 4363 Site ID: BW0408 Description: c. 1946 Misc. Modernist brick load-bearing Masonry Year on National Register: Not Reported Year Listed: Not Reported Year on Study List: Not Reported Year Determined Eligible: Not Reported Year of Survey: Not Reported County: Brunswick Local Status: None Year Designated Locally: Not Reported Historic District Status: None Notes: Not Reported Photo: http://images.archives.ncdcr.gov/BW0408.jpg URL: Not Reported Not Reported Alt URL:

NCX10000009352 **NC Historic Preservation Sites**

South 1/2-1 mi 4514	4700 block Main Street Shallotte Lockwoods Folly , NC		NCX100000021220 NC Historic Preservation Sites
	Site ID:	BW0410	
	Description:	c. 1900 Craftsman/bungalow frame	
	Year on National Register:	Not Reported	
	Year Listed:	Not Reported	
	Year on Study List:	Not Reported	
	Year Determined Eligible:	Not Reported	
	Year of Survey:	Not Reported	
	County:	Brunswick	
	Local Status:	None	
	Year Designated Locally:	Not Reported	

Historic District Status: Notes: Photo: URL: Alt URL:

Jackson and Minnie Stanland House

None Not Reported http://images.archives.ncdcr.gov/BW0410.jpg Not Reported Not Reported

Map ID
Direction
Distance
Distance (ft.)

EDR ID Database

B10 South 1/2-1 mi 4700	Shallotte Hardware 4757 Main Street Sandy Creek Lockwoods Folly , NC	NCX10000009353 NC Historic Preservation Sites
	Site ID: Description: Year on National Register: Year Listed: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally:	BW0411 c. 1945-1950 Std Comm/Indust brick load-bearing Masonry Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported
	Historic District Status: Notes: Photo: URL: Alt URL:	None Not Reported http://images.archives.ncdcr.gov/BW0411.jpg Not Reported Not Reported

C11 South 1/2-1 mi 4764	Goley Building 4802 Main Street Shallotte Lockwoods Folly , NC
	Site ID:
	Description:
	Year on National Register:
	Year Listed:
	Year on Study List:
	Year Determined Eligible:
	Year of Survey:
	County:
	Local Status:
	Year Designated Locally:
	Historic District Status:
	Notes:

BW0364 c. 1906 Std Comm/Indust brick load-bearing Masonry Not Reported Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported None Not Reported http://images.archives.ncdcr.gov/BW0364.jpg Not Reported Not Reported

C12 **Mintz Building** South 4806 Main Street Shallotte 1/2-1 mi Lockwoods Folly , NC 4805

Photo:

Alt URL:

URL:

NCX10000008591 **NC Historic Preservation Sites**

NCX10000009307

NC Historic Preservation Sites

Map ID Direction Distance Distance (ft.)

EDR ID Database

Site ID: Description: Year on National Register: Year Listed: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally: Historic District Status: Notes: Photo: URL: Alt URL:

BW0502

c. 1950-60 Std Comm/Indust brick load-bearing Masonry Not Reported Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported None Not Reported http://images.archives.ncdcr.gov/BW0502.jpg Not Reported Not Reported

C13 South 1/2-1 mi 4832

Lockwoods Folly, NC Site ID: Description: Year on National Register: Year Listed: Year on Study List: Year Determined Eligible: Year of Survey: County: Local Status: Year Designated Locally: Historic District Status: Notes: Photo: URL: Alt URL:

R. E. Bellamy Hardware

4810 Main Street Shallotte

BW0501 c. 1950-55 Std Comm/Indust brick load-bearing Masonry Not Reported Not Reported Not Reported Not Reported Not Reported Brunswick None Not Reported None Not Reported http://images.archives.ncdcr.gov/BW0501.jpg Not Reported Not Reported

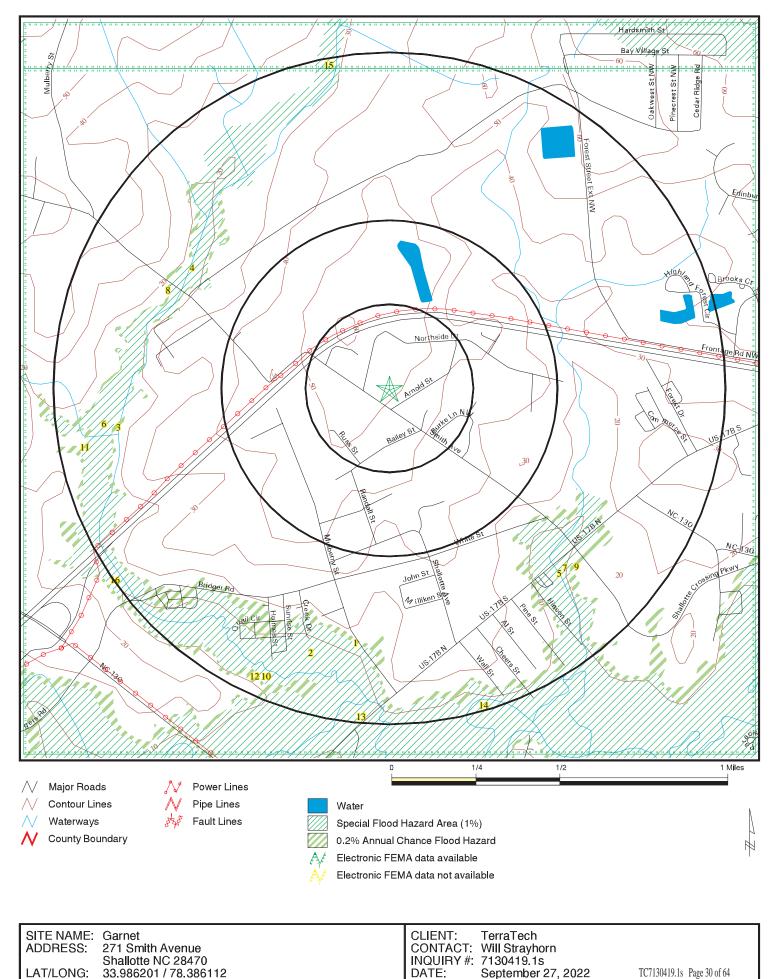
NCX10000009412 **NC Historic Preservation Sites**

UNMAPPABLE HISTORIC SITES

Due to poor or inadequate address information, the following sites were not mapped:	Status
	EDR ID
	Database

No unmapped sites were found in EDR's search of available government records.

Flood Plain Map



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FLOOD PLAIN MAP FINDINGS

Source: FEMA FIRM Flood Data, FEMA Q3 Flood Data

Flood Panel Number	FEMA Source Type		
Flood Plain panel at targe 3720108800		ita)	
Additional Flood Plain pa 3720108900 3720109900 3720109800	J (FEMA FIRM Flood da J (FEMA FIRM Flood da	ita)	
Map ID Direction Distance Distance (ft.)	Descript		Database
1	Special Flood Hazard Area:	No	FLOODPLAIN
SE	Flood Hazard Area:	0.2% Annual Chance Flood Hazard	
1/2-1 mi	Flood Zone:	X	
2983	Sub Type:	0.2 PCT ANNUAL CHANCE FLOOD HAZ	
2	Special Flood Hazard Area:	Yes	FLOODPLAIN
SE	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
3017	Sub Type:	Not Reported	
3	Special Flood Hazard Area:	No	FLOODPLAIN
WNW	Flood Hazard Area:	0.2% Annual Chance Flood Hazard	
1/2-1 mi	Flood Zone:	X	
3223	Sub Type:	0.2 PCT ANNUAL CHANCE FLOOD HAZ	
4	Special Flood Hazard Area:	Yes	FLOODPLAIN
WNW	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
3236	Sub Type:	Not Reported	
5	Special Flood Hazard Area:	Yes	FLOODPLAIN
SE	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
3399	Sub Type:	FLOODWAY	

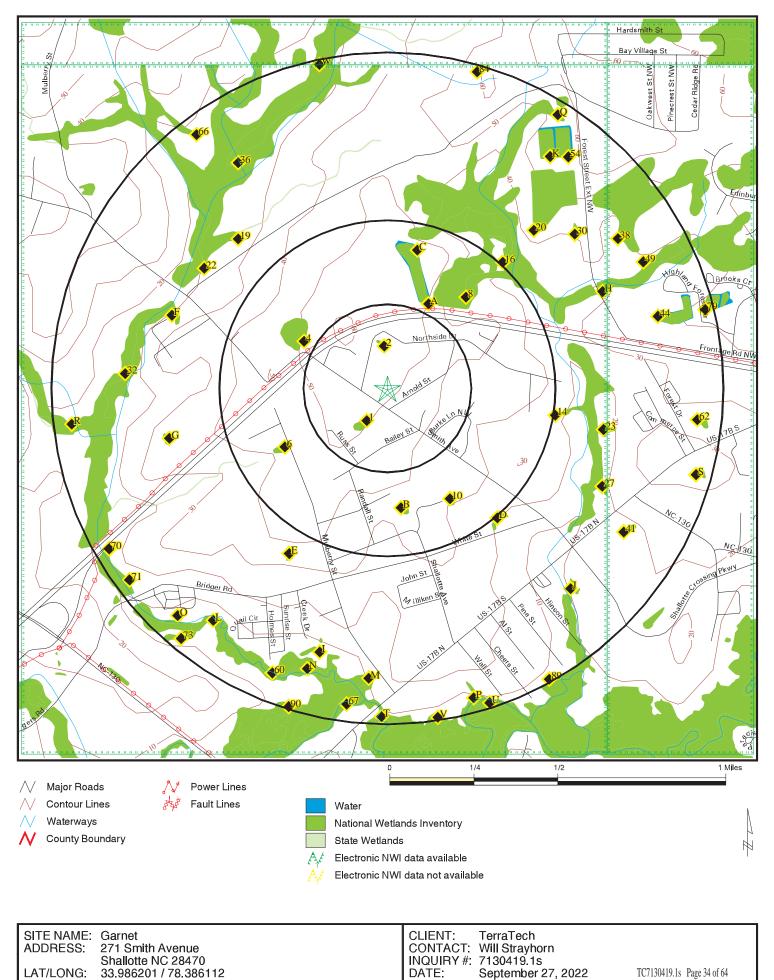
FLOOD PLAIN MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Descript	tion	Database
6	Special Flood Hazard Area:	Yes	FLOODPLAIN
WNW	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
3456	Sub Type:	FLOODWAY	
7	Special Flood Hazard Area:	Yes	FLOODPLAIN
ESE	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
3589	Sub Type:	Not Reported	
8	Special Flood Hazard Area:	No	FLOODPLAIN
WNW	Flood Hazard Area:	0.2% Annual Chance Flood Hazard	
1/2-1 mi	Flood Zone:	X	
3706	Sub Type:	0.2 PCT ANNUAL CHANCE FLOOD HAZ/	
9	Special Flood Hazard Area:	No	FLOODPLAIN
ESE	Flood Hazard Area:	0.2% Annual Chance Flood Hazard	
1/2-1 mi	Flood Zone:	X	
3791	Sub Type:	0.2 PCT ANNUAL CHANCE FLOOD HAZ/	
10	Special Flood Hazard Area:	Yes	FLOODPLAIN
SW	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
4591	Sub Type:	Not Reported	
11	Special Flood Hazard Area:	No	FLOODPLAIN
West	Flood Hazard Area:	0.2% Annual Chance Flood Hazard	
1/2-1 mi	Flood Zone:	X	
4729	Sub Type:	0.2 PCT ANNUAL CHANCE FLOOD HAZ/	
12	Special Flood Hazard Area:	No	FLOODPLAIN
SSW	Flood Hazard Area:	0.2% Annual Chance Flood Hazard	
1/2-1 mi	Flood Zone:	X	
4754	Sub Type:	0.2 PCT ANNUAL CHANCE FLOOD HAZ/	
13	Special Flood Hazard Area:	Yes	FLOODPLAIN
South	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
4984	Sub Type:	Not Reported	

FLOOD PLAIN MAP FINDINGS

Map ID Direction Distance Distance (ft.)	Descript	ion	Database
14	Special Flood Hazard Area:	Yes	FLOODPLAIN
SSE	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
5030	Sub Type:	FLOODWAY	
15	Special Flood Hazard Area:	Yes	FLOODPLAIN
North	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
5086	Sub Type:	Not Reported	
16	Special Flood Hazard Area:	Yes	FLOODPLAIN
WSW	Flood Hazard Area:	Special Flood Hazard Area (1%)	
1/2-1 mi	Flood Zone:	AE	
5163	Sub Type:	Not Reported	

Wetlands Map



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Source: Fish and Wildlife Service NWI data			
	opy map at target property: Shallotte VWI hardcopy map(s) in search area: Exum Holden Beach		
Map ID Direction Distance Distance (ft	:.) Code and Description*	Database	
1 SSW 0-1/8 mi 602	PFO1Bd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [B] Saturated [d] Partially Drained/Ditched Lat/Lon: 33.984806 / -78.387177	NWI	
2 North 1/8-1/4 mi 666	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.988026 / -78.386276	NWI	
A3 NNE 1/4-1/2 mi 1441	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.989887 / -78.384384	NWI	
4 WNW 1/4-1/2 mi 1503	PSS1F [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [F] Semipermanently Flooded Lat/Lon: 33.988232 / -78.390427	NWI	
A5 NNE 1/4-1/2 mi 1523	PSS4Ad [P] Palustrine [SS] Scrub Shrub [4] Needle-Leaved Evergreen [A] Temporarily Flooded [d] Partially Drained/Ditched Lat/Lon: 33.989811 / -78.383583	NWI	
6 WSW 1/4-1/2 mi 1855	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.983673 / -78.391426	NWI	
B7 South 1/4-1/2 mi 1884	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.981033 / -78.385727	NWI	
8 NE 1/4-1/2 mi 1892	PFO1/4Ad [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [4Ad] Unknown Class Lat/Lon: 33.990135 / -78.382034	NWI	

Map ID Direction Distance Distance (f	t.) Code and Description*	Database
B9 South 1/4-1/2 mi 1899	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.981056 / -78.385078	NWI
10 SSE 1/4-1/2 mi 1995	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.981438 / -78.382866	NWI
C11 NNE 1/4-1/2 mi 2069	PUSC [P] Palustrine [US] Unconsolidated Shore [C] Seasonally Flooded Lat/Lon: 33.991703 / -78.384422	NWI
C12 North 1/4-1/2 mi 2381	PSS4/FO4Ad [P] Palustrine [SS] Scrub Shrub [4] Needle-Leaved Evergreen / [FO] Forested [4] Needle-Leaved Evergreen [A] Temporarily Flooded [d] Partially Drained/Ditched Lat/Lon: 33.992634 / -78.384689	NWI
D13 SE 1/2-1 mi 2665	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.980812 / -78.380165	NWI
14 East 1/2-1 mi 2671	PFO1Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [C] Seasonally Flooded [d] Partially Drained/Ditched Lat/Lon: 33.985039 / -78.377411	NWI
D15 SE 1/2-1 mi 2680	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.980396 / -78.380676	NWI
16 NE 1/2-1 mi 2686	PFO4Ad [P] Palustrine [FO] Forested [4] Needle-Leaved Evergreen [A] Temporarily Flooded [d] Partially Drained/Ditched Lat/Lon: 33.991642 / -78.380135	NWI
E17 SSW 1/2-1 mi 3019	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.979073 / -78.391197	NWI

Map ID Direction Distance Distance (i	ft.) Code and Description*	Database
E18 SSW 1/2-1 mi 3021	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.979065 / -78.391197	NWI
19 NW 1/2-1 mi 3320	PFO4/1Cd [P] Palustrine [FO] Forested [4] Needle-Leaved Evergreen / [1Cd] Unknown Class Lat/Lon: 33.992653 / -78.393845	NWI
20 NE 1/2-1 mi 3388	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.993027 / -78.378525	NWI
F21 WNW 1/2-1 mi 3423	PFO1/4Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [4Cd] Unknown Class Lat/Lon: 33.989002 / -78.396889	NWI
22 WNW 1/2-1 mi 3441	PFO1/4Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [4Cd] Unknown Class Lat/Lon: 33.991386 / -78.395599	NWI
23 East 1/2-1 mi 3456	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.984425 / -78.374916	NWI
G24 WSW 1/2-1 mi 3501	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.983932 / -78.397339	NWI
G25 WSW 1/2-1 mi 3522	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.984161 / -78.397469	NWI
H26 ENE 1/2-1 mi 3659	PFO1Ad [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [A] Temporarily Flooded [d] Partially Drained/Ditched Lat/Lon: 33.990421 / -78.375160	NWI

Map ID Direction Distance Distance (i	Virection					
27 ESE 1/2-1 mi 3711	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.981972 / -78.374977	NWI				
F28 WNW 1/2-1 mi 3726	PSS1/4F [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous / [4F] Unknown Class Lat/Lon: 33.989712 / -78.397652	NWI				
H29 ENE 1/2-1 mi 3763	PFO4/1Ad [P] Palustrine [FO] Forested [4] Needle-Leaved Evergreen / [1Ad] Unknown Class Lat/Lon: 33.990341 / -78.374741	NWI				
30 NE 1/2-1 mi 3815	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.992855 / -78.376396	NWI				
l31 SSW 1/2-1 mi 4056	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.975441 / -78.389603	NWI				
32 West 1/2-1 mi 4127	PFO1Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [C] Seasonally Flooded [d] Partially Drained/Ditched Lat/Lon: 33.986839 / -78.399704	NWI				
J33 SE 1/2-1 mi 4141	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.978016 / -78.376633	NWI				
I34 SSW 1/2-1 mi 4212	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.975063 / -78.389908	NWI				
J35 SE 1/2-1 mi 4250	PSS3/4Rd [P] Palustrine [SS] Scrub Shrub [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.977303 / -78.377037	NWI				

Map ID Direction Distance Distance (1	it.) Code and Description*	Database
36 NNW 1/2-1 mi 4250	PFO1/4Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [4Cd] Unknown Class Lat/Lon: 33.995941 / -78.393837	NWI
I37 South 1/2-1 mi 4268	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.974678 / -78.388710	NWI
38 ENE 1/2-1 mi 4321	PFO3/4Bd [P] Palustrine [FO] Forested [3] Broad-Leaved Evergreen / [4Bd] Unknown Class Lat/Lon: 33.992664 / -78.374161	NWI
J39 SE 1/2-1 mi 4330	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.977318 / -78.376617	NWI
K40 NE 1/2-1 mi 4336	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.996101 / -78.378166	NWI
41 ESE 1/2-1 mi 4347	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.980000 / -78.373863	NWI
J42 SE 1/2-1 mi 4348	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.977581 / -78.376183	NWI
l43 SSW 1/2-1 mi 4400	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.974560 / -78.390015	NWI
44 ENE 1/2-1 mi 4404	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.989315 / -78.372086	NWI

Map ID Direction Distance Distance (ft	.) Code and Description*	Database
K45 NNE 1/2-1 mi 4435	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.996342 / -78.378014	NWI
L46 SW 1/2-1 mi 4458	PEM1/SS1Rd [P] Palustrine [EM] Emergent [1] Persistent / [SS] Scrub Shrub [1] Broad-Leaved Deciduous [R] Seasonal-Tidal [d] Partially Drained/Ditched Lat/Lon: 33.976322 / -78.394806	NWI
l47 SSW 1/2-1 mi 4461	E1UBL [E] Estuarine [1] Subtidal [UB] Unconsolidated Bottom [L] Subtidal Lat/Lon: 33.974350 / -78.389870	NWI
L48 SW 1/2-1 mi 4460	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.976154 / -78.394539	NWI
49 ENE 1/2-1 mi 4487	PFO4Ad [P] Palustrine [FO] Forested [4] Needle-Leaved Evergreen [A] Temporarily Flooded [d] Partially Drained/Ditched Lat/Lon: 33.991665 / -78.372849	NWI
K50 NE 1/2-1 mi 4502	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.996170 / -78.377342	NWI
M51 South 1/2-1 mi 4512	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.973846 / -78.387314	NWI
N52 SSW 1/2-1 mi 4525	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.974171 / -78.389893	NWI
K53 NE 1/2-1 mi 4546	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.996227 / -78.377182	NWI

Map ID Direction Distance Distance (i	Direction	
54 NE 1/2-1 mi 4618	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.996193 / -78.376732	NWI
M55 South 1/2-1 mi 4618	PSS3/4Rd [P] Palustrine [SS] Scrub Shrub [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.973526 / -78.386833	NWI
N56 SSW 1/2-1 mi 4639	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.974026 / -78.390640	NWI
L57 SW 1/2-1 mi 4760	PFO1/2F [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [2F] Unknown Class Lat/Lon: 33.976074 / -78.396042	NWI
O58 SW 1/2-1 mi 4770	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.976627 / -78.396858	NWI
P59 SSE 1/2-1 mi 4774	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.973541 / -78.381996	NWI
60 SSW 1/2-1 mi 4823	E2EM1Pd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [P] Irregularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.973915 / -78.392075	NWI
Q61 NNE 1/2-1 mi 4835	PABHx [P] Palustrine [AB] Aquatic Bed [H] Permanently Flooded [x] Excavated Lat/Lon: 33.997334 / -78.377419	NWI
62 East 1/2-1 mi 4895	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.984848 / -78.370056	NWI

Map ID Direction Distance Distance (f	Direction					
O63 SW 1/2-1 mi 4944	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.976154 / -78.397087	NWI				
R64 West 1/2-1 mi 4956	PSS1F [P] Palustrine [SS] Scrub Shrub [1] Broad-Leaved Deciduous [F] Semipermanently Flooded Lat/Lon: 33.984566 / -78.402336	NWI				
S65 ESE 1/2-1 mi 4977	PEM1F [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded Lat/Lon: 33.982376 / -78.370354	NWI				
66 NW 1/2-1 mi 4988	PFO4/1Cd [P] Palustrine [FO] Forested [4] Needle-Leaved Evergreen / [1Cd] Unknown Class Lat/Lon: 33.997150 / -78.395996	NWI				
67 South 1/2-1 mi 5003	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.972572 / -78.388229	NWI				
R68 West 1/2-1 mi 5025	PFO1Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [C] Seasonally Flooded [d] Partially Drained/Ditched Lat/Lon: 33.984734 / -78.402588	NWI				
P69 SSE 1/2-1 mi 5037	E1UBL [E] Estuarine [1] Subtidal [UB] Unconsolidated Bottom [L] Subtidal Lat/Lon: 33.972870 / -78.381653	NWI				
70 WSW 1/2-1 mi 5046	PFO1/2F [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [2F] Unknown Class Lat/Lon: 33.979267 / -78.400520	NWI				
71 SW 1/2-1 mi 5048	PFO1/4Cd [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous / [4Cd] Unknown Class Lat/Lon: 33.977932 / -78.399475	NWI				

Map ID Direction Distance Distance (i	Direction			
T72 South 1/2-1 mi 5087	PFO3/4Rd [P] Palustrine [FO] Forested [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.972225 / -78.386208	NWI		
73 SW 1/2-1 mi 5093	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.975403 / -78.396797	NWI		
S74 ESE 1/2-1 mi 5095	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.982578 / -78.369881	NWI		
P75 SSE 1/2-1 mi 5105	PSS3/4Rd [P] Palustrine [SS] Scrub Shrub [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.972767 / -78.381279	NWI		
T76 South 1/2-1 mi 5111	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.972160 / -78.386284	NWI		
T77 South 1/2-1 mi 5136	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.972092 / -78.385971	NWI		
U78 SSE 1/2-1 mi 5143	E2EM1N [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded Lat/Lon: 33.972725 / -78.381012	NWI		
79 ENE 1/2-1 mi 5146	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.989601 / -78.369644	NWI		
V80 South 1/2-1 mi 5153	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.972187 / -78.383713	NWI		

Map ID Direction Distance Distance (t	ft.) Code and Description*	Database
P81 SSE 1/2-1 mi 5159	E1UBL [E] Estuarine [1] Subtidal [UB] Unconsolidated Bottom [L] Subtidal Lat/Lon: 33.972565 / -78.381470	NWI
W82 North 1/2-1 mi 5162	PFO1C [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 34.000179 / -78.388954	NWI
P83 SSE 1/2-1 mi 5168	E2EM1N [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded Lat/Lon: 33.972469 / -78.381783	NWI
84 NNE 1/2-1 mi 5173	PEM1F [P] Palustrine [EM] Emergent [1] Persistent [F] Semipermanently Flooded Lat/Lon: 33.999866 / -78.381454	NWI
T85 South 1/2-1 mi 5171	PSS3/4Rd [P] Palustrine [SS] Scrub Shrub [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.972004 / -78.386810	NWI
Q86 NNE 1/2-1 mi 5178	PUBHx [P] Palustrine [UB] Unconsolidated Bottom [H] Permanently Flooded [x] Excavated Lat/Lon: 33.998291 / -78.377121	NWI
Q87 NNE 1/2-1 mi 5191	PEM1/SS1Ad [P] Palustrine [EM] Emergent [1] Persistent / [SS] Scrub Shrub [1] Broad-Leaved Deciduous [A] Temporarily Flooded [d] Partially Drained/Ditched Lat/Lon: 33.998413 / -78.377281	NWI
T88 South 1/2-1 mi 5193	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.971951 / -78.386925	NWI
89 SSE 1/2-1 mi 5231	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.973648 / -78.377724	NWI

Map ID Direction Distance Distance (ft.) Code and Description*	Database
90 SSW 1/2-1 mi 5235	PFO3/4Rd [P] Palustrine [FO] Forested [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.972462 / -78.391228	NWI
W91 NNW 1/2-1 mi 5246	PFO1C [P] Palustrine [FO] Forested [1] Broad-Leaved Deciduous [C] Seasonally Flooded Lat/Lon: 34.000179 / -78.390312	NWI
V92 South 1/2-1 mi 5251	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.971844 / -78.384453	NWI
U93 SSE 1/2-1 mi 5252	PSS3/4Rd [P] Palustrine [SS] Scrub Shrub [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.972527 / -78.380600	NWI
T94 South 1/2-1 mi 5261	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.971748 / -78.386284	NWI
V95 South 1/2-1 mi 5263	PFO3/4Rd [P] Palustrine [FO] Forested [3] Broad-Leaved Evergreen / [4Rd] Unknown Class Lat/Lon: 33.971947 / -78.383186	NWI
V96 SSE 1/2-1 mi 5267	E2EM1Nd [E] Estuarine [2] Intertidal [EM] Emergent [1] Persistent [N] Regularly Flooded [d] Partially Drained/Ditched Lat/Lon: 33.972023 / -78.382652	NWI

WETLANDS CLASSIFICATION SYSTEM

National Wetland Inventory Maps are produced by the U.S. Fish and Wildlife Service, a sub-department of the U.S. Department of the Interior. In 1974, the U.S. Fish and Wildlife Service developed a criteria for wetland classification with four long range objectives:

- · to describe ecological units that have certain homogeneous natural attributes,
- · to arrange these units in a system that will aid decisions about resource management,
- · to furnish units for inventory and mapping, and
- · to provide uniformity in concepts and terminology throughout the U.S.

High altitude infrared photographs, soil maps, topographic maps and site visits are the methods used to gather data for the productions of these maps. In the infrared photos, wetlands appear as different colors and these wetlands are then classified by type. Using a hierarchical classification, the maps identify wetland and deepwater habitats according to:

- system
- subsystem
- class
- · subclass
- modifiers

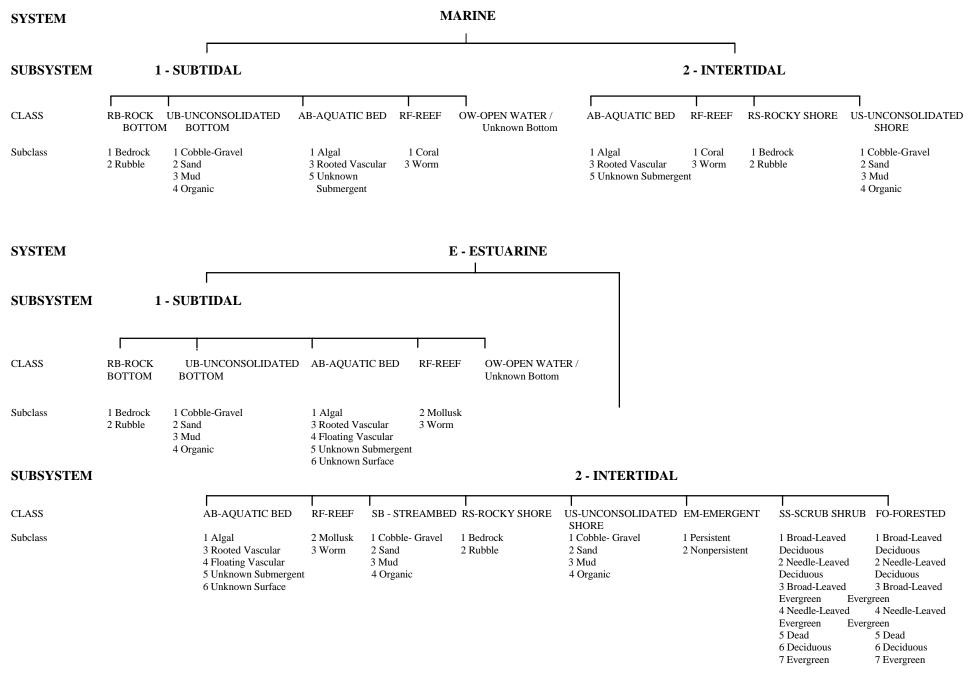
(as defined by Cowardin, et al. U.S. Fish and Wildlife Service FWS/OBS 79/31. 1979.)

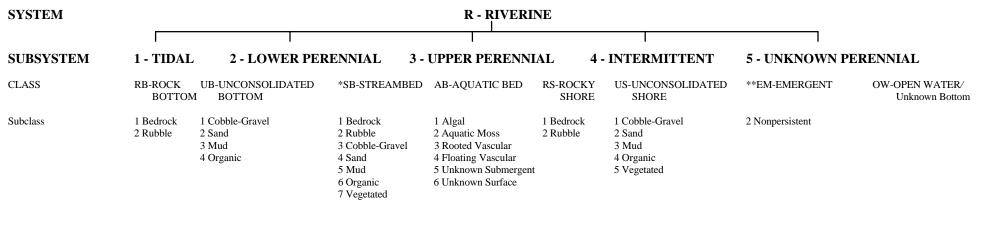
The classification system consists of five systems:

- 1. marine
- 2. estuarine
- 3. riverine
- 4. lacustrine
- 5. palustrine

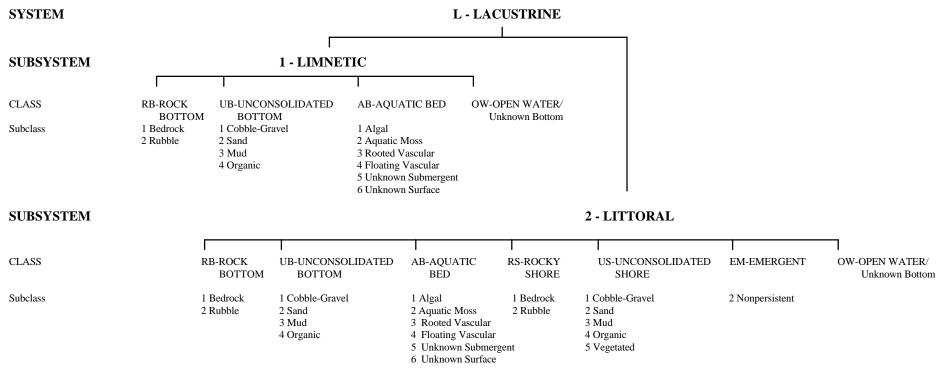
The marine system consists of deep water tidal habitats and adjacent tidal wetlands. The riverine system consists of all wetlands contained within a channel. The lacustrine systems includes all nontidal wetlands related to swamps, bogs & marshes. The estuarine system consists of deepwater tidal habitats and where ocean water is diluted by fresh water. The palustrine system includes nontidal wetlands dominated by trees and shrubs and where salinity is below .5% in tidal areas. All of these systems are divided in subsystems and then further divided into class.

National Wetland Inventory Maps are produced by transferring gathered data on a standard 7.5 minute U.S.G.S. topographic map. Approximately 52 square miles are covered on a National Wetland Inventory map at a scale of 1:24,000. Electronic data is compiled by digitizing these National Wetland Inventory Maps.





* STREAMBED is limited to TIDAL and INTERMITTENT SUBSYSTEMS, and comprises the only CLASS in the INTERMITTENT SUBSYSTEM. **EMERGENT is limited to TIDAL and LOWER PERENNIAL SUBSYSTEMS.



TC7130419.1s Page 48 of 64

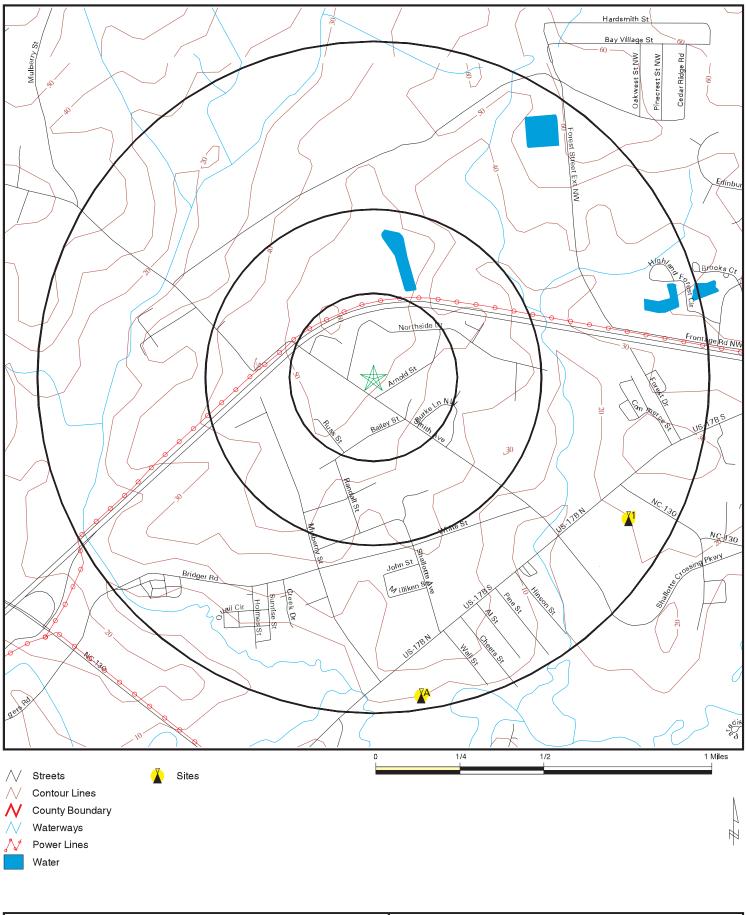
SUBSY	SUBSYSTEM				P - PALUSTRINE				
CLASS Bottom	RBROCK BOTTOM	UBUNCONSOLIDATED I BOTTOM	AB-AQUATIC BED	USUNCONSOLIDATED SHORE	MLMOSS- LICHEN	EMEMERGENT	SSSCRUB-SHRUB	FOFORESTED	OW-OPEN WATER/ Unknown
Subclass	1 Bedrock 2 Rubble 3 Mud 4 Organic	1 Cobble-Gravel 2 Sand	1 Algal 2 Aquatic Moss 3 Rooted Vascular 4 Floating Vascular 5 Unknown Submergent 6 Unknown Surface	1 Cobble-Gravel 2 Sand 3 Mud 4 Organic 5 Vegetated	1 Moss 2 Lichen	1 Persistent 2 Nonpersistent	1 Broad-Leaved Deciduous 2 Needle-Leaved Deciduous 3 Broad-Leaved Evergreen Everg 4 Needle-Leaved Evergreen Everg 5 Dead 6 Deciduous 6Dec 7 Evergreen	4 Needle-Leaved	

MODIFIERS In order to more adequately describe wetland and deepwater habitats one or more of the water regime, water chemistry, soil, or special modifiers may be applied at the class or lower level in the hierarchy. The farmed modifier may also be applied to the ecological system.								
	WATER REGIME			WATER CHEMISTRY			SOIL	SPECIAL MODIFIERS
Non-Tidal A Temporarily Flooded B Saturated C Seasonally Flooded D Seasonally Flooded/ Well Drained E Seasonally Flooded/ Saturated F Semipermanently Flooded G Intermittently Exposed	Tidal CoastalHa H Permanently Flooded J Intermittently Flooded K Artificially Flooded W Intermittently Flooded/Temporary Y Saturated/Semipermanent/ Seasonal Z Intermittently Exposed/Permanent U Unknown		bdifiersfor *S Temporary-Tidal *R Seasonal-Tidal *T Semipermanent -Tidal V Permanent -Tidal U Unknown gimes are only used in bed, freshwater systems.	1 Hyperhaline 2 Euhaline 3 Mixohaline (Brackish) 4 Polyhaline 5 Mesohaline 6 Oligohaline 0 Fresh	7 Hypersaline 8 Eusaline 9 Mixosaline 0 Fresh	all Fresh Water a Acid t Circumneutral i Alkaline	g Organic n Mineral	b Beaver d Partially Drained/Ditched f Farmed h Diked/Impounded r Artificial Substrate s Spoil x Excavated

TC7130419.1s Page 49 of 64

Source: U.S. Department of the Interior Fish and Wildlife Service National Wetlands Inventory

FCC & FAA Sites Map



SITE NAME:	Garnet	CLIENT:	TerraTech	
ADDRESS:	271 Smith Avenue	CONTACT:	Will Strayhorn	
	Shallotte NC 28470	INQUIRY #:	7130419.1s	
LAT/LONG:	33.986201 / 78.386112	DATE:	September 27, 2022	TC7130419.1s Page 50 of 64

FCC & FAA SITES MAP FINDINGS TOWERS

Direction Distance Distance (ft.)		EDR ID Database
1		ANT13000010064
ESE		ANTREG
1/2-1 mi		
4582		
Registration #:	1258624	
File #:	A0596782	
Issue Date:	5/31/2007	
Entity:	Atlantic Telephone Memebership Corporation	
Height:	18.3	
Address:	150 Holden Beach Road	
FAA Study:	2007-ASO-1515-OE	
FAA Circular:	Not Reported	
License ID:	L00010743	
Contact Name:	Mr. Larry Clemmons	
Contact Address:	620 Whiteville Road	
Contact City:	Shallotte	
Contact State:	NC	
Contact Zip:	28459	
ASR Search:	http://wireless2.fcc.gov/UIsApp/AsrSearch/asrRegistrationSearch.jsp	

A2

South 1/2-1 mi 5044

37-006119
TOWER
1
129
161
Unverified
Unknown
Not Reported
Not Reported
Unknown
Add
1976064

DOF161200211183 FAA DOF

FCC & FAA SITES MAP FINDINGS TOWERS

Map ID Direction Distance Distance (ft.)

EDR ID Database

A3 South 1/2-1 mi 5080 ATM130000004727 AM_ANTENNA

Call Sign:	WVCB
Frequency:	1410 kHz
Service:	AM
Class:	D
Status:	LIC
File #:	BL
Facility ID:	31573
Licensee:	JOHN G. WORRELL

This record is for a license, and it may or may not indicate a site which has been built.

FCC & FAA SITES MAP FINDINGS AIRPORTS

EDR ID Database

No Sites Reported.

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID Database

136410 POWERLINES

Voltage: Range: Hi voltage: Volt cat:	69 Not Reported 0 0-69 kV
Type:	Alternating current
Status:	Active
Corridor:	Single line
Owner:	Duke Energy Corporation
Owner id:	DUKE
Num owners:	Single Owner
Operator:	Progress Energy Carolinas Inc.
Operator id:	CARPOW
Last owner:	Progress Energy Inc.
Last own id:	PROGENG
Last oper:	Not Reported
Last oper id:	Not Reported
Mileage:	.8339911300000002

Voltage: Range: Hi voltage: Volt cat: Type: Status: Corridor: Owner: Owner id: Num owners: Operator: Operator: Operator id: Last owner: Last own id: Last oper: Last oper id:	69 Not Reported O O-69 kV Alternating current Active Single line Duke Energy Corporation DUKE Single Owner Progress Energy Carolinas Inc. CARPOW Progress Energy Inc. PROGENG Not Reported Not Reported
lineager	

134595 POWERLINES

136600 POWERLINES

Voltage: Range: Hi voltage: Volt cat: Type: 69 Not Reported 0 0-69 kV Alternating current

FCC & FAA SITES MAP FINDINGS POWERLINES

EDR ID Database

Status: Corridor: Owner: Owner id: Num owners: Operator: Operator id: Last owner: Last own id: Last oper: Last oper id: Mileage: Active Single line Duke Energy Corporation DUKE Single Owner Progress Energy Carolinas Inc. CARPOW Progress Energy Inc. PROGENG Not Reported Not Reported 6.3522657999999996

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Various Federal laws and executive orders address specific environmental concerns. NEPA requires the responsible offices to integrate to the greatest practical extent the applicable procedures required by these laws and executive orders. EDR provides key contacts at agencies charged with implementing these laws and executive orders to supplement the information contained in this report.

NATURAL AREAS

Wilderness Areas

Government Records Searched in This Report

FED_LAND: Federal Lands

Source: USGS Telephone: 703-648-5094

Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife

Service.

- National Parks

- Forests

- Monuments

- Wildlife Sanctuaries, Preserves, Refuges

- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

US NWP: National Wilderness Preservation System

This map layer consists of National Wilderness Preservation System areas of 320 acres or more, in the United States, Puerto Rico, and the U.S. Virgin Islands. Some established wilderness areas which are larger than 320 acres are not included in this map layer because their boundaries were not available from the owning or administering agency.

Source: U.S. Geological Survey. Telephone: 888-275-8747

Federal Contacts for Additional Information National Park Service, Southeast Region 100 Alabama Street SW, 1924 Building Atlanta GA 30303 404-562-3100

USDA Forest Service, Southern 1720 Peachtree Road, N.W. Atlanta GA 30367 404-347-2384

BLM - Eastern States Office 7450 Boston Blvd. Springfield VA 22153 703-440-1713

Fish & Wildlife Service, Fish & Wildlife Region 4 Budget and Finance 1875 Century Boulevard Atlanta GA 30345 404-679-4096

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

Wildlife Preserves, Sanctuaries and Refuges

Government Records Searched in This Report

FED_LAND: Federal Lands

Source: USGS Telephone: 703-648-5094 Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service.

- National Parks
- Forests
- Monuments

- Wildlife Sanctuaries, Preserves, Refuges

- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

NC Conservation Easements: NC Conservation Easements Source: NCGIA. Telephone: 919-733-2090

NC Natural Heritage Areas: Significant Natural Heritage Areas The Natural Heritage Program Natural Areas (NHPNA) data identifies terrestrial and aquatic sites that are of special biodiversity significance. A natural areas significance may be due to the presence of rare species, exemplary natural communities, or important animal assemblages. Source: North Carolina Natural Heritage Program. Telephone: 919-707-8630

NC Managed Areas: Lands Managed for Conservation and Open Space The North Carolina Natural Heritage Program developed the Managed Areas (or MAREA) shapefile to document public- and privately-owned lands and easements that are of some conservation interest. Source: North Carolina Natural Heritage Program. Telephone: 919-707-8630

NC Federal Land Ownership: Federal Land Ownership Federal Land Ownership boundaries of land in North Carolina that is owned and managed by the US Government Source: North Carolina Natural Heritage Program. Telephone: 919-707-8630

US ACEC: Areas of Critical Environmental Concern Designated Polygons The designated ACECs are "areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems of processes, or to protect life and safety from natural hazards Source: Bureau of Land Management. Telephone: 202-912-7352

US Critical Water Habitat: US Critical Water Habitat When a species is proposed for listing as endangered or threatened under the Endangered Species Act, the U.S. Fish and Wildlife Service must consider whether there are areas of habitat believed to be essential the species conservation. Those areas may be proposed for designation as critical habitat. Critical habitat is a term defined and used in the Act. Source: US Fish & Wildlife Services. Telephone: 970-226-9468

US Proclamation Boundaries: US Proclamation Boundaries Approved, Proclamation or Extent Boundary Source: USGS. Telephone: 208-301-8288

KEY CONTACTS & GOVERNMENT RECORDS SEARCHED

US Scenic River: National Wild and Scenic River System National Wild and Scenic Rivers System Source: USGS National Atlas and the Interagency Wild and Scenic River Coordinating Council. Telephone: 509-546-8333

US NCED: National Conservation Easement Database

NCED shows a comprehensive picture of privately owned conservation easement lands in the U.S. The NCED will allow better strategic planning for conservation and development by merging data on land protection with biodiversity and resources, improving ecological and economic plans and investments. Source: U.S Endowment for Forestry and Communities. Telephone: 202-621-1647

US Critical Land Habitat: US Critical Land Habitat

When a species is proposed for listing as endangered or threatened under the Endangered Species Act, the U.S. Fish and Wildlife Service must consider whether there are areas of habitat believed to be essential the species conservation. Those areas may be proposed for designation as critical habitat. Critical habitat is a term defined and used in the Act. Source: US Fish & Wildlife Services. Telephone: 970-226-9468

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 4 Budget and Finance 1875 Century Boulevard Atlanta GA 30345 404-679-4096

State Contacts for Additional Information Wildlife Resources Commission 919-733-3391

Wild and scenic rivers Government Records Searched in This Report FED_LAND: Federal Lands Source: USGS Telephone: 703-648-5094 Federal data from Bureau of Land Management, National Park Service, Forest Service, and Fish and Wildlife Service. - National Parks - Forests - Monuments

- Wildlife Sanctuaries, Preserves, Refuges

- Federal Wilderness Areas.

Date of Government Version: 12/31/2005

Federal Contacts for Additional Information Fish & Wildlife Service, Fish & Wildlife Region 4 Budget and Finance 1875 Century Boulevard Atlanta GA 30345 404-679-4096

Endangered Species

Government Records Searched in This Report

NC Natural Heritage Element Occurrence: Natural Heritage Element Occurrence Sites Locations of rare and endangered species populations and occurrences of exemplary or unique natural ecosystems (terrestrial and palustrine) and special wildlife habitats. Source: Natural Heritage Program.. Telephone: 919-707-8630

Federal Endangered Species by County: Threatened and Endangered Species Listing Endangered, Threatened, Emergency Listing (Endangered), Emergency Listing (Threatened), Experimental Population (Essential), Experimental Population (Non-Essential), Similarity of Appearance (Endangered), Similarity of Appearance (Threatened). Source: US Fish and Wildlife Services. Telephone: 800-344-9453

Federal Contacts for Additional Information

Fish & Wildlife Service, Fish & Wildlife Region 4 Budget and Finance 1875 Century Boulevard Atlanta GA 30345 404-679-4096

State Contacts for Additional Information

Natural Heritage Program, Dept. of Env. & Natural Resources 919-733-4181

LANDMARKS, HISTORICAL, AND ARCHEOLOGICAL SITES Historic Places

Government Records Searched in This Report

National Register of Historic Places:

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. These contribute to an understanding of the historical and cultural foundations of the nation. The National Register includes:

- All prehistoric and historic units of the National Park System;
- National Historic Landmarks, which are properties recognized by the Secretary of the Interior as possessing national significance; and
- Properties significant in American, state, or local prehistory and history that have been nominated by State Historic Preservation Officers, federal agencies, and others, and have been approved for listing by the National Park Service.

Date of Government Version: 07/19/2015

NC Local District Boundaries: Boundaries for Local Districts Properties and districts in North Carolina that are locally designated districts. Source: Department of Natural & Cultural Resources. Telephone: 919-807-6586

NC Historic Preservation Sites: Historic Preservation Sites: Properties and districts in North Carolina that are locally designated landmarks. Source: Department of Natural & Cultural Resources. Telephone: 919-807-6586

NC NR, SL, DOE Boundaries: National Register, Study List, and Determined Eligible Sites: Properties and districts in North Carolina that are either listed in the National Register (NR), determined eligible for the National Register in the Section 106 review process (DOE), on the North Carolina Study List for potential nomination to the National Register (SL). Source: Department of Natural & Cultural Resources.

Telephone: 919-807-6586

Natchez Trace National Scenic Trail: Natchez Trace National Scenic Trail Source: Natchez Trace Parkway. Telephone: 800-305-7417

US Trails: US Trails This dataset contains a baseline inventory and condition assessment of all non-motorized trails on U.S. Fish and Wildlife Service lands as part of the National Trails Inventory Program conducted by the US Dept. of Transportation, Federal Highway Administration, Federal Lands Highway Division. Source: U.S. Fish and Wildlife. Telephone: 703-358-2205

Indian Reservations: Indian Reservations This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres. Source: USGS. Telephone: 202-208-3710

Potomac Heritage National Scenic Trail: Potomac Heritage National Scenic Trail Source: Potomac Heritage NST Office. Telephone: 304-535-4014

Federal Contacts for Additional Information Park Service; Advisory Council on Historic Preservation 1849 C Street NW Washington, DC 20240 Phone: (202) 208-6843

State Contacts for Additional Information Div. Of Archives & History 919-733-4673

Indian Religious Sites <u>Government Records Searched in This Report</u> Indian Reservations: This map layer portrays Indian administrated lands of the United States that have any area equal to or greater than 640 acres. Source: USGS Phone: 888-275-8747 Date of Government Version: 12/31/2005

Federal Contacts for Additional Information Department of the Interior- Bureau of Indian Affairs Office of Public Affairs 1849 C Street, NW Washington, DC 20240-0001 Office: 202-208-3711 Fax: 202-501-1516

National Association of Tribal Historic Preservation Officers 1411 K Street NW, Suite 700 Washington, DC 20005 Phone: 202-628-8476 Fax: 202-628-2241

State Contacts for Additional Information A listing of local Tribal Leaders and Bureau of Indian Affairs Representatives can be found at: http://www.doi.gov/bia/areas/agency.html

Eastern Area Office, Bureau of Indian Affairs 3701 N. Fairfax Drive Mail Stop 260-VASQ Arlington VA 22203 703-235-2571

Scenic Trails

Government Records Searched in This Report APPAL_TRAIL: Appalachian National Scenic Trail Source: Appalachian Trail Conservancy and National Park Service Appalachian Trail Park Office Telephone: (304) 535-6278 Appalachian Trail centerline.

State Contacts for Additional Information Appalachian Trail Conference 799 Washington Street P.O. Box 807 Harpers Ferry, WV 25425-0807 (304) 535-6331

FLOOD PLAIN, WETLANDS AND COASTAL ZONE

Flood Plain Management

Government Records Searched in This Report

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts Special Flood Hazard Areas (1%) and 0.2% Annual Chance of Flood Hazard as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Phone: 877-336-2627 Date of Government Version: 2015, 2003

Federal Contacts for Additional Information

Federal Emergency Management Agency 877-3362-627

State Contacts for Additional Information Dept. of Crime Control & Public Safety, Div. Of Emergency Mgmt. 919-733-3867

Wetlands Protection

Government Records Searched in This Report

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005, 2010, and 2015 from the U.S. Fish and Wildlife Service.

Source: U.S. Fish and Wildlife Service. Phone: 608-238-9333 Date of Government Version: 05/28/2015

State Wetlands Data: Wetland Inventory Source: US Fish & Wildlife Service Telephone: 703-358-2171

Federal Contacts for Additional Information Fish & Wildlife Service 813-570-5412

State Contacts for Additional Information Wildlife Conservation Commission 919-733-3391

Coastal Zone Management

Government Records Searched in This Report

CAMA Management Areas Dept. of Env., Health & Natural Resources 919-733-2293

Federal Contacts for Additional Information Office of Ocean and Coastal Resource Management N/ORM, SSMC4 1305 East-West Highway Silver Spring, Maryland 20910 301-713-3102

State Contacts for Additional Information DEHNR, Div. Of Coastal Management 919-733-2293

NC Coastal Boundaries NC One Map 919-754-6580

FCC & FAA SITES MAP

For NEPA actions that come under the authority of the FCC, the FCC requires evaluation of Antenna towers and/or supporting structures that are to be equipped with high intensity white lights which are to be located in residential neighborhoods, as defined by the applicable zoning law.

Government Records Searched in This Report

Cellular

Federal Communications Commission 445 12th Street, SW Washington, DC 20554 888-225-5322

Antenna Structure Registration

Federal Communications Commission 445 12th Street, SW Washington, DC 20554 888-225-5322

AM Antenna

Federal Communications Commission 445 12th Street, SW Washington, DC 20554 888-225-5322

FM Antenna

Federal Communications Commission 445 12th Street, SW Washington, DC 20554 888-225-5322

FAA Digital Obstacle File

Federal Aviation Administration (FAA)
1305 East-West Highway, Station 5631
Silver Sprinng, MD 20910-3281
Telephone: 301-713-2817
Describes known obstacles of interest to aviation users in the US. Used by the Federal Aviation Administration (FAA) and the National Oceanic and Atmospheric Administration to manage the National Airspace System.

Airport Landing Facilities

Federal Aviation Administration Telephone (800) 457-6656 Private and public use landing facilities.

Electric Power Transmission Line Data

PennWell Corporation

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Excessive Radio Frequency Emission

For NEPA actions that come under the authority of the FCC, Commission actions granting construction permits, licenses to transmit or renewals thereof, equipment authorizations or modifications in existing facilities, require the determination of whether the particular facility, operation or transmitter would cause human exposure to levels of radio frequency in excess of certain limits.

Federal Contacts for Additional Information

Office of Engineering and Technology Federal Communications Commission 445 12th Street SW Washington, DC 20554 Phone: 202-418-2470

OTHER CONTACT SOURCES

Department of Administration 1302 Mail Service Center Raleigh NC 27699-1302 919-807-2323

STREET AND ADDRESS INFORMATION

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ATTACHMENT 8:

Endangered Species

USFWS Correspondence, Updated IPaC and Species Conclusion Table, USFWS Raleigh FO 10-step Project Review Package, and NC NHP Correspondence

Gievers, Andrea

From: Sent: To: Cc: Subject:	Matthews, Kathryn H <kathryn_matthews@fws.gov> Wednesday, April 12, 2023 2:56 PM Gievers, Andrea Mann, Leigh Re: [EXTERNAL] Self-Certification NLEB & TCB Update - Garnet Place (USFWS Project Code: 2022-0019447)</kathryn_matthews@fws.gov>
Follow Up Flag:	Follow up
Flag Status:	Flagged

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to <u>Report Spam.</u>

Hi Andrea,

No need to apologize about the others contacting me. I know the new bat listings are very confusing for everyone. We are no longer using the NLEB 4(d) rule, but we have a new Determination Key (Dkey) in IPaC that helps people make determinations for NLEB. It becomes available if NLEB is in the species list. In IPaC, the new Dkey is on the same page as the "Clearance to Proceed with Federally-Insured Loan and Grant Project Requests." At least for the next 12 months, the determination is based mostly on known records of NLEB. I ran your project through the Dkey, and the project is not likely to adversely affect the NLEB. Nothing else needs to be done on your part, and the developer/grant recipient may cut trees. The only issue will be if trees are not removed before the tricolored bat is listed (probably September 2023), but I assume that the trees will be gone by then.

Willie Sullivan and other consultants are getting familiar with the NLEB Dkey and the Interim Consultation process. Basically, if a federally-funded project gets a "May Affect" determination from the Dkey, there are forms to fill out (a template Biological Assessment), and the Service quickly issues a Biological Opinion that will cover the project under ESA Section 7. It isn't needed for this project, but in the future, hopefully your consultant will have a handle on it. Otherwise, you can contact us if you need to.

I hope this is helpful.

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27 From: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Sent: Wednesday, April 12, 2023 1:06 PM
To: Matthews, Kathryn H <kathryn_matthews@fws.gov>; Raleigh, FW4 <raleigh@fws.gov>
Cc: Mann, Leigh <leigh_mann@fws.gov>
Subject: [EXTERNAL] Self-Certification NLEB & TCB Update - Garnet Place

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hello:

First, I apologize to Ms. Kathy Matthews who has been asked by me, the Consultant, and the Developer on the NLEB and TCB changes for this project. I try to discourage everyone from reaching out to agencies, so I apologize again as I just found out.

Second, please let me know what I should make the Developer/ Grant Recipient do in accordance with the **Interim NLEB Consultation process**. I have attached all of the correspondence with Ms. Matthews and the updated IPaC and Species Conclusion Table with the TCB added to the Self-Certification package from October 2022. The Developer/ Grant Recipient plans to cut trees as soon as they have receipt of AUGF.

Third, as mentioned above, attached is the updated IPaC and Species Conclusion Table with the TCB added to the Self-Certification package and supporting No Effect and "may affect, likely to adversely affect" determination for the NLEB (Myotis septentrionalis) relying on the findings of the January 5, 2016, Programmatic BO for the Final 4(d) Rule for the **Garnet Place Project** located at **271 Smith Avenue, Shallotte, Brunswick County, NC 28470**. The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is partially funding this proposed project. The proposed project will involve the construction of a 72-unit affordable multifamily apartment complex.

Please feel free to contact me if you have any questions. Thank you for your time and assistance!

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM Environmental SME Community Development NC Office of Recovery and Resiliency Andrea.L.Gievers@Rebuild.NC.Gov (845) 682-1700

Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

Gievers, Andrea

From: Sent: To: Cc: Subject: Bobby Funk <bobby@millsconstructionco.com> Wednesday, April 12, 2023 11:48 AM Gievers, Andrea Colores, Tracey Fwd: [EXTERNAL] Garnet Place review

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Here is my correspondence with Kathryn.

Bobby Funk Mills Construction C – 828-551-6511 O – 919-719-6589 bobby@millsconstructionco.com

Begin forwarded message:

From: "Matthews, Kathryn H" <kathryn_matthews@fws.gov> Subject: Re: [EXTERNAL] Garnet Place review Date: March 8, 2023 at 4:08:11 PM EST To: Bobby Funk <bobby@millsconstructionco.com>

Yes, you can cut trees without additional consultation, prior to the tricolored bat being listed. The reason is that your project is not within close proximity to known records or northern long-eared bat, and the tricolored bat is not yet listed. Of course, we would always recommend that tree-clearing avoid the sensitive pup season (April 15-July 31), but that is not a requirement. Please note that this guidance on northern long-eared bat is an interim guidance and may change in April 2024.

I hope that is helpful.

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27 From: Bobby Funk <bobby@millsconstructionco.com> Sent: Wednesday, March 8, 2023 3:21 PM To: Matthews, Kathryn H <kathryn_matthews@fws.gov> Subject: Re: [EXTERNAL] Garnet Place review

Hi Kathy

Will Strayhorn, our consultant working on the environmental review for Garnet Place forwarded me your note from the other day and I wanted to ask a quick clarifying question regarding your consultation. Is my reading of your note correct that so long as the development clears trees before the Tricolored bat is listed (which we anticipate listing in September) we will be allowed to clear trees during the summer as the northern long-eared bat is exempt because of the4(d) rule?

I called your office, but saw that you were working remotely. Feel free to call or email to provide any more clarification necessary. We are trying to determine appropriate schedules for clearing the development area, and knowing whether we'll be allowed to cut trees during the summer will greatly help as we progress with this project.

Thanks! Bobby

Bobby Funk

Mills Construction C – 828-551-6511 O – 919-719-6589 bobby@millsconstructionco.com

On Mar 2, 2023, at 6:16 PM, Will Strayhorn < Will.Strayhorn@nv5.com> wrote:

Andrea, see below for further information regarding endangered species at the site. I'll upload this as well as the other documents to the share file.

Will Strayhorn, P.G. NV5 Engineers and Consultants

From: Matthews, Kathryn H <<u>kathryn_matthews@fws.gov</u>>
Sent: Thursday, March 2, 2023 4:00:49 PM
To: Will Strayhorn <<u>Will.Strayhorn@nv5.com</u>>
Cc: Mann, Leigh <<u>leigh_mann@fws.gov</u>>
Subject: Re: [EXTERNAL] RE: RE: Garnet Place review

Will,

Thank you for the additional information. My statement below (from February 27) is still accurate. The project may affect the northern long-eared bat, but is covered by the programmatic biological opinion for the 4(d) rule. After the uplisting is effective, we will have an expedited process that will cover the project with a template BO, if necessary. The new tools for northern long-eared bat should be available for public review sometime next week. For tricolored bat, as long as the tree removal is conducted before the species is listed, there should be no ESA issues. I can't tell you exactly when that will be, but shouldn't be earlier than September. If the trees can't be removed before the tricolored bat listing is effective, we will likely have tools to expedite consultation. I don't know if they will be the same as NLEB or not.

I'm sorry I can't provide more information than that. Please keep an eye out next week for announcements about the NLEB tools for consultation. Let me know if you have additional questions after you review that info.

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Will Strayhorn <<u>Will.Strayhorn@nv5.com</u>>
Sent: Tuesday, February 28, 2023 10:54 AM
To: Matthews, Kathryn H <<u>kathryn_matthews@fws.gov</u>>
Cc: Mann, Leigh <<u>leigh_mann@fws.gov</u>>
Subject: [EXTERNAL] RE: RE: Garnet Place review

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Kathy,

This one has been all over the place, so more than a little confusion has become the norm...but yes, we would like to go on and get this reviewed

I pulled a few pages from the previous document that may be helpful to streamline this additional review. After the previous package was submitted, the Tricolored Bat was present on the IPaC list when we did an additional review once we were outside of the 90-day window.

The basic question that the grant recipient has is whether clearing will be permitted or not at the site during the sensitive period window. Please feel free to call if there is anything else that we can provide to move this forward.

Thanks!

Will Strayhorn, P.G. | Senior Registered Geologist <u>NV5 Engineers and Consultants, Inc.</u> (fka TerraTech Engineers, Inc.) P: 919.876.9799 | C: 919.618.7792

From: Matthews, Kathryn H <<u>kathryn matthews@fws.gov</u>>
Sent: Tuesday, February 28, 2023 10:41 AM
To: Will Strayhorn <<u>Will.Strayhorn@nv5.com</u>>

Cc: Mann, Leigh <<u>leigh mann@fws.gov</u>> Subject: Re: RE: Garnet Place review

Hi Will,

Sorry for confusion - are you requesting a review of this project now? I will go ahead and look at it when I get a chance.

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Matthews, Kathryn H <<u>kathryn matthews@fws.gov</u>>
Sent: Monday, February 27, 2023 4:20 PM
To: <u>Will.Strayhorn@nv5.com</u> <<u>Will.Strayhorn@nv5.com</u>>
Cc: Mann, Leigh <<u>leigh_mann@fws.gov</u>>
Subject: Re: RE: Garnet Place review

Hi Will,

For some reason I think I have reviewed that project already, but I can't find a record of it in our system (other than your species list). We hope to have tools available for NLEB in the next couple of weeks, but I don't know the timeline for tools for tricolored bat. If you can get the project to me for review before March 31, then I will review it pursuant to the existing 4(d) rule. After March 31, we will have an interim consultation guidance and a process to cover projects we have already reviewed, which will include filling out some forms to get incidental take coverage. I can't promise you that cutting 5 acres will be exempt from the time of year restrictions, but I think it might. Your best bet is to get it in for review as soon as possible, while the 4(d) rule is still in force. The tricolored bat is not listed yet, so it will not become an issue until it is (probably no earlier than September).

Thanks,

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Mann, Leigh <<u>leigh mann@fws.gov</u>> on behalf of Raleigh, FW4
<<u>raleigh@fws.gov</u>>
Sent: Monday, February 27, 2023 3:43 PM
To: Matthews, Kathryn H <<u>kathryn matthews@fws.gov</u>>
Subject: RE: Garnet Place review

From: Will Strayhorn <<u>Will.Strayhorn@nv5.com</u>> Sent: Monday, February 27, 2023 6:53 PM To: Raleigh, FW4 <<u>raleigh@fws.gov</u>> Subject: [EXTERNAL] RE: Garnet Place review

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Apologies for the follow up and confusion. The question for the development process was actually whether the timelines of no clearing after April 15 will be enforced for this project. The clearing is planned for this year, and they are working on timelines to move forward, and wanted to know whether this project would be exempt from these clearing timelines.

Please feel free to call with any questions.

Thanks,

Will Strayhorn, P.G. | Senior Registered Geologist <u>NV5 Engineers and Consultants, Inc.</u> (fka TerraTech Engineers, Inc.) P: 919.876.9799 | C: 919.618.7792

From: Will Strayhorn Sent: Monday, February 27, 2023 1:50 PM To: <u>raleigh@fws.gov</u> Subject: Garnet Place review

We are working on finalizing an Environmental Review for Garnet Place Apartments located in Shallotte, NC. We completed the IPaC assessment for the project, which is included in the attached document. The document also includes a habitat assessment performed by LMG, correspondence with the Natural Heritage Program indicating that there are no known long-eared bat roost trees with 150 feet or hibernacula within 0.25 miles of the property, and the self-certification letter from USFWS. We're working with Andrea Gievers with NCORR to complete the process, and she has asked us to reach back out to you for additional comments regarding the Long-eared bat and the tricolored bat, with respects to the expiration of the 4(d) rule and the upcoming listing of the tricolored bat.

Clearing at the site will be approximately 5 acres. The plan is to complete the clearing this year, outside of the April 15-July 31 and December 15 to February 14 sensitive periods. Please let me know if there is anything else you need from me, and any other comments/consultations that you have as part of this process.

Thanks,

Will Strayhorn, P.G. | Senior Registered Geologist <u>NV5 Engineers and Consultants, Inc.</u> (fka TerraTech Engineers, Inc.) P: 919.876.9799 | C: 919.618.7792

N|V|5

February 16, 2023

Environmental Site Assessment Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Project Name: Garnet Place

Location:

271 Smith Avenue in Shallotte, North Carolina (Brunswick County Parcel ID: 18200008 and 1820000801)

Discussion of Endangered Species:

NV5 Engineers and Consultants, Inc. has reviewed information regarding Endangered and Threatened Species for the above referenced project. The reviewed information, which includes a response from the USFWS to the IPaC Self-Certification and a Threated and Endangered Species Habitat Assessment report by Land Management Group. The reviewed information indicates that the proposed project had "no effect" determinations for the proposed/listed species and/or proposed/designated critical habitat and "no Eagle Act permit required."

The proposed project has a "may affect, likely to adversely affect" determination for the Northern Longeared bat. We understand that because consultation is being completed prior to March 31, 2023, the 4(d) Rule per Programmatic Biological Opinion will be covered through an expedited process and will be allowed to move forward. Additionally, the reviewed report by LMG indicated that no roost trees have been identified in Brunswick County.

We understand that during the Environmental Review process, the Tri-Colored Bat was added to the proposed Endangered and/or Threatened species list. Based on our understanding of the proposed project, we anticipate that clearing of the site will be completed prior to listing of the Tri-Colored Bat and, therefore, no consultation is required. We also anticipate that efforts will be made to clear the site outside of the sensitive periods and necessary consultation with USFWS will be performed as necessary.

Sincerely,

NV5 Engineers and Consultants, Inc.

William B. Strayhorn, P.G. Senior Registered Geologist

Enclosures

NV5 Engineers and Consultants, Inc. NC Engineering Corporation F-1333 4905 Professional Court, Raleigh, North Carolina 27609 (919) 876-9799

Will Strayhorn

From: Sent: To: Cc: Subject: Matthews, Kathryn H <kathryn_matthews@fws.gov> Thursday, March 2, 2023 4:01 PM Will Strayhorn Mann, Leigh Re: [EXTERNAL] RE: RE: Garnet Place review

Will,

Thank you for the additional information. My statement below (from February 27) is still accurate. The project may affect the northern long-eared bat, but is covered by the programmatic biological opinion for the 4(d) rule. After the up-listing is effective, we will have an expedited process that will cover the project with a template BO, if necessary. The new tools for northern long-eared bat should be available for public review sometime next week. For tricolored bat, as long as the tree removal is conducted before the species is listed, there should be no ESA issues. I can't tell you exactly when that will be, but shouldn't be earlier than September. If the trees can't be removed before the tricolored bat listing is effective, we will likely have tools to expedite consultation. I don't know if they will be the same as NLEB or not.

I'm sorry I can't provide more information than that. Please keep an eye out next week for announcements about the NLEB tools for consultation. Let me know if you have additional questions after you review that info.

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Will Strayhorn <Will.Strayhorn@nv5.com>
Sent: Tuesday, February 28, 2023 10:54 AM
To: Matthews, Kathryn H <kathryn_matthews@fws.gov>
Cc: Mann, Leigh <leigh_mann@fws.gov>
Subject: [EXTERNAL] RE: RE: Garnet Place review

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This one has been all over the place, so more than a little confusion has become the norm...but yes, we would like to go on and get this reviewed

I pulled a few pages from the previous document that may be helpful to streamline this additional review. After the previous package was submitted, the Tricolored Bat was present on the IPaC list when we did an additional review once we were outside of the 90-day window.

The basic question that the grant recipient has is whether clearing will be permitted or not at the site during the sensitive period window. Please feel free to call if there is anything else that we can provide to move this forward.

Thanks!

Will Strayhorn, P.G. | Senior Registered Geologist NV5 Engineers and Consultants, Inc. (fka TerraTech Engineers, Inc.) P: 919.876.9799 | C: 919.618.7792

From: Matthews, Kathryn H <kathryn_matthews@fws.gov> Sent: Tuesday, February 28, 2023 10:41 AM To: Will Strayhorn < Will. Strayhorn@nv5.com> Cc: Mann, Leigh <leigh mann@fws.gov> Subject: Re: RE: Garnet Place review

Hi Will,

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Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Matthews, Kathryn H <kathryn matthews@fws.gov> Sent: Monday, February 27, 2023 4:20 PM To: Will.Strayhorn@nv5.com <Will.Strayhorn@nv5.com> Cc: Mann, Leigh <<u>leigh mann@fws.gov</u>> Subject: Re: RE: Garnet Place review

Hi Will,

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then I will review it pursuant to the existing 4(d) rule. After March 31, we will have an interim consultation guidance and a process to cover projects we have already reviewed, which will include filling out some forms to get incidental take coverage. I can't promise you that cutting 5 acres will be exempt from the time of year restrictions, but I think it might. Your best bet is to get it in for review as soon as possible, while the 4(d) rule is still in force. The tricolored bat is not listed yet, so it will not become an issue until it is (probably no earlier than September).

Thanks,

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Mann, Leigh <<u>leigh_mann@fws.gov</u>> on behalf of Raleigh, FW4 <<u>raleigh@fws.gov</u>>Sent: Monday, February 27, 2023 3:43 PMTo: Matthews, Kathryn H <<u>kathryn_matthews@fws.gov</u>>Subject: RE: Garnet Place review

From: Will Strayhorn <<u>Will.Strayhorn@nv5.com</u>>
Sent: Monday, February 27, 2023 6:53 PM
To: Raleigh, FW4 <<u>raleigh@fws.gov</u>>
Subject: [EXTERNAL] RE: Garnet Place review

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Apologies for the follow up and confusion. The question for the development process was actually whether the timelines of no clearing after April 15 will be enforced for this project. The clearing is planned for this year, and they are working on timelines to move forward, and wanted to know whether this project would be exempt from these clearing timelines.

Please feel free to call with any questions.

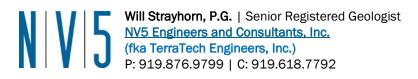
Thanks,

Will Strayhorn, P.G. | Senior Registered Geologist <u>NV5 Engineers and Consultants, Inc.</u> (fka TerraTech Engineers, Inc.) From: Will Strayhorn Sent: Monday, February 27, 2023 1:50 PM To: <u>raleigh@fws.gov</u> Subject: Garnet Place review

We are working on finalizing an Environmental Review for Garnet Place Apartments located in Shallotte, NC. We completed the IPaC assessment for the project, which is included in the attached document. The document also includes a habitat assessment performed by LMG, correspondence with the Natural Heritage Program indicating that there are no known long-eared bat roost trees with 150 feet or hibernacula within 0.25 miles of the property, and the self-certification letter from USFWS. We're working with Andrea Gievers with NCORR to complete the process, and she has asked us to reach back out to you for additional comments regarding the Long-eared bat and the tricolored bat, with respects to the expiration of the 4(d) rule and the upcoming listing of the tricolored bat.

Clearing at the site will be approximately 5 acres. The plan is to complete the clearing this year, outside of the April 15-July 31 and December 15 to February 14 sensitive periods. Please let me know if there is anything else you need from me, and any other comments/consultations that you have as part of this process.

Thanks,



Gievers, Andrea

From:	Matthews, Kathryn H <kathryn_matthews@fws.gov></kathryn_matthews@fws.gov>
Sent:	Thursday, February 2, 2023 2:50 PM
To:	Gievers, Andrea
Subject:	Re: [EXTERNAL] FW: Tricolored Bat RE: NCORR NLEB Review
Follow Up Flag:	Follow up
Flag Status:	Flagged

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to <u>Report Spam.</u>

Hi Andrea,

Thanks for your question about tricolored bat. HUD will need to consult with us on their grant activities, and I am glad you are getting ahead of the curve with tricolored bat (TCB). I don't think that TCB will be listed as endangered before September. Northern long-eared bat (NLEB) is being uplisted to endangered on March 31, and the 4(d) rule will no longer be effective. So, NLEB will also be treated differently after March 31. However, because you are consulting with us ahead of this date, there will be an expedited process by which we cover all of these projects and allow them to move forward.

In the coastal plain of NC, both NLEB and TCB roost in trees year round and are active on warm winter days, so it may be difficult to make a no effect or not likely to adversely affect determination for some tree removals or other work that was previously covered under the 4(d) rule for NLEB. It does depend on the time of year when work is proposed and the acreage, among other things. For the active year-round population of NLEB and TCB, cutting trees during the cold winter months may impacts bats that are roosting, or even in torpor, in those trees. Therefore, we are looking at a moratorium on tree cutting during the coldest months (December 15- February 14) as well as during the pup season (April 15 - July 31). Whether or not a project may adversely affect a NLEB or TCB during the spring and fall depends on the proposed activity, the location (within a certain distance of capture records or roost trees) and the acreage.

Your project site is more than 5 miles away from a NLEB or TCB capture site. If you are proposing less than an acre of tree removal and can commit to cut it during the spring and fall (NOT December 15 to February 14 and NOT April 15 - July 31), you can probably make a "not likely to adversely affect" determination for the project. If you get all of the tree-cutting done before the TCB is uplisted, you don't need to consult.

We don't have all of this info available, but as I said, we are aiming to have it available for NLEB before March 31, and we intend to treat TCB in a similar manner. If you are cutting more than an acre, or need to cut during one of the sensitive periods, you probably should talk to us closer to the listing date for TCB. We've been concentrating on NLEB because of the time crunch. The main difference for TCB is their use of culverts year-round. It doesn't sound like culvert removal or modification is included in this project.

I don't know if HUD is going to seek a nationwide programmatic ESA consultation for grant activities - that would be great to cover all of these relatively small projects in one big consultation. I haven't heard anything

about that, but maybe your HUD contact would know. It would be nice if you didn't have to worry about consulting on every one yourself. Several of the other federal agencies are working with us nationally on consultations.

Sorry I can't share much more than that - let me know if you have questions.

Please note that I am teleworking Wednesday through Friday, every week. Email is the best way to reach me. Thanks,

Kathy Matthews NC Renewable Energy Coordinator & Fish and Wildlife Biologist U.S. Fish and Wildlife Service 551-F Pylon Drive Raleigh, NC 27606 919-856-4520, x. 27

From: Jordan, Gary <gary_jordan@fws.gov>
Sent: Thursday, February 2, 2023 1:05 PM
To: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Cc: Matthews, Kathryn H <kathryn_matthews@fws.gov>
Subject: Re: [EXTERNAL] FW: Tricolored Bat RE: NCORR NLEB Review

Hi Andrea,

I'm passing this along to Kathy Matthews in my office. I do work with bats but this particular situation falls under Kathy's purview.

Gary Jordan Fish and Wildlife Biologist, Liaison to NCDOT U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office 551-F Pylon Drive, Raleigh, NC 27606 gary_jordan@fws.gov

From: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Sent: Thursday, February 2, 2023 10:59 AM
To: Jordan, Gary <gary_jordan@fws.gov>
Subject: [EXTERNAL] FW: Tricolored Bat RE: NCORR NLEB Review

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Gary:

I work for the North Carolina Office of Recovery and Resiliency (NCORR), a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), for Community Development projects ranging from Infrastructure to affordable, multifamily housing projects. Judy at NC NHP referred me to speak to you regarding the Proposed Endangered Tricolored Bat which has been identified on some of my projects' IPaCs and some have proposed tree removal. Are there currently any procedures in place for reviewing potential habitat for these little guys? I doubt they are covered under the soon to be obsolete NLEB 4(d) Rule since it takes a long time for things like that to change. Any suggestions are greatly appreciated. Thank you so much for your assistance!

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM Environmental SME Community Development NC Office of Recovery and Resiliency Andrea.L.Gievers@Rebuild.NC.Gov (845) 682-1700

From: Ratcliffe, Judith
Sent: Thursday, February 2, 2023 8:38 AM
To: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Cc: Butler, Rodney A <Rodney.Butler@ncdcr.gov>
Subject: Tricolored Bat RE: NCORR NLEB Review - Garnet Place Apartments

Hi Andrea,

I believe that we are still in the Proposed Endangered stage of the Federal Listing process as I have not received word from USFWS that it has been published in the Federal Register as Endangered:

https://ecos.fws.gov/ecp/species/10515 - I do expect it to be published as Endangered very soon.

We maintain data for this species so I will review this location again for both species and let you know if there are known locations near the parcel. The folks at USFWS-Raleigh Ecological Services should be able to give you guidance if there is an observation that would be relevant to this project:

Gary Jordan Fish and Wildlife Biologist <u>Eastern North Carolina Ecological Services</u> <u>Ecological Services</u> 551-F Pylon Dr. Raleigh, NC 27606 United States (919) 856-4520 ext. 32 gary jordan@fws.gov

Judy

JUDITH RATCLIFFE Zoologist, NC Natural Heritage Program

121 W Jones St MSC 1651 Raleigh, NC 27699

919 707 9395 office NEW PHONE NUMBER



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

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From: Gievers, Andrea <<u>andrea.l.gievers@rebuild.nc.gov</u>>
Sent: Thursday, February 2, 2023 7:55 AM
To: Ratcliffe, Judith <<u>judith.ratcliffe@ncdcr.gov</u>>
Cc: Butler, Rodney A <<u>Rodney.Butler@ncdcr.gov</u>>
Subject: RE: NCORR NLEB Review - Garnet Place Apartments

Hi Judith:

I hope you are well. There have been a few changes for bats since we last spoke. One change is the proposal to list the Tricolored Bat as Endangered under the Endangered Species Act. This site, and many others, now have the Tricolored Bat identified on the IPaC. Are there currently any procedures in place for reviewing potential habitat for these little guys? I doubt they are covered under the soon to be obsolete NLEB 4(d) Rule since it takes a long time for things like that to change. Any suggestions are greatly appreciated. Thank you so much for your assistance!

Sincerely,

Andrea Gievers

From: Gievers, Andrea
Sent: Wednesday, October 19, 2022 1:21 PM
To: Ratcliffe, Judith <<u>judith.ratcliffe@ncdcr.gov</u>>
Cc: Butler, Rodney A <<u>Rodney.Butler@ncdcr.gov</u>>
Subject: RE: NCORR NLEB Review - Garnet Place Apartments

Thank you so much!

Sincerely,

Andrea Gievers

From: Ratcliffe, Judith
Sent: Wednesday, October 19, 2022 1:17 PM
To: Gievers, Andrea <<u>andrea.l.gievers@rebuild.nc.gov</u>>
Cc: Butler, Rodney A <<u>Rodney.Butler@ncdcr.gov</u>>
Subject: RE: NCORR NLEB Review - Garnet Place Apartments

Hello Andrea,

Thank you for the opportunity to review Garnet Place Apartments, 271 Smith Avenue, Shallotte, NC 28470. There are no documented Northern Long-eared Bat maternity roost trees within 150 feet of this project boundary. There are no documented Northern Long-eared Bat hibernacula within 0.25 mile of this project boundary. Sincerely, Judith Ratcliffe

JUDITH RATCLIFFE Zoologist, NC Natural Heritage Program

121 W Jones St MSC 1651 Raleigh, NC 27699 919 707 9395 *office* **NEW PHONE NUMBER**



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

Facebook Twitter Instagram YouTube

From: Gievers, Andrea <<u>andrea.l.gievers@rebuild.nc.gov</u>>
Sent: Wednesday, October 19, 2022 1:00 PM
To: Ratcliffe, Judith <<u>judith.ratcliffe@ncdcr.gov</u>>
Cc: Butler, Rodney A <<u>Rodney.Butler@ncdcr.gov</u>>
Subject: NCORR NLEB Review - Garnet Place Apartments

Hello Judy:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed affordable housing project, **Garnet Place Apartments, 271 Smith Avenue, Shallotte, NC 28470** (Brunswick County Parcel ID: 18200008 and 1820000801). I have attached the proposed project aerial map, site plan, and shapefiles from the consultant to assist in your NLEB 4(d) Rule review. Please feel free to contact me if you have any questions or need anything at all. Thank you so much for your time and assistance!

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM Environmental SME Community Development NC Office of Recovery and Resiliency <u>Andrea.L.Gievers@Rebuild.NC.Gov</u> (845) 682-1700 Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.



United States Department of the Interior

FISH AND WILDLIFE SERVICE Raleigh Ecological Services Field Office Post Office Box 33726 Raleigh, NC 27636-3726 Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To: Project Code: 2023-0030882 Project Name: Garnet Place Apartments January 05, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). If your project area contains suitable habitat for any of the federally-listed species on this species list, the proposed action has the potential to adversely affect those species. If suitable habitat is present, surveys should be conducted to determine the species' presence or absence within the project area. The use of this species list and/or North Carolina Natural Heritage program data should not be substituted for actual field surveys.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/ executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office

Post Office Box 33726 Raleigh, NC 27636-3726 (919) 856-4520

Project Summary

Droject Code	
Project Code:	2023-0030882
Project Name:	Garnet Place Apartments
Project Type:	Residential Construction
Project Description:	The proposed project site is located at 271 Smith Avenue, Shallotte, NC 28470 (Brunswick County Parcel ID: 18200008 and 1820000801) and encompasses approximately 9.88 acres. Garnet Place will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, Brunswick County, North Carolina. The project is applying for Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). The unit mix will include 12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units. Construction will include 5 three-story apartment buildings, a community center, children's play areas, picnic areas, and parking areas. The Town of Shallotte has sewer and water lines in place along Arnold Street to the southeast, and only short connections to the site will be necessary. The buildings and parking lot will be nestled into the existing property fabric, by preserving as much vegetation as possible, provide buffers to adjacent properties, and employing low impact design techniques for stormwater management.
	proposed land disturbance exceeding 1 acre, a NC Division of Energy, Minerals and Land Resources NPDES NCG010000 permit is required and will ensure best management
	practices, such as installing silt fence, temporary sediment basins/traps and construction entrance, are installed prior undertaking land disturbance activities. The measures will be inspected at least every seven days and/or
	after a rain event that produces more than one inch of rain within a twenty-four-hour period. Non-potable water will be used to contain dust,
Drojact Lagation	during the construction process.
Project Location:	

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@33.98664335,-78.38471009556407,14z</u>



Counties: Brunswick County, North Carolina

Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/10515</u>	Proposed Endangered
Birds NAME	STATUS
 Piping Plover Charadrius melodus Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6039</u> 	Threatened
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/7614</u>	Endangered

Reptiles

NAME	STATUS
American Alligator Alligator mississippiensis No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/776</u>	Similarity of Appearance (Threatened)
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6199</u>	Threatened
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/5523</u>	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/1493</u>	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/1110</u>	Threatened

Snails

NAME	STATUS
Magnificent Ramshorn <i>Planorbella magnifica</i>	Proposed
There is proposed critical habitat for this species. Your location does not overlap the critical	Endangered
habitat.	U
Species profile: <u>https://ecos.fws.gov/ecp/species/6216</u>	

Insects

NAME

STATUS

Monarch Butterfly Danaus plexippus

No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u> Candidate

Flowering Plants

NAME	STATUS
Cooley's Meadowrue <i>Thalictrum cooleyi</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/3281</u>	Endangered
Rough-leaved Loosestrife <i>Lysimachia asperulaefolia</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/2747</u>	Endangered
Seabeach Amaranth Amaranthus pumilus No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/8549</u>	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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 <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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
American Kestrel Falco sparverius paulus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31
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

NAME	BREEDING SEASON
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 15
Chimney Swift <i>Chaetura pelagica</i> 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 <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8936</u>	Breeds May 1 to Sep 5
Painted Bunting Passerina ciris This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 25 to Aug 15
Prairie Warbler <i>Dendroica discolor</i> 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 <i>Protonotaria citrea</i> 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 <i>Melanerpes erythrocephalus</i> 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 <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8938</u>	Breeds Mar 10 to Jun 30
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

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.

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.

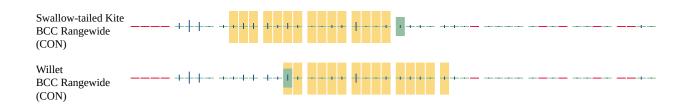
No Data (-)

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.

				p rot	oability c	of presen	ce 📕 bi	reeding s	eason	survey	effort	— no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
American Kestrel BCC - BCR		- +++-		+ + + + +		+ • • •					·	+
Bald Eagle Non-BCC Vulnerable		++1-	11++	+++++		+ • • •		+ +	-			· I
Black Skimmer BCC Rangewide (CON)		- +++-		++++	· • •	+ • • •						+
Brown-headed Nuthatch BCC - BCR		++1-	• • • • •	++•1•	· · · · ·	1						
Chimney Swift BCC Rangewide (CON)		- +++-	· · · · · ·	++•	· · · · ·	+ • • •		• • • -				+
Eastern Whip-poor- will BCC Rangewide (CON)		- +++-		++++		+ • • •	· · · ·					+
King Rail BCC Rangewide (CON)		+++-		++1+		+ • • •	• • • •	• • •				- 1
Painted Bunting BCC - BCR		1+1-	1	++++	••••	+ • • •						- I
Prairie Warbler BCC Rangewide (CON)		- +++-	- + + + +	+++++		1		+ +				
Prothonotary Warbler BCC Rangewide (CON)		- + + + -						++				+
Red-headed Woodpecker BCC Rangewide (CON)		++ -	+-+	· + → I →	· <mark>· </mark> · ·	1						+
Rusty Blackbird BCC - BCR		- +++-		+++++		- +	- + + + -	· -+ -+				+ .
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



Additional information can be found using the following links:

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

Migratory Birds FAQ

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

<u>Nationwide Conservation Measures</u> 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. <u>Additional measures</u> or <u>permits</u> 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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <u>Avian</u> <u>Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>Rapid Avian Information</u> <u>Locator (RAIL) Tool</u>.

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 <u>Avian Knowledge Network (AKN</u>). This data is derived from a growing collection of <u>survey, banding, and citizen science datasets</u>.

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 <u>RAIL Tool</u> 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 <u>Birds of Conservation Concern</u> (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 <u>Eagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA NCCOS Integrative Statistical</u> <u>Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic</u> <u>Outer Continental Shelf</u> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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.

IPaC User Contact Information

Species Conclusions Table

Project Name: Garnet Place Apartments

Date: 10/19/22

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Northern Long-eared Bat	Suitable habitat may be present	May Affect, Not likely to Adversely Affect 4(d)	Rule 4(b) assuming expedited process and continued consultation prior to March 31, 2023
Piping Plover	No suitable habitat present	No Effect	
Red Knot	No suitable habitat present	No Effect	
Red-cockaded Woodpecker	No suitable habitat present	No Effect	No mature open stands of pine are present on site.
Wood Stork	No suitable habitat present	No Effect	No suitable habitat in the form of a freshwater marsh present on site.
Green Sea Turtle	No suitable habitat present	No Effect	
Kemp's Ridley Sea Turtle	No suitable habitat present	No Effect	
Leatherback Sea Turtle	No suitable habitat present	No Effect	
Loggerhead Sea Turtle	No suitable habitat present	No Effect	

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Will Stryte

2/20/23

Signature /Title

Date

Species Conclusions Table

Project Name: Garnet Place Apartments

Date: 10/19/22

Species / Resource Name	Conclusion	ESA Section 7 / Eagle Act Determination	Notes / Documentation
Magnificent Ramshorn	No suitable habitat present	No Effect	
American Alligator	No suitable habitat present	No Effect	
Cooley's Meadowrue	No suitable habitat present	No Effect	
Rough-leaved Loosestrife	No suitable habitat present	No Effect	
Seabeach Amaranth	No suitable habitat present	No Effect	
Bald Eagle	Unlikely to disturb nesting bald eagles	No Eagle Act Permit Required	
Monarch Butterfly	No suitable habitat present	No Effect	
Tri -Colored Bat	Suitable habitat may be present	May Affect	May affect, clearing anticipated to be complete prior to listing.

Acknowledgement: I agree that the above information about my proposed project is true. I used all of the provided resources to make an informed decision about impacts in the immediate and surrounding areas.

Will Stright

10/19/22

Signature /Title

Date



September 29, 2021

- TO: Mr. Tim Chandler Timmons Group 5410 Trinity Road; Suite 102 Raleigh, NC 27607
- RE: 271 Smith Avenue; Shallotte; Brunswick County, North Carolina Threatened and Endangered Species Habitat Assessment

Dear Mr. Chandler:

As requested, staff of Land Management Group (LMG) evaluated the above referenced tract to determine the site's potential to support federally listed threatened or endangered species as identified using the US Fish and Wildlife Service's Information, Planning, and Consultation (IPaC) system (Table 1; Appendix A). Species with the federal classification of Endangered (E), Threatened (T), or Officially Proposed (P) for such listing are protected under the Endangered Species Act (ESA) of 1973, as amended and the Bald and Golden Eagle Protection Act. The 10-acre site is located at 271 Smith Avenue in Shallotte (Brunswick County), NC (Figures 1-3). LMG evaluated the site on September 14, 2021.

A search of the North Carolina Natural Heritage Program (NHP) database was also conducted to identify areas within and around the site that are already known to support federally listed species. According to their files, there are no known observations of federally protected species on the site. Several rare species including the federally listed American alligator have been documented within a one mile of the site (see Appendix B).

Common Name	Scientific Name	Status US NC		Habitat Description	Habitat Present in Project Area?
ANIMALS					
American Alligator	Alligator mississippiensis	T (S/A)	Т	Freshwater swamps, marshes, rivers, and lakes	No
Bald Eagle	Haliaeetus Ieucocephalus	BGPA	Т	Nest in large trees near open water	No

Table 1. Federally protected endangered and threatened species that may occur within the project area per the USFWS IPaC system (see Appendix A).

Common Name	Scientific Name	Status Scientific Name US NC		Habitat Description	Habitat Present in Project Area?
Green Sea Turtle	Chelonia mydas	т	т	Shallow waters (except when migrating) inside reefs, bays, and inlets; open beaches are required for nesting.	No
Kemp's Ridley Sea Turtle	Lepidochelys kempii	E	E	Nearshore and inshore waters of the northern Gulf of Mexico; open beaches are required for nesting.	No
Leatherback Sea Turtle	Dermochelys coriacea	E	E	Tropical and temperate waters of the Atlantic, Pacific, and Indian Oceans	No
Loggerhead Sea Turtle	Caretta caretta	т	т	Estuarine and oceanic waters; bays, lagoons, salt marshes, creeks, ship channels, and the mouths of large rivers	No
Magnificent Ramshorn	Planorbella magnifica	с	E	Orton Pond and pond on Sand Hill Creek; formerly Greenfield Lake (endemic to North Carolina)	No
Monarch Butterfly	Danaus plexippus	с		East population migrates between central Mexico and Canada; requires nectar habitat including milkweed plants.	No
Northern Long-eared Bat	Myotis septentrionalis	Т		Hibernates in caves and mines; roosts underneath bark, in cavities or in crevices of both live trees and snags. They are site generalists and can be found in a range of forested areas.	Yes
Piping plover	Charadrius melodus	т	т	coastal beaches, sand flats at the ends of sand spits and barrier islands	No
Red-Cockaded Woodpecker	Picoides borealis	E	E	Open pine woodlands and savannas with large old pines	No
Red Knot	Calidris canutus rufa	т		Intertidal, marine habitats, especially near coastal inlets, estuaries, and bays	No
West Indian Manatee	Trichechus manatus	Т	E	fresh- and saltwater habitats at least 2 meters in depth	No
Wood Stork	Mycteria americana	т	E	Freshwater and estuarine wetlands; nest in patches of medium to tall trees, either in standing water or on islands surrounded by open water	No

Common Name	Scientific Name	Status US NC				Habitat Description	Habitat Present in Project Area?
PLANTS							
Cooley's Meadowrue	Thalictrum cooleyi	E	E	Moist to wet bogs and savannas with neutral soils	No		
Rough-leaved Loosestrife	Lysimachia asperulaefolia	E	E	Ecotones between pine savannas and pocosins, on moist to seasonally saturated sands, on organic soils overlaying sand	No		
Seabeach Amaranth	Amaranthus pumilus	Т	Т	Overwash flats at accreting ends of islands and lower foredunes	No		

TABLE KEY:	
Status	Definition
E	Endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."
Т	Threatened. A taxon "likely to become endangered within the foreseeable future throughout all
	or a significant portion of its range."
T(S/A)	Threatened due to similarity of appearance.
BGPA	Protected under the Bald and Golden Eagle Protection Act.

The 10-acre site is located at 271 Smith Avenue in Shallotte (Brunswick County), NC (Figures 1-3). Based on our site review, the tract consists entirely of uplands. A ditch runs through the center of the site and connects to another ditch along the northeastern property boundary. The site supports a canopy of mostly loblolly pine (*Pinus taeda*) trees. Some live oak trees are located along the ditch banks and in the northern part of the site. The shrub layer is largely absent. Adjacent land use consists of a mix of undeveloped and forested land, commercial use, and residential development.

During the evaluation, the tract was inspected for habitat that could support federally protected species. The sea turtles, piping plover, red knot, West Indian manatee, and seabeach amaranth are all found in either coastal or marine habitats and would not be located within the tract. The other species listed in Table 1 are discussed below.

American alligators live primarily in freshwater swamps and marshes, but also in rivers, lakes, and smaller bodies of water. The ditches on site are not large enough and do not contain sufficient water to provide suitable habitat for this species.

Bald eagles in the southeast typically build their nests in the zone between forests and marsh or open water. Nests are built in dominant live pines or cypress trees that provide a clear flight path. This tract contains a canopy of pine trees with a DBH between 6" and 10" and is not located near open water. Therefore, it does not appear to provide suitable habitat for this species.

Additionally, according to the NC NHP database, no bald eagle nests are known to occur within one mile of the site.

The magnificent ramshorn is a large freshwater snail that is adapted to still or slow-flowing aquatic habitats such as beaver ponds or man-made mill ponds. The species is endemic to southeastern North Carolina and was historically known from only four sites in the lower Cape Fear River Basin. However, all four sites appear to be extirpated. This is largely due to a loss of freshwater habitat from saltwater intrusion and a loss of beaver ponds. The site does not provide suitable habitat for this species.

The monarch butterfly is globally distributed throughout 90 countries, islands, and island groups. North American populations are well known for their long-distance migration. In eastern North America, monarchs travel north in the spring, from Mexico to Canada, over two to three successive generations, breeding along the way. They then migrate back to Mexico in the fall. Therefore, eastern North America can provide both breeding and migrating habitat. Adult monarch butterflies require a variety of blooming nectar resources, which they feed on throughout their migration and breeding seasons (spring through fall). Monarchs also need milkweed for both egg laying and larval feeding within this habitat. The project area is forested and no nectar sources were observed on site. Therefore, the tract does not appear to provide suitable breeding or migrating habitat for the species.

The northern long-eared bat (NLEB) was listed as threatened under the Endangered Species Act in 2015 (80 FR 17974) because of population declines caused by white-nose syndrome and the continued spread of the disease. The northern long-eared bat hibernates during the winter in caves and mines with constant temperatures, high humidity, and no air currents. During the winter and summer, they roost alone or in colonies underneath bark, in cavities or in crevices of both live trees and snags. They are site generalists and can be found in a range of forested areas from large contiguous forested blocks to small, wooded lots; densely vegetated stands to more open stands; and hardwood forests to mixed pine/hardwood forests. No hibernacula appear to exist within the project area. Forested areas within the site could potentially provide appropriate winter and summer roosting habitat. Although the bat is known to occur in Brunswick County, no roost trees have been identified by the US Fish and Wildlife Service in the county. Therefore, any associated take from the proposed project as a result of cutting trees would be exempt per the Programmatic Biological Opinion for the NLEB.

The red-cockaded woodpecker (RCW) is generally found in open pine woodlands and savannas with large old pines for nesting and roosting habitat. Cavity trees are located in open stands with little or no hardwood midstory or overstory. Minimum age of trees needed for excavating cavities in is between 60 and 80 years depending on tree and site factors. Foraging habitat is provided in pine and pine hardwood stands 30 years old or older with foraging preference for pine trees 10 inch DBH or larger. In good, well-stocked pine habitat, sufficient foraging habitat can be provided

on 80 to 125 acres. While the site does support loblolly pine trees, in general these trees appear to be too small to provide suitable nesting or foraging habitat. Additionally, there is no suitable habitat adjacent to the site and this tract is too small to support an RCW population on its own.

Wood storks utilize freshwater and estuarine wetlands for nesting, feeding and roosting. They can feed in many different types of tidal and freshwater ecosystems including freshwater marshes, ponds, hardwood and cypress swamps, narrow tidal creeks or shallow tidal pools, and even artificial wetlands such as seasonally flooded roadside and agricultural ditches, impoundments and large reservoirs. Depressions in marshes or swamps where fish become concentrated during periods of falling water levels are considered especially good feeding sites for the wood stork. They nest in patches of medium to tall trees, either in standing water or on islands surrounded by open water. The site does not provide suitable habitat for this species.

The federally protected plant species identified in the IPaC review prefer fairly open habitat with moist soils. Cooley's meadowrue inhabits sunny, moist places such as open, savanna-like forest edges and clearings, wet savannas over calcareous clays, and ecotones between wet savannas and non-riverine swamp forests. Soils are basic, sandy loams. Rough-leaved loosestrife generally occurs in the ecotones between pine savannas and pocosins, on moist to seasonally saturated sands, and on shallow organic soils overlaying sand. Since no wetlands exist within the site, it does not appear to support suitable habitat for these species.

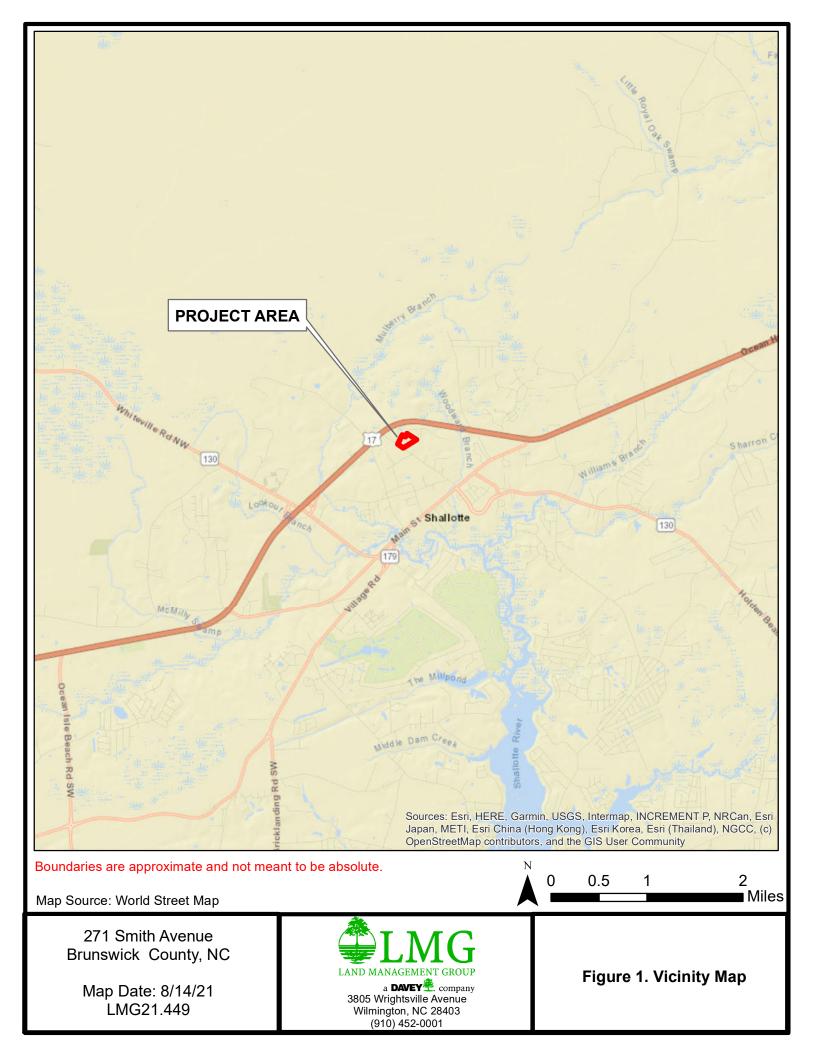
Based on the current conditions of the site and adjacent tracts, it appears that forested areas within the site could potentially provide appropriate winter and summer roosting habitat for the northern long-eared bat. Although the bat is known to occur in Brunswick County, no roost trees have been identified by the US Fish and Wildlife Service in the county. Therefore, any associated take from the proposed project as a result of cutting trees would be exempt per the Programmatic Biological Opinion for the NLEB. The site does not appear to provide appropriate habitat for any other federally protected species known to occur in the region. Enclosed are vicinity maps and information from the IPaC and NHP databases for the project area. Please let me know if you have any questions or need any additional information.

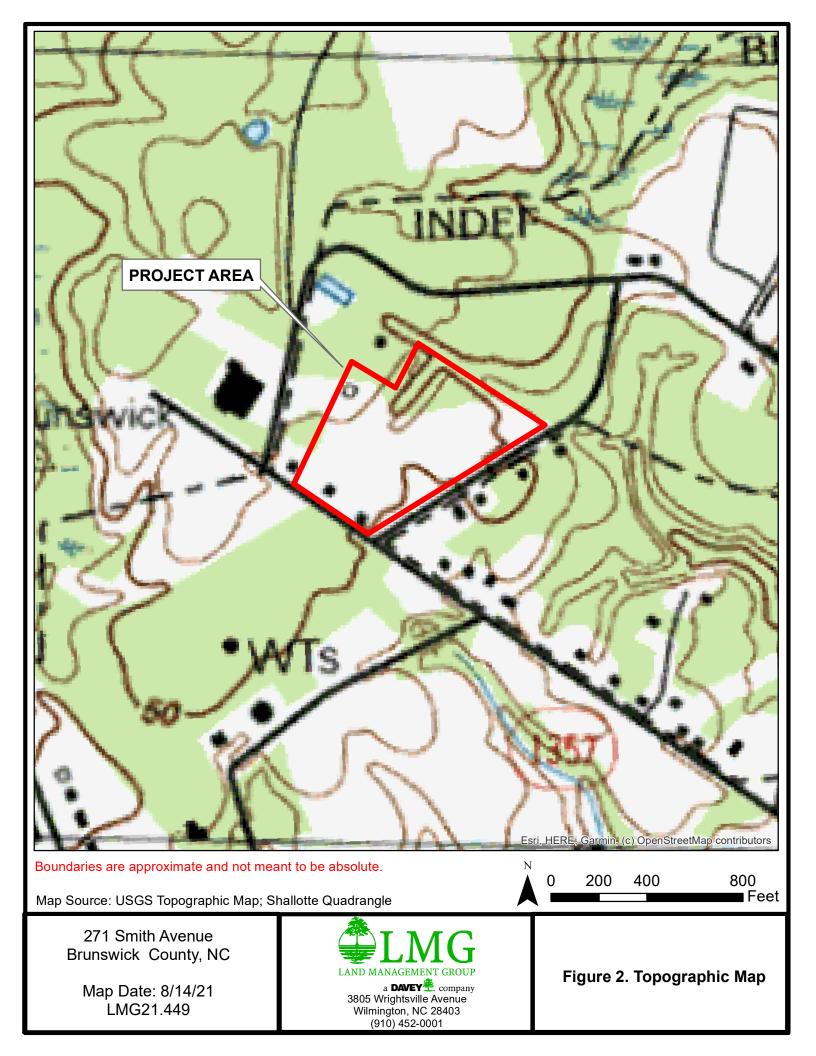
Sincerely,

Kim Williams Environmental Scientist

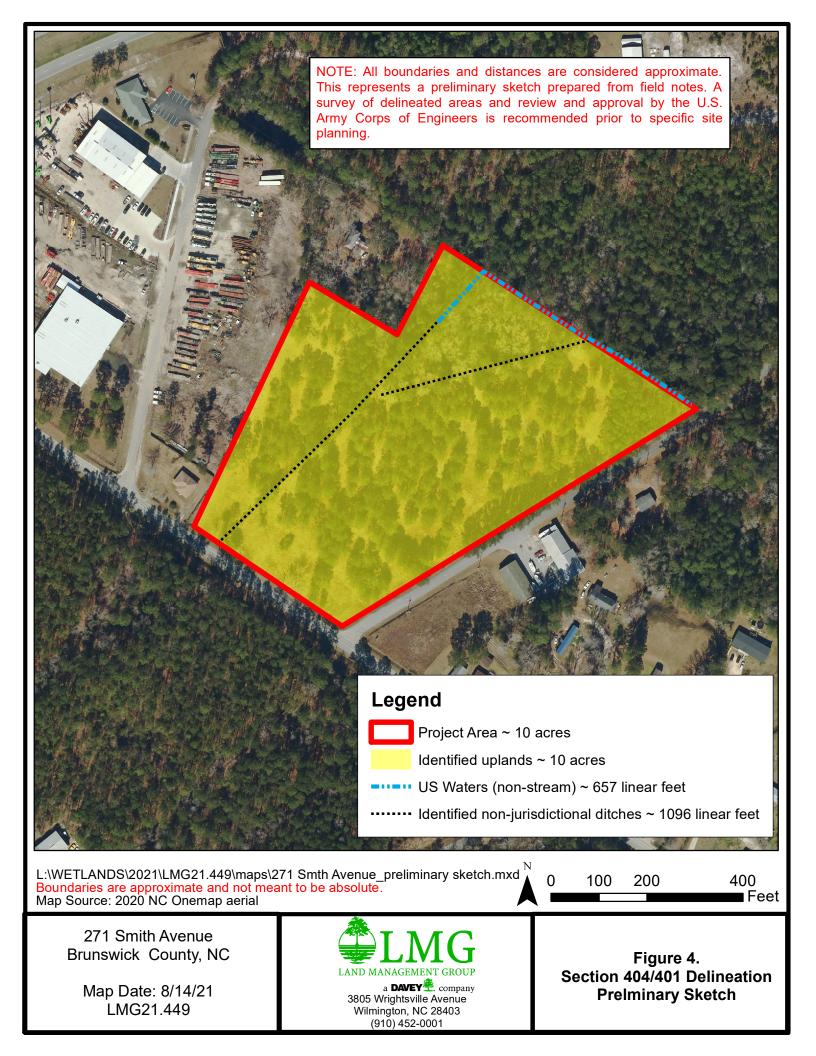
Encl.

FIGURES









APPENDIX A.

Information from USFWS IPaC System

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. ONSUL

Location

Brunswick 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 projectspecific 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 <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

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

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <u>NOAA Fisheries</u>, 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
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. <u>http://ecos.fws.gov/ecp/species/9045</u>	Threatened
West Indian Manatee Trichechus manatus Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. <u>http://ecos.fws.gov/ecp/species/4469</u>	Threatened Marine mammal
Birds NAME	STATUS
Piping Plover Charadrius melodus There is final critical habitat for this species. The location of the critical habitat is not available. <u>http://ecos.fws.gov/ecp/species/6039</u>	Threatened
Red Knot Calidris canutus rufa Wherever found There is proposed critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/1864	Threatened
Red-cockaded Woodpecker Picoides borealis Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/7614	Endangered
Wood Stork Mycteria americana No critical habitat has been designated for this species. <u>http://ecos.fws.gov/ecp/species/8477</u>	Threatened
Reptiles	STATUS
American Alligator Alligator mississippiensis Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/776	SAT

Green Sea Turtle Chelonia mydas There is final critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/6199	Threatened
Kemp's Ridley Sea Turtle Lepidochelys kempii Wherever found There is proposed critical habitat for this species. The location of the critical habitat is not available. <u>http://ecos.fws.gov/ecp/species/5523</u>	Endangered
Leatherback Sea Turtle Dermochelys coriacea Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. <u>http://ecos.fws.gov/ecp/species/1493</u>	Endangered
Loggerhead Sea Turtle Caretta caretta There is final critical habitat for this species. The location of the critical habitat is not available. <u>http://ecos.fws.gov/ecp/species/1110</u>	Threatened
Snails NAME	STATUS
Magnificent Ramshorn Planorbella magnifica Wherever found No critical habitat has been designated for this species. <u>http://ecos.fws.gov/ecp/species/6216</u>	Candidate
Insects NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743	Candidate
Flowering Plants	STATUS
Cooley's Meadowrue Thalictrum cooleyi	Endangered

Wherever found No critical habitat has been designated for this species. <u>http://ecos.fws.gov/ecp/species/3281</u> Rough-leaved Loosestrife Lysimachia asperulaefolia Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/2747

Endangered

Threatened

Seabeach Amaranth Amaranthus pumilus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/8549

Critical habitats

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

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

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 http://www.fws.gov/birds/management/managed-species/ birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/ conservation-measures.php
- Nationwide conservation measures for birds

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 <u>E-bird data mapping tool</u> (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 <u>below</u>.

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 (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Breeds May 10 to Sep 10

American Kestrel Falco sparverius paulus
This is a Bird of Conservation Concern (BCC) only in particular Bird
Conservation Regions (BCRs) in the continental USA
http://ecos.fws.gov/ecp/species/9587

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.
http://ecos.fws.gov/ecp/species/1626
Breeds Apr 1 to Aug 31

Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird Euphagus carolinusBreeds elsewhereThis is a Bird of Conservation Concern (BCC) only in particular BirdConservation Regions (BCRs) in the continental USA

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

<u>Nationwide Conservation Measures</u> 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. <u>Additional measures</u> or <u>permits</u> 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 migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> 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 <u>Avian Knowledge Network</u> (<u>AKN</u>). The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>AKN Phenology Tool</u>.

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 <u>Avian</u> <u>Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u>.

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, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or yearround), you may refer to the following resources: <u>The Cornell Lab of Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds guide</u>. 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 <u>Birds of Conservation Concern</u> (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 <u>Eagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA NCCOS</u> <u>Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf</u> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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 to migratory birds" at the bottom of your migratory bird trust resources page.

Marine mammals

Marine mammals are protected under the <u>Marine Mammal Protection Act</u>. Some are also protected under the Endangered Species Act

¹ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora².

The responsibilities for the protection, conservation, and management of marine mammals are shared by the U.S. Fish and Wildlife Service [responsible for otters, walruses, polar bears, manatees, and dugongs] and NOAA Fisheries

³ [responsible for seals, sea lions, whales, dolphins, and porpoises]. Marine mammals under the responsibility of NOAA Fisheries are **not** shown on this list; for additional information on those species please visit the <u>Marine Mammals</u> page of the NOAA Fisheries website.

The Marine Mammal Protection Act prohibits the take (to harass, hunt, capture, kill, or attempt to harass, hunt, capture or kill) of marine mammals and further coordination may be necessary for project evaluation. Please contact the U.S. Fish and Wildlife Service Field Office shown.

- 1. The Endangered Species Act (ESA) of 1973.
- 2. The <u>Convention on International Trade in Endangered Species of Wild Fauna and Flora</u> (CITES) is a treaty to ensure that international trade in plants and animals does not threaten their survival in the wild.
- 3. <u>NOAA Fisheries</u>, 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 marine mammals under the responsibility of the U.S. Fish and Wildlife Service are potentially affected by activities in this location:

NAME

West Indian Manatee Trichechus manatus http://ecos.fws.gov/ecp/species/4469

Facilities Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> 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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

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 B.

Information from NC Natural Heritage Program



D. Reid Wilson, Secretary

Walter Clark Director, Division of Land and Water Stewardship

NCNHDE-15753

September 16, 2021

Kim Williams Land Management Group, Inc. 3805 Wrightsville Avenue; Suite 15 Wilmington, NC 28403 RE: Smith Ave

Dear Kim Williams:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

Based on the project area mapped with your request, a query of the NCNHP database indicates that there are no records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. Please note that although there may be no documentation of natural heritage elements within the project boundary, it does not imply or confirm their absence; the area may not have been surveyed. The results of this query should not be substituted for field surveys where suitable habitat exists. In the event that rare species are found within the project area, please contact the NCNHP so that we may update our records.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is found within the project area or is indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

The NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or Federallylisted species are documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at <u>rodney.butler@ncdcr.gov</u> or 919-707-8603.

Sincerely, NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area Smith Ave September 16, 2021 NCNHDE-15753

Element Occurrences Documented Within a One-mile Radius of the Pr	oject Area
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Taxonomic	EO ID	Scientific Name	Common Name	Last	Element	Accuracy	Federal	State	Global	State
Group				Observation	Occurrence		Status	Status	Rank	Rank
				Date	Rank					
Amphibian	35944	Anaxyrus quercicus	Oak Toad	1973-05-12	Н	4-Low		Significantly Rare	G5	S2
Dragonfly or Damselfly	33738	Somatochlora georgiana	Coppery Emerald	2004-Pre	H?	5-Very Low		Significantly Rare	G3G4	S1?
Reptile	7407	Alligator mississippiensis	American Alligator	2017-09-20	E	3-Medium	Threatened Similar Appearance	Threatened	G5	S3
Reptile	35675	Deirochelys reticularia reticularia	Eastern Chicken Turtle	1981-08-24	Н	3-Medium		Special Concern	G5T5	S2S3
Reptile	18818	Pituophis melanoleucus melanoleucus	Northern Pinesnake	1974	Н	4-Low		Threatened	G4T4	S2
Vascular Plant	19503	Crocanthemum carolinianum	Carolina Sunrose	1965-04-17	Н	4-Low		Endangered	G4	S1

No Natural Areas are Documented Within a One-mile Radius of the Project Area

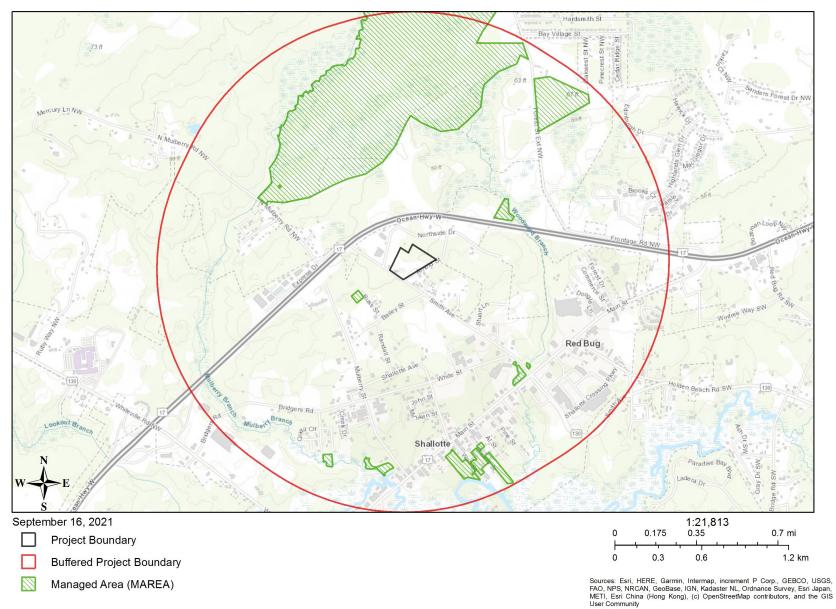
Managed Areas Documented Within a One-mile Radius of the Project Area

0	5	
Managed Area Name	Owner	Owner Type
NC Department of Transportation Mitigation Site	NC Department of Transportation	State
Town of Shallotte Open Space	Town of Shallotte	Local Government
Town of Shallotte Open Space	Town of Shallotte	Local Government
Brunswick County Open Space	Brunswick County	Local Government
Town of Shallotte Open Space	Town of Shallotte	Local Government
Brunswick County Open Space	Brunswick County	Local Government
Brunswick County Open Space	Brunswick County	Local Government
Brunswick County Open Space	Brunswick County	Local Government

Definitions and an explanation of status designations and codes can be found at https://ncnhde.natureserve.org/help. Data query generated on September 16, 2021; source: NCNHP, Q2 July 2021. Please

resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.

NCNHDE-15753: Smith Ave





North Carolina Department of Public Safety

Office of Recovery and Resiliency

Roy Cooper, Governor Eddie M. Buffaloe, Jr., Secretary Laura H. Hogshead, Director

October 19, 2022

Mr. John Ellis U.S. Fish and Wildlife Service Raleigh ES Field Office P.O. Box 33726 Raleigh, NC 27636-3726

Sent Via Email: <u>Raleigh@fws.gov</u> <u>Leigh Mann@fws.gov</u>

RE: Section 7 Project Review - No Effect Determination NCORR - HUD CDBG-DR Program Proposed Garnet Place Apartments 271 Smith Avenue Shallotte, NC 28470 (Brunswick County Parcel ID: 18200008 and 1820000801)

Dear Mr. Ellis:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed affordable housing project, Garnet Place Apartments located at 271 Smith Avenue, Shallotte, NC 28470 (Brunswick County Parcel ID: 18200008 and 1820000801). The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low- and moderate-income families. Therefore, funding for the proposed project will be provided in part by the HUD CDBG-DR North Carolina Affordable Housing Development Fund Program for Hurricane Florence storm recovery activities in North Carolina.

Mailing Address: Post Office Box 110465 Durham, NC 27709



Phone: (984) 833-5350 www.ncdps.gov www.rebuild.nc.gov

An Equal Opportunity Employer

The purpose of this letter is to provide the U.S. Fish and Wildlife Service – Raleigh ES Field Office (USFWS) notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as well as the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703–712) and the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668c, 54 Stat. 250), as amended.

We have reviewed the proposed project using the USFWS Raleigh Ecological Services' online 10step project review process and made "no effect" determinations for proposed/listed species and/or proposed/designated critical habitat, except for the Northern Long-eared Bat (NLEB), and a "no Eagle Act permit required" determination for eagles. Please find attached the Self-certification Letter and 10-step Project Review Package prepared by NV5 for the proposed project in accordance with all instructions provided, using the best available information to reach our conclusions. The proposed project is consistent with activities analyzed in the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions (PBO). The proposed project "may affect" the NLEB; however, any incidental take that may occur as a result of the proposed action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). NCORR contacted the NC Natural Heritage Program (NCNHP) to review the project area for NLEB. NCNHP responded that "[t]here are no documented Northern Long-eared Bat maternity roost trees within 150 feet of this project boundary" and "no Northern Long-eared Bat hibernacula within 0.25 mile of this project boundary." Thus, NCORR has determined that the proposed action may affect NLEB and, in accordance with the January 5, 2016 PBO, that no activities associated with the proposed project will: (1) disturb hibernating NLEBs in a known hibernaculum; (2) alter the entrance or interior environment of a known hibernaculum; (3) remove any trees within 0.25 miles of a known hibernaculum at any time of year; or (4) cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree, during the pup season (June 1 through July 31). Please find attached the Self-certification Letter, 10-step Project Review Package, and signed NLEB 4(d) Rule Streamlined Consultation Form for the proposed project in accordance with all instructions provided, using the best available information to reach our conclusions.

Proposed Project Location:

The proposed project site is comprised of two contiguous parcels, (Tract 1 - 18200008; and Tract 2 -1820000801) that encompass approximately 9.88 acres (see attached Brunswick County GIS Map). The parcels have been zoned commercial and Multi-Family, medium density. The proposed project site is not located within a special flood hazard zone.

Historical aerial photos show two residential structures being built, prior to 1956, on the southern portion of the property. By 2019, both structures were demolished, and the rubble removed from the property. The site is relatively flat and sparsely wooded and is typically vegetated with grasses and pine trees. The project will be located on property with street frontage on Arnold Street and Smith Avenue, with Quality Welding to the southeast of the site, wooded and residential areas to the south and north, and B&B Crane Service Shallotte to the west.

Proposed Project Activities:

Garnet Place will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, Brunswick County, North Carolina. The project is applying for Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). The unit mix will include 12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units. Construction will include 5 three-story apartment buildings, a community center, children's play areas, picnic areas, and parking areas. The Town of Shallotte has sewer and water lines in place along Arnold Street to the southeast, and only short connections to the site will be necessary. The buildings and parking lot will be nestled into the existing property fabric, by preserving as much vegetation as possible, provide buffers to adjacent properties, and employing low impact design techniques for stormwater management.

Approximately 5.2 acres of the project site will be disturbed. Due to the proposed land disturbance exceeding 1 acre, a NC Division of Energy, Minerals and Land Resources NPDES NCG010000 permit is required and will ensure best management practices, such as installing silt fence, temporary sediment basins/traps and construction entrance, are installed prior undertaking land disturbance activities. The measures will be inspected at least every seven days and/or after a rain event that produces more than one inch of rain within a twenty-four-hour period. Non-potable water will be used to contain dust, during the construction process.

NCORR is submitting the above information as notification of its determination and requests *acknowledgement* that they have received this determination for species under USFWS jurisdiction and *determination* whether the proposed action may affect, but is not likely to adversely affect the NLEB.

If you have any questions or require additional information regarding this request, please feel free to contact Andrea Gievers at (845) 682-1700 or via email at <u>Andrea.L.Gievers@Rebuild.NC.gov</u>. Thank you for your time and assistance.

Sincerely,

Andrea Simera

Andrea Gievers, JD, MSEL, ERM NCORR Environmental Subject Matter Expert

Attachments:

- Self-certification Letter
- 10-step Project Review Package including NLEB 4(d) Rule Streamlined Consultation Form and NC NHP Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE Raleigh Ecological Services Field Office Post Office Box 33726 Raleigh, NC 27636-3726 Phone: (919) 856-4520 Fax: (919) 856-4556



In Reply Refer To: Project Code: 2022-0019447 Project Name: Garnet Place October 10, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). If your project area contains suitable habitat for any of the federally-listed species on this species list, the proposed action has the potential to adversely affect those species. If suitable habitat is present, surveys should be conducted to determine the species' presence or absence within the project area. The use of this species list and/or North Carolina Natural Heritage program data should not be substituted for actual field surveys.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/ executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Raleigh Ecological Services Field Office

Post Office Box 33726 Raleigh, NC 27636-3726 (919) 856-4520

Project Summary

)
Project Code:	2022-0019447
Project Name:	Garnet Place
Project Type:	Residential Construction
Project Description:	Garnet Place is a new community that will create 72 apartment homes
	serving families located in Shallotte, North Carolina. The proposed site is
	conveniently located off Smith Ave - a 5.2 acre portion to be subdivided
	from parcel ID 18200008 - which serves as a main corridor into Shallotte
	with easy access to Shopping, dining, jobs, and many more amenities.
	This development will create much needed high quality new housing
	servicing families earning between 30% and 80% of area median income.
	The unit mix will be (12) one bedroom, (42) two bedroom and (18) 3
	bedroom residential units. Garnet Place proposes six three-story
	residential buildings which include 12 units each, a Community Center
	playgrounds, a gazebo, and a picnic area. The Community Center includes
	a leasing office, computer center, community room/multi-purpose room
	and laundry facility. Garnet Place will include the expertise of on-site
	property management and maintenance staff. Design features include
	energy efficient design with high quality indoor air environments. Energy
	Star-rated appliances and fixtures will be installed throughout the
	property.

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@33.98664335,-78.38471009556407,14z</u>



Counties: Brunswick County, North Carolina

Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Threatened
Birds	
NAME	STATUS
 Piping Plover Charadrius melodus Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6039</u> 	Threatened
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>	Threatened
Red-cockaded Woodpecker <i>Picoides borealis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/7614</u>	Endangered
Wood Stork <i>Mycteria americana</i> Population: AL, FL, GA, MS, NC, SC No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/8477</u>	Threatened

Reptiles

NAME	STATUS
American Alligator Alligator mississippiensis No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/776</u>	Similarity of Appearance (Threatened)
Green Sea Turtle <i>Chelonia mydas</i> Population: North Atlantic DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6199</u>	Threatened
Kemp's Ridley Sea Turtle <i>Lepidochelys kempii</i> There is proposed critical habitat for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/5523</u>	Endangered
Leatherback Sea Turtle <i>Dermochelys coriacea</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/1493</u>	Endangered
Loggerhead Sea Turtle <i>Caretta caretta</i> Population: Northwest Atlantic Ocean DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/1110</u>	Threatened

Snails

NAME	STATUS
Magnificent Ramshorn <i>Planorbella magnifica</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <u>https://ecos.fws.gov/ecp/species/6216</u>	Proposed Endangered

Insects

NAME

STATUS

Monarch Butterfly Danaus plexippus

No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u> Candidate

Flowering Plants

NAME	STATUS
Cooley's Meadowrue <i>Thalictrum cooleyi</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/3281</u>	Endangered
Rough-leaved Loosestrife Lysimachia asperulaefolia No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/2747</u>	Endangered
Seabeach Amaranth Amaranthus pumilus No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/8549</u>	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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 <u>below</u>.

- 1. The Migratory Birds Treaty Act of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.
- 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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
American Kestrel Falco sparverius paulus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <u>https://ecos.fws.gov/ecp/species/9587</u>	Breeds Apr 1 to Aug 31
Bald Eagle <i>Haliaeetus leucocephalus</i> 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

NAME	BREEDING SEASON
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/5234</u>	Breeds May 20 to Sep 15
Brown-headed Nuthatch <i>Sitta pusilla</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 1 to Jul 15
Chimney Swift <i>Chaetura pelagica</i> 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
King Rail <i>Rallus elegans</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Painted Bunting Passerina ciris This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 25 to Aug 15
Prairie Warbler <i>Dendroica discolor</i> 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 <i>Protonotaria citrea</i> 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 <i>Melanerpes erythrocephalus</i> 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 <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Swallow-tailed Kite <i>Elanoides forficatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/8938</u>	Breeds Mar 10 to Jun 30
Willet <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

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.

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.

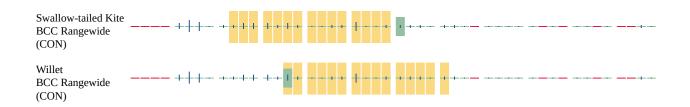
No Data (-)

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.

				prol	oability o	f presen	ce b	reeding s	season	survey	effort	— no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
American Kestrel BCC - BCR		- +++-	- + + + +		• • • •	1 · ·					·	+
Bald Eagle Non-BCC Vulnerable		-++ <mark>1</mark> -	· · · + · +	++++		+ • •		++			• • •	- 1
Black Skimmer BCC Rangewide (CON)		- +++-	+- +- +	. + + + +	+ +	+ • •						+
Brown-headed Nuthatch BCC - BCR		++1-		++-1-+		1		+ -+				· ·
Chimney Swift BCC Rangewide (CON)		- +++-	+ -+ -+	+++		+ • •						+
Eastern Whip-poor- will BCC Rangewide (CON)		- + + + -		. + + + +		1						+
King Rail BCC Rangewide (CON)		- +++-	+-+-+	++-1+		+ • •						1
Painted Bunting BCC - BCR		- +	++	++++	••••	1 · ·			_			1
Prairie Warbler BCC Rangewide (CON)		- +++-	+++	• + • + •		1		++				+
Prothonotary Warbler BCC Rangewide (CON)		- + + + -						++				+
Red-headed Woodpecker BCC Rangewide (CON)		• + + -	+-+	· + + <mark> </mark> +	1 -1	1						+
Rusty Blackbird BCC - BCR		- +++-		. + + + +	+ -+	- +						- + .
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



Additional information can be found using the following links:

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

Migratory Birds FAQ

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

<u>Nationwide Conservation Measures</u> 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. <u>Additional measures</u> or <u>permits</u> 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 <u>Birds of Conservation Concern</u> (<u>BCC</u>) 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 <u>Avian</u> <u>Knowledge Network (AKN)</u>. The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> 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 (<u>Eagle Act</u> 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 <u>Rapid Avian Information</u> <u>Locator (RAIL) Tool</u>.

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 <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u>.

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 <u>RAIL Tool</u> 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 <u>Birds of Conservation Concern</u> (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 <u>Eagle Act</u> 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 <u>Northeast Ocean Data Portal</u>. 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 <u>NOAA NCCOS Integrative Statistical</u> <u>Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic</u> <u>Outer Continental Shelf</u> 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 <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> 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.

IPaC User Contact Information

Agency:NV5Name:William StrayhornAddress:4905 Professional CourtCity:RaleighState:NCZip:27609Emailwill.strayhorn@nv5.comPhone:9196187792

Lead Agency Contact Information

Lead Agency: Department of Housing and Urban Development

Name: Will Strayhorn

Email: will.strayhorn@nv5.com



Roy Cooper, Governor

D. Reid Wilson, Secretary

Misty Buchanan Deputy Director, Natural Heritage Program

NCNHDE-19695

October 19, 2022

Andrea Gievers NCORR P.O. Box 110465 Durham, NC 27709 RE: Garnet Place Apartments

Dear Andrea Gievers:

The North Carolina Natural Heritage Program (NCNHP) appreciates the opportunity to provide information about natural heritage resources for the project referenced above.

Based on the project area mapped with your request, a query of the NCNHP database indicates that there are no records for rare species, important natural communities, natural areas, and/or conservation/managed areas within the proposed project boundary. Please note that although there may be no documentation of natural heritage elements within the project boundary, it does not imply or confirm their absence; the area may not have been surveyed. The results of this query should not be substituted for field surveys where suitable habitat exists. In the event that rare species are found within the project area, please contact the NCNHP so that we may update our records.

The attached 'Potential Occurrences' table summarizes rare species and natural communities that have been documented within a one-mile radius of the property boundary. The proximity of these records suggests that these natural heritage elements may potentially be present in the project area if suitable habitat exists. Tables of natural areas and conservation/managed areas within a one-mile radius of the project area, if any, are also included in this report.

If a Federally-listed species is found within the project area or is indicated within a one-mile radius of the project area, the NCNHP recommends contacting the US Fish and Wildlife Service (USFWS) for guidance. Contact information for USFWS offices in North Carolina is found here: https://www.fws.gov/offices/Directory/ListOffices.cfm?statecode=37.

Please note that natural heritage element data are maintained for the purposes of conservation planning, project review, and scientific research, and are not intended for use as the primary criteria for regulatory decisions. Information provided by the NCNHP database may not be published without prior written notification to the NCNHP, and the NCNHP must be credited as an information source in these publications. Maps of NCNHP data may not be redistributed without permission.

The NC Natural Heritage Program may follow this letter with additional correspondence if a Dedicated Nature Preserve, Registered Heritage Area, Land and Water Fund easement, or Federallylisted species are documented near the project area.

If you have questions regarding the information provided in this letter or need additional assistance, please contact Rodney A. Butler at <u>rodney.butler@ncdcr.gov</u> or 919-707-8603.

Sincerely, NC Natural Heritage Program

Natural Heritage Element Occurrences, Natural Areas, and Managed Areas Within a One-mile Radius of the Project Area Garnet Place Apartments October 19, 2022 NCNHDE-19695

Element Occur	rences D	ocumented Within a Or	e-mile Radius of the Pro	ject Area						
Taxonomic Group	EO ID	Scientific Name	Common Name	Last Observation Date	Element Occurrence Rank	Accuracy	Federal Status	State Status	Global Rank	State Rank
Amphibian	35944	Anaxyrus quercicus	Oak Toad	1973-05-12	Н	4-Low		Significantly Rare	G5	S2
Dragonfly or Damselfly	33738	Somatochlora georgiana	Coppery Emerald	2004-Pre	H?	5-Very Low		Significantly Rare	G3G4	S1?
Reptile	7407	Alligator mississippiensis	American Alligator	2017-09-20	E	3-Medium	Threatened Similar Appearance	Threatened	G5	S3
Reptile	35675	Deirochelys reticularia reticularia	Eastern Chicken Turtle	1981-08-24	Н	3-Medium		Special Concern	G5T5	S2S3
Reptile	18818	Pituophis melanoleucus melanoleucus	Northern Pinesnake	1974	Н	4-Low		Threatened	G4T4	S2
Vascular Plant	19503	Crocanthemum carolinianum	Carolina Sunrose	1965-04-17	Н	4-Low		Endangered	G4	S1

Element Occurrences Documented Within a One-mile Radius of the Project Area

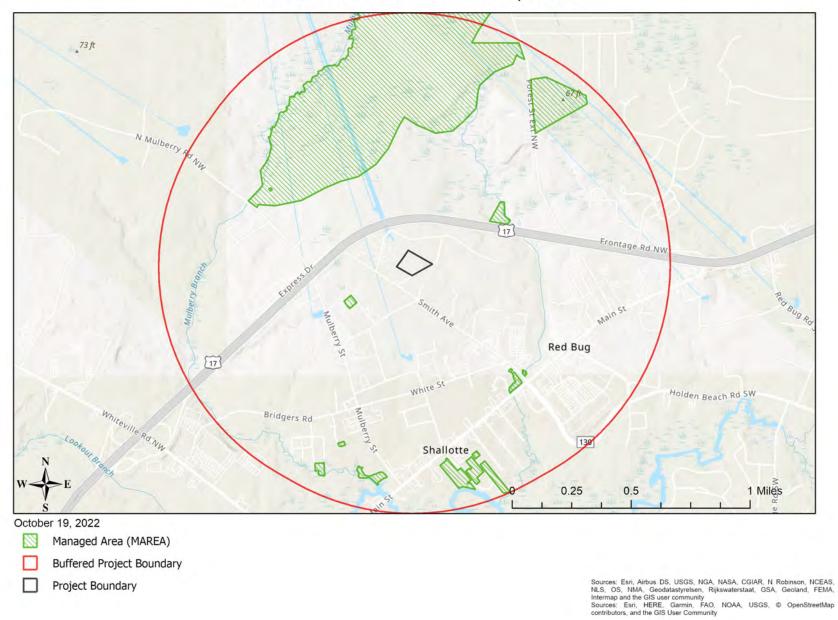
No Natural Areas are Documented Within a One-mile Radius of the Project Area

Managed Areas Documented Within a One-mile Radius of the Project Area

Managed Area Name	Owner	Owner Type
Brunswick County Open Space	Brunswick County	Local Government
Brunswick County Open Space	Brunswick County	Local Government
Brunswick County Open Space	Brunswick County	Local Government
Brunswick County Open Space	Brunswick County	Local Government
NC Department of Transportation Mitigation Site	NC Department of Transportation	State
Town of Shallotte Open Space	Town of Shallotte	Local Government
Town of Shallotte Open Space	Town of Shallotte	Local Government
Town of Shallotte Open Space	Town of Shallotte	Local Government
NC Hazard Mitigation Buyout Property - Brunswick County	NC DPS, Division of Emergency Management	State

Managed Areas Documented Within a One-mile Radius of the Project Area				
Managed Area Name	Owner	Owner Type		
NC Hazard Mitigation Buyout Property - Brunswick	NC DPS, Division of Emergency	State		
County	Management			

Definitions and an explanation of status designations and codes can be found at <u>https://ncnhde.natureserve.org/help</u>. Data query generated on October 19, 2022; source: NCNHP, Q2, July 2022. Please resubmit your information request if more than one year elapses before project initiation as new information is continually added to the NCNHP database.



NCNHDE-19695: Garnet Place Apartments

Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern longeared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

Information to Determine 4(d) Rule Compliance:	YES	NO
1. Does the project occur wholly outside of the WNS Zone ¹ ?		\boxtimes
2. Have you contacted the appropriate agency ² to determine if your project is near known hibernacula or maternity roost trees?	\boxtimes	
3. Could the project disturb hibernating NLEBs in a known hibernaculum?		\boxtimes
4. Could the project alter the entrance or interior environment of a known hibernaculum?		\boxtimes
5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year?		\boxtimes
6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31.		

You are eligible to use this form if you have answered yes to question #1 <u>or</u> yes to question #2 <u>and</u> no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Agency and Applicant³: HUD through NCORR, Andrea Gievers, <u>Andrea.L.Gievers@Rebuild.NC.gov</u>, (845) 682-1700

Project Name: Garnet Place Apartments

Project Location (include coordinates if known): 271 Smith Avenue, Shallotte, NC 28470 (Brunswick County Parcel ID: 18200008 and 1820000801).

Basic Project Description: Garnet Place will consist of the new construction of multifamily affordable housing in 72 units in 5 three-story apartment buildings, along with a community center, children's play areas, picnic areas, and parking areas. The Town of Shallotte has sewer and water lines in place along Arnold Street to the southeast, and only short connections to the site will be necessary. The buildings and parking lot will be nestled into the existing property fabric, by preserving as much vegetation as possible, provide buffers to adjacent properties, and employing low impact design techniques for stormwater management.

¹ http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf

² See http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html

³ If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

General Project Information	YES	NO
Does the project occur within 0.25 miles of a known hibernaculum?		\boxtimes
Does the project occur within 150 feet of a known maternity roost tree?		\boxtimes
Does the project include forest conversion ⁴ ? (if yes, report acreage below)	\boxtimes	
Estimated total acres of forest conversion	5.	2
If known, estimated acres ⁵ of forest conversion from April 1 to October 31	unkr	lown
If known, estimated acres of forest conversion from June 1 to July 31 ⁶	unkr	lown
Does the project include timber harvest? (if yes, report acreage below)		\boxtimes
Estimated total acres of timber harvest		
If known, estimated acres of timber harvest from April 1 to October 31		
If known, estimated acres of timber harvest from June 1 to July 31		
Does the project include prescribed fire? (if yes, report acreage below)		\boxtimes
Estimated total acres of prescribed fire		
If known, estimated acres of prescribed fire from April 1 to October 31		
If known, estimated acres of prescribed fire from June 1 to July 31		
Does the project install new wind turbines? (if yes, report capacity in MW below)		\boxtimes
Estimated wind capacity (MW)		

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

	1.0	
Signature:	andrea Simers	

Date Submitted: _____10/19/22_____

⁴ Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

⁵ If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

⁶ If the activity includes tree clearing in June and July, also include those acreage in April to October.

Gievers, Andrea

From: Sent: To: Cc: Subject: Ratcliffe, Judith Wednesday, October 19, 2022 1:17 PM Gievers, Andrea Butler, Rodney A RE: NCORR NLEB Review - Garnet Place Apartments

Hello Andrea,

Thank you for the opportunity to review Garnet Place Apartments, 271 Smith Avenue, Shallotte, NC 28470. There are no documented Northern Long-eared Bat maternity roost trees within 150 feet of this project boundary. There are no documented Northern Long-eared Bat hibernacula within 0.25 mile of this project boundary. Sincerely, Judith Ratcliffe

JUDITH RATCLIFFE Zoologist, NC Natural Heritage Program

121 W Jones St MSC 1651 Raleigh, NC 27699 919 707 9395 *office* **NEW PHONE NUMBER**



Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.

Facebook Twitter Instagram YouTube

From: Gievers, Andrea <andrea.l.gievers@rebuild.nc.gov>
Sent: Wednesday, October 19, 2022 1:00 PM
To: Ratcliffe, Judith <judith.ratcliffe@ncdcr.gov>
Cc: Butler, Rodney A <Rodney.Butler@ncdcr.gov>
Subject: NCORR NLEB Review - Garnet Place Apartments

Hello Judy:

The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed affordable housing project, **Garnet Place Apartments, 271 Smith Avenue, Shallotte, NC 28470** (Brunswick County Parcel ID: 18200008 and 1820000801). I have attached the proposed project aerial map, site plan, and shapefiles from the consultant to assist in your NLEB 4(d) Rule review. Please feel free to contact me if you have any questions or need anything at all. Thank you so much for your time and assistance!

Sincerely,

Andrea

Andrea Gievers, JD, MSEL, ERM Environmental SME Community Development NC Office of Recovery and Resiliency <u>Andrea.L.Gievers@Rebuild.NC.Gov</u> (845) 682-1700

Email correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties by an authorized state official.

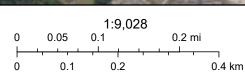
Garnet Place - Aerial Map



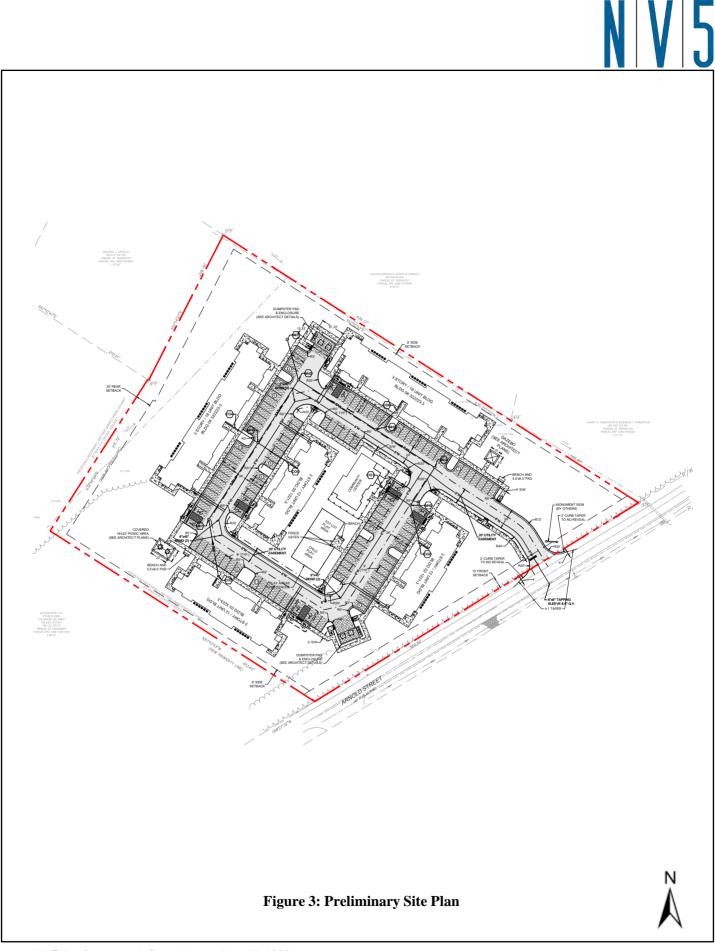
October 12, 2022



garnet place (1)



 \circledcirc 2022 Microsoft Corporation \circledcirc 2022 Maxar $\circledcirc CNES$ (2022) Distribution Airbus DS \circledcirc 2022 TomTom





United States Department of the Interior

FISH AND WILDLIFE SERVICE



Raleigh Field Office P.O. Box 33726 Raleigh, NC 27636-3726

Date:_____

Self-Certification Letter

Project Name

Dear Applicant:

Thank you for using the U.S. Fish and Wildlife Service (Service) Raleigh Ecological Services online project review process. By printing this letter in conjunction with your project review package, you are certifying that you have completed the online project review process for the project named above in accordance with all instructions provided, using the best available information to reach your conclusions. This letter, and the enclosed project review package, completes the review of your project in accordance with the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884), as amended (ESA), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 54 Stat. 250), as amended (Eagle Act). This letter also provides information for your project review under the National Environmental Policy Act of 1969 (P.L. 91-190, 42 U.S.C. 4321-4347, 83 Stat. 852), as amended. A copy of this letter and the project review package must be submitted to this office for this certification to be valid. This letter and the project review package will be maintained in our records.

The species conclusions table in the enclosed project review package summarizes your ESA and Eagle Act conclusions. Based on your analysis, mark all the determinations that apply:

"no effect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or

"may affect, not likely to adversely affect" determinations for proposed/listed species and/or proposed/designated critical habitat; and/or

"may affect, likely to adversely affect" determination for the Northern longeared bat (Myotis septentrionalis) and relying on the findings of the January 5, 2016, Programmatic Biological Opinion for the Final 4(d) Rule on the Northern long-eared bat;

"no Eagle Act permit required" determinations for eagles.

We certify that use of the online project review process in strict accordance with the instructions provided as documented in the enclosed project review package results in reaching the appropriate determinations. Therefore, we concur with the "no effect" or "not likely to adversely affect" determinations for proposed and listed species and proposed and designated critical habitat: the "may affect" determination for Northern long-eared bat; and/or the "no Eagle Act permit required" determinations for eagles. Additional coordination with this office is not needed. Candidate species are not legally protected pursuant to the ESA. However, the Service encourages consideration of these species by avoiding adverse impacts to them. Please contact this office for additional coordination if your project action area contains candidate species. Should project plans change or if additional information on the distribution of proposed or listed species, proposed or designated critical habitat, or bald eagles becomes available, this determination may be reconsidered. This certification letter is valid for 1 year. Information about the online project review process including instructions, species information, and other information regarding project reviews within North Carolina is available at our website http://www.fws.gov. If you have any questions, you can write to us at Raleigh@fws.gov or please contact Leigh Mann of this office at 919-856-4520, ext. 10.

Sincerely,

/s/Pete Benjamin

Pete Benjamin Field Supervisor Raleigh Ecological Services

Enclosures - project review package

<u>N | V | 5</u>



Photograph 1: Subject site, as viewed from the northeast along Arnold Street.

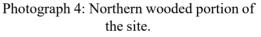


Photograph 2: Typical view of the subject site.



Photograph 3: Southern portion of the subject site.







Photograph 5: Sump pump cover, located in southern portion of the site.



Photograph 6: Interior of sump pump.

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<u>N | V | 5</u>



Photograph 7: Standing water in the creek along the northern portion of the site.



Photograph 8: Foundation remnants in the southwestern portion of the site.



Photograph 9: Welding and marine supply store to the east of the site.



Photograph 10: Typical residential homes in the vicinity of the site.



Photograph 11: Crane storage yard, as viewed from the site.

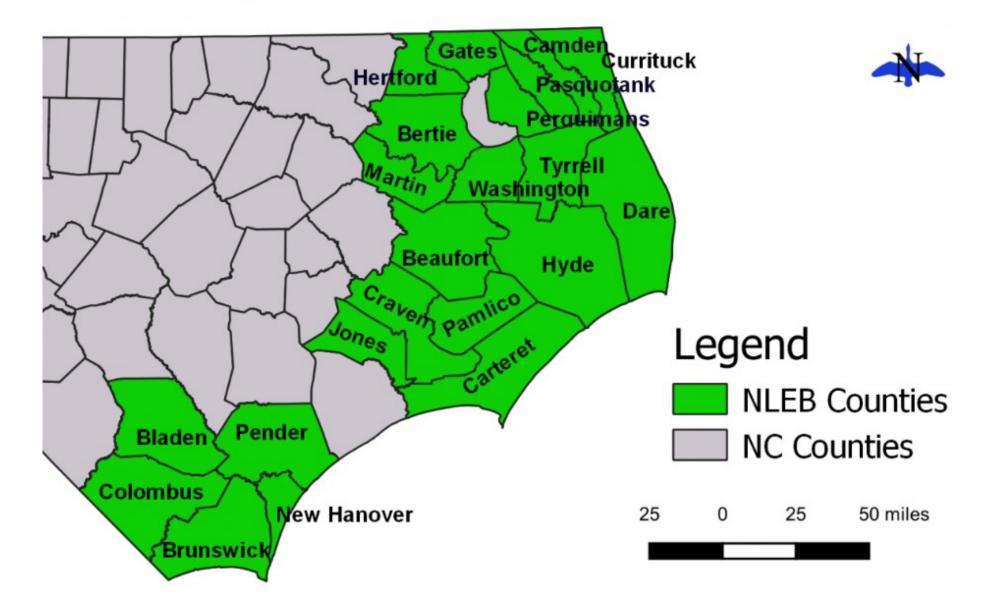


Photograph 12: Crane storage yard, as viewed from Northside Drive.

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Northern Long-eared bat distribution in North Carolina



ATTACHMENT 9:

Explosive and Flammable Hazards

Signed HUD Thermal and Explosive Hazards Worksheet, Aerial Map to Tank 1, Tank 1 ASD Calculation, Aerial Map with 1-mile Buffer and Tanks 2 Shown, Tank 2 ASD Calculation, Fire Marshal Correspondence on Planned ASTs, AST Data, and Other Supporting Documentation



Thermal and Explosive Hazards

Project N	ame		Investigator(s	5)	1.15	Site Vis	sit Date
Gasuet	Place	Apertments	Will Strey	horn		9/16/21	10/22/22
		(,	121				
	Part	I – Above Gr	ound Storag	ge Tanks – Si	te Re	eview	
Are any abo		storage tanks vi					
	Yes	X	No				
		,					
If ye	es, are thes	e tanks 100-galle	ons or larger?				
		Yes		No			
	18 A.	- 62 S.	List visible ta	anks	201 0	1. 194	
Taul	Tank	T 1			AS	D^1 (ft)	ASD (ft)
Tank Identifier	Distance	Tank	Flammable?	Pressurized?		ermal	Blast
Identifier	(ft)	Size/Contents	(Yes or No)	(Yes or No)	Rac	liation	Pressure
1							
ASD = Acceptab	le Separation D	istance as defined in "Si	ting of HUD-Assisted	Projects Near Hazardou	is Faciliti	es"	
	Yes	in the ASD of ar	No			from the	site?
		Mitigation (9	ttach addition	al documentat	ion		
		minigation (a	ittacii auuitioi	iai uocumentat	1011		
Has consult	ation with e of existin	the Local Planni g or planned the ?	ng, Building, I	Public Safety or	Fire I	Departme	nt indicated
If ye	s, list the p	proposed mitigat	ion strategies c	or reject the site?	?		
		Mitigation (a	ttach addition	al documentat	ion		
	6						34



Part III - Above Ground Storage Tanks - Record Review

Are above ground storage tanks, which are visible on aerial photographs and USGS topographic maps, located within 1-mile of the site (Attach copies of documents reviewed)? X Yes No

If yes, are these tanks 100-gallons or larger? X Yes

No

			List visible t	anks		
Tank Identifier	Tank Distance (ft)	Tank Size/Contents	The second	Pressurized? (Yes or No)	ASD ¹ (ft) Thermal Radiation	ASD (ft) Blast Pressure
1 1	580	gos diesel 2000	4	N	369.16	
Za	875	gos doord, you	> 4	N	492.74	
26	875	gos / doerd ; 400		N	492.74	

¹ASD = Acceptable Separation Distance as defined in "Siting of HUD-Assisted Projects Near Hazardous Facilities"

Is the project site within the ASD of any above ground storage tank? No

Yes	\mathbf{X}	
-----	--------------	--

If yes are there acceptable barriers (natural or manmade) between the site and the tank? Yes No

Identify Acceptable Barriers²

²Acceptable barriers must meet the conditions of 24 CFR § 51.205

If no, list the proposed mitigation strategies or reject the site?

Mitigation (attach additional do	cumentation
Additional Comments or Recommendations	

Lead Investigator's Signature

02

Date

N|V|5

Tank 1 - 580 feet from proposed project site



Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > ASD Calculator

Tank 1 - 580 feet from proposed project site

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft² - hr - people and 10,000 BTU/ft² - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD-Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	Yes: 🗹 No: 🗌
Is the container under pressure?	Yes: 🗆 No: 🗹
Does the container hold a cryogenic liquified gas?	Yes: No:
Is the container diked?	Yes: 🗆 No: 🗹
What is the volume (gal) of the container?	2000
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	

ASD for Thermal Radiation for People (ASDPPU)	369.16
ASD for Thermal Radiation for Buildings (ASDBPU)	69.27
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options (/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

Providing Feedback & Corrections

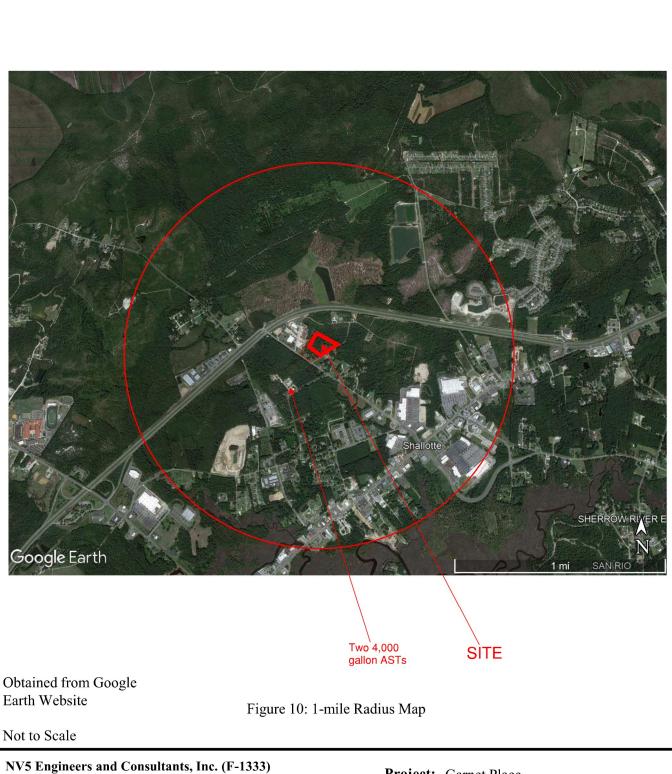
After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us** (https://www.hudexchange.info/contact-us/) form.

Related Information

- ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tooluser-guide/)
- ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)

N|V|5



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Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110 Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > ASD Calculator

Tanks 2 - 875 feet from proposed project site

Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft² - hr - people and 10,000 BTU/ft² - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD-Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Sitting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

Note: Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

Acceptable Separation Distance Assessment Tool

Is the container above ground?	Yes: 🗹 No: 🗆			
Is the container under pressure?	Yes: 🗌 No: 🗹			
Does the container hold a cryogenic liquified gas?	Yes: No:			
Is the container diked?	Yes: 🗆 No: 🗹			
What is the volume (gal) of the container?	8000			
What is the Diked Area Length (ft)?				
What is the Diked Area Width (ft)?				
Calculate Acceptable Separation Distance				
Diked Area (sqft)				
ASD for Blast Over Pressure (ASDBOP)				

ASD for Thermal Radiation for People (ASDPPU)	657.70
ASD for Thermal Radiation for Buildings (ASDBPU)	131.49
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

For mitigation options, please click on the following link: Mitigation Options (/resource/3846/acceptable-separation-distance-asd-hazard-mitigation-options/)

Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using the **Contact Us** (https://www.hudexchange.info/contact-us/) form.

Related Information

- ASD User Guide (/resource/3839/acceptable-separation-distance-asd-assessment-tooluser-guide/)
- ASD Flow Chart (/resource/3840/acceptable-separation-distance-asd-flowchart/)

Will Strayhorn

From:	Andrew Thompson <andrew.thompson@brunswickcountync.gov></andrew.thompson@brunswickcountync.gov>
Sent:	Tuesday, January 17, 2023 7:23 PM
То:	Will Strayhorn
Subject:	RE: Aboveground Storage Tank Records

Mr. Strayhorn,

Based on a records search there are no records for any aboveground or below ground fuel tanks on the parcel **1820000801.** The closest aboveground fuel tanks to this site would be located on parcel **1810005402** located at 5007 Northside Drive or on parcel 1810006402 located at 101 Russ St. The closest underground fuel tanks to this will would be located on parcel 18200178 located at 130 Smith Ave.

Please let me know if you have any additional questions.

Andrew

Andrew R Thompson, CFPS, NCCFI, NCFIT, IAAI-FIT Deputy Code Administrator / Fire Marshal **Brunswick County Code Administration Building** I **PO BOX 249** Bolivia, NC 28422 910.253.2021 (Main Line) 910.253.2041 (0) 910.279.2764 (C) https://www.brunswickcountync.gov/fire-marshal/ http://www.brunswickcountync.gov/code-administration/permits/ [Commercial & Residential Application] http://apps.brunsco.net/bcms/dashboard/#/permitSearch [Check An Building permit or Inspection Status] https://codes.iccsafe.org/public/collections/nc [NC State Building Codes Online] https://codes.iccsafe.org/public/document/toc/559/ [NC State Accessibility Code] Any revisions or addendums to a building permit application can be submitted directly to eplans@brunswickcountync.gov please reference either your project number or physical address within the email.

From: Will Strayhorn <Will.Strayhorn@nv5.com>
Sent: Tuesday, January 17, 2023 1:38 PM
To: Andrew Thompson <Andrew.Thompson@brunswickcountync.gov>
Subject: Aboveground Storage Tank Records

CAUTION: This email originated from outside of Brunswick County Government. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Andrew,

I'm performing a Environmental Review for **Garnet Place located at 271 Smith Avenue**, **Shallotte**, **NC 28470 (Brunswick County Parcel #1820000801)**. I'm looking for record of any aboveground storage tanks containing hazardous materials

or petroleum products that would constitute a flammable or explosive hazard. Search radius for the review is 1-mile from the subject property referenced above. Please let me know if you have any questions.



Will Strayhorn, P.G. | Senior Registered GeologistNV5 Engineers and Consultants, Inc.
(fka TerraTech Engineers, Inc.)
P: 919.876.9799 | C: 919.618.7792



U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT WASHINGTON, DC 20410-1000

This Worksheet was designed to be used by those "Partners" (including Public Housing Authorities, consultants, contractors, and nonprofits) who assist Responsible Entities and HUD in preparing environmental reviews, but legally cannot take full responsibilities for these reviews themselves. Responsible Entities and HUD should use the RE/HUD version of the Worksheet.

Explosive and Flammable Hazards (CEST and EA) – PARTNER

https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities

1. Does the proposed HUD-assisted project include a hazardous facility (a facility that mainly stores, handles or processes flammable or combustible chemicals such as bulk fuel storage facilities and refineries)?

🛛 No

 \rightarrow Continue to Question 2.

☐ Yes Explain: Click here to enter text.

 \rightarrow Continue to Question 5.

2. Does this project include any of the following activities: development, construction, rehabilitation that will increase residential densities, or conversion?

 \Box No \rightarrow If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

 \boxtimes Yes \rightarrow Continue to Question 3.

- 3. Within 1 mile of the project site, are there any current *or planned* stationary aboveground storage containers:
 - Of more than 100-gallon capacity, containing common liquid industrial fuels OR
 - Of any capacity, containing hazardous liquids or gases that are not common liquid industrial fuels?
 - \square No \rightarrow If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide all documents used to make your determination.

 \boxtimes Yes \rightarrow Continue to Question 4.

- **4.** Is the Separation Distance from the project acceptable based on standards in the Regulation? Please visit HUD's website for information on calculating Acceptable Separation Distance.
 - \boxtimes Yes
 - → If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the "assessed tank."

🗆 No

 \rightarrow Continue to Question 6.

Provide map(s) showing the location of the project site relative to any tanks and your separation distance calculations. If the map identifies more than one tank, please identify the tank you have chosen as the "assessed tank."

5. Is the hazardous facility located at an acceptable separation distance from residences and any other facility or area where people may congregate or be present?

Please visit HUD's website for information on calculating Acceptable Separation Distance.

🗆 Yes

 \rightarrow If the RE/HUD agrees with this recommendation, the review is in compliance with this section. Continue to the Worksheet Summary below.

Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

🗆 No

 \rightarrow Continue to Question 6.

Provide map(s) showing the location of the project site relative to residences and any other facility or area where people congregate or are present and your separation distance calculations.

6. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to make the Separation Distance acceptable, including the timeline for implementation. If negative effects cannot be mitigated, cancel the project at this location.

Note that only licensed professional engineers should design and implement blast barriers. If a barrier will be used or the project will be modified to compensate for an unacceptable separation distance, provide approval from a licensed professional engineer.

Worksheet Summary ←

Provide a full description of your determination and a synopsis of the information that it was based on, such as: Google Earth aerial map and USGS topographic maps were

Maps Reviewed: See Figure 3 (USGS Topographic Map) and Figure 10 (1-mile Radius Map) in Appendix I. Also reviewed most recent Google Street view photographs for roadways within 1-mile of the subject site. One AST was located at 5007 Northside Drive (Tank ID 1), which is located approximately 580 feet to the west of the site. One AST system with two tanks (Tank ID 2 and 3) was observed at 101 Russ Street. The ASTs were located approximately 875 feet from the subject property. See Acceptable Separation Distance Assessment Documentation

We performed a phone interview with Mr. Andrew Thompson, the Brunswick County Fire Marshal, and we performed a phone interviews with Fire Captain James Yates and Fire Chief Paul Dunwell of the Town of Shallotte Fire Department. We also submitted an email request to Mr. Andrew Thompson. Mr. Thompson indicated that the 3 ASTs referenced above are the closest ASTs to the subject property.

ATTACHMENT 10:

Farmlands Protection

USDA NRCS Correspondence, NEPAssist Urbanized Areas Map and USDA NRCS Soil Survey



United States Department of Agriculture

Natural Resources Conservation Service

North Carolina State Office

4407 Bland Rd. Suite 117 Raleigh, NC 27609 Voice (919) 873-2158 Fax (844) 325-6833 February 22, 2023

Will Strayhorn, P.G. NV5 Engineers and Consultants, Inc. P: 919.876.9799 will.strayhorn@nv5.com

Dear Will Strayhorn,

The following information is in response to your request soliciting comments regarding the Garnet Place Apartments Project in Brunswick 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 "urbanbuilt-up" on the USDA Important Farmland Maps.

The area in question **is not** subject to FPPA regulation, since the project as proposed is in an urban cluster. There is no need to continue the AD-1006 form according to the Code of Federal Regulation 7CFR 658, Farmland Protection Policy Act. The project site in question is exempt from the FPPA regulations.

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: Michael Jones, state soil scientist, NRCS, Raleigh, NC Joshua Davis, supervisory soil conservationist, NRCS, Lumberton, NC

The Natural Resources Conservation Service is an agency of the Department of Agriculture's Farm Production and Conservation (FPAC).

Will Strayhorn

From:	Muzzy, Laura - FPAC-NRCS, RALEIGH, NC <laura.muzzy@usda.gov></laura.muzzy@usda.gov>
Sent:	Wednesday, February 22, 2023 11:19 AM
То:	Will Strayhorn; Wright, Austin - FPAC-NRCS, Bolivia, NC
Cc:	Davis, Joshua - NRCS, Lumberton, NC; Jones, Michael - NRCS, Raleigh, NC
Subject:	RE: Farmland Impact Rating - Garnet Place project, Brunswick County
Attachments:	Brunswick - Garnet Place AD-1006_letter.pdf; FPPA Procedure for Applicants NRCS-
	NC.pdf

Hello, Will,

Thank you for your communication regarding the Garnet Place Apartments project in Shallotte in Brunswick County, NC. After review, we can confirm that this project is adjacent to an urban cluster, and close enough that it can be considered part of the urbanized area; it is therefore not subject to the Farmland Protection Policy Act. Please keep the attached letter and AD-1006 for your records.

I have also attached a guidance document for FPPA applicants in North Carolina, in case it is helpful in the future for you or your colleagues. But also, don't hesitate to contact me with any questions or concerns! Have a lovely day.

best,

Laurie F. Muzzy <u>(she/her)</u> Resource Soil Scientist | USDA-Natural Resources Conservation Service m: (919) 737-3640 o: (919) 873-2158 4407 Bland Road, suite #117 Raleigh, NC 27609

From: Will Strayhorn <Will.Strayhorn@nv5.com>
Sent: Tuesday, February 21, 2023 12:18 PM
To: Wright, Austin - FPAC-NRCS, Bolivia, NC <Austin.Wright@usda.gov>; Muzzy, Laura - FPAC-NRCS, RALEIGH, NC
<Laura.Muzzy@usda.gov>
Subject: [External Email]Farmland Impact Rating

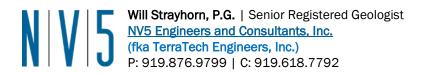
[External Email]

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Austin and Laura,

We are working on finalizing a HUD EA for the attached site in Shallotte, NC. Originally, the site was believed to be mapped in Urban Areas. Further review shows it is adjacent to Urban Areas. Therefore, we have prepared the attached documentation for Farmland Conversion Impact Rating. If at all possible, expedited review would be very helpful. Please let me know if you have any questions.

Thanks,



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F	U.S. Departmer	0		TING			
PART I (To be completed by Federal Agency) Date Of		f Land Evaluation Request					
			Agency Involved	•			
			and State				
			equest Received By Person Completing Form:			·m:	
Does the site contain Prime, Unique, Statew (If no, the FPPA does not apply - do not con	nplete additional parts of this forn	? n)		Acres Irrigated Average Farm S			
Major Crop(s)	Farmable Land In Govt. J Acres:			Amount of Farmland As Defined in FPPA Acres:			
Name of Land Evaluation System Used	Name of State or Local S	ite Assess	sment System	Date Land		eturned by NF	RCS
PART III (To be completed by Federal Age	ncy)			Site A	Alternative Site B	Site Rating	Site D
A. Total Acres To Be Converted Directly				Sile A	Sile D	Sile C	Sile D
B. Total Acres To Be Converted Indirectly							
C. Total Acres In Site							
PART IV (To be completed by NRCS) Land	d Evaluation Information						
A. Total Acres Prime And Unique Farmland							
B. Total Acres Statewide Important or Local	Important Farmland						
C. Percentage Of Farmland in County Or Lo	ocal Govt. Unit To Be Converted						
D. Percentage Of Farmland in Govt. Jurisdie	ction With Same Or Higher Relati	ve Value					
PART V (To be completed by NRCS) Land Relative Value of Farmland To Be Co	onverted (Scale of 0 to 100 Points	s)					
PART VI (To be completed by Federal Age (Criteria are explained in 7 CFR 658.5 b. For		CPA-106)	Maximum Points (15)	Site A	Site B	Site C	Site D
1. Area In Non-urban Use			(10)				
2. Perimeter In Non-urban Use			(20)				
3. Percent Of Site Being Farmed	Covernment		(20)				
4. Protection Provided By State and Local (Jovernment		(15)				
5. Distance From Urban Built-up Area			(15)				
6. Distance To Urban Support Services 7. Size Of Present Farm Unit Compared To	Average		(10)				
8. Creation Of Non-farmable Farmland	Average		(10)				
9. Availability Of Farm Support Services			(5)				
10. On-Farm Investments			(20)				-
11. Effects Of Conversion On Farm Support	Services		(10)				
The Effects of Conversion of Fram Support Services			(10)				
TOTAL SITE ASSESSMENT POINTS 160							-
PART VII (To be completed by Federal A	aencv)						-
Relative Value Of Farmland (From Part V)			100				-
Total Site Assessment (From Part VI above or local site assessment)			160				
			260				
Site Selected:	Date Of Selection			Was A Local Site Assessment Used? YES NO			
Reason For Selection:				1			

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

- Step 1 Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.
- Step 2 Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s) of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)
- Step 3 NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.
- Step 4 For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.
- Step 5 NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.
- Step 6 The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.
- Step 7 The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM (For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

- 1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
- 2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.
- Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).
- 1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.
- 2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

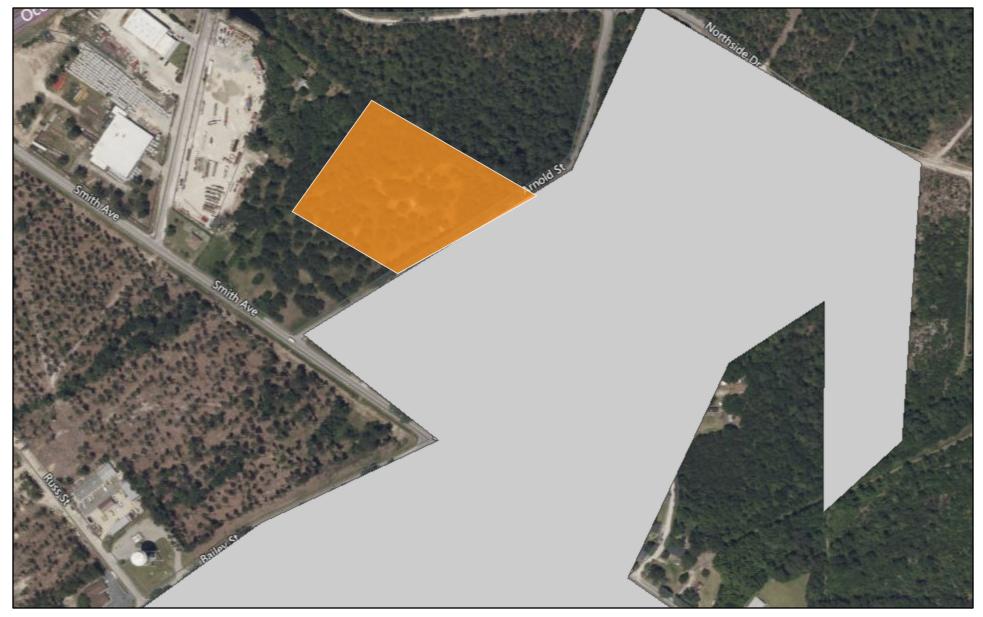
Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

 $\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

Garnet Place - Urbanized Areas



October 20, 2022



garnet place



Urbanized Areas

1:4,514 0 0.03 0.06 0.12 mi ├---└--└--└--└--0 0.05 0.1 0.2 km

 \circledast 2022 Microsoft Corporation \circledast 2022 Maxar $\circledast CNES$ (2022) Distribution Airbus DS \circledast 2022 TomTom, EPA OEI



United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Brunswick County, North Carolina

Garnet Place



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

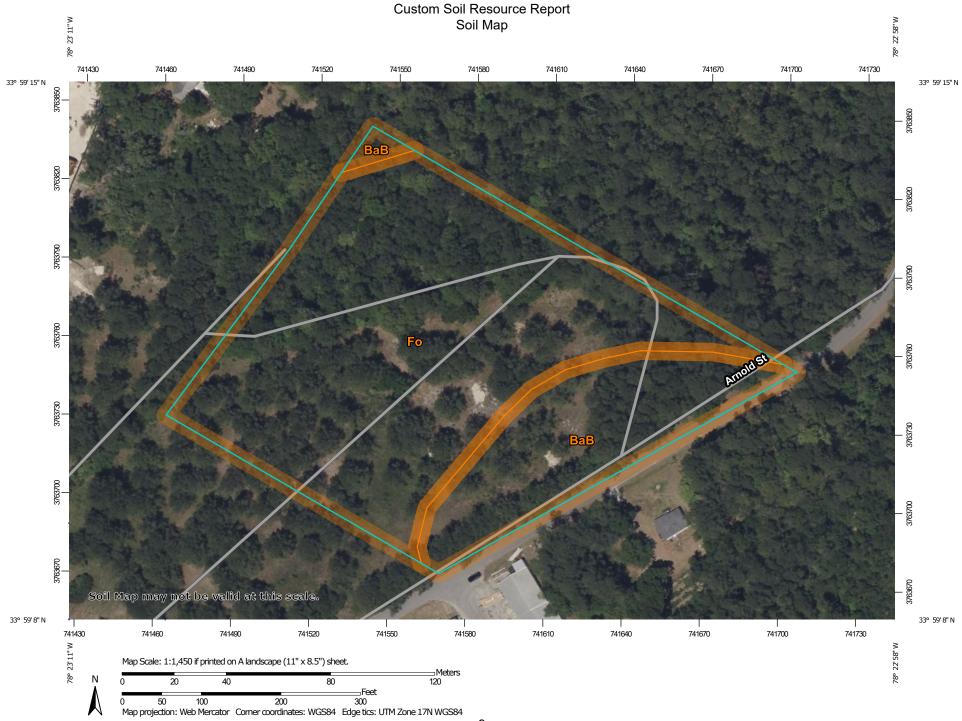
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



	MAP L	EGEND		MAP INFORMATION
	erest (AOI) Area of Interest (AOI)	8	Spoil Area Stony Spot	The soil surveys that comprise your AOI were mapped at 1:24,000.
Soils	Soil Map Unit Polygons Soil Map Unit Lines	¢ V	Very Stony Spot Wet Spot	Warning: Soil Map may not be valid at this scale. Enlargement of maps beyond the scale of mapping can cause
•	Soil Map Unit Points Point Features	∆ Water Fea	Other Special Line Features	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
o X	Blowout Borrow Pit Clay Spot	Transporta	Streams and Canals	scale. Please rely on the bar scale on each map sheet for map
\$ ₩	Closed Depression Gravel Pit		Rails Interstate Highways US Routes	measurements. Source of Map: Natural Resources Conservation Service Web Soil Survey URL:
.: ©	Gravelly Spot Landfill	~	Major Roads Local Roads	Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator
۸ مه	Lava Flow Marsh or swamp Mine or Quarry	Backgrou	nd Aerial Photography	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.
0	Miscellaneous Water Perennial Water			This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.
~ +	Rock Outcrop Saline Spot			Soil Survey Area: Brunswick County, North Carolina Survey Area Data: Version 27, Sep 7, 2022
**	Sandy Spot Severely Eroded Spot			Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
் ந ெ	Sinkhole Slide or Slip Sodic Spot			Date(s) aerial images were photographed: Apr 11, 2022—May 15, 2022
<i>کن</i>				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 Symbol Map Unit Name		Percent of AOI	
ВаВ	Baymeade fine sand, 1 to 6 percent slopes	1.3	25.0%	
Fo	Foreston loamy fine sand	3.9	75.0%	
Totals for Area of Interest		5.2	100.0%	

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Brunswick County, North Carolina

BaB—Baymeade fine sand, 1 to 6 percent slopes

Map Unit Setting

National map unit symbol: 3w6r Elevation: 20 to 160 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Baymeade and similar soils: 90 percent Minor components: 8 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Baymeade

Setting

Landform: Ridges on marine terraces Landform position (two-dimensional): Summit, shoulder Landform position (three-dimensional): Crest Down-slope shape: Convex Across-slope shape: Convex Parent material: Loamy and sandy marine deposits

Typical profile

A - 0 to 2 inches: fine sand E/Bh - 2 to 30 inches: fine sand Bt - 30 to 40 inches: fine sandy loam C - 40 to 80 inches: loamy fine sand

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 48 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3s Hydrologic Soil Group: A Hydric soil rating: No

Minor Components

Lynn haven, undrained

Percent of map unit: 2 percent Landform: Flats on marine terraces *Down-slope shape:* Linear *Across-slope shape:* Linear *Hydric soil rating:* Yes

Murville, undrained

Percent of map unit: 2 percent Landform: Depressions on marine terraces, flats on marine terraces Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Leon

Percent of map unit: 2 percent Landform: Flats on marine terraces Down-slope shape: Linear Across-slope shape: Concave Hydric soil rating: Yes

Torhunta, undrained

Percent of map unit: 2 percent
 Landform: Flats on marine terraces, carolina bays on marine terraces, depressions on stream terraces
 Down-slope shape: Linear
 Across-slope shape: Linear
 Hydric soil rating: Yes

Fo—Foreston loamy fine sand

Map Unit Setting

National map unit symbol: 3w71 Elevation: 20 to 160 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Foreston and similar soils: 80 percent *Minor components:* 5 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Foreston

Setting

Landform: Broad interstream divides on marine terraces, flats on marine terraces Down-slope shape: Linear Across-slope shape: Convex Parent material: Loamy and sandy marine deposits

Typical profile

A - 0 to 6 inches: loamy fine sand

E - 6 to 12 inches: loamy fine sand Bt - 12 to 40 inches: fine sandy loam E' - 40 to 51 inches: sand Btg - 51 to 85 inches: fine sandy loam *C* - 85 to 90 inches: loamy fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w Hydrologic Soil Group: B Hydric soil rating: No

Minor Components

Woodington, undrained

Percent of map unit: 5 percent Landform: Flats on marine terraces, depressions on marine terraces, broad interstream divides on marine terraces Down-slope shape: Linear Across-slope shape: Concave Hydric soil rating: Yes

References

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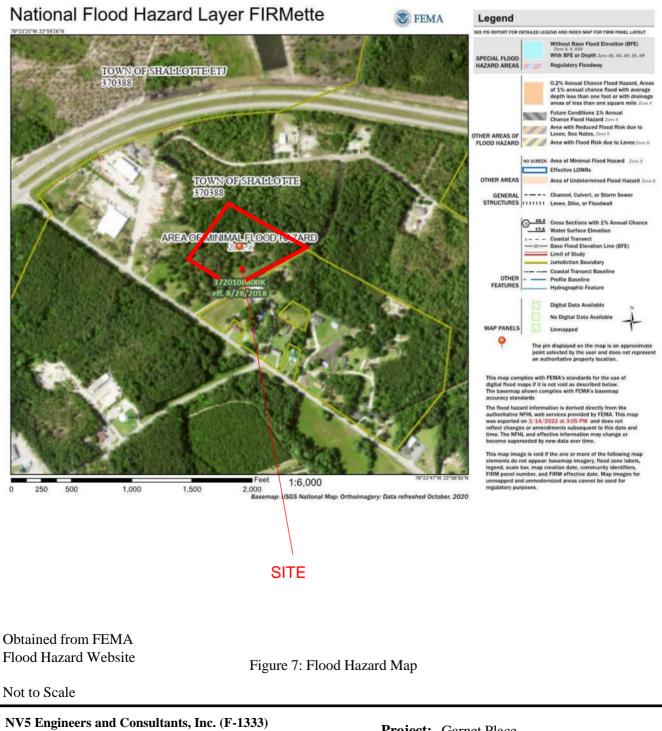
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ATTACHMENT 11:

Floodplain Management

N | V | 5



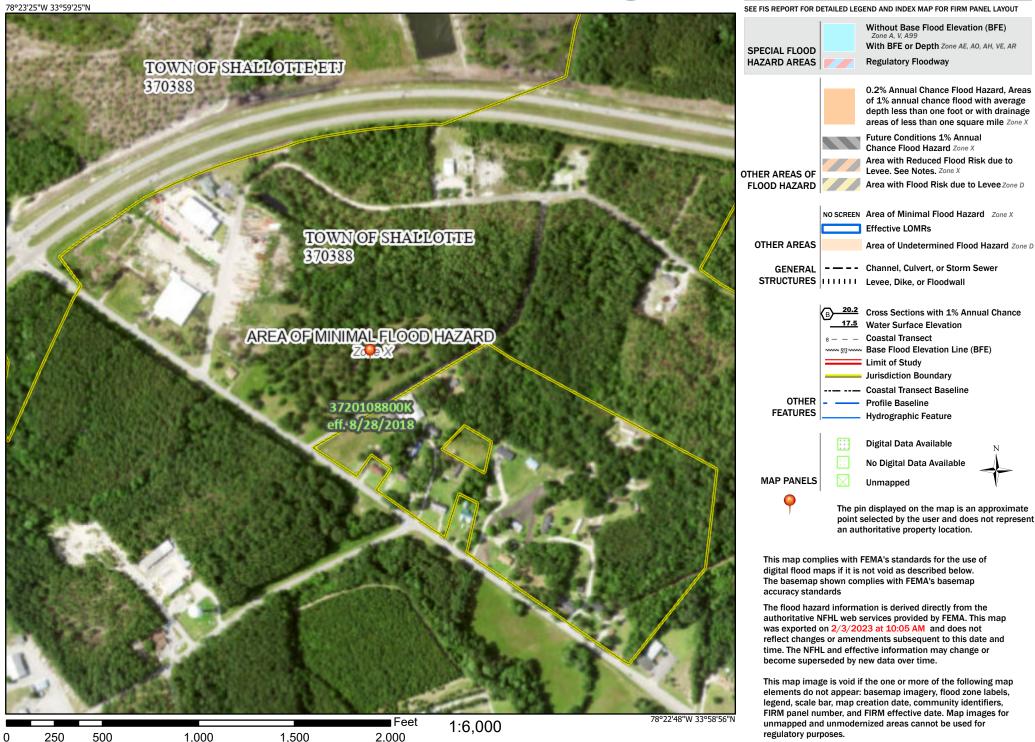
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

National Flood Hazard Layer FIRMette

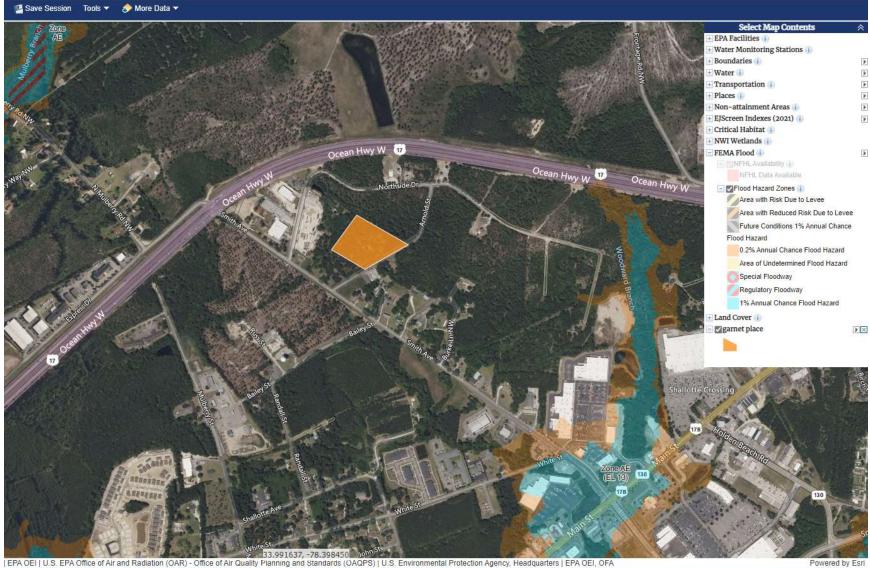


Legend



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Garnet Place – FEMA FIRM



Powered by Esri

ATTACHMENT 12:

Historic Preservation

SHPO Response, NCORR SHPO Submission Package, HUD TDAT Results, Catawba Indian Nation Response, and NCORR Catawba Indian Nation Submission Packages



Roy Cooper Governor Pamela B. Cashwell Secretary

November 22, 2022

Andrea Gievers Garnet Place c/o NC Department of Public Safety Office of Recovery and Resiliency Durham, NC 27709-

Re: SCH File # 23-E-4600-0069 Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units

Dear Andrea Gievers:

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



Location 116 West Jones St. | Raleigh NC 27603 984-236-0000 T

ncadmin.nc.gov

Control No.:	23-E-4600-0069	Date Received:	10/21/2022
County .:	BRUNSWICK	Agency Response:	11/21/2022
		Review Closed:	11/21/2022

DEVON BORGARDT CLEARINGHOUSE COORDINATOR DEPT OF NATURAL & CULTURAL RESOURCE

Project Information

Type:	National Env	vironmental	Policy	Act ping
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Applicant: Garnet Place

Project Desc.: Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas.

As a result of this review the following is submitted:

✓ No Comment	Comments Below	Documents Attached

Reviewed By: DEVON BORGARDT



Office of Recovery and Resiliency

Roy Cooper, Governor Eddie M. Buffaloe, Jr., Secretary Laura H. Hogshead, Director

October 20, 2022

Ms. Renee Gledhill-Earley Environmental Review Coordinator NC State Historic Preservation Office 4617 Mail Service Center Raleigh, NC 27699-4617

Via email: <u>State.Clearinghouse@doa.nc.gov</u> <u>crystal.best@doa.nc.gov</u>

RE: State Historic Preservation Office Request for Concurrence Section 106 Review - HUD CDBG-DR Program Proposed Garnet Place 271 Smith Avenue Shallotte, NC 28470 (Brunswick County Parcel #1820000801)

Dear Ms. Gledhill-Earley:

In accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 CFR Part 800, we are providing information for your review and concurrence regarding the above-referenced project. The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. NCORR is acting on behalf of HUD in providing the enclosed project information and request for consultation.

<u>Area of Potential Effects (APE) under §800.16(d):</u> We have defined the APE as the boundary of the Subject Property, an approximately 5.2-acre, *newly subdivided* Brunswick County Parcel #1820000801, and located at 271 Smith Avenue, Shallotte, NC 28470. (The original parent property consisted of two parcels, approximately 9.88 acres, previously recorded as Brunswick County Parcel #18200008 and #1820000801.) The proposed project location maps are included in **Attachment 1** for your review.

Mailing Address: Post Office Box 110465 Durham, NC 27709



Phone: (984) 833-5350 www.ncdps.gov www.rebuild.nc.gov

An Equal Opportunity Employer

The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low-income families.

<u>Proposed Project Description</u>: Garnet Place will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, Brunswick County, North Carolina. The project was awarded Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas. The Town of Shallotte has sewer and water lines in place along Arnold Street to the southeast, and only short connections to the site will be necessary. The buildings and parking lot will be nestled into the existing property fabric, by preserving as much vegetation as possible, provide buffers to adjacent properties, and employing low impact design techniques for stormwater management. The proposed project site plans are included in **Attachment 2**.

We have made a Finding of "*No Historic Properties Affected*" pursuant to 36 CFR 800.4(d)(1) based on the following:

A review of the Subject Property in the National Register of Historic Places, North Carolina State Historic Preservation Office's HPOWEB, and site review performed by NV5 Engineers and Consultants, Inc., no publicly recorded historic properties which are locally designated or listed in or eligible for inclusion in the State or National Register of Historic Places are located on or adjacent to the Subject Property (See Attachment 1). The nearest mapped historic properties or districts is Shallotte Prison Camp (BW0461) located approximately 1,800 feet to the southwest. The original 9.88-acre vacant land was previously developed with two residential structures from at least the late 1930s until 1999. In the aerial photographs taken between 1956 and 2019, there are mixed wooded and cleared agricultural areas with two residential homes located along Smith Avenue. Aerial photographs indicate that portions of the Subject Property may have been used for agricultural purposes between 1956 and 1983. By 2019, both structures were demolished and the rubble removed from the property. The Subject Property is the 5.2-acre portion subdivided from the original 9.88-acre site, which is relatively flat and sparsely wooded and typically vegetated with grasses and pine trees. The proposed project will be located on property with street frontage on Arnold Street, with Quality Welding to the southeast of the site, wooded and residential areas to the south and north, and B&B Crane Service Shallotte to the west. The proposed development will be a multifamily apartment complex and, therefore, typical clearing and grading will take place on the Subject Property during construction. The historical aerial and current photographs (original parent parcels, 9.88 acres) are included in Attachment 3.

Attached for your review are copies of relevant documents supporting our finding, along with photographs and a map showing the location of the Subject Property. This documentation satisfies requirements set forth at §800.11(d).

NCORR processes environmental reviews for proposed projects funded with HUD CDBG-DR on a case-by-case basis. A consultation request for the proposed project described herein will also be sent to the Catawba Indian Nation. In accordance with Section 101(d)(6)(B) of the NHPA of 1966, as amended (16 U.S.C. 470f), and its implementing regulations, 36 CFR Part 800, this letter serves as notification of the proposed action.

NCORR respectfully requests your review of the proposed project described herein. In accordance with \$800.4(d)(1)(i), your office has *thirty days* to object to this finding. Please respond within this timeframe, otherwise we will assume that you concur with our finding. If you concur, please sign on the line below and return a copy of this letter by email to Andrea Gievers at <u>Andrea.L.Gievers@Rebuild.NC.gov</u>.

If you have any questions or require additional information regarding this request, please feel free to contact Andrea Gievers at (845) 682-1700 or via email at <u>Andrea.L.Gievers@Rebuild.NC.gov</u>. Thank you for your time and assistance.

Sincerely,

Andrea Simers

Andrea Gievers, JD, MSEL, ERM NCORR Environmental Subject Matter Expert

Proposed Garnet Place Enclosures:

Attachment 1: Proposed Project Location, NRHP and NC HPOWEB Maps Attachment 2: Proposed Project Site Plan Attachment 3: Historical Aerial and Current Photographs (original parent parcels, 9.88 acres)

Concurrence:

State Historic Preservation Officer

Date

Section 106 ATTACHMENT 1:

Proposed Project Location, NRHP and NC HPOWEB Maps

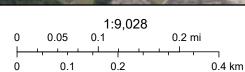
Garnet Place - Aerial Map



October 12, 2022



garnet place (1)



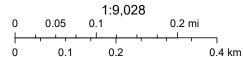
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Garnet Place - Street Map



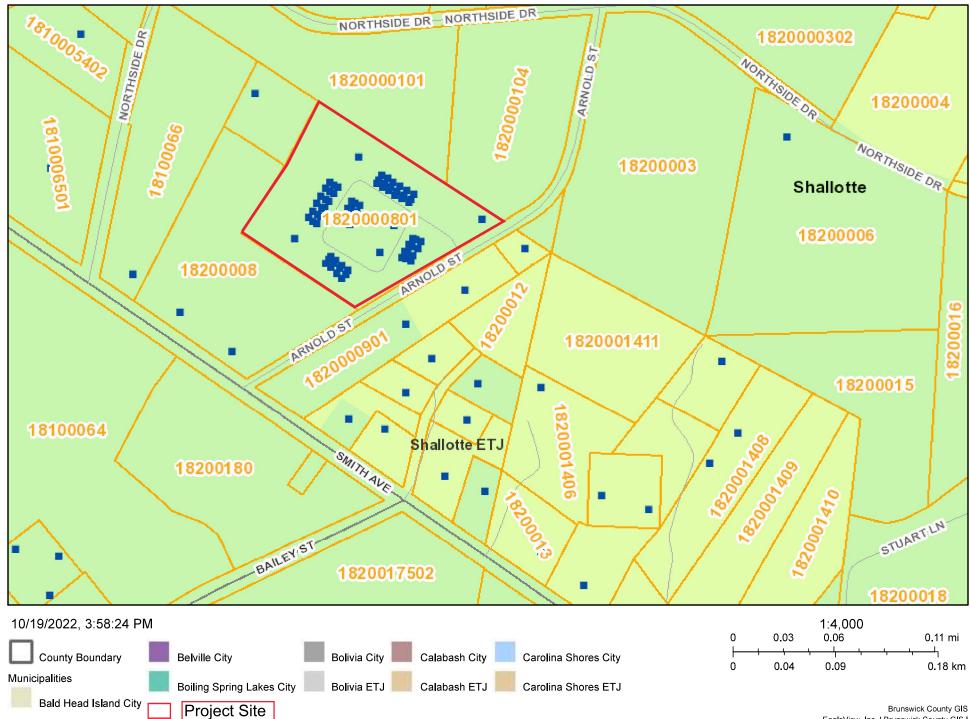
October 12, 2022

garnet place (1)

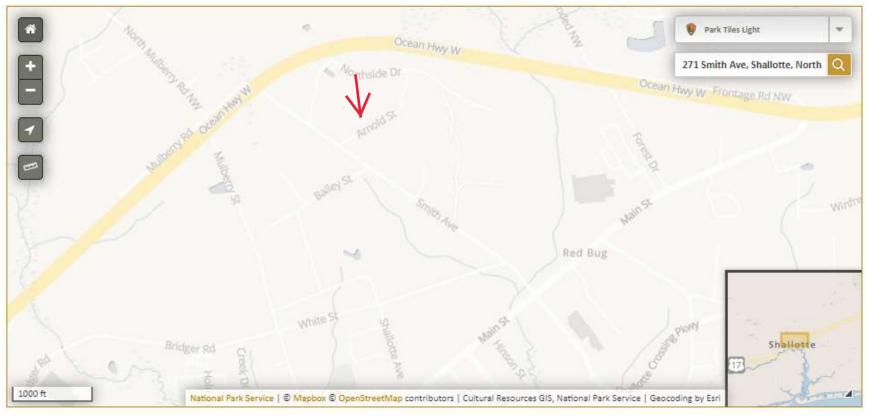


Esri Community Maps Contributors, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph,

Garnet Place - Brunswick County Parcel Viewer



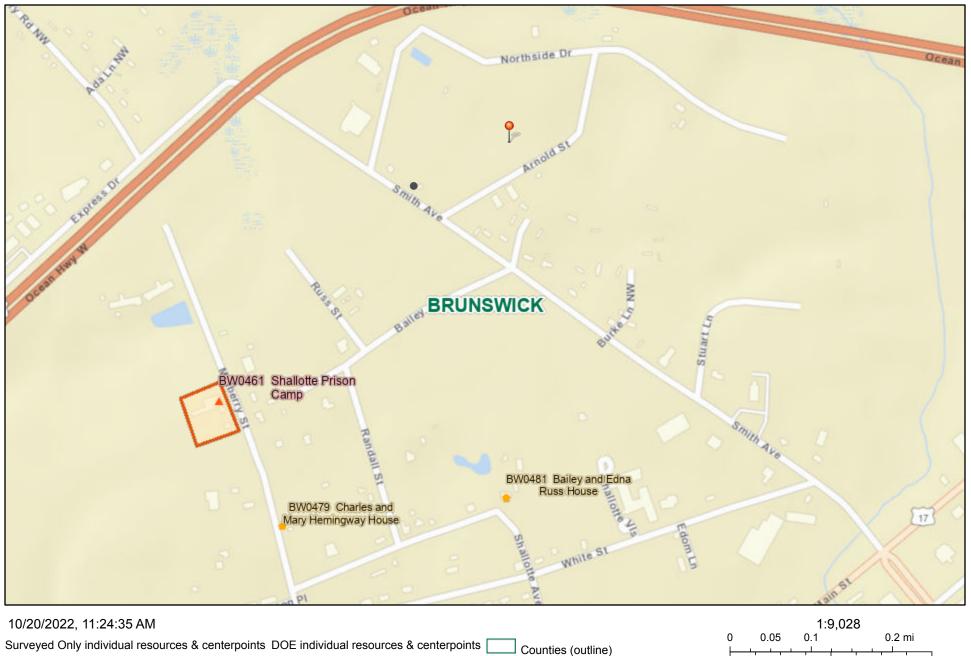
GARNET PLACE – NRHP Map



National Register of Historic Places

PUBLIC, NON-RESTRICTED DATA DEPICTING NATIONAL REGISTER SPATIAL DATA PROCESSED BY THE CULTURAL RESOURCES GIS FACILITY. LAST MINOR UPDATE, SEPTEMBER 2020.

NCHPO HPOWEB- Garnet Place



Surveyed Only individual resources & centerpoints DOE individual resources & centerpoints

۲ Surveyed Only

DOE districts & boundaries

Determined Eligible Boundary

۸ Determined Eligible DOE districts & boundaries DOE

Subject Property

0.1 0.2 0 0.4 km

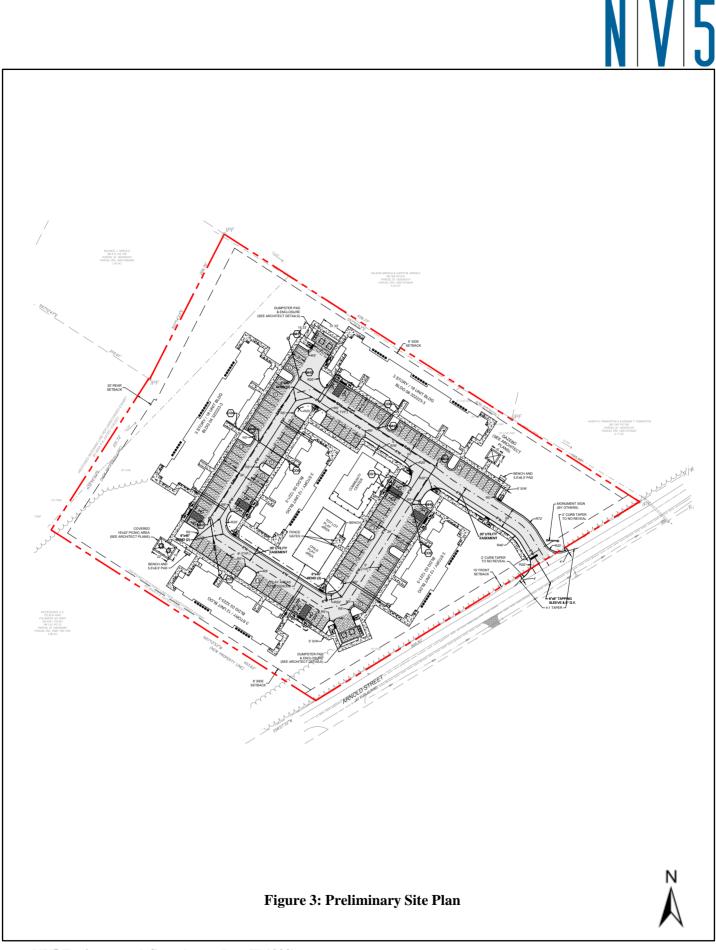
State of North Carolina DOT, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, NGA, USGS

State of North Carolina DOT, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, NGA, USGS |

North Carolina State Historic Preservation Office

Section 106 ATTACHMENT 2:

Proposed Project Site Plan



Section 106 ATTACHMENT 3:

Historical Aerial and Current Photographs (original parent parcels, 9.88 acres)

Garnet Place

271 Smith Avenue Shallotte, NC 28470

Inquiry Number: 6661997.5 September 17, 2021

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

EDR Aerial Photo Decade Package

Site Name:

Client Name:

Garnet Place 271 Smith Avenue Shallotte, NC 28470 EDR Inquiry # 6661997.5 TerraTech 4905 Professional Court Raleigh, NC 27609 Contact: Will Strayhorn



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search	Results:			
<u>Year</u>	<u>Scale</u>	Details	Source	
2016	1"=500'	Flight Year: 2016	USDA/NAIP	
2012	1"=500'	Flight Year: 2012	USDA/NAIP	
2009	1"=500'	Flight Year: 2009	USDA/NAIP	
2006	1"=500'	Flight Year: 2006	USDA/NAIP	
1999	1"=500'	Acquisition Date: January 01, 1999	USGS/DOQQ	
1998	1"=750'	Flight Date: March 11, 1998	USGS	
1993	1"=500'	Acquisition Date: February 19, 1993	USGS/DOQQ	
1987	1"=500'	Flight Date: March 03, 1987	USGS	
1983	1"=500'	Flight Date: March 02, 1983	NHAP	
1975	1"=500'	Flight Date: March 01, 1975	USGS	
1964	1"=500'	Flight Date: September 14, 1964	USGS	
1958	1"=500'	Flight Date: January 01, 1958	USGS	
1956	1"=500'	Flight Date: March 25, 1956	USDA	

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

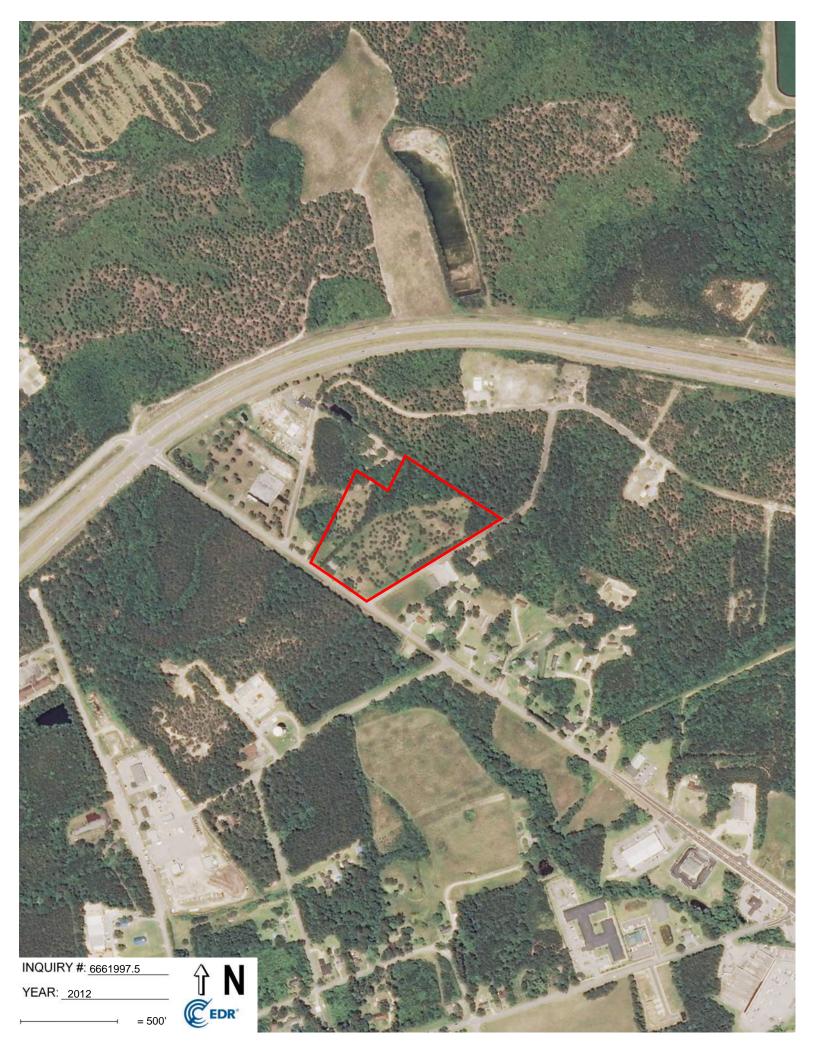
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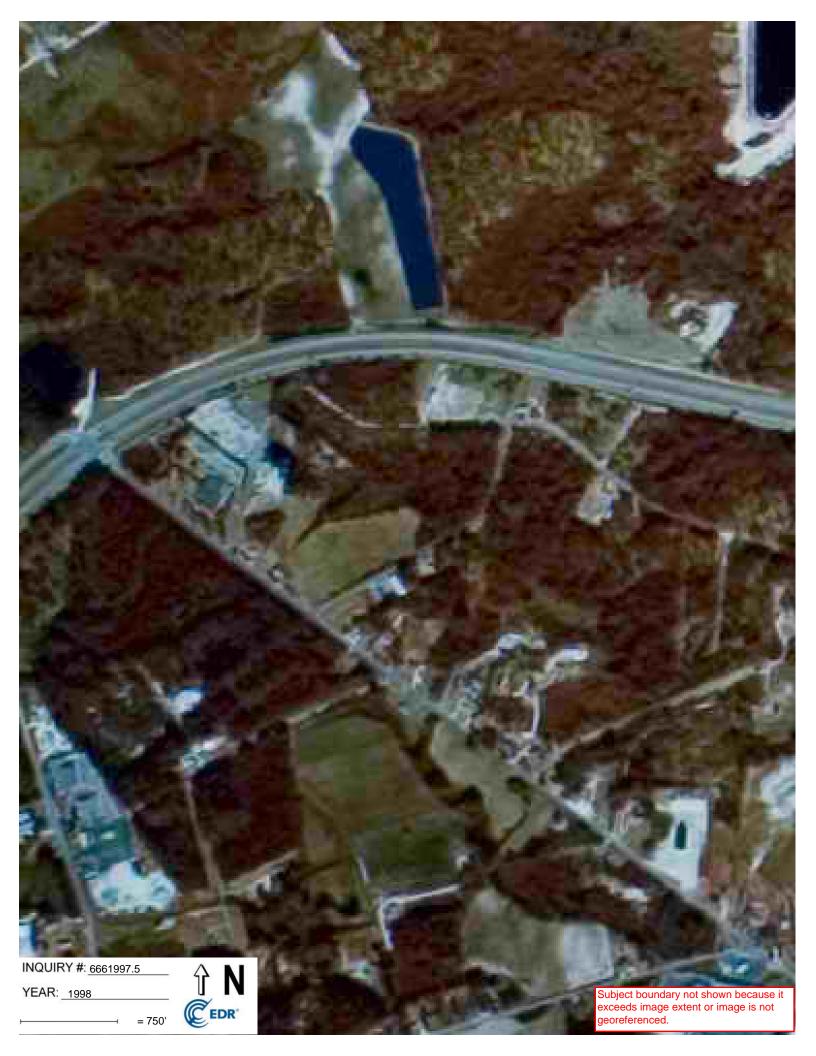












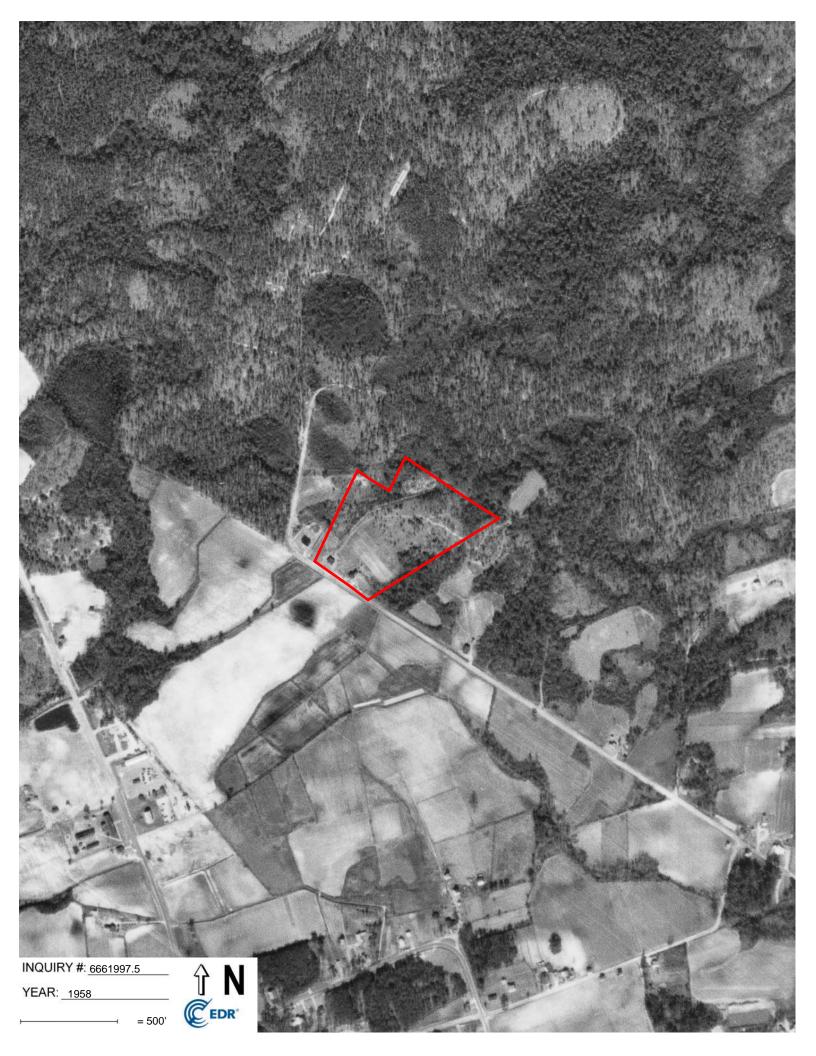














<u>N|V|5</u>



Photograph 1: Subject site, as viewed from the northeast along Arnold Street.



Photograph 2: Typical view of the subject site.



Photograph 3: Southern portion of the subject site.



Photograph 4: Northern wooded portion of the site.



Photograph 5: Sump pump cover, located in southern portion of the site.



Photograph 6: Interior of sump pump.

NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

<u>N | V | 5</u>



Photograph 7: Standing water in the creek along the northern portion of the site.



Photograph 8: Foundation remnants in the southwestern portion of the site.



Photograph 9: Welding and marine supply store to the east of the site.



Photograph 10: Typical residential homes in the vicinity of the site.



Photograph 11: Crane storage yard, as viewed from the site.



Photograph 12: Crane storage yard, as viewed from Northside Drive.

NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799



Tribal Directory Assessment Information

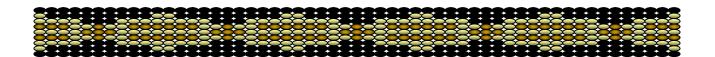


Contact Information for Tribes with Interests in Brunswick County, North Carolina

					County Name				
-					Brunswick				
Contact Name		Title Mailing Address		Work Phone		Number	Cell Phone	Email Address	URL
Dr. Wo Haire	enonah G.	THPO and Catawba Cultural Center Executive Director	1536 Tom Steven Road Rock Hill, SC 29730	(803) 328-2427 ext. 224	(80	03) 328-5791		wenonah.haire@c atawba.com	http://www.catawba indian.net/
Bill Ha	arris	Chief	996 Avenue of the Nations Rock Hill, SC 29730	(803) 366-4792	(80)3) 327-4853		bill.harris@catawb aindian.net	http://www.catawba indian.net/
1 - 1 of 1 results							« < 1 > » 10 ∽		

Catawba Indian Nation Tribal Historic Preservation Office 1536 Tom Steven Road Rock Hill, South Carolina 29730

Office 803-328-2427



November 28, 2022

Attention: Andrea Gievers NCORR P.O. Box 110465 Durham, NC 27709

Re. THPO #TCNS #Project Description2023-1119-2Proposed Garnet Place – 271 Smith Avenue, Shallotte, NC

Dear Ms. Gievers,

The Catawba have no immediate concerns with regard to traditional cultural properties, sacred sites or Native American archaeological sites within the boundaries of the proposed project areas. However, the Catawba are to be notified if Native American artifacts and / or human remains are located during the ground disturbance phase of this project.

If you have questions please contact Caitlin Rogers at 803-328-2427 ext. 226, or e-mail Caitlin.Rogers@catawba.com.

Sincerely,

Cattle Rogers for

Wenonah G. Haire Tribal Historic Preservation Officer



Office of Recovery and Resiliency

Roy Cooper, Governor Eddie M. Buffaloe, Jr., Secretary Laura H. Hogshead, Director

October 20, 2022

Chief Bill Harris Catawba Indian Nation 996 Avenue of the Nations Rock Hill, SC 29730

RE: Section 106 Review - HUD CDBG-DR Program Proposed Garnet Place 271 Smith Avenue Shallotte, NC 28470 (Brunswick County Parcel #1820000801)

Dear Chief Bill Harris:

The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. NCORR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Nation.

NCORR processes environmental reviews for proposed projects funded with HUD CDBG-DR on a case-by-case basis. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f), and its implementing regulations, 36 CFR Part 800, this letter serves as notification of the proposed action. This letter also serves as an invitation to discussion as a consulting party in this review to help identify historic properties in the proposed project area that may have religious and cultural significance to your Nation, and if such properties exist, to help assess how the proposed project might affect them. If the proposed project might have an adverse effect, we would like to discuss possible ways to avoid, minimize or mitigate potential adverse effects.

Mailing Address: Post Office Box 110465 Durham, NC 27709



Phone: (984) 833-5350 www.ncdps.gov www.rebuild.nc.gov

An Equal Opportunity Employer

The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low-income families.

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Ms. Andrea Gievers NCORR - Environmental ATTN: THPO Comments P.O. Box 110465 Durham, NC 27709

If you have any questions or require additional information regarding this request, please feel free to contact Andrea Gievers at (845) 682-1700 or via email at <u>Andrea.L.Gievers@Rebuild.NC.gov</u>. Thank you for your time and assistance.

Sincerely,

andrea Simera

Andrea Gievers, JD, MSEL, ERM NCORR Environmental Subject Matter Expert

Enclosures:

Attachment 1: Proposed Project Location, NRHP and NC HPOWEB Maps Attachment 2: Proposed Project Site Plan Attachment 3: Current Photographs (original parent parcels, 9.88 acres)

cc: Dr. Wenonah George Haire, THPO, Catawba Indian Nation, 1536 Tom Steven Road, Rock Hill, SC 29730

Section 106 ATTACHMENT 1:

Proposed Project Location, NRHP and NC HPOWEB Maps

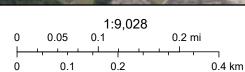
Garnet Place - Aerial Map



October 12, 2022



garnet place (1)



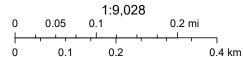
 \circledcirc 2022 Microsoft Corporation \circledcirc 2022 Maxar $\circledcirc CNES$ (2022) Distribution Airbus DS \circledcirc 2022 TomTom

Garnet Place - Street Map



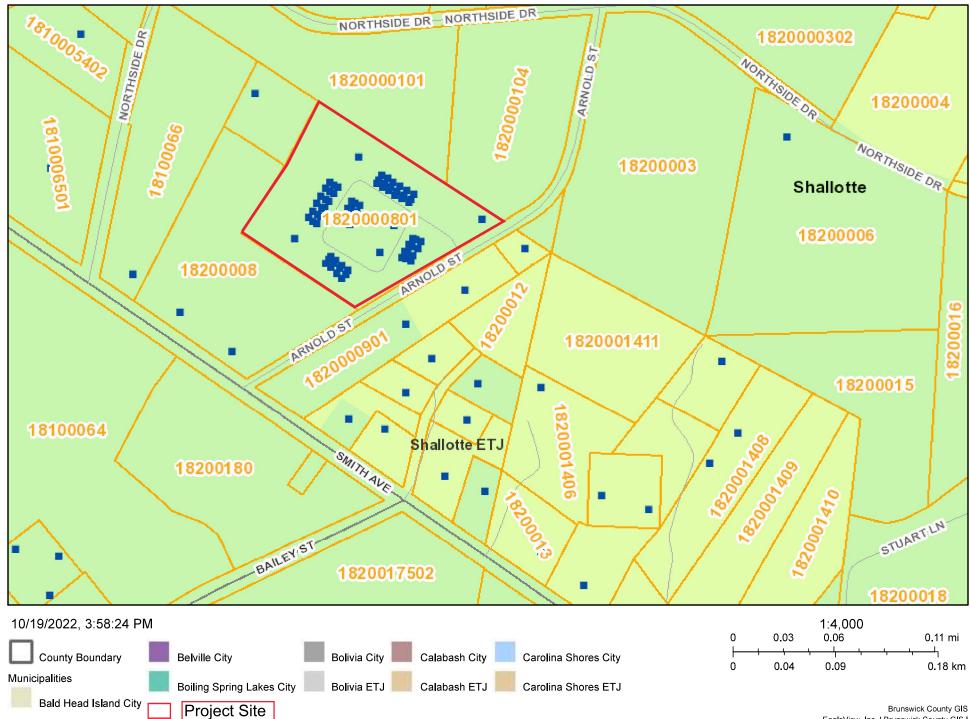
October 12, 2022

garnet place (1)

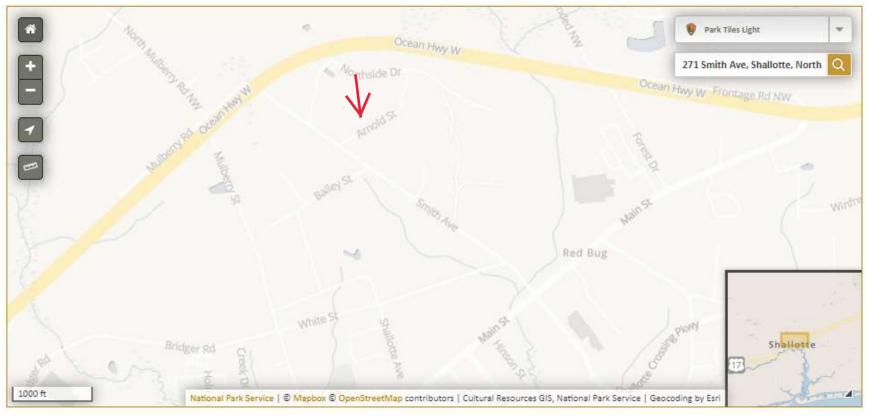


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Garnet Place - Brunswick County Parcel Viewer



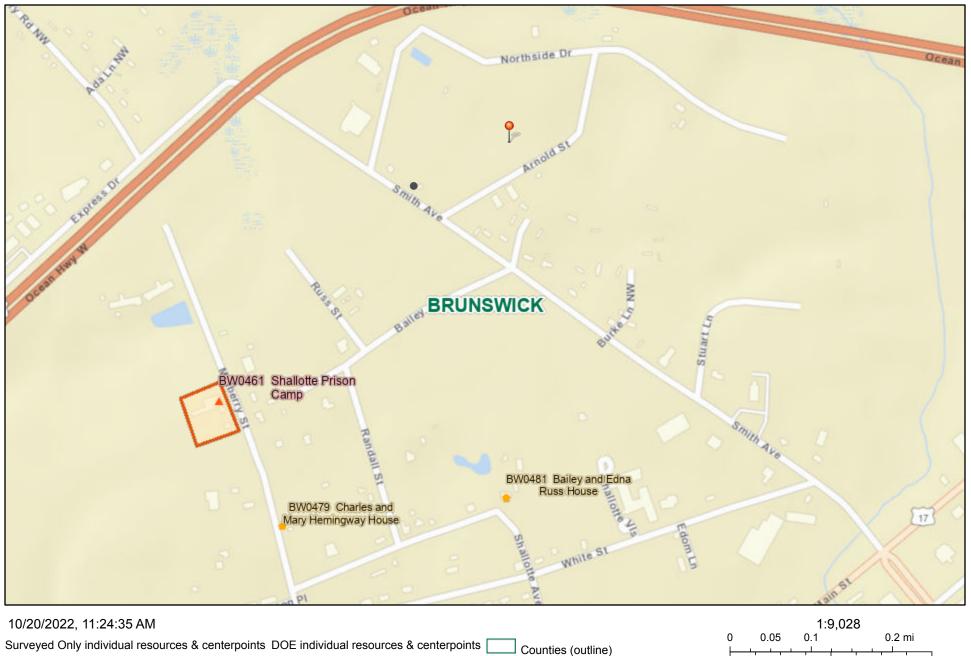
GARNET PLACE – NRHP Map



National Register of Historic Places

PUBLIC, NON-RESTRICTED DATA DEPICTING NATIONAL REGISTER SPATIAL DATA PROCESSED BY THE CULTURAL RESOURCES GIS FACILITY. LAST MINOR UPDATE, SEPTEMBER 2020.

NCHPO HPOWEB- Garnet Place



Surveyed Only individual resources & centerpoints DOE individual resources & centerpoints

۲ Surveyed Only

DOE districts & boundaries

Determined Eligible Boundary

۸ Determined Eligible DOE districts & boundaries DOE

Subject Property

0.1 0.2 0 0.4 km

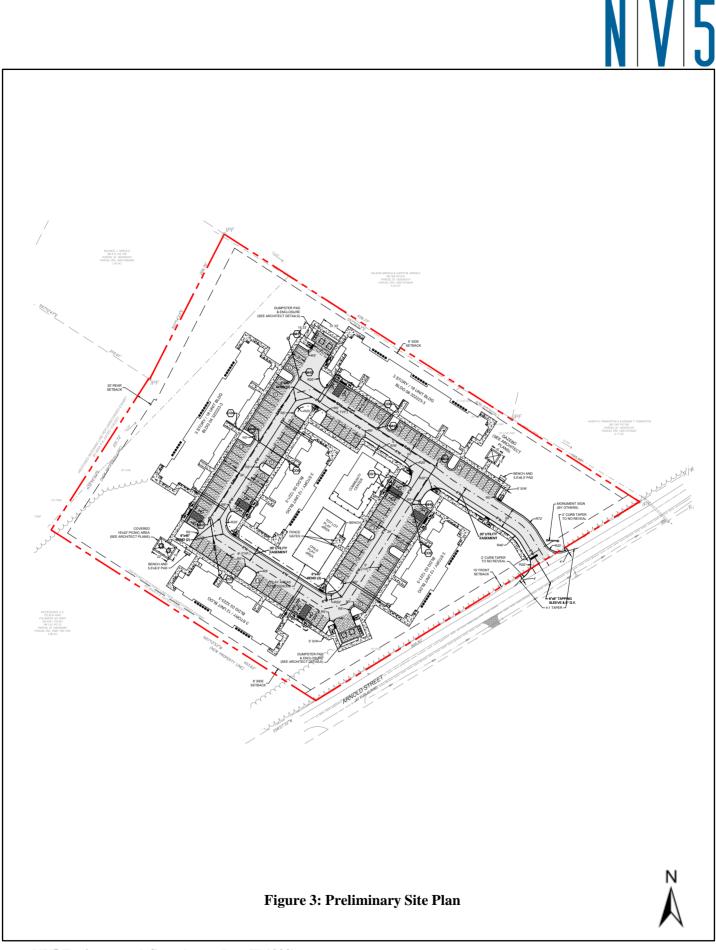
State of North Carolina DOT, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, NGA, USGS

State of North Carolina DOT, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, NGA, USGS |

North Carolina State Historic Preservation Office

Section 106 ATTACHMENT 2:

Proposed Project Site Plan



Section 106 ATTACHMENT 3:

Current Photographs (original parent parcels, 9.88 acres)

<u>N|V|5</u>



Photograph 1: Subject site, as viewed from the northeast along Arnold Street.



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Photograph 4: Northern wooded portion of the site.



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Photograph 6: Interior of sump pump.

NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

<u>N | V | 5</u>



Photograph 7: Standing water in the creek along the northern portion of the site.



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Office of Recovery and Resiliency

Roy Cooper, Governor Eddie M. Buffaloe, Jr., Secretary Laura H. Hogshead, Director

October 20, 2022

Dr. Wenonah George Haire ATTN: THPO Catawba Indian Nation 1536 Tom Steven Road Rock Hill, SC 29730

RE: Section 106 Review - HUD CDBG-DR Program Proposed Garnet Place 271 Smith Avenue Shallotte, NC 28470 (Brunswick County Parcel #1820000801)

Dear Dr. Wenonah George Haire:

The North Carolina Office of Recovery and Resiliency (NCORR), as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD), is serving as the responsible entity for compliance with the HUD environmental review procedures set forth in 24 CFR Part 58. NCORR is acting on behalf of HUD in providing the enclosed project information and inviting this discussion with your Nation.

NCORR processes environmental reviews for proposed projects funded with HUD CDBG-DR on a case-by-case basis. In accordance with Section 101(d)(6)(B) of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f), and its implementing regulations, 36 CFR Part 800, this letter serves as notification of the proposed action. This letter also serves as an invitation to discussion as a consulting party in this review to help identify historic properties in the proposed project area that may have religious and cultural significance to your Nation, and if such properties exist, to help assess how the proposed project might affect them. If the proposed project might have an adverse effect, we would like to discuss possible ways to avoid, minimize or mitigate potential adverse effects.

Mailing Address: Post Office Box 110465 Durham, NC 27709



Phone: (984) 833-5350 www.ncdps.gov www.rebuild.nc.gov

An Equal Opportunity Employer

The State of North Carolina was adversely impacted by the landfall of Hurricanes Matthew (October 8, 2016) and Florence (September 14, 2018). These hurricanes damaged or destroyed hundreds of homes worsening the affordable housing shortage. This proposed project will increase affordable housing inventory for low-income families.

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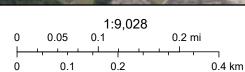
Garnet Place - Aerial Map



October 12, 2022



garnet place (1)



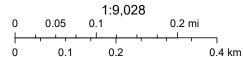
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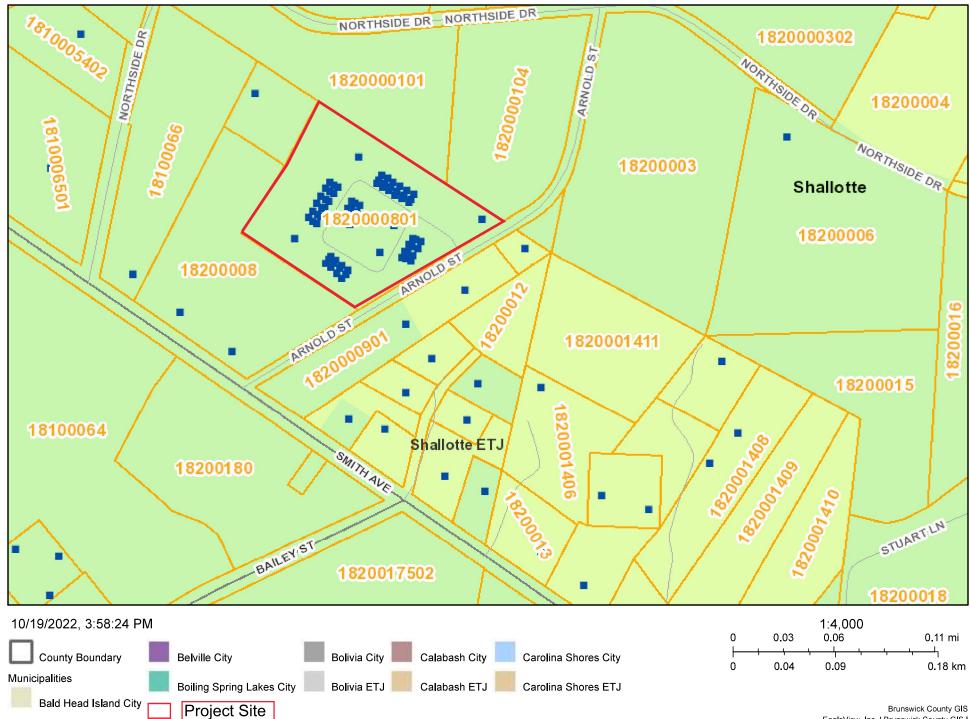
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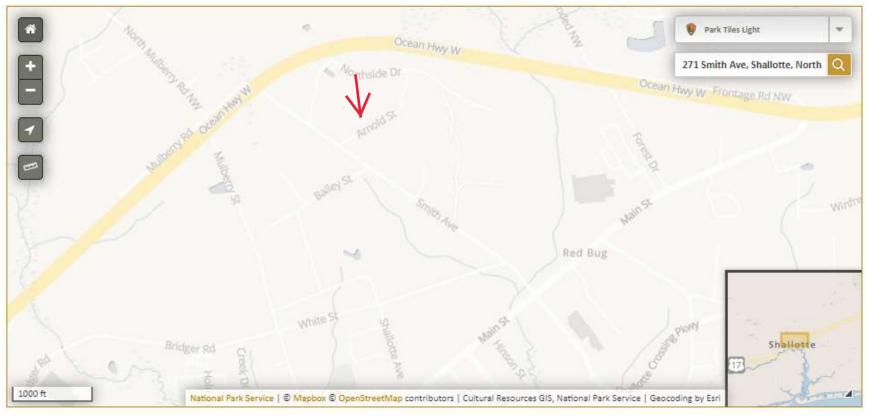


Esri Community Maps Contributors, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph,

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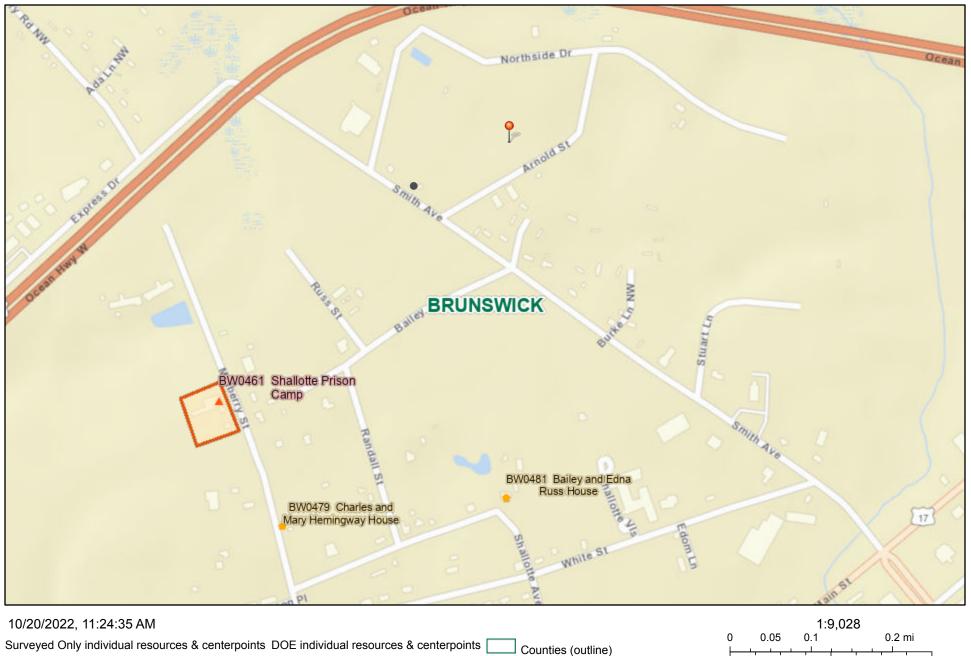
GARNET PLACE – NRHP Map



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NCHPO HPOWEB- Garnet Place



Surveyed Only individual resources & centerpoints DOE individual resources & centerpoints

۲ Surveyed Only

DOE districts & boundaries

Determined Eligible Boundary

۸ Determined Eligible DOE districts & boundaries DOE

Subject Property

0.1 0.2 0 0.4 km

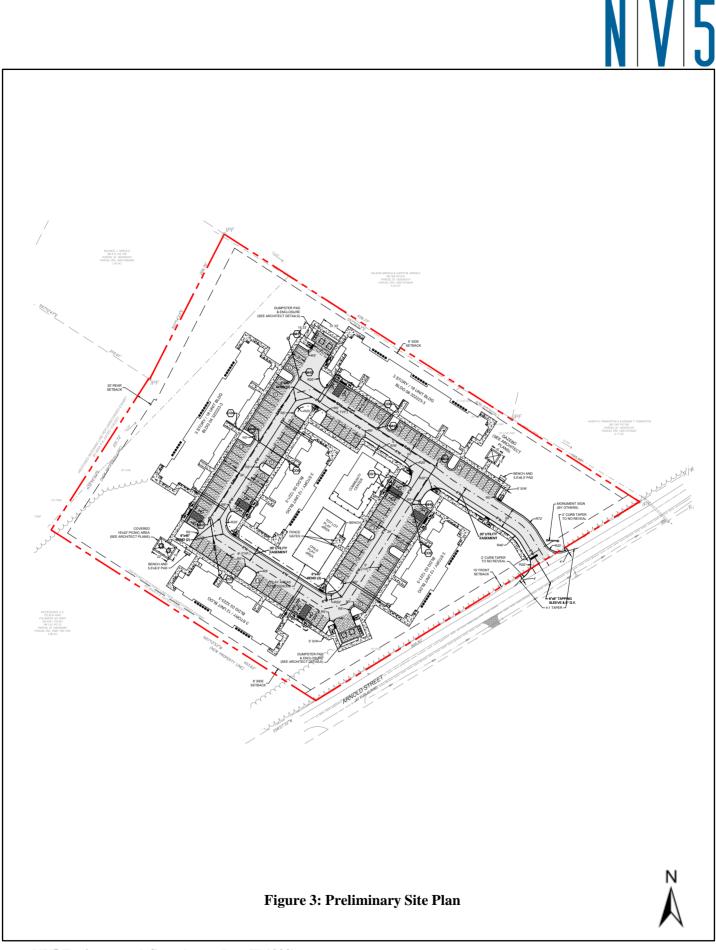
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State of North Carolina DOT, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, NGA, USGS |

North Carolina State Historic Preservation Office

Section 106 ATTACHMENT 2:

Proposed Project Site Plan



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<u>N|V|5</u>



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NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

<u>N | V | 5</u>



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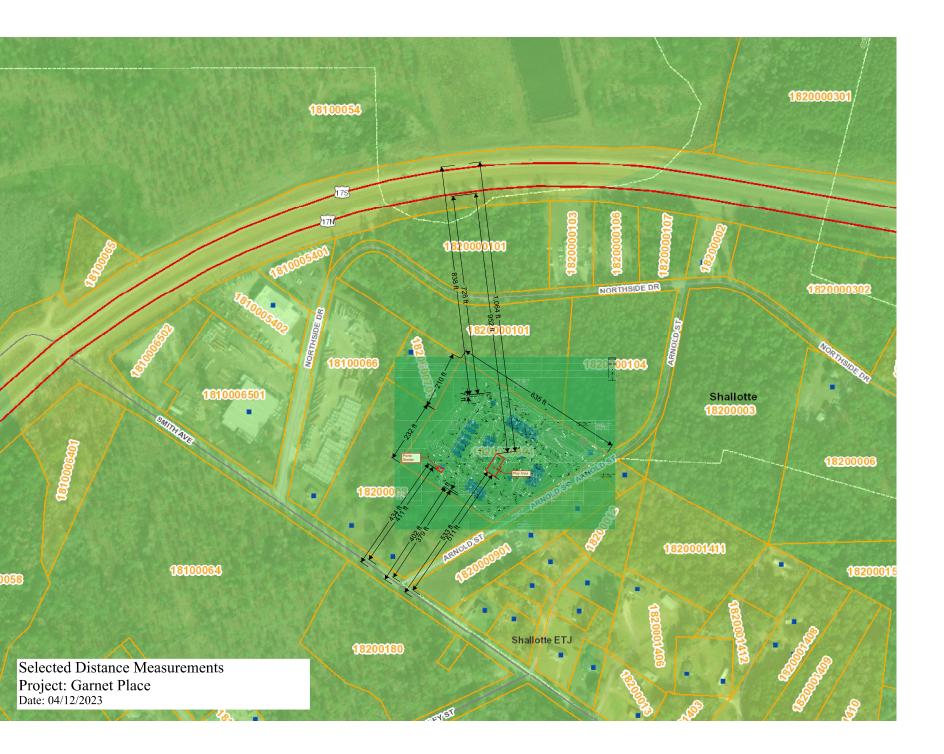
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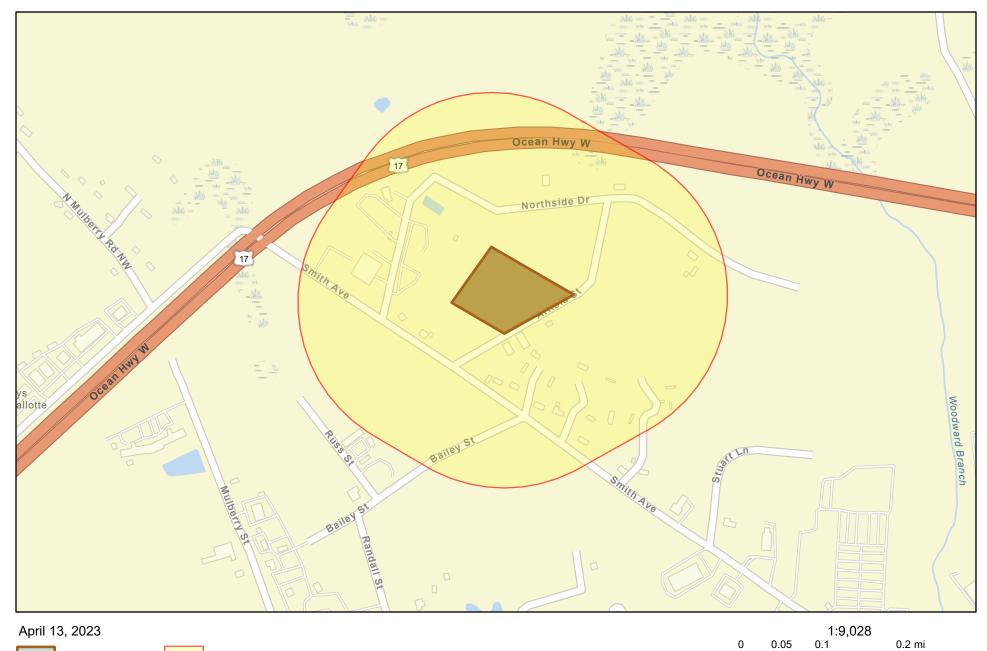
ATTACHMENT 13:

Noise Abatement and Control

Noise Assessment Locations (NAL) Map, Major Roads with AADT Data Available Map Showing 1,000-foot Buffer and 10-year Traffic Projections, Railroad Map Showing 3,000-foot Buffer, Airport Map Showing 15-mile Buffer, Airport Operations Data, DNL Calculations Current and Future with 12-year Projections, NCDOT Traffic Forecast Memorandum 10/18/18 and Landscaping Plan



Garnet Place - Roads 1,000-foot Buffer



Garnet Place Project Buffer

garnet place

Esri Community Maps Contributors, State of North Carolina DOT, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph,

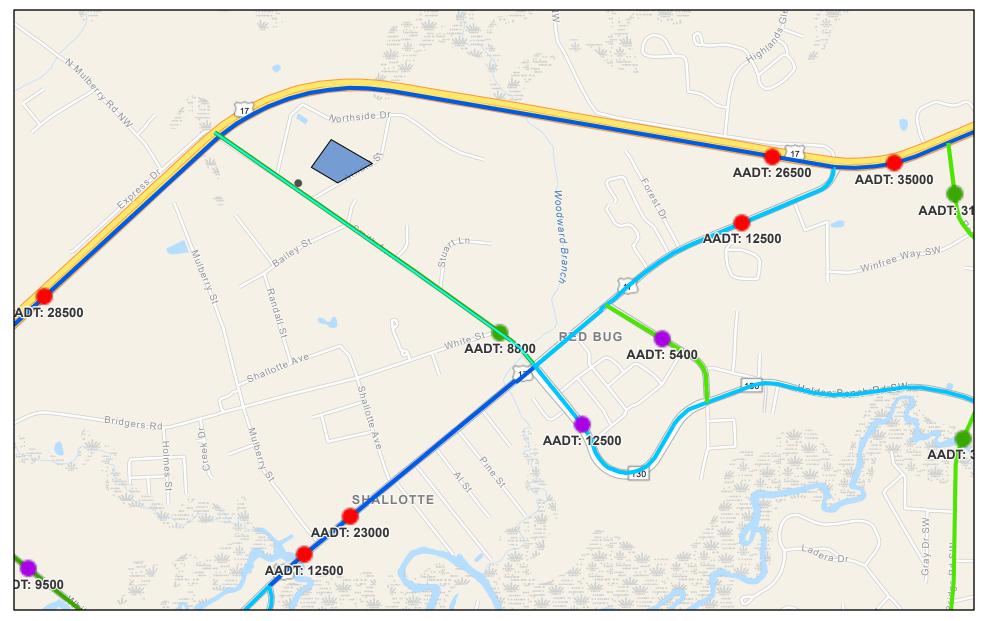
0.2

0.4 km

0.1

0

Garnet Place - NCDOT AADT Map





State of North Carolina DOT, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, NPS, US Census Bureau, USDA | NCDOT Traffic Survey Group staff collected, analyzed, processed and reported this data for calendar year 2020. | Prepared by the Traffic Survey

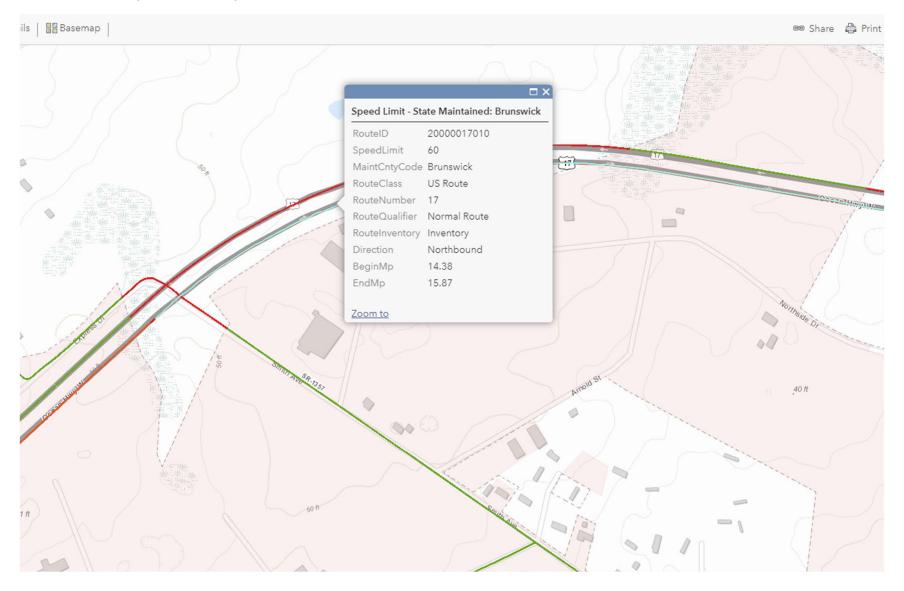
#1 -- US 17 BYP N OF NC 130

100000 -						HISTORIC	DATA	STATISTICAL RESULTS	
100000 -						Year	AADT	LINEAR REG:	640.2
						1993	11000	LINEAR %:	3.27%
90000 -						1994	12000	EXPONENTIAL REG:	3.44%
						1995	12000		
80000 -						1996	13000		
						1997	14000	R-SQUARED	
70000 -						1998	14000	LINEAR:	0.9169
						1999	16000	EXPONENTIAL:	0.9439
60000				/		2000	17000		
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50000 -						2002	19000	NUMBER OF DATA POI	NTS:
50000 -						2003	20000		24
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199	92 2002	2012	2022	2032	2042	2017	25000		
			—— EXP REG		2019	28500			
● AADTs —● LINEAR REG					2021	29500			
SHOW HISTORIC DATA: SHOW FUTURE DATA:				SHOW STATION #:		FUTURE PR	FUTURE PROJECTIONS:		
✓ LINEAR REGRESSION ✓ LINEAR REGRESSION			1- US 17 BYP N OF NO	C 130	Linear Reg	Exp Reg			
✓ EXPONENTIAL REGRESSION ✓ EXPONENTIAL REGRESSION			FUT YRS:	2021	30167	32866			
				#1	2020	29527	31772		
HISTORIC DATA				#2	2030	35930	44572		
				#3	2035	39131	52792		
				#4	2035	45533	74059		
	AROLINA DEPARTMENT OF TRANSPO					87717			
NORTHC	ARULINA DEPARTMENT OF TRANSPO	DRIATION / TRANSP. PL	#5	2050	48735	0//1/			

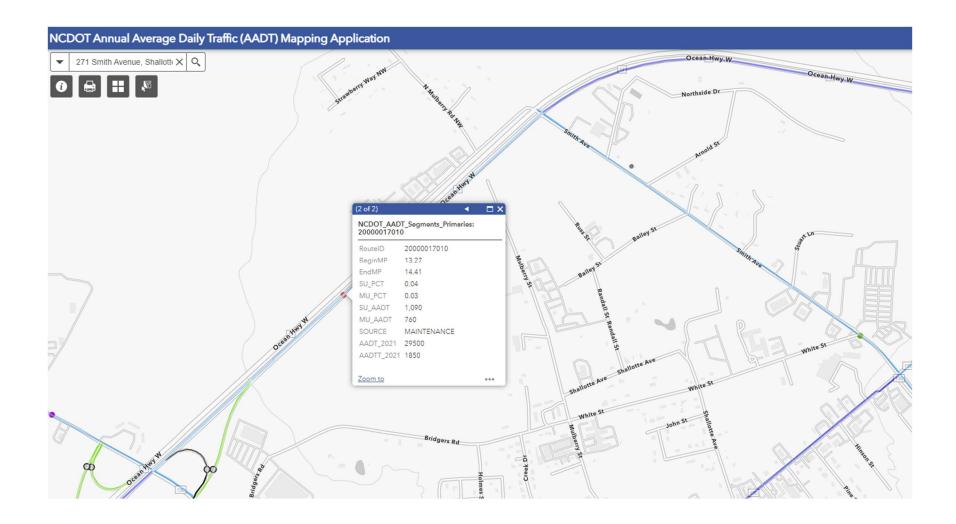
Title - Replace with text

Title - Replace with text or delete

North Carolina Speed Limits Map



Garnet Place – Ocean Hwy W (US 17 Bypass) Truck Percentages



AADT TREND ANALYSIS

#1 -- SR 1357 N OF US 17

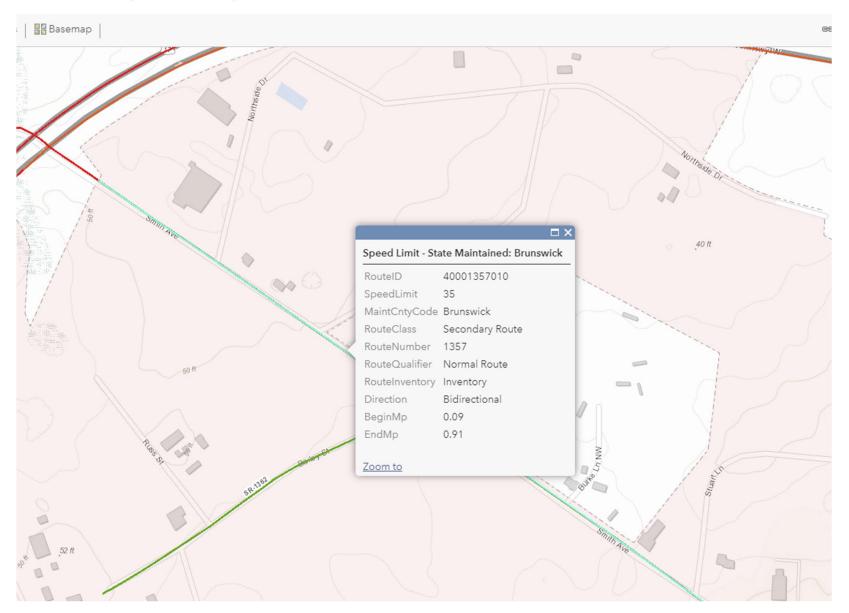


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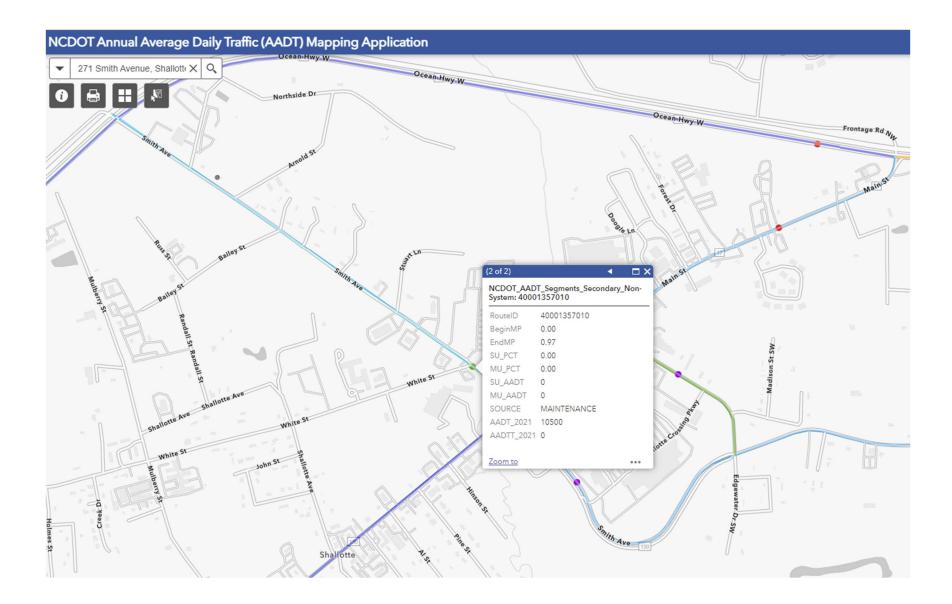
Title - Replace with text or delete

Garnet Place – Smith Ave Speed Limit 35 MPH

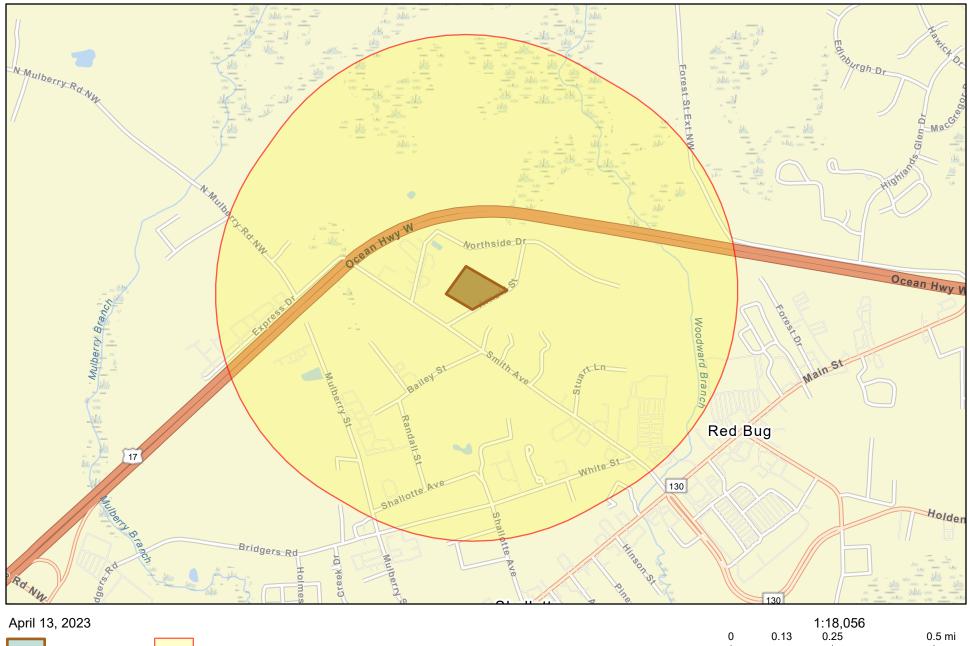
North Carolina Speed Limits Map



Garnet Place – Smith Avenue Truck Percentages



Garnet Place - Railroads 3,000-foot Buffer



Garnet Place Project Buffer

garnet place 🕂 Railroads

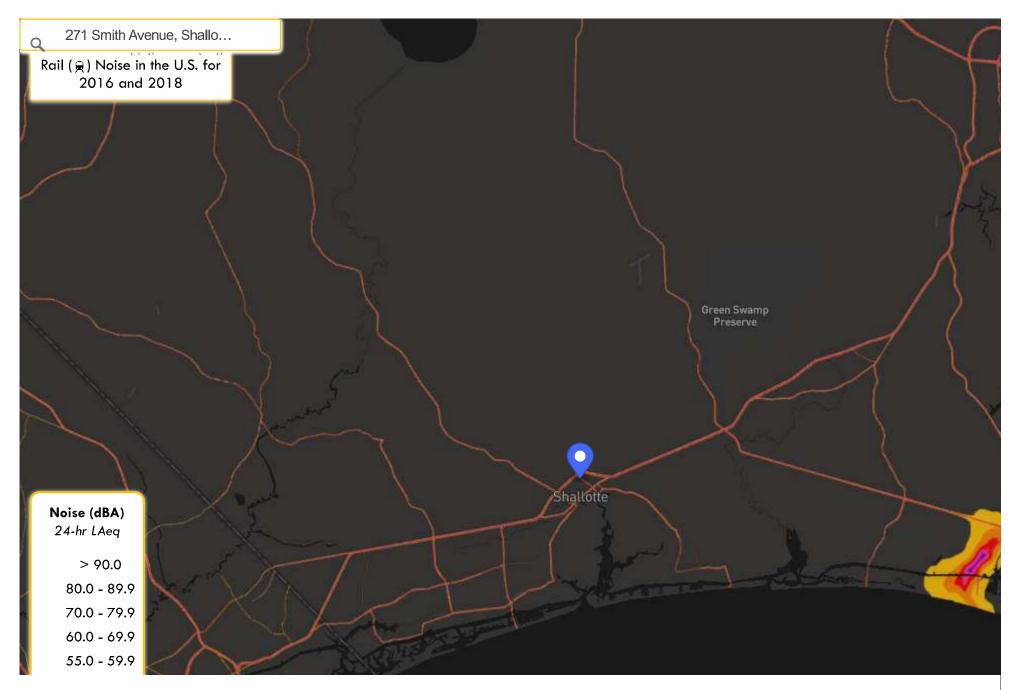
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0.4

0.8 km

0.2

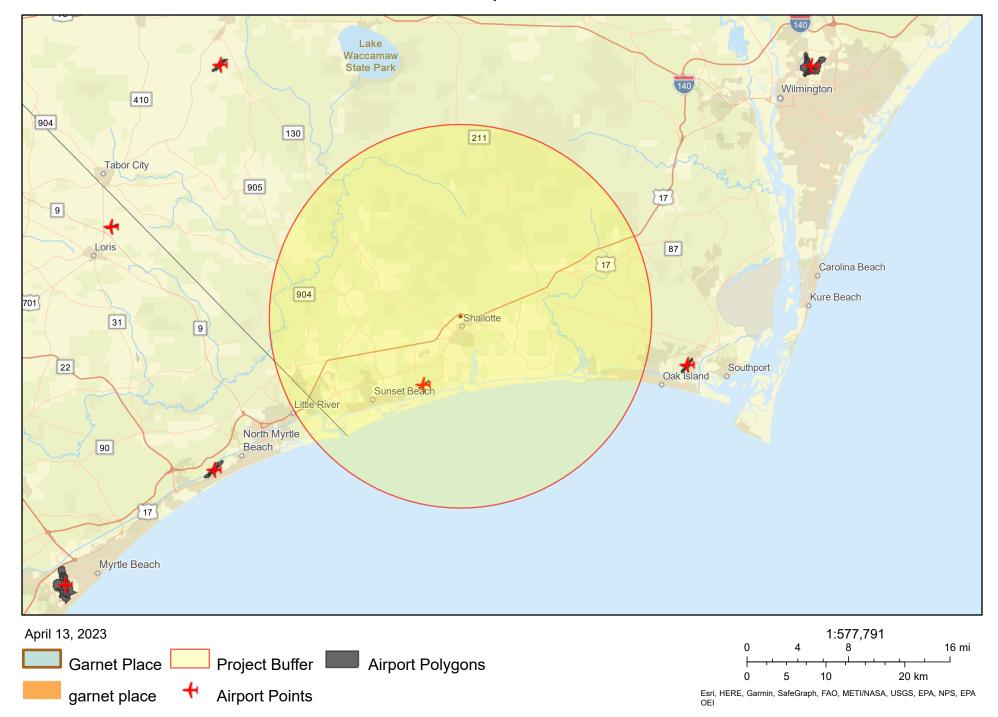
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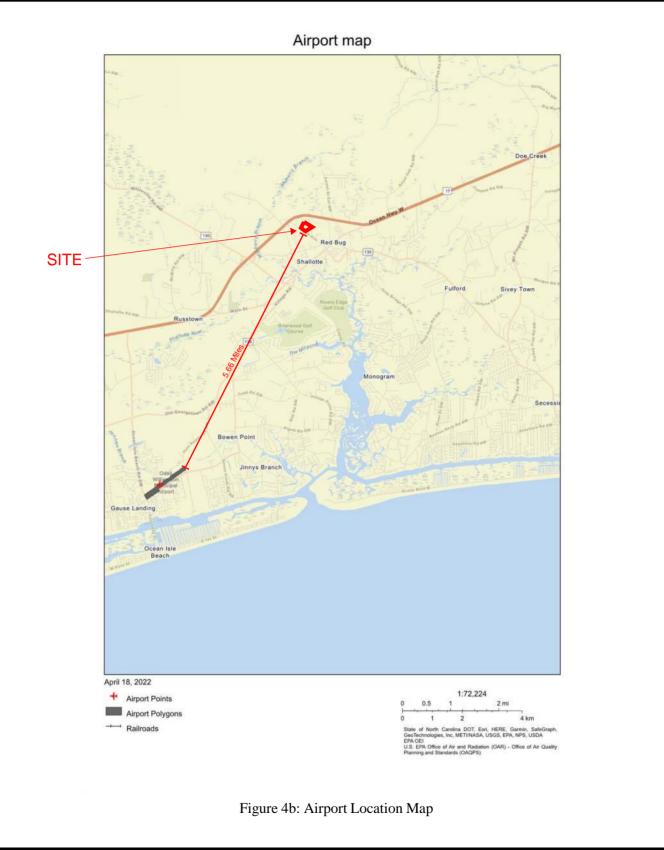
SOURCES: Map created by the Office of Spatial Analysis and Visualization at the Bureau of Transportation Statistics, U.S. Department of Transportation. For any edits or corrections to this map, please <u>contact us</u>.

© Mapbox © OpenStreetMap

Garnet Place - Airports 15-mile Buffer



N|V|5



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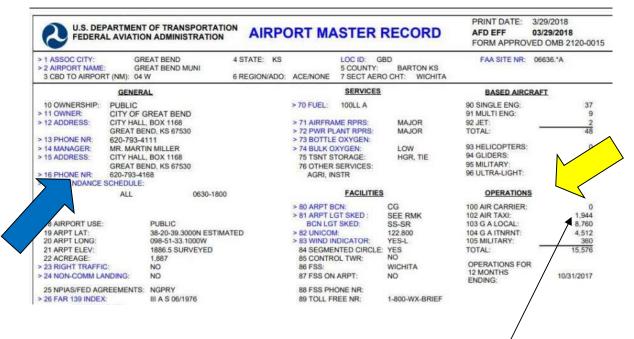
Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Airport Noise Worksheet

Use this worksheet to identify information needed to evaluate a site's exposure to aircraft noise.

Name and Location of Proje	ect: <u>Garnet Place – Shallote, NC</u>	
Name of Airport: Odel	Williamson Municipal	
Person completing workshe	et: Will Strayhorn, NV5	Date: <u>2/16/23</u>

- 1. Determine if the proposed site/project is within 15 miles of a civil or military airport.
 - No. Attach a scaled map identifying the location of the proposed project site and the location of any airports. *Further use of this worksheet is not required.*
 - Yes. Attach a scaled map identifying the location of the proposed project site and the location of any airports. *Continue*.
- 2. Determine the number of operations at the airport by:
 - Go to: <u>http://www.gcr1.com/5010web/advancedsearch.cfm</u>
 - Find your airport using the Search function
 - Open the report under "Print 5010"
 - Complete section 3 below by using Operations data found in the report (see yellow arrow in the example below)



3. Determine if the annual number of operations for air carriers (#100), air taxis (#102), military (#105), and general aviation (#103 plus #104) exceeds the thresholds provided below.

#100 Annual air carrier operations	0		Is this 9,000 or more?	Yes	No <u>X</u>
#102 Annual air taxi operations	0		Is this 18,000 or more?	Yes	No <u>X</u>
#105 Annual military operations	_500_		Is this 18,000 or more?	Yes	No <u>X</u>
#103+#104 Annual general aviation	n opera	tior	ns <u>20,000</u> . Is this 72,000 or more?	Yes	No <u>X</u>

4. If you answer "No" on each of the questions above, it is assumed the noise attributed to the airplanes will not extend beyond the boundaries of the airport. Maintain the documentation

in your Environmental Review Record (ERR). You are finished with the evaluation of airport noise for this airport.

If you have marked any question in #3 with "Yes," continue to 5.

- 5. Contact the airport manager, (see blue arrow above) and ask them if the airport has noise contour maps. Are contour maps available?
 - Yes. Locate your project on the noise contour map. If there are no roads or railroads that \square are being considered for noise, utilize the information from the contour map to determine if the site is acceptable. If roads or railroads are being considered, input the information obtained from the airport noise contours, along with the road and railroad information, into HUD online noise calculation tool at

http://www.hud.gov/offices/cpd/environment/dnlcalculator.cfm.

- No. Construct the approximate DNL contours by using the guidance on page 52 and 53 \square of the HUD Noise Guidebook. You will need to obtain the following information from the airport:
 - (a) The number of nighttime jet operations (10pm to 7 am).
 - (b) The number of daytime jet operations (7 am to 10 pm).
 - (c) The flight paths of the major runways.
 - (d) Any available information about expected changes in airport traffic (e.g., will the number of operations increase or decrease in the next 10 to 15 years?).

Contact your HUD Environmental Officer if you need assistance.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION AIRPORT MASTER RECORD

 PRINT DATE:
 2/16/2023

 AFD EFF
 01/26/2023

 FORM APPROVED OMB 2120-0015

						FORM APPROVE	D OIVID 2120-0013
> 1 ASSOC CITY:	OCEAN ISLE BE	ACH 4 STAT	E: NC	LOC ID: 60	J	FAA SITE NR: 1	6994.*A
> 2 AIRPORT NAME				5 COUNTY:	BRUNSWICK NC		
3 CBD TO AIRPOR	RT (NM): 01 N	6 REGI	ON/ADO:	ASO/MEM 7 SECT AERO	O CHT: CHARLOTT	E	
	GENERAL			SERVICES		BASED AIRCRA	<u>IFT</u>
10 OWNERSHIP:	PUBLIC			> 70 FUEL: 100LL		90 SINGLE ENG:	26
> 11 OWNER:	TOWN OF OCEAN ISL	E BEACH				91 MULTI ENG:	3
> 12 ADDRESS:	3 WEST 3RD STREET	0.00400		> 71 AIRFRAME RPRS:	NONE	92 JET:	0
> 13 PHONE NR:	OCEAN ISLE BEACH, NO 910-579-2166	28469		> 72 PWR PLANT RPRS: > 73 BOTTLE OXYGEN:	NONE NONE	93 HELICOPTERS:	1
> 14 MANAGER:	DAISY IVEY			> 74 BULK OXYGEN:	NONE	TOTAL:	30
> 15 ADDRESS:	6070 BEACH DRIVE SW			75 TSNT STORAGE:	TIE	94 GLIDERS:	0
	OCEAN ISLE BEACH, NO	C 28469		76 OTHER SERVICES:		95 MILITARY:	0
> 16 PHONE NR: > 17 ATTENDANCE	910-599-5651			INSTR		96 ULTRA-LIGHT:	0
JUN-AUG	TUE-SUN	1000-1700		FACILITIES		OPERATIONS	
SEP-MAY	SAT-SUN	1000-1600					0
				> 80 ARPT BCN: > 81 ARPT LGT SKED :	SEE RMK	100 AIR CARRIER: 102 AIR TAXI:	0 0
18 AIRPORT USE	PUBLIC			BCN LGT SKED:		103 G A LOCAL:	10,000
19 ARPT LAT:		20N ESTIMATED		> 82 UNICOM:		104 G A ITNRNT:	10,000
20 ARPT LONG: 21 ARPT ELEV:	078-26-04.86 32.7 SURVE			> 83 WIND INDICATOR: 84 SEGMENTED CIRCLE:	YES-L	105 MILITARY: TOTAL:	500 20,500
22 ACREAGE:	30	TED		85 CONTROL TWR:	NO	-	20,300
> 23 RIGHT TRAFFI				86 FSS:	RALEIGH	OPERATIONS FOR	
> 24 NON-COMM LA	ANDING: NO			87 FSS ON ARPT:	NO	12 MONTHS ENDING:	07/16/2021
25 NPIAS/FED AG	REEMENTS: N			88 FSS PHONE NR:			
> 26 FAR 139 INDEX				89 TOLL FREE NR:	1-800-WX-BRIEF		
RUNWAY		06/2	4				
> 30 RUNWAY INDE > 31 LENGTH:	IN F.	4,19					
> 32 WIDTH:		75					
> 33 SURF TYPE-CO		ASPH	l-G				
> 34 SURF TREATM		12.0	h				
35 GROSS WT: 36 (IN THSDS)	S D	12.0	J				
	2D						
	2D/2D2						
> 39 PCN:							
> 40 EDGE INTENS		MEI	C				
> 40 EDGE INTENS		NPI-G /		- / -		- / -	- / -
> 43 VGSI:		P2L /		/		/	/
44 THR COSSING		45 / 3.67 /		/		/	/
45 VISUAL GLIDE > 46 CNTRLN-TDZ:	ANGLE:	3.67 /		- / -		- / -	- / -
> 40 CNTRLN-TDZ.		- /		- / -		- / -	- / -
> 48 REIL:		1		/		/	/
> 49 APCH LIGHTS		/		/		/	/
50 FAR 77 CATEG	CTION DATA	A(V) /	$\Delta(M)$	/		1	1
> 51 DISPLACED TH			189	/		/	/
> 52 CTLG OBSTN:		TREE /	TREES	/		/	/
> 53 OBSTN MARKE		/	00	/		/	/
> 54 HGT ABOVE R		48 / 1,025 /		/ /		/	/
> 55 DIST FROM RV > 56 CNTRLN OFFS		73R /		/		, /	/
57 OBSTN CLNC		17:1 /	13:1	/		/	/
58 CLOSE-IN OBS		N /	Ν	/		/	/
DECLAR	ED DISTANCES	1		I		/	/
> 61 TAKE OFF DIS	· · · · · · · · · · · · · · · · · · ·	, , ,		/		, /	, /
> 62 ACLT STOP DI	· · · · · · · · · · · · · · · · · · ·	1		/		/	/
> 63 LNDG DIST AV		/	0001/-	/		/	/
	SE ADVISE FSS IN ITEM 8	WHEN CHANGES	OCCUR T	O ITEMS PRECEDED BY >			
> 110 REMARKS							
A 017 MO	N-FRI ON CALL (910-575-75	575); FOR SERVICE	AFTER HC	OURS CALL 845-629-0626.			
A 017 24 ⊢	IR PILOT LOUNGE - EMER	RG FREQ ALLOWS A					
	Y 24 APCH SLOPE 16:1 AT	DSPLCD THR.					
	IR SS FUEL WITH CC. ASTAL FLT SVCS (FLT TRN	IG/SCHOOL)					
	VT MIRL RWY 06/24 - CTA		WY 24 OF	PERATE CONSLY.			
A 110-001 PARALLEL TWY BEYOND RAMP IS CLOSED.							
A 110-003 RWY 06 HAS 48 FT MARKED TRANSITIONAL POWER LINE +/-1000 FT FROM THR. A 110-004 SIGHT-SEEING TOUR OPNS INV OF ARPT.							
A 110-004 SIGHT-SEEING TOUR OPNS INV OF ARPT. A 110-005 FOR CD CTC MYRTLE BEACH APCH AT 843-477-2727 OR 843-477-2704, WHEN APCH CLSD CTC JACKSONVILLE ARTCC AT 904-845-1592.							
	ITION - DTFC SHUD VFY N						
	(0)			07/10/0004	4401407		
111 INSPECTOR							
	(S)	112	LAST INSI	P: 07/16/2021	113 LAST	INFO REQ:	

Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > DNL Calculator

DNL Calculator

The Day/Night Noise Level Calculator is an electronic assessment tool that calculates the Day/Night Noise Level (DNL) from roadway and railway traffic. For more information on using the DNL calculator, view the Day/Night Noise Level Calculator Electronic Assessment Tool Overview (/programs/environmental-review/daynight-noise-level-electronic-assessment-tool/).

Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- Note #2: DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Garnet Place (2021)
Record Date	04/13/2023
User's Name	Andrea Gievers

Road #1

Vehicle Type	Cars 🗹	Medium Trucks 🗹	Heavy Trucks 🗹
Effective Distance	783	783	783
Distance to Stop Sign			
Average Speed	60	60	60
Average Daily Trips (ADT)	27435	1180	885
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	55	51	57
Calculate Road #1 DNL	60	Reset	

Road # 2 Name:	Smith Avenue - 2021					
Road #2						
Vehicle Type	Cars 🗹	Medium Trucks 🗌	Heavy Trucks 🗌			

Effective Distance	390						
Distance to Stop Sign							
Average Speed	35						
Average Daily Trips (ADT)	10500						
Night Fraction of ADT	15						
Road Gradient (%)							
Vehicle DNL	51	0	0				
Calculate Road #2 DNL	51	Reset					
Add Road Source Add F	Add Road Source Add Rail Source						
Airport Noise Level							
Loud Impulse Sounds?		⊖Yes ®No					
Combined DNL for all Road and Rail sources		60					
Combined DNL including	Airport	N/A					
Site DNL with Loud Impuls	se Sound						

Calculate Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- Other Reasonable Alternatives: Choose an alternate site
- Mitigation
 - Contact your Field or Regional Environmental Officer (/programs/environmentalreview/hud-environmental-staff-contacts/)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (/resource/313/hud-noise-guidebook/)
 - Construct noise barrier. See the Barrier Performance Module (/programs/environmental-review/bpm-calculator/)

Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-levelassessment-tool-user-guide/)

Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-levelassessment-tool-flowcharts/) Home (/) > Programs (/programs/) > Environmental Review (/programs/environmentalreview/) > DNL Calculator

DNL Calculator

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Guidelines

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
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- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- Note #2: DNL Calculator assumes roadway data is always entered.

DNL Calculator

Site ID	Garnet Place (2035)
Record Date	04/13/2023
User's Name	Andrea Gievers

Road #1

Vehicle Type	Cars 🗹	Medium Trucks 🗹	Heavy Trucks 🗹
Effective Distance	783	783	783
Distance to Stop Sign			
Average Speed	60	60	60
Average Daily Trips (ADT)	36392	1565	1174
Night Fraction of ADT	15	15	15
Road Gradient (%)			2
Vehicle DNL	56	53	59
Calculate Road #1 DNL	61	Reset	

Road # 2 Name:	Smith Avenue - 2035					
Road #2						
Vehicle Type	Cars 🗹	Medium Trucks 🗆	Heavy Trucks 🗌			

Effective Distance	390						
Distance to Stop Sign							
Average Speed	35						
Average Daily Trips (ADT)	12414						
Night Fraction of ADT	15						
Road Gradient (%)							
Vehicle DNL	51	0	0				
Calculate Road #2 DNL	51	Reset					
Add Road Source Add F	Rail Source						
Airport Noise Level							
Loud Impulse Sounds?		⊖Yes ®No					
Combined DNL for all Road and Rail sources		62					
Combined DNL including	Airport	N/A					
Site DNL with Loud Impuls	se Sound						

Calculate Reset

Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**: Cancel the project at this location
- Other Reasonable Alternatives: Choose an alternate site
- Mitigation
 - Contact your Field or Regional Environmental Officer (/programs/environmentalreview/hud-environmental-staff-contacts/)
 - Increase mitigation in the building walls (only effective if no outdoor, noise sensitive areas)
 - Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses
 - Incorporate natural or man-made barriers. See *The Noise Guidebook* (/resource/313/hud-noise-guidebook/)
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Tools and Guidance

Day/Night Noise Level Assessment Tool User Guide (/resource/3822/day-night-noise-levelassessment-tool-user-guide/)

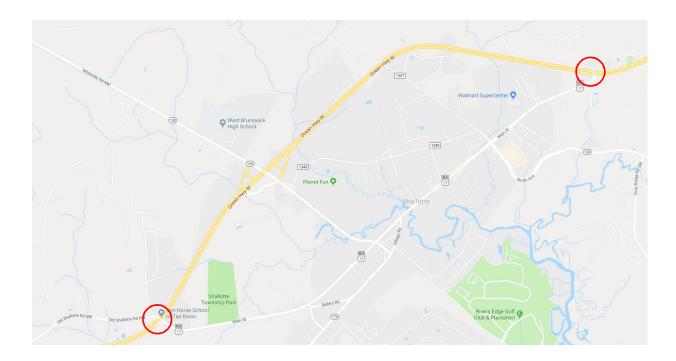
Day/Night Noise Level Assessment Tool Flowcharts (/resource/3823/day-night-noise-levelassessment-tool-flowcharts/)

DEPARTMENT OF TRANSPORTATION

STATE OF NORTH CAROLINA

TRAFFIC FORECAST MEMORANDUM

For the intersections of: US 17 at US 17 Business (North and South of Shallotte, NC) Brunswick County, NC



Report Prepared by: Sunita Nadella, PE, PTOE, PTP Regional Traffic Practice Lead

PARSONS

3577 Parkway Lane, Building 5, Suite 100 Norcross GA 30092 Ph: 678-969-2304 Fax: 770-446-4910 Email: sunita.nadella@parsons.com

Date report prepared: 10/18/2018

R-5857 Traffic Forecast October 18, 2018 Page **1** of **11**

Project Information: This traffic forecast is being prepared for STIP Project No. R-5857 in Brunswick County, North Carolina. The study intersections are along US 17 (Ocean Highway W) at the northern and southern limits of the Town of Shallotte. US 17 intersects with SR 1316 (Old Shallotte Road)/US 17 Business at the southern intersection and Frontage Road/US 17 Business at the northern intersection.

The no-build forecast scenarios were developed for the 2018 base year and 2040 design year. Forecasts were not developed for the build scenarios, because the improvements are only at the intersection level.

No forecast has been previously completed for R-5857 or other projects within this study area.

Area Information: The project study area is at the town limits of Shallotte, within Brunswick County and NCDOT Division 3. Brunswick County is bounded by Columbus and Pender Counties to the north, and Horry County, SC to the south.

Intersection Descriptions: Both intersections are four-legged signalized intersections. US 17 is classified as a principal arterial by NCDOT, US 17 Business is a two-lane major collector, and Old Shallotte Road and Frontage Road are local roads. For the purposes of this study, US 17 is a four-lane road with a median that travels north-south at the southern intersection and east-west at the northern intersection. The location maps are seen below in Figures 1 and 2.



Figure 1. Location map of southern intersection



Figure 2. Location map of northern intersection

Population, Employment, and Land Use: The population in Brunswick County and the Town of Shallotte both experienced a high rate of growth from 1990-2017 and 2000-2017, with Brunswick County growing at approximately 3.5% and Shallotte growing at nearly 5%. From 2010-2017, population growth rates slowed to 2.76% in Brunswick County and 2.21% in Shallotte. Employment growth in Brunswick County stayed relatively constant, which fell between 2.2-2.8%. The population and employment growth rates can be seen in Table 1 below.

			Esti	Growth Rate									
Location	Category	1990	2000	2010	2017	1990-	2000-	2010-					
		1990	2000	2010	2017	2017	2017	2017					
Brunswick	Population*	51,271	73,756	108,181	130,897	3.53%	3.43%	2.76%					
County	Employment**	23,201	33,547	40,701	48,341	2.76%	2.17%	2.49%					
Town of Shallotte	Population*	1,114	1,836	3,511	4,092	4.94%	4.83%	2.21%					

*Source: U.S. Census Bureau

**Source: U.S. Department of Labor BLS Data Finder

The land use in the study area is primarily commercial and residential. The commercial properties are largely within the Shallotte town limits along US 17 Business. There are several residential communities that surround the study area, as well some undeveloped and agricultural land.

Data Collection: Traffic counts were collected on Thursday, September 6, 2018. 13-hour turning movement classification counts were taken at each intersection from 6am-7pm. Design data, including heavy vehicle percentages (duals and TTSTs), directional distribution factors (D) and peak hour factors (K), were determined from the intersection turning movement counts. The design data is listed in Table 4.

2018 Base Year No-Build Forecast: Two methods were used to calculate the 2018 No-Build AADT volumes. First, historic AADTs were taken from the NCDOT AADT Mapping Application at each approach for the two study intersections from 2003-2017. These values, shown in Table 2, were then projected to 2018 with a linear trend analysis, based on past 10-year and 15-year historical AADT. Note that the count station along SR 1316 (Old Shallotte Road) is west of Wildwood Street NW, explaining why the historical AADTs are less than the field-calculated AADT.

AADT values were also calculated using the field data collection. The 13-hour turning movement counts were converted to daily counts and then multiplied by the appropriate seasonal factors for ATR Group 2. The field-calculated AADTs are listed in Table 3.

R-5857 Traffic Forecast October 18, 2018 Page **4** of **11**

The volumes resulting from these two methods were compared for each approach to determine the appropriate 2018 AADT value. NCDOT's latest published AADT values are typically used in cases where the volume is greater than those calculated from field counts. This does not occur for any of the segments at these two intersections. Therefore, the AADTs calculated from the field counts are used for the 2018 No-Build Volumes. This comparison can be seen in Table 5. Lastly, the AADT segment and turning movements were balanced at each intersection, which are displayed in the traffic diagram.

								lab	e 2. Histo	rical AAD	I and For	ecast									
Leg	ID	Intersection	Route	Selected Segment	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 (based on 15-year linear trend)	2018 (based on 10-year linear trend)
North			US 17 (Ocean Hwy)	North of US 17 Business (Main St)	18,000	21,000	19,000	24,000	25,000	21,000	21,000		21,000	21,000	23,000		23,000	28,000	24,000	25,100	25,800
East		US 17 at US 17	US 17 Business (Main St)	East of US 17 (Ocean Hwy)	9,400	8,500	8,900	10,000	11,000	10,000	9,800	8,400	9,300	9,900	9,300			9,800	8,600	9,300	9,100
South	1	Business/SR 1316	US 17 (Ocean Hwy)	South of US 17 Business (Main St)							19,100				25,000		31,000		26,000	30,300	30,300
West			SR 1316 (Old Shallotte Road)	West of US 17 (Ocean Hwy)*	3,200		2,500		3,400		2,800		2,600		2,400		2,300		2,100	2,100	2,000
North			Frontage Road	North of US 17 (Ocean Hwy)**																-	-
East	2	US 17 at US 17 Business /Frontage	US 17 (Ocean Hwy)	East of US 17 Business (Main St)							28,000				31,000		29,000		28,000	29,000	29,000
South	2	Business/Frontage Road	US 17 Business (Main St)	South of US 17 (Ocean Hwy)	9,700	9,100	10,000	11,000	12,000	12,000	10,000		10,000		11,000		11,000	13,000	11,000	11,900	11,700
West			US 17 (Ocean Hwy)	West of US 17 Business (Main St)	19,000	24,000	21,000	23,000	25,000	22,000	22,000	20,000		22,000	22,000	23,000	24,000	28,000	24,000	24,700	25,700

Table 2. Historical AADT and Forecast

* Due to data limitations, segment is west of Wildwood Street NW

** No data available

Leg	ID	Intersection	Route	Selected Segment	Date	Day	13 Hour Count	13 Hr to Daily Factor	Daily Counts	ATR Group	Seasonal Factor	Annualized Daily Count	Estimated AADT (Rounded)
North			US 17 (Ocean Hwy)	North of US 17 Business (Main St)	9/6/2018	Thursday	21,780	83%	26,370	2	0.97	25,579	25,600
East	1	US 17 at US 17	US 17 Business (Main St)	East of US 17 (Ocean Hwy)	9/6/2018	Thursday	7,704	83%	9,328	2	0.97	9,048	9,000
South	T	Business/SR 1316	US 17 (Ocean Hwy)	South of US 17 Business (Main St)	9/6/2018	Thursday	24,150	83%	29,240	2	0.97	28,362	28,400
West			SR 1316 (Old Shallotte Road)	West of US 17 (Ocean Hwy)	9/6/2018	Thursday	4,482	81%	5,504	2	0.97	5,338	5,300
North			Frontage Road	North of US 17 (Ocean Hwy)	9/6/2018	Thursday	2,255	81%	2,769	2	0.97	2,686	2,700
East	2	US 17 at US 17	US 17 (Ocean Hwy)	East of US 17 Business (Main St)	9/6/2018	Thursday	28,650	83%	34,688	2	0.97	33,647	33,600
South	2	2 Business/Frontage Road	US 17 Business (Main St)	South of US 17 (Ocean Hwy)	9/6/2018	Thursday	9,736	83%	11,788	2	0.97	11,434	11,400
West		nouu	US 17 (Ocean Hwy)	West of US 17 Business (Main St)	9/6/2018	Thursday	21,183	83%	25,647	2	0.97	24,878	24,900

Table 3. Field Counts and AADT Calculation

			Table	4. Design Data				
Leg	ID	Intersection	Route	Selected Segment	K- Factor	D- Factor	Truck % (Duals)	Truck % (TT-ST)
North			US 17 (Ocean Hwy)	North of US 17 Business (Main St)	10%	60%	3%	1%
East		US 17 at US 17 Business/SR 1316	US 17 Business (Main St)	East of US 17 (Ocean Hwy)	10%	50%	2%	1%
South	L		US 17 (Ocean Hwy)	South of US 17 Business (Main St)	10%	55%	3%	1%
West			SR 1316 (Old Shallotte Road)	West of US 17 (Ocean Hwy)	12%	60%	2%	1%
North			Frontage Road	North of US 17 (Ocean Hwy)	11%	60%	1%	1%
East]	US 17 at US 17	US 17 (Ocean Hwy)	East of US 17 Business (Main St)	10%	55%	3%	1%
South	2	Business/Frontage Road	US 17 Business (Main St)	South of US 17 (Ocean Hwy)	10%	50%	1%	1%
West		nouu	US 17 (Ocean Hwy)	West of US 17 Business (Main St)	10%	60%	3%	1%

Leg	ID	Intersection	Route	Selected Segment		Historical DT Data	Extrap	ate w/ olation	Field-Counts Calculated AADT	2018 Traffic Forecast
					Year	AADT	15-year	10-year		(Balanced)
North			US 17 (Ocean Hwy)	North of US 17 Business (Main St)	2017	24000	25,100	25,800	25,600	25,600
East	1	US 17 at US 17	US 17 Business (Main St)	East of US 17 (Ocean Hwy)	2017	8600	9,300	9,100	9,000	9,000
South	T	Business/SR 1316	US 17 (Ocean Hwy)	South of US 17 Business (Main St)	2017	26000	30,300	30,300	28,400	28,300
West			SR 1316 (Old Shallotte Road)	West of US 17 (Ocean Hwy)	2017	2100	2,100	2,000	5 <i>,</i> 300	5,300
North			Frontage Road	North of US 17 (Ocean Hwy)	-	-	-	-	2,700	2,700
East	_	US 17 at US 17 Business/Frontage Road	US 17 (Ocean Hwy)	East of US 17 Business (Main St)	2017	28000	29,000	29,000	33,600	33,500
South	2		US 17 Business (Main St)	South of US 17 (Ocean Hwy)	2017	11000	11,900	11,700	11,400	11,400
West		Noud	US 17 (Ocean Hwy)	West of US 17 Business (Main St)	2017	24000	24,700	25,700	24,900	25,000

Table 5. 2018 No-Build AADT Comparison

R-5857 Traffic Forecast October 18, 2018 Page **9** of **11**

Traffic Growth Rate: The growth rates in the study area were first calculated using a linear trend analysis of the historical AADT values. The linear regression equations were used to estimate the 2002 and 2018 AADT values, and an annualized growth rate was then calculated for each approach. A sum of the US 17 approach leg AADTs at each intersection was also used to calculate a mainline growth rate. The sideroads were not added together, as they are not of the same functional classification and have different growth patterns.

The Grand Strand Area Transportation Study (GSATS) Travel Demand Model outputs for 2015 and 2040 were also used to calculate growth rates. The same methodology was used in calculating the annual growth rates as above.

A comparison of the growth rates can be seen in Table 6. The historical AADT calculation shows abnormal growth rates where data is sparse, including -2.7% along SR 1316 (Old Shallotte Road) and 5.7% along US 17 (Ocean Highway). The travel demand model growth rates appear more reasonable, as the model considers future land use assumptions. The US 17 (Ocean Highway) mainline has approximately 1.0-1.3% growth, and the side streets vary from 0.9-3.4%. The growth rates obtained from the travel demand model were therefore used in the 2040 design year forecast.

The Frontage Road, north of US 17 (Ocean Highway), does not have an NCDOT AADT count station or a modeled segment in the GSATS travel demand model. The minimum allowable growth of 0.5% was assumed in this case, as it is a frontage road where little growth is expected, based on the land use.

2040 Design Year No-Build Forecast: The design year forecast was developed by applying the appropriate annual growth rates to the subject roadways. The individual growth rates by approach were used for each of the side streets, and the mainline sum growth rate was used for US 17 (Ocean Highway). The calculation results from this can be seen in Table 7.

The AADTs were then appropriately adjusted for each intersection to be balanced. The intersections were not balanced between each other, due to major crossroads that separate the two along US 17, particularly SR 130 (Whiteville Rd). The design data remained the same as the Base Year data, as there is no evidence this will change in the future conditions.

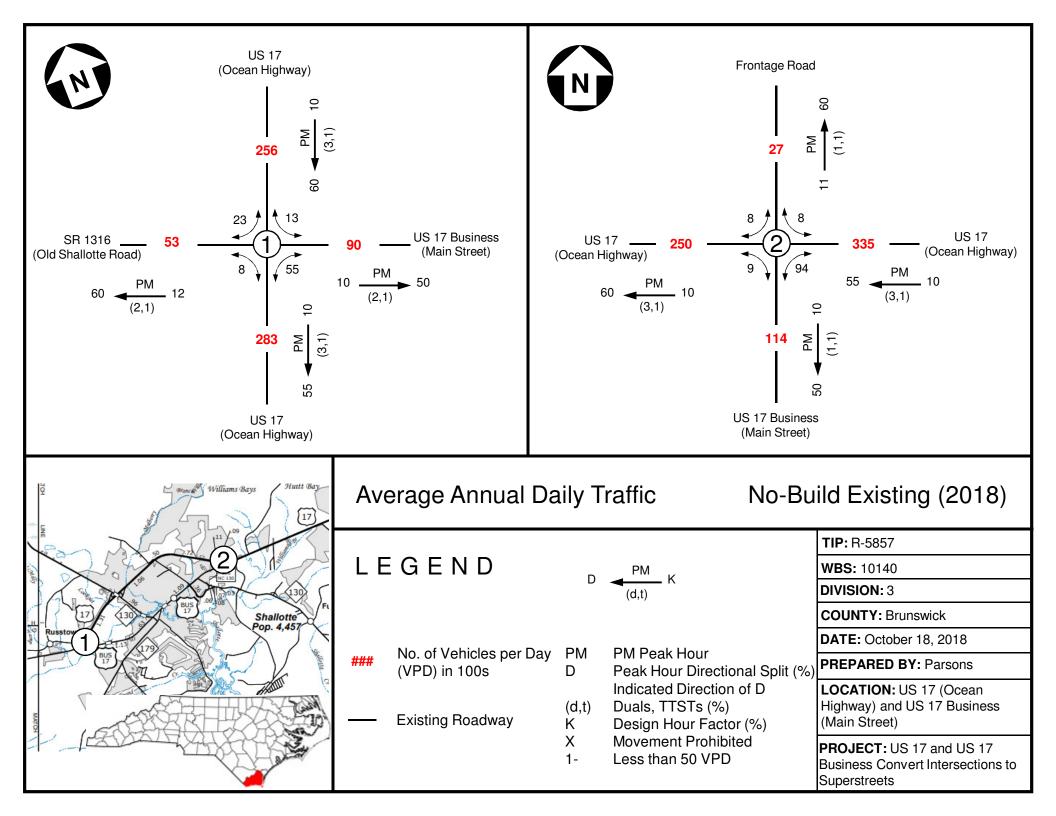
The 2040 design year no-build AADT values can be seen in the traffic diagram.

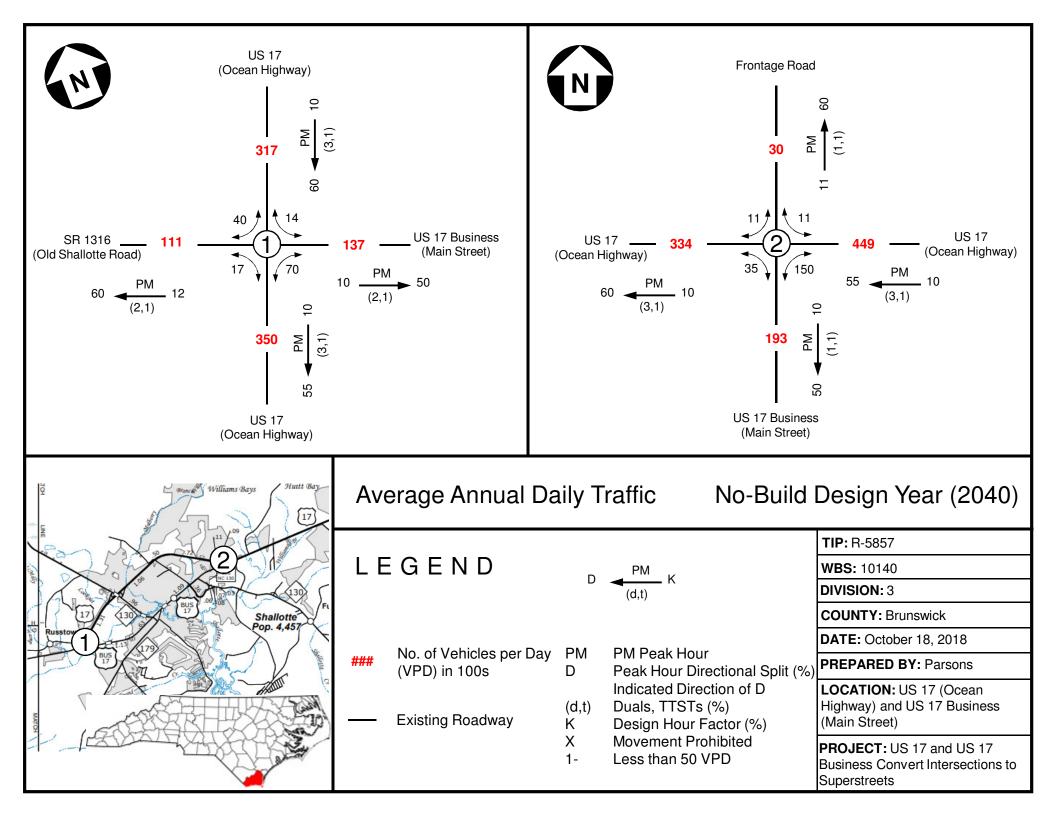
Leg	ID	Intersection	Route	Selected Segment	Linear Regression Equation	2002 Estimate (x=0)	2018 Estimate (x=16)	Annual Growth Rate	2015 No- Build TDM Output	2040 No- Build TDM Output	Annual Growth Rate
North			US 17 (Ocean Hwy)	North of US 17 Business (Main St)	y = 346.02x + 19569	19,569	25,105	1.6%	29,985	38,588	1.0%
South		US 17 at US 17 Business/SR 1316	US 17 (Ocean Hwy)	South of US 17 Business (Main St)	y = 1115.7x + 12444	12,444	30,295	5.7%	33,653	42,493	0.9%
-	1		Sum of I	-	32,013	55,401	3.5%	63,638	81,081	1.0%	
East		Businessy 5N 1510	US 17 Business (Main St)	East of US 17 (Ocean Hwy)	y = -12.954x + 9548.5	9,549	9,341	-0.1%	5,466	8,778	1.9%
West			SR 1316 (Old Shallotte Road)	West of US 17 (Ocean Hwy)	y = -70.833x + 3229.2	3,229	2,096	-2.7%	3,812	8,864	3.4%
East			US 17 (Ocean Hwy)	East of US 17 Business (Main St)	y = 29000	29,000	29,000	0.0%	31,277	43,237	1.3%
West		US 17 at US 17	US 17 (Ocean Hwy)	West of US 17 Business (Main St)	y = 235.85x + 20916	20,916	24,690	1.0%	30,427	42,721	1.4%
-	2	Business/Frontage	Sum of I	Mainline US 17	-	49,916	53,690	0.5%	61,704	85,958	1.3%
North	Road	Frontage Road	North of US 17 (Ocean Hwy)	-	-	-	-	-	-	-	
South			US 17 Business (Main St)	South of US 17 (Ocean Hwy)	y = 122.18x + 9900.3	9,900	11,855	1.1%	8,501	15,453	2.4%

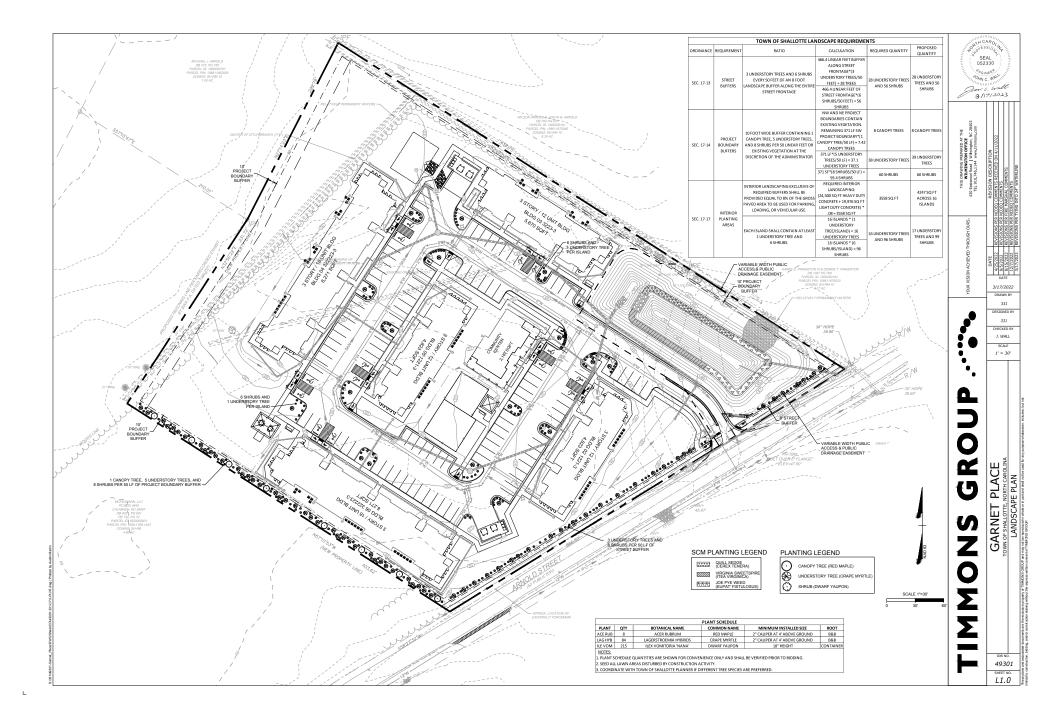
Table 6. Annual Growth Rate Comparison

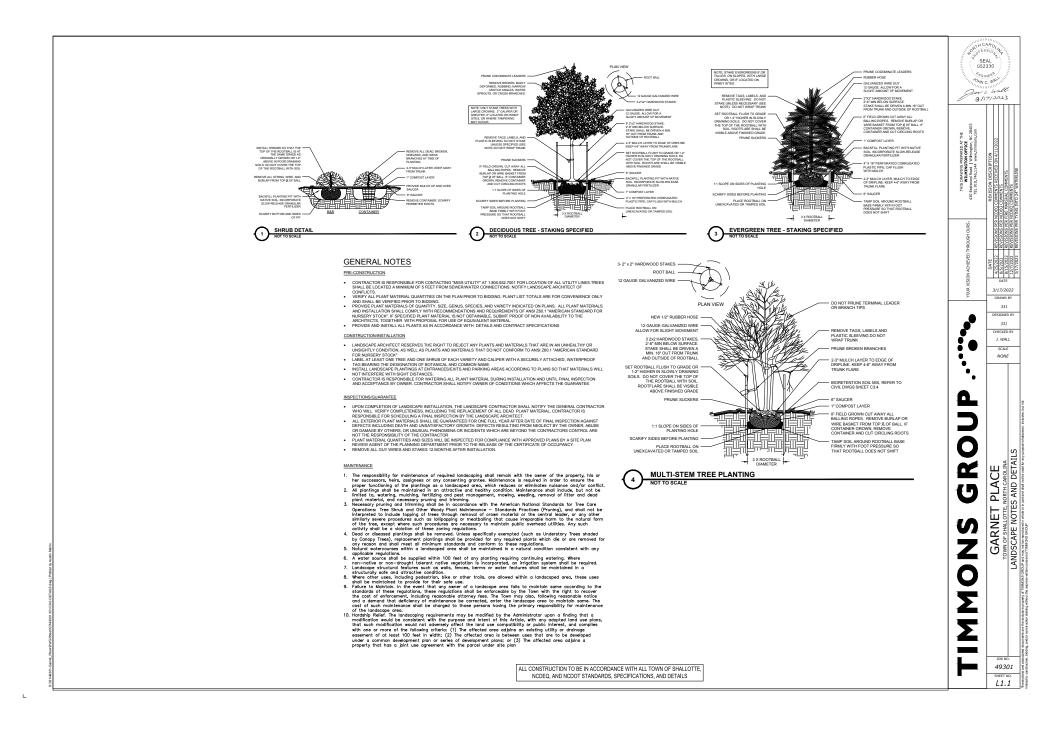
Leg	ID			Selected Segment	2018 Traffic Forecast	Annual Growth Rate	2040 Traffic Forecast	2040 Traffic Forecast (Balanced)
North			US 17 (Ocean Hwy)	North of US 17 Business (Main St)	25,600	1.0%	31,682	31,700
East	1	US 17 at US 17 Business/SR 1316	US 17 Business (Main St)	East of US 17 (Ocean Hwy)	9,000	1.9%	13,655	13,700
South	T		US 17 (Ocean Hwy)	South of US 17 Business (Main St)	28,400	1.0%	35,148	35,100
West			SR 1316 (Old Shallotte Road)	West of US 17 (Ocean Hwy)	5,300	3.4%	11,137	11,100
North			Frontage Road	North of US 17 (Ocean Hwy)	2,700	0.5%	3,013	3,000
East	_	US 17 at US 17	US 17 (Ocean Hwy)	East of US 17 Business (Main St)	33,600	1.3%	44,982	44,900
South	2	Business/Frontage Road	US 17 Business (Main St)	South of US 17 (Ocean Hwy)	11,400	2.4%	19,289	19,300
West			US 17 (Ocean Hwy)	West of US 17 Business (Main St)	24,900	1.3%	33,335	33,400

Table 7. No-Build 2018 and 2040 Forecast









ATTACHMENT 14:

Sole Source Aquifers

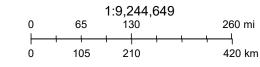
EPA Sole Source Aquifer Map

North Carolina Sole Source Aquifer Map



6/7/2022, 1:53:09 PM

Sole_Source_Aquifers



Esri, HERE, Garmin, NGA, USGS, NPS

ATTACHMENT 15:

Wetlands Protection

Garnet Place - NWI Wetlands



October 20, 2022





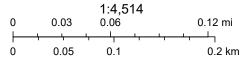
Estuarine and Marine Wetland



Freshwater Emergent Wetland

nd Other

Lake



U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov, @ 2022 Microsoft Corporation @ 2022 Maxar



U.S. Fish and Wildlife Service **National Wetlands Inventory**

Garnet Place



October 20, 2022

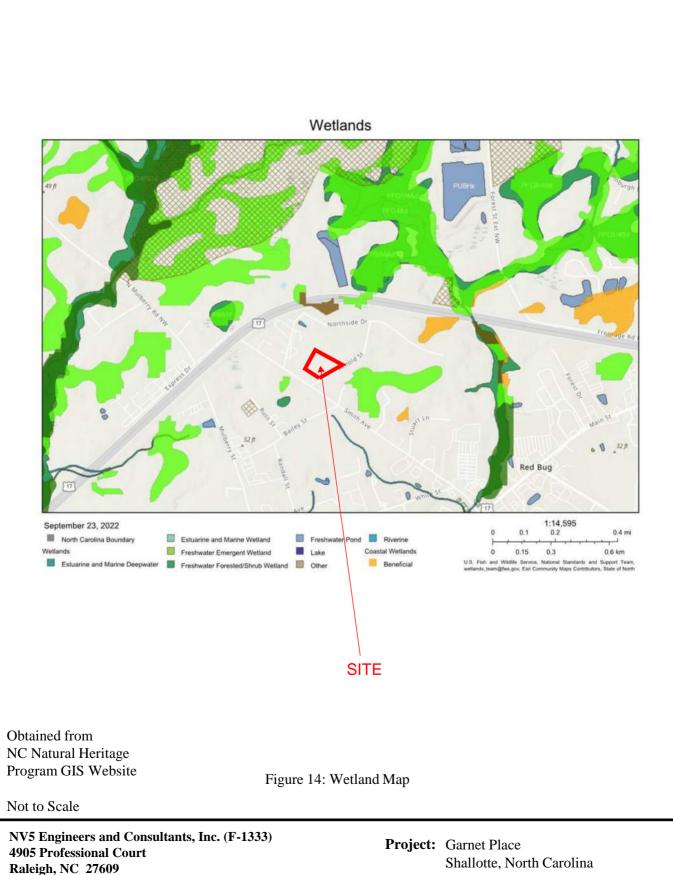
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Forested/Shrub Wetland
 - Freshwater Pond

Freshwater Emergent Wetland

Lake Other Riverine This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

NV5



919-876-9799

Shallotte, North Carolina Our Project Number 121-21-107110

N|V|5



NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

N|V|5

February 16, 2023

Environmental Site Assessment Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Project Name: Garnet Place

Location:

271 Smith Avenue in Shallotte, North Carolina (Brunswick County Parcel ID: 18200008 and 1820000801)

Discussion of Wetlands and Jurisdictional Waters:

NV5 Engineers and Consultants, Inc. has reviewed information regarding wetlands, streams, and coastal zone management for the above referenced project. The reviewed information includes a 404/401 Delineation Preliminary Sketch performed by Land Management Group, National Wetland Inventory Maps, a Notification of Jurisdictional Determination by USACE, Approved Jurisdictional Determination Form by USACE, and a CZMA Federal Consistency Determination for the subject property.

A total of approximately 748 linear feet of Non-Stream Relatively Permanent Waters (RPWs) that flow into Traditional Navigable Water (TNW) are present along the northern boundary of the subject property. The RPW flow through two (2) tributaries before entering TNW (Shallotte River). The Non-Stream waters are reportedly confined to a stable, relatively straight, tributary with approximately 3 feet banks. No wetlands were observed or reported in the LMG preliminary determination or in the USACE Jurisdictional Determination. Additionally, no Riparian corridor was referenced in the USACE Approved Jurisdictional Determination Form. The Erosion Control Plan prepared by Timmons Group dated August 15, 2022, shows limits of disturbance outside of the surveyed channel that contains the RPWs. The provided plans also indicate that the RPW are located along the north and east side of the site, that these RPW do not have a Riparian buffer, and are not proposed to be impacted by construction.

A NPDES Construction Stormwater permit (NCG010000) is also usually issued should design features meet minimum requirements. The comments also address 401 Water Quality Certification, wetlands, streams and buffer zones based on the larger parent parcel instead of the actual proposed project parcel as shown in the attached Wetland Exhibit. The distances from the proposed project to the wetlands and streams in the vicinity are shown on the preliminary site plan. The proposed project will not involve new construction in wetlands and will abide by all identified pertinent 401 Water Quality Certification and wetlands, streams and buffer zones. An Erosion and Sedimentation Control Plan for the proposed project is being developed. BMPs will be utilized during construction to avoid any silt erosion. The proposed project is in compliance with this section.

Sincerely,

NV5 Engineers and Consultants, Inc.

William B. Strayhorn, P.G. Senior Registered Geologist

Enclosures

NV5 Engineers and Consultants, Inc. NC Engineering Corporation F-1333 4905 Professional Court, Raleigh, North Carolina 27609 (919) 876-9799

U.S. ARMY CORPS OF ENGINEERS

WILMINGTON DISTRICT

Action Id. SAW-2021-02204 County: Brunswick County U.S.G.S. Quad: Shallotte

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Applicant:	<u>McFearann LLC</u> <u>Teresa McLamb</u>		
Address:	<u>PO Box 4640</u> <u>Calabash, NC, 28467</u>		
Telephone Number:	<u>(910) 520-9035</u>		
E-mail Address:	teresamclamb@gmail.com		
Nearest Waterway Mu	<u>acres</u> Ilberry Branch)40208	Nearest Town River Basin Coordinates	Shallotte, NCLower Pee DeeLatitude:33.986443Longitude:-78.385548
Location description: <u>This</u> <u>18200008).</u>	9.9 acre project is located at 271 s	smith Avenue in	n Shallotte, Brunswick County, NC. (Parcel ID:

Indicate Which of the Following Apply:

A. Preliminary Determination

- There are waters, including wetlands, on the above described project area, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). The waters, including wetlands, have been delineated, and the delineation has been verified by the Corps to be sufficiently accurate and reliable. Therefore this preliminary jurisdiction determination may be used in the permit evaluation process, including determining compensatory mitigation. For purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity on the site as if they are jurisdictional waters of the U.S. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331). However, you may request an approved JD, which is an appealable action, by contacting the Corps district for further instruction.
- There are wetlands on the above described property, that may be subject to Section 404 of the Clean Water Act (CWA)(33 USC § 1344) and/or Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403). However, since the waters, including wetlands, have not been properly delineated, this preliminary jurisdiction determination may not be used in the permit evaluation process. Without a verified wetland delineation, this preliminary determination is merely an effective presumption of CWA/RHA jurisdiction over all of the waters, including wetlands, at the project area, which is not sufficiently accurate and reliable to support an enforceable permit decision. We recommend that you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

B. Approved Determination

There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act (RHA) (33 USC § 403) and Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification. SAW-2021-02204

X There are waters of the U.S. on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA) (33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

We recommend you have the waters of the U.S. on your property delineated. As the Corps may not be able to accomplish this wetland delineation in a timely manner, you may wish to obtain a consultant to conduct a delineation that can be verified by the Corps.

X The Waters of the U.S. on your project area have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.

_ The waters of the U.S., including wetlands, have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on _____. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

_ There are no waters of the U.S., to include wetlands, present on the above described project area which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

X The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Wilmington, NC to determine their requirements.

Placement of dredged or fill material within waters of the US, including wetlands, without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). Placement of dredged or fill material, construction or placement of structures, or work within navigable waters of the United States without a Department of the Army permit may constitute a violation of Sections 9 and/or 10 of the Rivers and Harbors Act (33 USC § 401 and/or 403). If you have any questions regarding this determination and/or the Corps regulatory program, please contact <u>Gary Beecher at (910) 251-4694 or</u> <u>Gary.H.Beecher@usace.army.mil</u>.

C. Basis For Determination: <u>There is a 748 LF Jurisdictional Open Water ditch onsite that exhibits an Ordinary High</u> <u>Water Mark (OHWM).</u>

D. Remarks: <u>A desk top review was conducted on this application using information obtained from the consultant (Land</u> <u>Management Group) and from Corps generated QL2 Lidar Maps and soils maps.</u>

E. Attention USDA Program Participants

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

F. Appeals Information for Approved Jurisdiction Determinations (as indicated in Section B. above)

If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

US Army Corps of Engineers South Atlantic Division Attn: Mr. Philip A. Shannin Administrative Appeal Review Officer 60 Forsyth Street SW, Floor M9 Atlanta, Georgia 30303-8803 <u>AND</u> <u>PHILIP.A.SHANNIN@USACE.ARMY.MIL</u>

SAW-2021-02204

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by March 11, 2022. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this correspondence.

Corps Regulatory Official:

Date: January 11, 2022

Expiration Date: January 11, 2027

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete our Customer Satisfaction Survey, located online at http://corpsmapu.usace.army.mil/cm apex/f?p=136:4:0.

Copy Furnished via e-mail to:

Consultants:

Paul Farley Elizabeth Freedland Land Management Group 3805 Wrightsville Avenue, Suite 15 Wilmington, NC 28403 (910) 452-0001 pfarley@lmgroup.net efreedland@lmgroup.net

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: McFearann LLC	File Number: SAW-2021-022	204	Date: January 11, 2022
Teresa McLamb			
Attached is:		See Sect	tion below
INITIAL PROFFERED PERMIT (Standard Pern	nit or Letter of permission)		А
PROFFERED PERMIT (Standard Permit or Letter of permission)		В	
PERMIT DENIAL			С
APPROVED JURISDICTIONAL DETERMINA	TION		D
PRELIMINARY JURISDICTIONAL DETERM	INATION		Е
	1. 1	1 64	1 1 1

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <u>http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx</u> or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

SAW-2021-02204

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFO	ORMATION:
If you have questions regarding this decision and/or the	If you only have questions regarding the appeal process you may
appeal process you may contact:	also contact:
District Engineer, Wilmington Regulatory Division,	US Army Corps of Engineers
Attn: Gary Beecher	South Atlantic Division
	Attn: Mr. Philip A. Shannin
	Administrative Appeal Review Officer
	60 Forsyth Street SW, Floor M9
	Atlanta, Georgia 30303-8803
	PHILIP.A.SHANNIN@USACE.ARMY.MIL

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

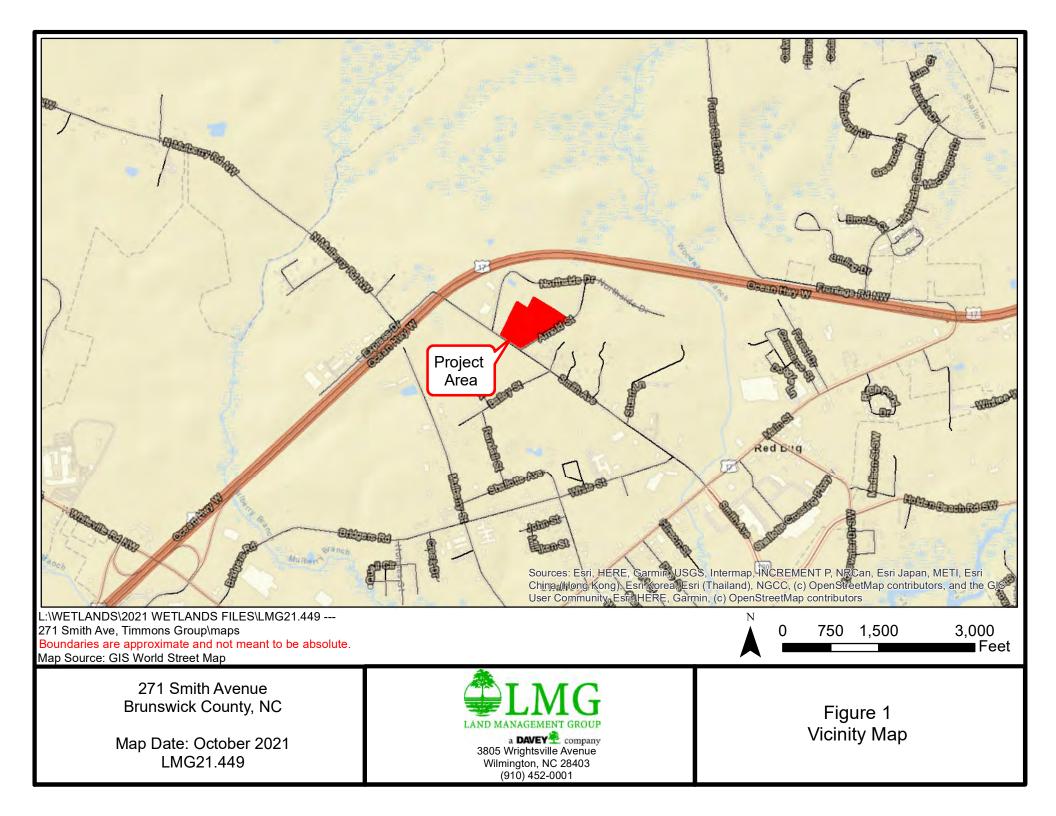
	Date:	Telephone number:
Signature of appellant or agent.		

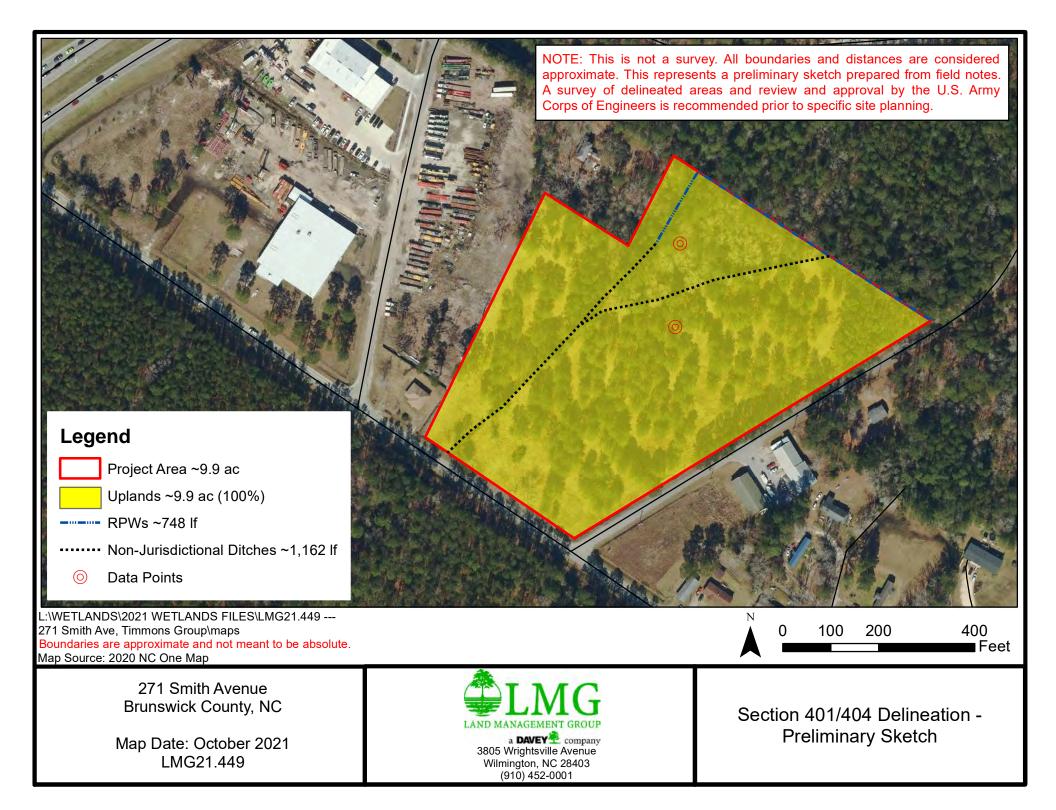
For appeals on Initial Proffered Permits send this form to:

District Engineer, Wilmington Regulatory Division, Attn: Gary Beecher, 69 Darlington Avenue, Wilmington, North Carolina 28403

For Permit denials, Proffered Permits and approved Jurisdictional Determinations send this form to:

Division Engineer, Commander, U.S. Army Engineer Division, South Atlantic, Attn: Mr. Philip Shannin, Administrative Appeal Officer, CESAD-PDO, 60 Forsyth Street, Room 10M15, Atlanta, Georgia 30303-8801 Phone: (404) 562-5137, <u>PHILIP.A.SHANNIN@USACE.ARMY.MIL</u>





APPROVED JURISDICTIONAL DETERMINATION FORM **U.S. Army Corps of Engineers**

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): A.

DISTRICT OFFICE, FILE NAME, AND NUMBER: В.

PROJECT LOCATION AND BACKGROUND INFORMATION: C

State: NC County/parish/borough: Brunswick City: Shallotte Center coordinates of site (lat/long in degree decimal format): Lat. 33.986443° N, Long. -78.385548° E. Universal Transverse Mercator: 17 S 741504.76 m E 3763728.69 m N

Name of nearest waterbody: Woodward Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Shallotte River Name of watershed or Hydrologic Unit Code (HUC): 03040208

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. \boxtimes

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

Office (Desk) Determination. Date:

Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

- a. Indicate presence of waters of U.S. in review area (check all that apply): ¹
 - TNWs, including territorial seas
 - Wetlands adjacent to TNWs
 - Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 - Non-RPWs that flow directly or indirectly into TNWs
 - Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 - Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 - Impoundments of jurisdictional waters

Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: ~748 linear feet: width (ft) and/or acres. Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual Elevation of established OHWM (if known):

Non-regulated waters/wetlands (check if applicable):³ 2.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW:

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent":

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

 (i) General Area Conditions: Watershed size: 64.56 square miles Drainage area: 1.31 square miles Average annual rainfall: 53 inches Average annual snowfall: 1 inches

(ii) Physical Characteristics:

(a) <u>Relationship with TNW:</u>
 ☐ Tributary flows directly into TNW.
 ☑ Tributary flows through 2 tributaries before entering TNW.

Project waters are 1-2 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
Project waters are 1 (or less) aerial (straight) miles from TNW.
Project waters are 1 (or less) aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain:

Identify flow route to TNW⁵: Unnamed tributary - Woodward Branch - Shallotte River. Tributary stream order, if known:

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b)	General Tributary Characteristics (check all that apply): Tributary is: Natural Artificial (man-made). Explain: Manipulated (man-altered). Explain:
	Tributary properties with respect to top of bank (estimate): Average width: 3 feet Average depth: 3 feet Average side slopes: 2:1.
	Primary tributary substrate composition (check all that apply):
	Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Stable. Presence of run/riffle/pool complexes. Explain: Unknown. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): 1-2 %
(c)	<u>Flow:</u> Tributary provides for: Seasonal flow Estimate average number of flow events in review area/year: 11-20 Describe flow regime: Other information on duration and volume:
	Surface flow is: Confined. Characteristics:
	Subsurface flow: Unknown. Explain findings: Dye (or other) test performed: .
	Tributary has (check all that apply): Bed and banks OHWM ⁶ (check all indicators that apply): Clear, natural line impressed on the bank changes in the character of soil shelving vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining other (list): Discontinuous OHWM. ⁷ Explain:
	If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Mean High Water Mark indicated by: oil or scum line along shore objects survey to available datum; fine shell or debris deposits (foreshore) physical markings/characteristics tidal gauges other (list):
ii) Che	emical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Water is clear.

Identify specific pollutants, if known:

.

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break. ⁷Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- Riparian corridor. Characteristics (type, average width): \square
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings: Environment for amphibians and reptiles.

Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW 2.

Physical Characteristics: (i)

- (a) General Wetland Characteristics: Properties: Wetland size: acres Wetland type. Explain: Wetland quality. Explain: Project wetlands cross or serve as state boundaries. Explain:
- (b) General Flow Relationship with Non-TNW: Flow is: Pick List. Explain:

Surface flow is: Pick List Characteristics:

Subsurface flow: Pick List. Explain findings: Dye (or other) test performed:

(c) <u>Wetland Adjacency Determination with Non-TNW:</u>

- Directly abutting
- □ Not directly abutting
 - Discrete wetland hydrologic connection. Explain:
 - Ecological connection. Explain:
 - Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW. Project waters are **Pick List** aerial (straight) miles from TNW. Flow is from: Pick List. Estimate approximate location of wetland as within the Pick List floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Identify specific pollutants, if known:

(iii) Biological Characteristics. Wetland supports (check all that apply):

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

Characteristics of all wetlands adjacent to the tributary (if any) 3.

All wetland(s) being considered in the cumulative analysis: Pick List) acres in total are being considered in the cumulative analysis. Approximately (

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- 1. Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- 2. Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
- 3. Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.

2. **<u>RPWs</u>** that flow directly or indirectly into TNWs.

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
- Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: According to UGS topographic maps, field notes, and LiDAR imagery RPWs appear to flow seasonally.

Provide estimates for jurisdictional waters in the review area (check all that apply):

acres.

- Tributary waters: ~748 linear feet width (ft).
- Other non-wetland waters:
 - Identify type(s) of waters:
- 3. Non-RPWs⁸ that flow directly or indirectly into TNWs.
 - Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
 - Identify type(s) of waters:

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

- 7. Impoundments of jurisdictional waters.⁹
 - As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
 - Demonstrate that impoundment was created from "waters of the U.S.," or
 - Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 - Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain:
- Other factors. Explain:

Identify water body and summarize rationale supporting determination:

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos*.

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters: linear feet width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters:

Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based <u>solely</u> on the "Migratory Bird Rule" (MBR).
 - Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain:

Other: (explain, if not covered above):

Provide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

Non-wetland v	waters (i.e., rive	rs, streams):	linear feet	width (ft).	
Lakes/ponds:	acres.				
Other non-wet	land waters:	acres. List t	ype of aquatic re	source: .	
Wetlands:	acres.				

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
 - Lakes/ponds: acres.
 - Other non-wetland waters: acres. List type of aquatic resource:
- Wetlands: acres.

SECTION IV: DATA SOURCES.

- A. SUPPORTING DATA. Data reviewed for JD (check all that apply checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
 - Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
 - Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
 - Data sheets prepared by the Corps:
 - Corps navigable waters' study:
 - U.S. Geological Survey Hydrologic Atlas:
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
 - U.S. Geological Survey map(s). Cite scale & quad name: 1:400, USGS Brunswick County GIS Mosaic.
 - USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS GIS Soils Data.
 - National wetlands inventory map(s). Cite name:
 - State/Local wetland inventory map(s):
 - FEMA/FIRM maps:
 - 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
 - Photographs: 🖄 Aerial (Name & Date): NAPP 1998 Infrared, 2020 NC One Map.
 - or 🗌 Other (Name & Date):
 - Previous determination(s). File no. and date of response letter:
 - Applicable/supporting case law:
 - Applicable/supporting scientific literature:
 - Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Gievers, Andrea

From:	Tammy Stern <tammy@millsconstructionco.com></tammy@millsconstructionco.com>
Sent:	Thursday, October 27, 2022 2:38 PM
To:	Gievers, Andrea
Cc:	Bobby Funk
Subject:	[External] Garnet Place - USACE JD RPW and non-Jurisdictional ditches write-up
Follow Up Flag:	Follow up
Flag Status:	Flagged

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to <u>Report Spam.</u>

Hi Andrea,

Per your request, we reached out to NC DEQ DWR about Garnet Place and its JD report. They confirmed that no additional permitting is required. See Holley's message below.

Thanks, Tammy

From: "Snider, Holley" <holley.snider@ncdenr.gov>

Date: Thursday, October 27, 2022 at 2:27 PM

To: Tammy Stern <tammy@millsconstructionco.com>, "Brock, Brendan O" <brendan.brock@ncdenr.gov> Cc: "Freedland, Elizabeth" <elizabeth.freedland@davey.com>, Bobby Funk <bobby@millsconstructionco.com> Subject: RE: [External] JD Findings for Shallotte Development

A 401 water quality certification is not required by the Division of Water Resources.

Sincerely, Holley Snider ...,><(((((º>...),...><(((((º>...) Environmental Specialist II Division of Water Resources North Carolina Department of Environmental Quality Phone: (910) 796-7303



127 Cardinal Drive Ext. Wilmington, NC 28405

Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties

From: Tammy Stern <tammy@millsconstructionco.com> Sent: Thursday, October 27, 2022 11:21 AM To: Brock, Brendan O <brendan.brock@ncdenr.gov>; Snider, Holley <holley.snider@ncdenr.gov>
 Cc: Freedland, Elizabeth <elizabeth.freedland@davey.com>; Bobby Funk <bobby@millsconstructionco.com>
 Subject: [External] JD Findings for Shallotte Development

CAUTION: External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to <u>Report Spam.</u>

Dear Brendan and Holley,

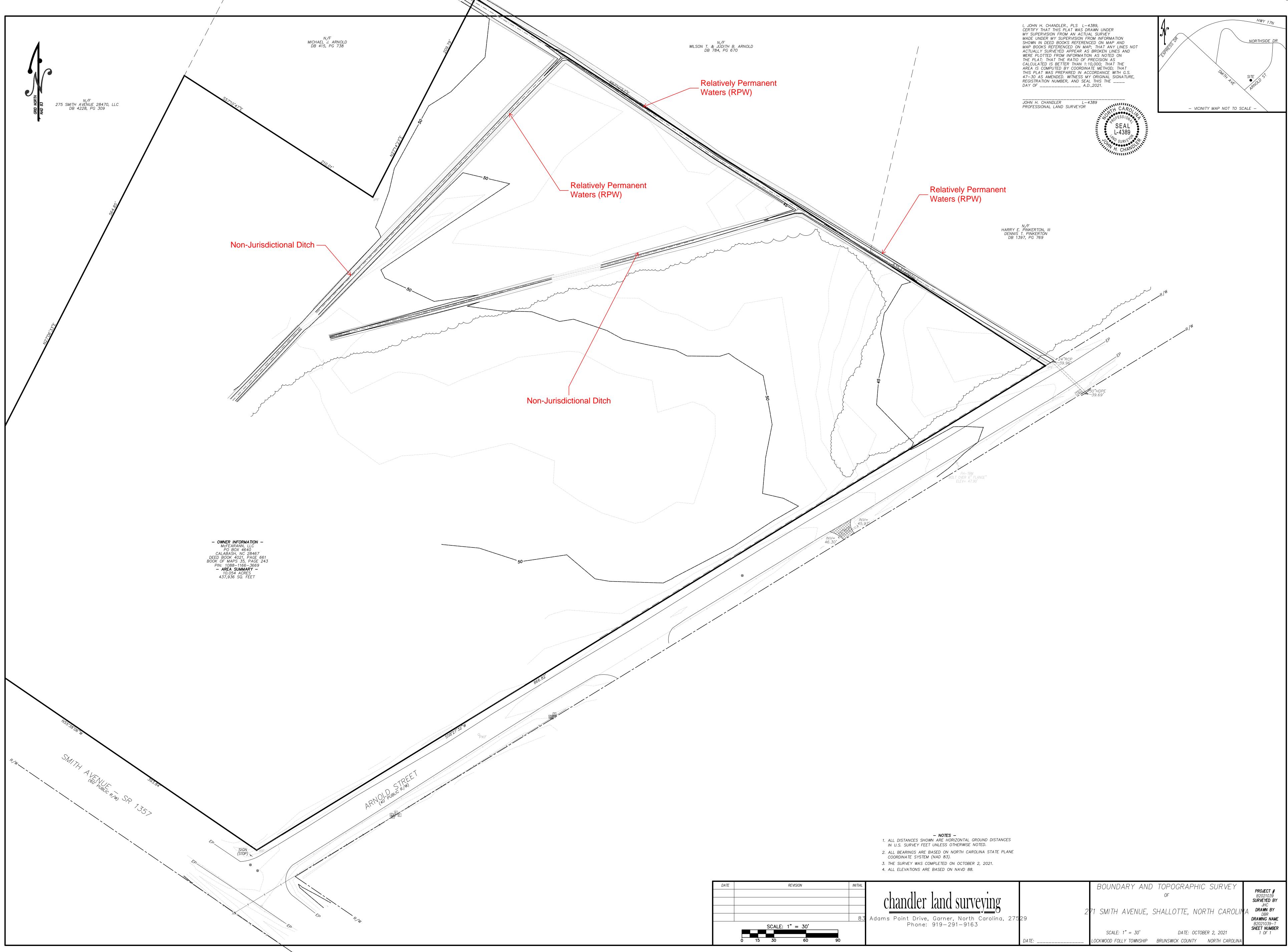
My team is working on a multifamily development project in Shallotte, NC, on a property for which LMG produced the attached jurisdictional delineation reports. The engineering team reported that no USACE 404 permit is required.

I am reaching out to you to ensure no DWR permitting and no further action is required based on the report findings. I would also like to confirm absence of CAMA jurisdiction.

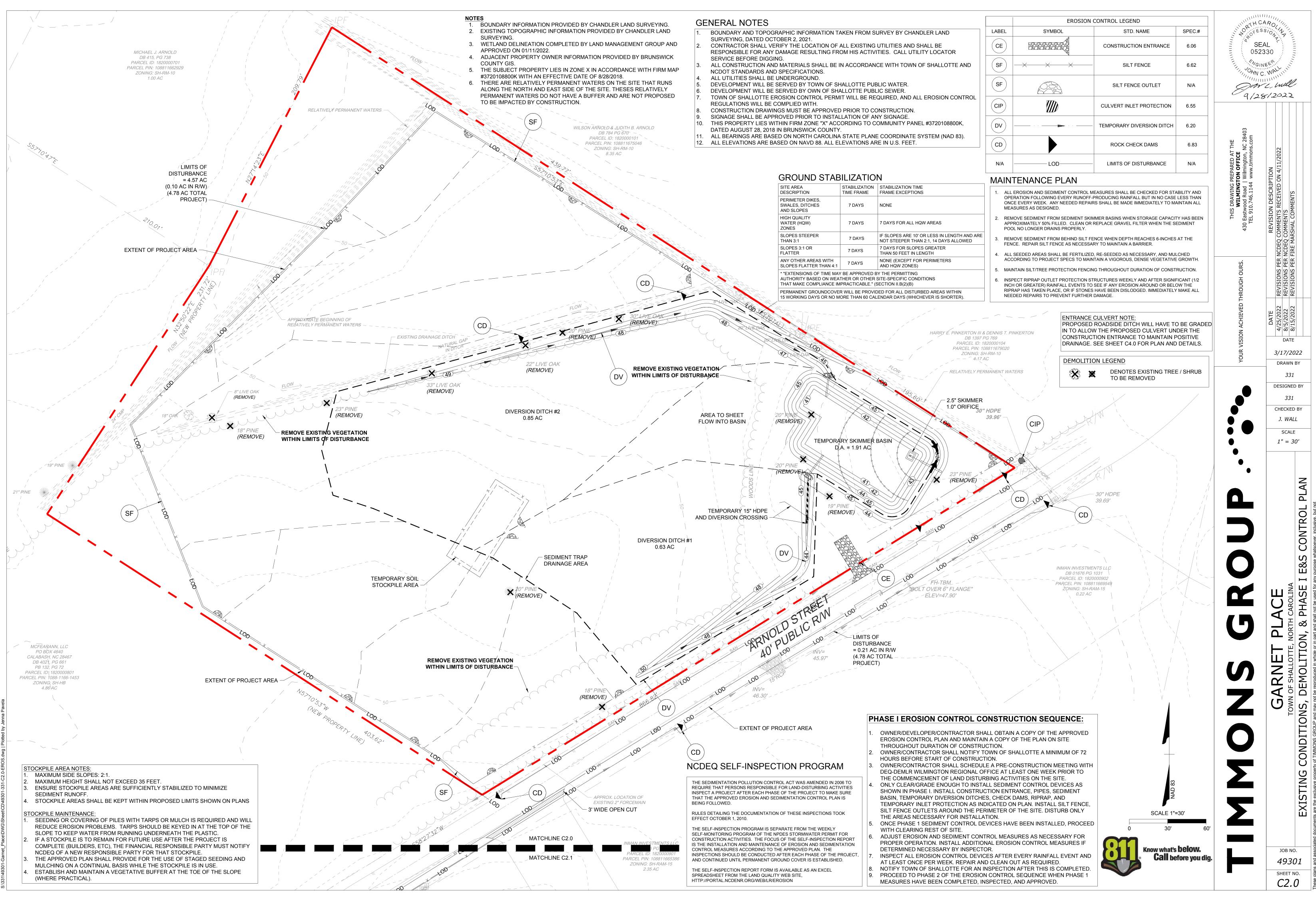
The Brunswick County Parcel ID is: 1820000801. Please let me know if you need any additional information.

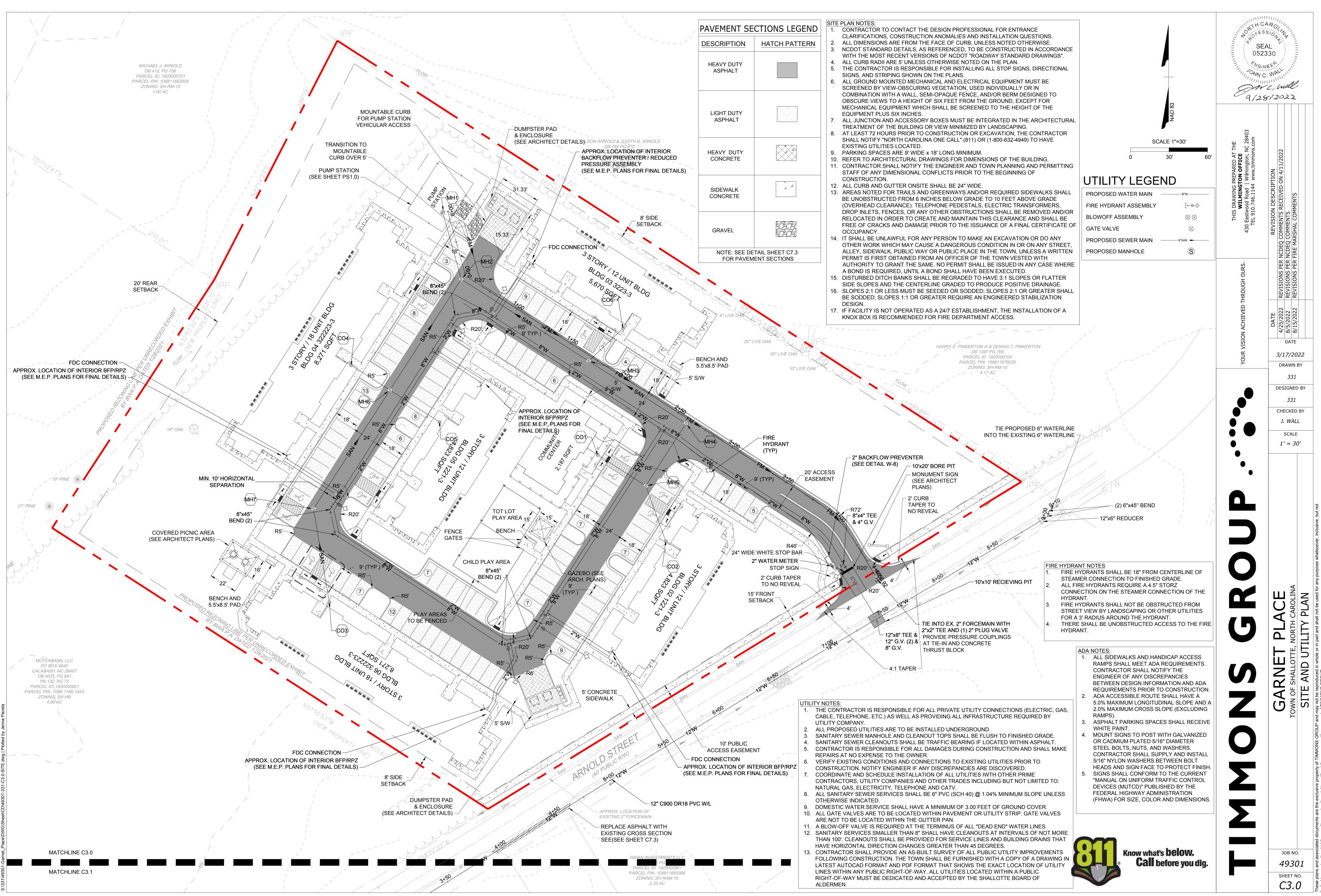
Thanks so much for your help, Tammy

Tammy Stern Mills Construction Company millsconstructionco.com Cell: 201-951-1213



OGRAPHIC SURVEY ^{B2021033} SURVEYED JHC OTTE, NORTH CAROLINA DRAWN B
DBR DRAWING N. B2021039- DATE: OCTOBER 2, 2021 DATE: OCTOBER 2, 2021 DATE: OCTOBER 2, 2021
CK COUNTY NORTH CAROLINA

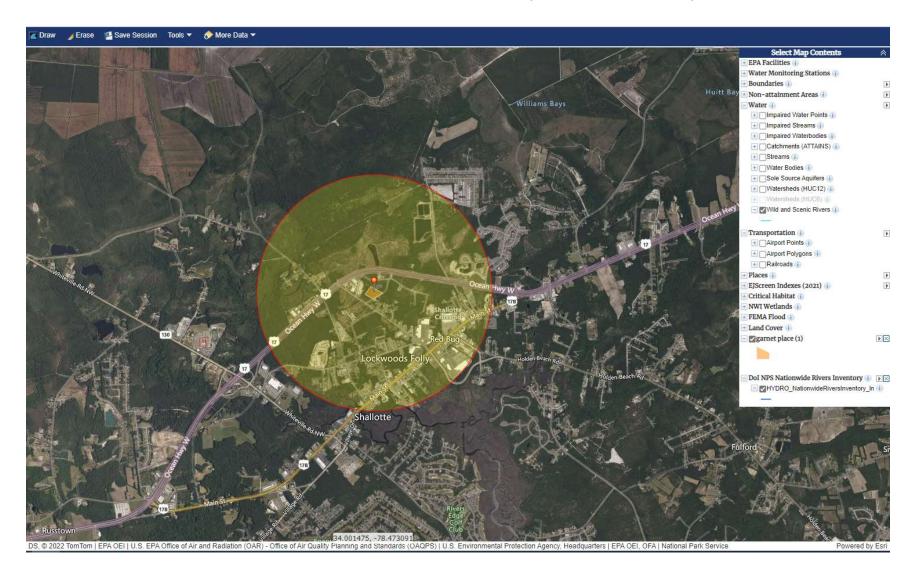




ATTACHMENT 16:

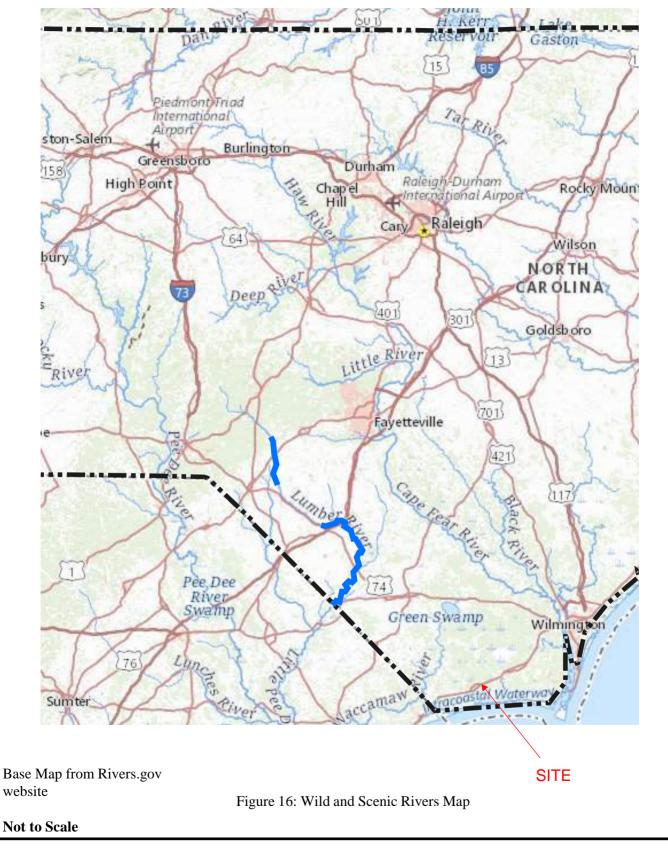
Wild and Scenic Rivers

NEPAssist Map of DOI NPS Nationwide Rivers Inventory and National Wild and Scenic Rivers System Showing 1-mile Buffer from Proposed Project Site



Garnet Place - Wild Scenic Rivers & NRI (1-mile buffer shown)

N|V|5



NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

ATTACHMENT 17:

Environmental Justice

EJSCREEN Summary Report, EJSCREEN ACS Summary Report, EJSCREEN Census 2010 Summary Report, NCDEQ Community Mapping, and CDC Report



EJScreen Report (Version 2.1)



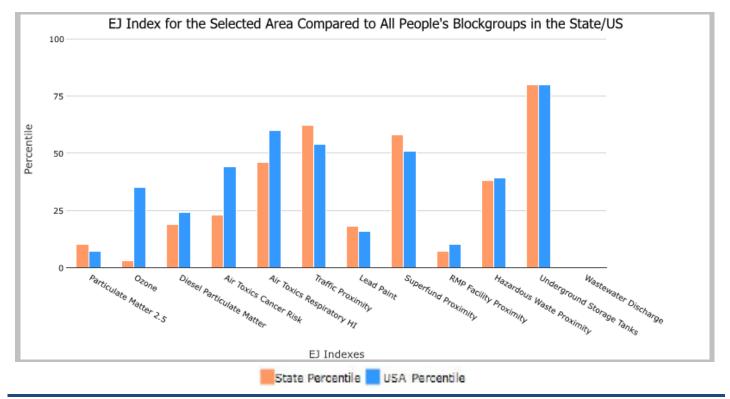
1 mile Ring Centered at 33.986582,-78.384849, NORTH CAROLINA, EPA Region 4

Approximate Population: 921

Input Area (sq. miles): 3.14

Garnet Place

Selected Variables	State Percentile	USA Percentile
Environmental Justice Indexes		
EJ Index for Particulate Matter 2.5	10	7
EJ Index for Ozone	3	35
EJ Index for Diesel Particulate Matter*	19	24
EJ Index for Air Toxics Cancer Risk*	23	44
EJ Index for Air Toxics Respiratory HI*	46	60
EJ Index for Traffic Proximity	62	54
EJ Index for Lead Paint	18	16
EJ Index for Superfund Proximity	58	51
EJ Index for RMP Facility Proximity	7	10
EJ Index for Hazardous Waste Proximity	38	39
EJ Index for Underground Storage Tanks	80	80
EJ Index for Wastewater Discharge	0	0



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.

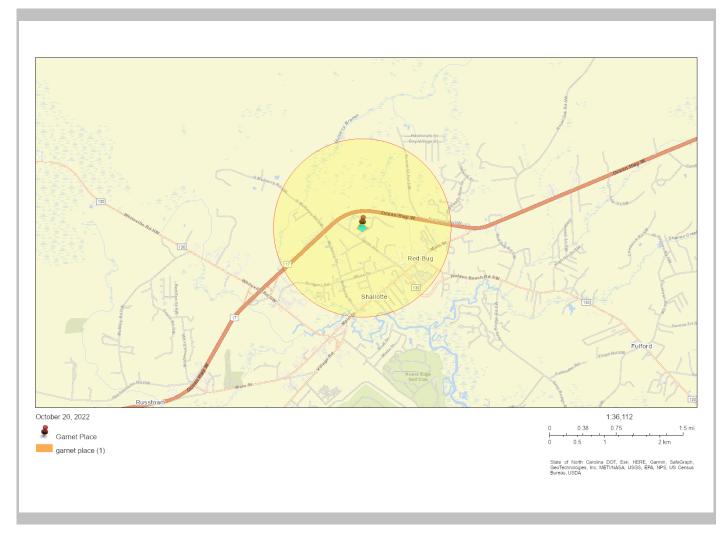


EJScreen Report (Version 2.1)



1 mile Ring Centered at 33.986582,-78.384849, NORTH CAROLINA, EPA Region 4

Approximate Population: 921 Input Area (sq. miles): 3.14 Garnet Place



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



EJScreen Report (Version 2.1)



1 mile Ring Centered at 33.986582,-78.384849, NORTH CAROLINA, EPA Region 4

Approximate Population: 921

Input Area (sq. miles): 3.14

Garnet Place

Selected Variables	Value	State Avg.	%ile in State	USA Avg.	%ile in USA
Pollution and Sources			2		
Particulate Matter 2.5 (µg/m ³)	5.62	7.67	5	8.67	2
Ozone (ppb)	36.5	41.5	1	42.5	15
Diesel Particulate Matter [*] (µg/m ³)	0.0817	0.178	9	0.294	<50th
Air Toxics Cancer Risk [*] (lifetime risk per million)	20	28	21	28	<50th
Air Toxics Respiratory HI*	0.3	0.36	39	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	90	400	43	760	32
Lead Paint (% Pre-1960 Housing)	0.023	0.15	23	0.27	19
Superfund Proximity (site count/km distance)	0.026	0.08	32	0.13	25
RMP Facility Proximity (facility count/km distance)	0.037	0.41	3	0.77	3
Hazardous Waste Proximity (facility count/km distance)	0.092	0.83	17	2.2	17
Underground Storage Tanks (count/km ²)	4.2	3.9	73	3.9	73
Wastewater Discharge (toxicity-weighted concentration/m distance)	6.8E-10	0.28	1	12	0
Socioeconomic Indicators					
Demographic Index	47%	35%	72	35%	72
People of Color	60%	37%	77	40%	73
Low Income	35%	33%	52	30%	61
Unemployment Rate	1%	5%	25	5%	24
Limited English Speaking Households	0%	2%	0	5%	0
Less Than High School Education	22%	11%	84	12%	83
Under Age 5	6%	6%	63	6%	61
Over Age 64	28%	16%	85	16%	86

*Diesel particular matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 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.



EJSCREEN ACS Summary Report



Location: User-specified point center at 33.986582, -78.384849

Ring (buffer): 1-miles radius

Description: Garnet Place

Summary of ACS Estimates			2016 - 2020
Population			921
Population Density (per sq. mile)			286
People of Color Population			550
% People of Color Population			60%
Households			356
Housing Units			457
Housing Units Built Before 1950			4
Per Capita Income			22,571
Land Area (sq. miles) (Source: SF1)			3.22
% Land Area			99%
Water Area (sq. miles) (Source: SF1)			0.02
% Water Area			1%
	2016 - 2020	. .	

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population by Race			
Total	921	100%	511
Population Reporting One Race	818	89%	1,026
White	391	42%	388
Black	421	46%	502
American Indian	3	0%	63
Asian	0	0%	13
Pacific Islander	0	0%	13
Some Other Race	3	0%	47
Population Reporting Two or More Races	103	11%	248
Total Hispanic Population	64	7%	275
Total Non-Hispanic Population	857		
White Alone	371	40%	348
Black Alone	421	46%	502
American Indian Alone	3	0%	63
Non-Hispanic Asian Alone	0	0%	13
Pacific Islander Alone	0	0%	13
Other Race Alone	0	0%	13
Two or More Races Alone	62	7%	219
Population by Sex			
Male	455	49%	235
Female	466	51%	365
Population by Age			
Age 0-4	57	6%	130
Age 0-17	164	18%	175
Age 18+	757	82%	375
Age 65+	259	28%	227

 Data Note:
 Detail may not sum to totals due to rounding.
 Hispanic population can be of any race.

 N/A means not available.
 Source:
 U.S. Census Bureau, American Community Survey (ACS) 2016 - 2020



EJSCREEN ACS Summary Report



Location: User-specified point center at 33.986582, -78.384849

Ring (buffer): 1-miles radius

Description: Garnet Place

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population 25+ by Educational Attainment			
Total	703	100%	396
Less than 9th Grade	11	2%	33
9th - 12th Grade, No Diploma	146	21%	205
High School Graduate	145	21%	224
Some College, No Degree	163	23%	176
Associate Degree	124	18%	137
Bachelor's Degree or more	114	16%	122
Population Age 5+ Years by Ability to Speak English			
Total	864	100%	466
Speak only English	852	99%	439
Non-English at Home ¹⁺²⁺³⁺⁴	12	1%	82
¹ Speak English "very well"	7	1%	73
² Speak English "well"	5	1%	36
³ Speak English "not well"	0	0%	13
⁴ Speak English "not at all"	0	0%	13
³⁺⁴ Speak English "less than well"	0	0%	13
²⁺³⁺⁴ Speak English "less than very well"	5	1%	36
Linguistically Isolated Households [*]			
Total	1	100%	27
Speak Spanish	1	100%	24
Speak Other Indo-European Languages	0	0%	13
Speak Asian-Pacific Island Languages	0	0%	13
Speak Other Languages	0	0%	13
Households by Household Income			
Household Income Base	356	100%	197
< \$15,000	49	14%	153
\$15,000 - \$25,000	86	24%	127
\$25,000 - \$50,000	63	18%	108
\$50,000 - \$75,000	88	25%	129
\$75,000 +	70	20%	111
Occupied Housing Units by Tenure			
Total	356	100%	197
Owner Occupied	249	70%	161
Renter Occupied	106	30%	155
Employed Population Age 16+ Years			100
Total	777	100%	401
In Labor Force	391	50%	303
Civilian Unemployed in Labor Force	4	0%	77
Not In Labor Force	386	50%	297

DataNote:Datail may not sum to totals due to rounding.Hispanic population can be of anyrace.N/Ameans not available.Source:U.S. Census Bureau, American Community Survey (ACS)*Households in which no one 14 and over speaks English "very well" or speaks English only.



EJSCREEN ACS Summary Report



Location: User-specified point center at 33.986582, -78.384849

Ring (buffer): 1-miles radius

Description: Garnet Place

	2016 - 2020 ACS Estimates	Percent	MOE (±)
Population by Language Spoken at Home [*]			
Total (persons age 5 and above)	1,887	100%	714
English	1,855	98%	721
Spanish	29	2%	107
French, Haitian, or Cajun	0	0%	19
German or other West Germanic	2	0%	12
Russian, Polish, or Other Slavic	0	0%	19
Other Indo-European	0	0%	19
Korean	0	0%	19
Chinese (including Mandarin, Cantonese)	0	0%	19
Vietnamese	0	0%	19
Tagalog (including Filipino)	0	0%	19
Other Asian and Pacific Island	0	0%	19
Arabic	0	0%	19
Other and Unspecified	0	0%	19
Total Non-English	32	2%	1,015

Data Note: Detail may not sum to totals due to rounding. Hispanic popultion can be of any race. N/A meansnot available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2016 - 2020. *Population by Language Spoken at Home is available at the census tract summary level and up.



EJSCREEN Census 2010 Summary Report



Location: User-specified point center at 33.986582, -78.384849

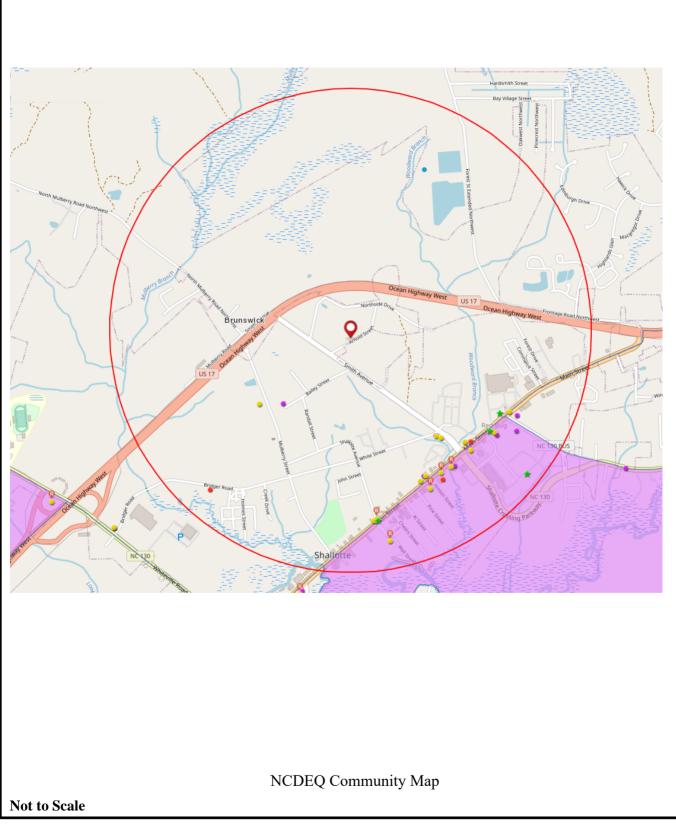
Ring (buffer): 1-miles radius

Description: Garnet Place

Summary		Census 2010
Population		759
Population Density (per sq. mile)		252
People of Color Population		238
% People of Color Population		31%
Households		338
Housing Units		394
and Area (sq. miles)		3.01
% Land Area		99%
Water Area (sq. miles)		0.02
% Water Area		1%
Population by Race	Number	Percent
Total	759	
Population Reporting One Race	745	98%
White	544	72%
Black	169	22%
American Indian	7	1%
Asian	2	0%
Pacific Islander	0	0%
Some Other Race	23	3%
Population Reporting Two or More Races	14	2%
Total Hispanic Population	51	7%
Total Non-Hispanic Population	708	93%
White Alone	521	69%
Black Alone	165	22%
American Indian Alone	7	1%
Non-Hispanic Asian Alone	2	0%
Pacific Islander Alone	0	0%
Other Race Alone	1	0%
Two or More Races Alone	11	1%
Population by Sex	Number	Percent
Male	354	47%
Female	405	53%
Population by Age	Number	Percent
Age 0-4	52	7%
Age 0-17	181	24%
Age 18+	578	76%
Age 65+	126	17%
Households by Tenure	Number	Percent
Fotal	338	
Owner Occupied	205	61%
Renter Occupied	133	39%

Data Note: Detail may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, Census 2010 Summary File 1.

N|V|5



NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110



The places where you live, work, and play may affect your health.

You can use this **Info by Location** tool to get a snapshot of some of the environmental health issues for your area.

Enter a county name.

Brunswick, NC

Don't know the county name? Type in a zip code instead.

SUBMIT

Select Topics (optional) »

Brunswick County, North Carolina[†]



POPULATION: 115,262

INCOME

Average Household Income

Brunswick County: \$63,712

North Carolina: \$57,388

Residents who live below the poverty line



11.2%

Brunswick County

12.9%

North Carolina

QUICK FACTS:

Out of 10 people living in this county

SEX



AGE

About 2 are between the ages of 0 and 19 years

About 1 are between the ages of 20 and 34 years

About 2 are between the ages of 35 and 49 years

About 5 are 50 years and older

ETHNICITY

Less than 1 are Hispanic and 10 are non-Hispanic

RACE

-	

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Discover the data (../../DataExplorer?query=C7380B65-728D-4621-A122-47283CF8B444&G5=9999) | Learn more about this topic (/showPcMain.action)

 \dagger 2020 data from the National Environmental Public Health Tracking Network (/showHome.action)



Asthma[†]

Percent of adults who currently have asthma

7.8% 7.0%

North Carolina

National

Asthma is a chronic disease that affects the airways that carry oxygen in and out of the lungs. Asthma can cause

- shortness of breath,
- wheezing,
- coughing, and
- tightness in the chest.

Asthma attacks have been linked to many factors, including exposure to environmental hazards like

- allergens,
- tobacco smoke, and
- indoor and outdoor air pollution.

Asthma can be controlled by taking medication and avoiding triggers that can cause an attack.

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Discover the data (/../DataExplorer/?query=1F12A3B5-E744-4857-9110-401524CC8D8E&fips=37&G5=9999) | Learn more about this topic (/showAsthma.action)

† 2020 data from the National Environmental Public Health Tracking Network (/showHome.action)

 $\mathbf{ \cdot }$

Air Quality: Ground-Level Ozone[†]



Brunswick County residents were exposed to unhealthy levels of ozone for **0 Days** in 2019.

Ozone occurs naturally in the sky and helps protect us from the sun's harmful rays. But ground-level ozone can be bad for your health and the environment. Ground-level ozone is one of the biggest parts of smog.

When ozone levels are above the national standard, everyone should try to limit their contact with it by reducing the amount of time spent outside.

Brunswick County residents were exposed to unhealthy levels of ozone for **0 Days** in 2019.

Check the EPA's Air Quality Index (AQI) at AirNow.gov (http://www.AirNow.gov) to see the current air quality conditions for your location. You can use the AQI to plan your daily activities to reduce exposure to ozone.

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Discover the data (/../DataExplorer/?query=1C537D70-420B-4B25-ABBE-F1B6FAD2C30B&fips=37019&G5=9999) | Learn more about this topic (/showAirHealth.action)

 \dagger 2019 data from the National Environmental Public Health Tracking Network (/showHome.action)



Air Quality: Particulate Matter[†]

ANNUAL AMBIENT CONCENTRATION OF PM2.5

 $6.3\mu g/m^{3*}$

Brunswick County, North Carolina

 $12.0 \mu g/m^{3*}$

Annual National Standard

*Micrograms Per Cubic Meter (µg/m³)

Air pollution is a leading environmental threat to

human health. Particles in the air like dust, dirt, soot, and smoke are one kind of air pollution called particulate matter. Fine particulate matter, or $PM_{2.5}$, is so small that it cannot be seen in the air. Breathing in $PM_{2.5}$ may

- lead to breathing problems,
- make asthma symptoms or some heart conditions worse, and

• lead to low birth weight.

The national standard for annual $PM_{2.5}$ levels is $12.0\mu g/m^3$. When $PM_{2.5}$ levels are above 12, this means that air quality is more likely to affect your health.

In 2019, the annual level of $PM_{2.5}$ in **Brunswick County** was **6.3µg/m³**. *

* Micrograms per cubic meter (./images/content/PM2-5_5.jpg) (μ g/m³)

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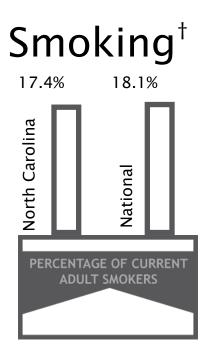
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Discover the data (/../DataExplorer/?query=4E04F504-A4A2-405C-85AB-9BC6B3F7325D&fips=37019&G5=9999) | Learn more about this topic (/showAirLanding.action)

† 2019 data from the National Environmental Public Health Tracking Network (/showHome.action)





Tobacco use is the single most preventable cause of death and disease in the United States. Smoking harms nearly every organ of the body. It causes many diseases and reduces the health of smokers in general. The negative health effects from cigarette smoking account for an estimated 500,000 deaths, or nearly 1 of every 5 deaths, each year in the United States. %3A%2F%2Fephtracking.cdc.gov%2FInfoByLocation%2F&text=Check%20out%20environmental%20health%20in%20your%20county&hashtags=PublicHealth,Tracking)

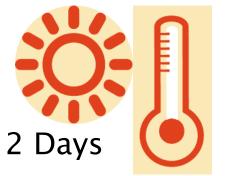
out%20the%20people%20in%20my%20county.%20Visit%20https://ephtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20for%20your%20county.)

Discover the data (/../DataExplorer/?query=2B83BA8E-9849-47BF-92C2-2CA0D51CC90C&fips=37&G5=9999) | Learn more about this topic (/showHBSmokingPrevalence.action)

† 2018 data from the National Environmental Public Health Tracking Network (/showHome.action)



Extreme Heat⁺



with temperatures above 90°F

Extreme summer heat is increasing in the United States, and climate projections indicate that extreme heat events will be more frequent and intense in coming decades. Extremely hot weather can cause illness or even death. Knowing how hot it gets in your area can help you prepare for extremely hot temperatures and prevent heat related illness (http://emergency.cdc.gov/disasters/extremeheat/heattips.asp).

Brunswick County had **2 Days** with maximum temperatures above 90°F during May-September 2021.

Heat-related death or illnesses are preventable if you follow a few simple steps.

- Stay cool.
- Stay hydrated.
- Stay informed.

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out%20 the%20 people%20 in%20 my%20 county.%20 Visit%20 https://ephtracking.cdc.gov/InfoByLocation%2F%20 to%20 find%20 out%20 for%20 your%20 county.)

Discover the data (/../DataExplorer/?query=51ED8370-BE00-4813-A4F8-AE641EF61672&fips=37019&G5=9999) | Learn more about this topic (/showClimateChangeExtremeHeat.action)

† 2021 data from the National Environmental Public Health Tracking Network (/showHome.action)



Heart Attacks[†]



The environment is one of several factors (/showHeartExpRisk.action) that can lead to an increased risk for heart disease. High levels of air pollution and extreme hot and cold temperatures have been linked to increases in heart disease and deaths from heart attacks. A heart attack happens when a part of the heart muscle dies or gets damaged because of reduced blood supply.

In 2020, there were

- 48 deaths from heart attacks in Brunswick County.
- 3,231 deaths from heart attacks in North Carolina.

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out%20the%20people%20in%20my%20county.%20Visit%20https://ephtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.)

Discover the data (/../DataExplorer/?query=19D1C8B6-45AB-4216-A2CC-2DCC250FD1FE&fips=37019&G5=9999) | Learn more about this topic (/showHeartAttack.action)

† 2020 data from the National Environmental Public Health Tracking Network (/showHome.action)



Access To Parks[†]



Having access to places for physical activity, like parks,

encourages people to get active and do so more often. The closer you live to a park, the more likely you are to walk or bike there. Walking and biking to parks can decrease air pollution and car crashes, which in turn, can reduce chronic disease rates and traffic-related injuries.

In 2020,

13.0% of people living in **Brunswick County** lived within half a mile of a park.

58.7% of people living in North Carolina lived within half a mile of a park.

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out%20the%20people%20in%20my%20county.%20Visit%20https://ephtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.)

Discover the data (/../DataExplorer/?query=16F809E7-BD81-4A24-8588-F6A3A62B866E&fips=37019&G5=9999) | Learn more about this topic (/showProximityToHighways.action)

† 2020 data from the National Environmental Public Health Tracking Network (/showHome.action)



Proximity To Highways[†]



3.8%

of Brunswick County population that live within 150m of a highway

Traffic-related air pollution is a major cause of unhealthy air quality, especially in urban areas. Many health problems have been linked to exposure to traffic-related air pollution. The closer your home or school is to a major highway, the more likely you and your family are to be exposed to traffic-related air pollution.

In 2020, **3.8%** of the population of Brunswick County lived within 150 meters* of a major highway.

In 2020, **2.5%** of Brunswick County public schools were sited within 150 meters* of a major highway.

* 150 meters is about 2 blocks.

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out%20the%20people%20in%20my%20county.%20Visit%20https://ephtracking.cdc.gov/InfoByLocation%2F%20to%20find%20out%20facts%20for%20your%20county.)

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 \ddagger 2020 data from the National Environmental Public Health Tracking Network (/showHome.action)



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Vulnerability Disclosure Policy (https://www.hhs.gov/vulnerability-disclosurepolicy/index.html)

Visit the Tracking Network for more information about your health and the environment.

www.cdc.gov/ephtracking (http://www.cdc.gov/ephtracking/)

Connect With Us

Follow us on Twitter (http://twitter.com/CDC_EPHTracking)

ATTACHMENT 18:

Zoning



TOWN OF SHALLOTTE

PLANNING & ZONING DEPARTMENT Post Office Box 2287 • Shallotte, North Carolina 28459 Telephone: (910) 754-4032 • Facsimile: (910) 754-2740

To whom it may concern,

The property in question, located on Arnold Street, (parcel #18200008), is currently zoned Multi Family-14 (MF-14), where multifamily is a special use. As of May 4, 2021 a Special Use Permit was approved by the Board of Alderman for the Garnet Place multifamily development of 72 residential units at the property.

The Town of Shallotte has water and sewer capacity to serve the proposed multi-family residential development on Arnold Street and will serve. The property does affirmatively have frontage that abuts the public right of way (Arnold Street) within which the public water and sewer lines are located.

If you have any additional questions, please contact me at the contact below.

Sincerely,

Robert Waring Assistant Town Manager Planning Director Town of Shallotte <u>rwaring@townofshallotte.org</u> 106 Cheers Street, Shallotte, NC 28470 (P) 910-754-4032, (F) 910-754-2740



Town of Shallotte Board of Aldermen Special Use Permit Findings

The Town of Shallotte Board of Aldermen met and considered the following application on the 4^{th} day of May, 2021.

File Number:	SUP #21-17
Final Action Date:	5/04/2021
Formal Hearing Date:	5/04/2021
Project Name:	Garnet Place, Arnold St Multi-Family
Applicant:	FGM Development, LLC
Location:	4425 Arnold St.
Tax Parcel Number:	18200008
Acreage:	±5.2 Acres
Zoning District:	MF-14
Proposed Use:	Multi-Family Development

Section 1 - Application

Having reviewed the application materials submitted by the applicant, the Board of Aldermen finds that the following regarding the completeness of the application and its compliance with the technical requirements of the Shallotte Unified Development Ordinance (UDO):

Completeness of Application [check one]:

- \blacksquare The application is complete.
- \Box The application is incomplete in the following way(s):

Compliance with the UDO requirements [check one]:

- ☑ The application complies with all applicable requirements of the UDO.
- □ The application is *not* in compliance with the following requirement(s) of the UDO:

Section 2 – Specific Findings of Fact

The Board of Aldermen must find as a specific finding of fact that the proposed use will comply with *all* of the following standards. Otherwise, the permit must be denied. In making their findings, the Board of Aldermen may impose conditions which, in its opinion, assure that the use in its proposed location will satisfy all of the following standards.

Having heard all the evidence and arguments presented at the hearing, the Board of Aldermen hereby finds that the proposed use *will* comply with the following standards [check all that apply]:

I That the use will not materially endanger the public health and safety.

Garnet Place apartments will pose no threat to public health and safety because the use as a multifamily development will not emit any noxious odors, pollutants, or other harmful contaminants. The development will be built to meet all NC State Building Codes and Town of Shallotte design standards to ensure safety of residents, staff, and neighbors. The property's parking areas, sidewalks, and common stairwells will be well-lit, and there will be a security camera at the Community Center. In addition, the development will be managed by a full-time, on-site property manager and serviced by full-time maintenance staff on-call 24 hours a day, 7 days a week.

 \checkmark That the use will not substantially injure the value of adjoining or abutting property (or alternatively, that it be a public necessity).

This well-designed and handsomely landscaped development will be an asset to the neighborhood, which consists of a mix of vacant, residential, and commercial uses. Based on extensive research of affordable housing developments, in 2020 New York University's Furman Center concluded that "the vast majority of studies have found that affordable housing does not depress neighboring property values, and may even raise them." The Garnet Place apartments will be of high-quality design and construction, moderate scale,

and be well managed and maintained, and therefore will not negatively impact surrounding property values.

✓ That the use will be in harmony with the area in which it is to be located. New multifamily housing is an appropriate and harmonious use for the Smith Avenue corridor, and will contribute to the vibrancy of the area's existing mix of residential and commercial uses. New apartments complement the other recent retail developments on Smith Avenue, less than one mile from the proposed project. The many shopping, restaurant, and service operations there will benefit from having potential consumers and employees living within walking distance. The close proximity of these complementary uses—residential, retail, and service—will help make this area of Shallotte a walkable community.

✓ That the use will be in general conformity with the Land Use Plan, Thoroughfare Plan, or other plans officially adopted by the Board of Aldermen. The Garnet Place proposal is consistent with the Shallotte 2018 Land Use Plan's polices and Future Land Use Map. The policies most closely aligned with the proposed development are within the "infrastructure carrying capacity" and "land use compatibility" sections of the Plan and are as follows:

- 4.1.1: The town encourages infill development (development of land already served by essential services and utilities).

- 5.1.5: Shallotte supports the development of workforce housing options for teachers, fire fighters, police officers, seniors, and low to moderate income persons.

- 5.1.7: The Town shall encourage multi-family development north of Main Street and south of the US 17 Bypass in certain locations as depicted on the Future Land Use Classification Map.

- 5.1.11: Shallotte desires new commercial and multi-family developments to blend with surrounding neighborhoods and limit traffic and light impacts on existing residential uses. Garnet Place will be an infill development, as defined by Policy 4.1.1, as the site can be served by existing public utility lines at the site and is within the Town of Shallotte's planning and essential services jurisdiction. Garnet Place will provide affordable workforce housing, aligning with Policy 5.1.5. In addition, the site is within the Town's targeted area for highdensity housing, per Policy 5.1.7, north of Main Street and south of US 17. Per Policy 5.1.11, this location offers easy highway access to and from the subject site, which will help limit traffic impact on existing single-family residential neighborhoods elsewhere. The proposed apartments are also consistent with Shallotte's' Future Land Use Classification Map, on which the site is classified as High Density Residential. This classification supports "land uses generally located behind or adjacent to areas planned for commercial development in an effort to advance walkability and pedestrian activity" and targets residential densities between (8) and (14) dwelling units per acre. Garnet Place has a density of 13.8 units per acre, fitting within the targeted range. ✓ That the use will have adequate facilities to provide ingress and egress designed to minimize traffic congestion on public streets and also have adequate utilities, access roads, drainage, sanitation or other necessary infrastructure.

The site will be served by adequate facilities and infrastructure. Plans for the development will meet the Town of Shallotte's driveway and sidewalk design standards in order to provide safe and adequate vehicular and pedestrian ingress and egress at the site. Arnold Street is a locally owned and maintained road, thus the developer with will with the town to develop a safe and well-designed driveway connecting the site to Arnold Street. NC DOT engineers, who have reviewed preliminary plans, saw no need for improvements at the Arnold Street-Smith Avenue intersection (approximately 500' away) based on the scale of the project.

In addition, the town engineer has verified that the existing 6" public water line and 2" pressurized sewer lines along Arnold Street are adequate to serve a 72-unit multifamily development at the site. The developer will construct and maintain a pump station at the sewer connection at a capacity that complies with Town code.

On-site stormwater retention and management will be engineering to meet runoff requirements. Impervious areas will employ slopes and gutters to direct water to retention ponds.

 \checkmark That the use meets all required conditions and specifications established by the Board of Aldermen.

As designed, Garnet Place meets conditions and specification established by town plans and ordinances. The developer will work with the town to satisfy reasonable additional conditions and specifications established by the Board of Aldermen to ensure that the multifamily development will be harmonious with the surrounding area, safe for residents and the public, and adequately supported by necessary infrastructure.

The following special conditions are hereby imposed by the Board of Aldermen to ensure compliance with the conditional use standards:

- 1. The property be subdivided to reflect the project and zoning boundaries; and
- 2. A Town issued stormwater application shall be obtained prior to final approval; and
- 3. Site plans shall be updated with lighting details and all parking lot light fixtures be shown to comply with dark shy standards; and
- 4. Dumpster enclosure details be included with plans; and
- 5. All required fees, to include System Development fees shall be paid prior to final zoning approval; and
- 6. Final plans shall be made available for technical review; and
- 7. All required local, state, and federal permits shall be obtained and copies provided prior to final zoning approval; and
- 8. The applicant shall sign the SUP below.

Section 3 – Final Signature

Based on the evidence presented at the hearing and after careful consideration of the facts, a Conditional Use Permit is hereby:

Approved subject to the above conditions.

Denied for failure to satisfy all of the conditional use standards as indicated above and further described herein:

The foregoing decision was rendered by the Board of Aldermen on the 4th day of May, 2021 and a written copy of this decision was filed with the official minutes of that meeting in the Office of the Town Clerk and served by certified mail, return receipt

requested, on the <u>H40</u> day of <u>MON</u> , 20Z Malter Econ. 1 Mayor, Town of Shallotte Applicant Signature Kland Town Clerk

STATE OF NORTH CAROLINA

COUNTY OF BRUNSWICK

I, MARIAD GAITHER, a Notary Public of BRUNSWICK County, do hereby certify that Sandy Strickland personally came before me this day and acknowledged that she is the Town Clerk of the Town of Shallotte, and that by authority duly given and as the act of the Town, the foregoing instrument was signed and its name by its Mayor, sealed with its official seal and attested by herself as its Town Clerk.

WITNESS my hand and notarial seal this $\frac{4^{++}}{4^{++}}$ day of $\frac{1}{10^{-}}$

MARIA O. GAITHER Notary Public, North Carolina Brunswick County My Commission Expires February 14, 2024

_____ day of <u>MAN</u>, 20<u>21</u>. <u>Mum Oquittur</u> Notary Public

(NOTARY SEAL/STAMP)

My commission expires: $2 \cdot 3 \cdot 4 \cdot 24$

SHALLOTTE BOARD OF ALDERMEN REGULAR MEETING APRIL 6, 2021 5:15 P.M.

The Shallotte Board of Aldermen met for a regular meeting on April 6, 2021 at 5:15 p.m. in the meeting chambers located at 110 Cheers Street with Mayor Walt Eccard presiding.

Aldermen present: Larry Harrelson, Carson Durham, Gene Vasile, Jimmy Bellamy and Adam Stanley

Aldermen absent: None

Staff present: Sandy Strickland, Mimi Gaither, Attorney Laura Thompson (joined the meeting at 6:00 p.m.), Robert Waring, Isaac Norris, Scott Branning, Paul Dunwell and Dan Formyduval

This Board Meeting was conducted via zoom in order to comply with the Governor's Order regarding limiting indoor gatherings to twenty-five (25) people. Everyone in attendance adhered to social distancing guidelines.

I. <u>CALL TO ORDER</u>

Mayor Walt Eccard called the meeting to order. A motion was made by Gene Vasile seconded by Larry Harrelson to open the meeting. Motion carried 5 yes 0 no.

II. INVOCATION & PLEDGE

Reverend Fran Pelletier gave the Invocation followed by the Board and audience reciting the Pledge of Allegiance.

III. AGENDA AMENDMENTS & APPROVAL OF AGENDA

A motion was made by Adam Stanley seconded by Carson Durham to approve the agenda as presented. Motion carried 5 yes 0 no.

IV. PRICE LANDING AT MULBERRY PARK

1. PUBLIC INPUT HEARING

a. A motion was made by Carson Durham seconded by Jimmy Bellamy to open the Public Hearing regarding the Price Landing at Mulberry Park PARTF Application. Motion carried 5 yes 0 no. Mr. Mike Norris, McGill Associates, was in attendance to obtain public comments, questions and concerns regarding the Town of Shallotte's submittal for a PARTF grant. Mr. Norris explained gave an overview and slide presentation of the proposed project.

b. Public Comments/Questions

- Mrs. Joan Eccard, Coastal Garden Club and Shallotte resident, wanted to express how important it is to include the wildflower garden amenity in this project. Native flowers are very important, most notably the decline in the honey bee population. Native flowers would certainly help increase the honey bee pollination efforts and adequate signage explaining all native flowers and vegetation associated with this area.
- Bob Moore, Shallotte resident, wanted to express his excitement and support of a proposed canoe/kayak launch site.
- Steve DeRose, Shallotte resident and Shallotte Planning Board Chairman, also wanted to comment on the increased commercial as well as residential development that is occurring in Shallotte at this time. He feels this project and the recreational opportunities it will afford Shallotte are certainly needed.
- Alderman Adam Stanley thanked Mr. Norris for the presentation and feels the proposed plan is very comprehensive and clear.
- Alderman Larry Harrelson also agreed with the concept, appreciating the passive use and the future Riverwalk connectivity.
- Mayor Walt Eccard expressed concerns with the traffic flow on Mulberry Street. Mr. Norris stated that "traffic calming" measures will certainly be implemented.
- Aldermen Carson Durham and Jimmy Bellamy both commented on the possibility of reducing the speed limit on Mulberry Street as an added safety feature.

- c. There being no further comments a motion was made by Adam Stanley seconded by Gene Vasile to close the Public Hearing. Motion carried 5 yes 0 no.
- 2. Presentation of Comprehensive Parks and Recreation Master Plan
 - a. A motion was made by Carson Durham seconded by Gene Vasile to approve the Master Plan as submitted. Motion carried 5 yes 0 no.
- 3. Presentation of Price Landing Site Specific Master Plan
 - a. A motion was made by Larry Harrelson seconded by Jimmy Bellamy to approve the Site Plan as submitted. Motion carried 5 yes 0 no.
- 4. A motion was made by Jimmy Bellamy seconded by Gene Vasile to approve the Revised Park CIP as submitted. Motion carried 5 yes 0 no.
- 5. A motion was made by Carson Durham seconded by Jimmy Bellamy to approve the N.C. Parks and Recreation Trust Fund (PARTF): 2020-2021 Basic Facts and Assurances for Phase 1 development and costs. Motion carried 5 yes 0 no.

V. <u>PUBLIC COMMENTS (3 minutes or less per person please)</u>

No public comments

VI. DEPARTMENT REPORTS

- 1. Police
- 2. Fire
- 3. Planning

- Proposed drive-way cut onto the soon to be re-aligned Wall Street along with the subsequent encroachment across Town owned property in that area For informational purposes only and Board to review more in depth.
- 4. Public Utilities
- 5. Finance
- 6. Administration
- 7. Media & Events
 - A motion was made by Adam Stanley seconded by Carson Durham to approve the Large Event Permit Application submitted by Coastal Race Productions to hold the Shallotte 4th of July 5k Race (July 3, 2021), with the start/finish would take place at Mulberry Park. Coordinator Dave Hutnik will work closely with Town Departments during the planning stages of this event. Motion carried 5 yes 0 no.
- 8. Mayors Monthly Activities

VII. CONSENT AGENDA

A motion was made by Jimmy Bellamy seconded by Carson Durham to approve the following consent agenda items:

- 1. March 2, 2021 Regular Board Minutes
- 2. March 25, 2021 Special Called Meeting Minutes
- **3.** Budget Adjustments
 - BA-20-21-15 (\$2,500 Police Department donations)
 - BA-20-21-15 (\$131,012 Brunswick County Covid 19 funds)
 - BA-20-21-18 (\$1,457,632.30 Riverwalk)

4. Instruct the Town Clerk/Attorney to investigate the sufficiency of the annexation petition submitted by Green & Hardwick, properties located along Pinecrest Street & Oakwest Street within Greenbay Village.

Motion carried 5 yes 0 no.

VIII. PUBLIC HEARING (1)

Rezoning Petition-Arnold Street (no address assigned) FGM Development, LLC. on behalf of McFearann, LLC. has submitted a petition to rezone the property located on Arnold St. Parcel ID # 18200008. They have requested that the rear portion of the property be rezoned from Residential and Highway Business (RM-10 & HB) to Multi-Family 14 (MF14).

- 1. A motion was made by Gene Vasile seconded by Jimmy Bellamy to open Public Hearing (1). Motion carried 5 yes 0 no.
- 2. Public Comments/Questions- Agent Tammy Stern was in attendance to give an overview of the proposed rezoning request.
 - The property in question is located at 261 Smith Avenue and the owners have requested a zoning change from RM-10 & HB to Multi-Family 14 (MF-14).
 - Town water/sewer utilities are accessible to the tract and Arnold Street is maintained by the Town.
 - The Town's Engineer has confirmed water/sewer capacity for the project
 - The Town's 2018 Land Use Plan Future Land Use Map identifies that area as "High Density Residential", the requested zoning change is consistent with the Town's future Land Use Map.
 - Only half (1/2) of the land is being developed, therefore the proposed project would subdivide five (5) out of the ten (10) acres and have seventy-two (72) residential units.
- 3. A motion was made by Adam Stanley seconded by Carson Durham to Close Public Hearing (1). Motion carried 5 yes 0 no.

- 4. Board Comments/Questions
- 5. A motion was made by Carson Durham seconded by Jimmy Bellamy to approve the Board of Aldermen Zoning Statement of Consistency. Motion carried 5 yes 0 no.
- 6. A motion was made by Gene Vasile seconded by Carson Durham to approve rezoning a portion of parcel #18200008, located at 261 Smith Avenue from RM-10 & HB to Multi-Family 14 (MF-14). Motion carried 5 yes 0 no.

IX. <u>PUBLIC HEARING (2)</u>

Mr. Ernest Crews has submitted an Annexation Petition for property located along Highway 179 Village Road (PID #2130004105, 8.90 acres), Shallotte, NC.

The Town of Shallotte Planning Board recommended approval of the rezoning at their February 9, 2021 meeting. Agent Allison Engebretson, Paramounte Engineering, was present to explain the proposed request and answer any questions.

- 1. A motion was made by Jimmy Bellamy seconded by Carson Durham to open Public Hearing (2). Motion carried 5 yes 0 no.
- 2. Public Comments/Questions Ms. Engebretson stated at this time the applicant is not requesting any rezoning and will retain the ETJ zoning of B-2. The 8.9 acre tract is located along Highway 179 (Village Road) and is intended to be developed for single family residences. Mr. Jan Tonkin, adjacent property owner, asked if the zoning impact their current property and will stormwater be impacted? Ms. Engebretson stated that once property owners could "join" land together, a stormwater permit could be obtained to address any issues. Mr. Tonkin was pleased with her response and had no further questions.
- 3. A motion was made by Carson Durham seconded by Gene Vasile to close Public Hearing (2). Motion carried 5 yes 0 no.
- 4. Board Comments/Questions

5. A motion was made by Larry Harrelson seconded by Carson Durham to approve Annexation Ordinance 21-06 for property located along Highway 179 Village Road Parcel #2130004105, 8.90 acres. Motion carried 5 yes 0 no.

X. <u>PUBLIC HEARING (3)</u>

UDO TEXT AMENDMENT, ORDINANCE 21-14: Article 9, Section 9-15-16, Article 12, Section 12-9, & Article 28, Section 28-7

A staff initiated zoning text amendment to the Town's UDO which will provide an update to the Town's zoning regulations.

- 1. A motion was made by Carson Durham seconded by Jimmy Bellamy to open Public Hearing (3). Motion carried 5 yes 0 no.
- 2. Public Comments/Questions Planning Director Robert Waring briefly explained the proposed amendment regarding the removal of Performance Guarantees (PG) within the Town. This draft only allows the use of PG's for the completion of public sidewalks.
- 3. A motion was made by Adam Stanley seconded by Carson Durham to close Public Hearing (3). Motion carried 5 yes 0 no.
- 4. Board Comments/Questions
- 5. A motion was made by Adam Stanley seconded by Gene Vasile to approve the Board of Aldermen Statement of Consistency. Motion carried 5 yes 0 no.
- 6. A motion was made by Carson Durham seconded by Gene Vasile to approve Ordinance 21-05 Amending the Town of Shallotte UDO, specifically: Article 9, Section 9-15-16, Article 12, Section 12-9, & Article 28, Section 28-7. Motion carried 5 yes 0 no.

XI. DISCUSSION ITEMS

1. San Rio Bond Extension – Town Manager Mimi Gaither informed the Board she will contact our Engineer to determine if the \$50,000 bond should be increased for San Rio, given the rise of construction costs due to the pandemic. This will be placed on our May meeting agenda for further discussion.

XII. <u>ADJOURN</u>

A motion was made by Carson Durham seconded by Adam Stanley to adjourn the meeting at 7:10 p.m. Motion carried 5 yes 0 no.

Respectfully submitted,

Sandy Strickland, CMC

Date



The Shallotte Planning Board met for their regularly scheduled meeting on March 9, 2021 at the Shallotte Town Hall Meeting Chambers with Chairman Steve DeRose presiding.

Members Present: Steve DeRose, Robert Cox, Dennis Winters, Ron Johnson, Melodie Bryant, Chris Raynor, Richard Gannaway and Bobby Williamson.

Members Absent: Glenn Humbert

Staff Present: Robert Waring and Debra Horn

Aldermen Liaison: absent

- 1. Public Comments: None
- **2. Approval of Minutes:** Robert Cox motioned to approve the February 9, 2021 minutes with corrections, seconded by Dennis Winters. The motion passed 8 yes, 0 no.
- **3.** (Planning and Zoning SUB 21-15) Preliminary Subdivision revision: Highland Forest Phase IV, 30 Townhome Units (Revised to add phase lines).

The developer of the property would like to create three sub-phases for the property so they can record sections with existing infrastructure without the use of a performance guarantee (letter of credit or bond). The layout and lot configuration remain the identical to the previous preliminary plan.

Action Taken:

Ron Johnson motioned to recommend to the Board of Aldermen to approve the revised preliminary subdivision plat SUB 21-15 Highland Forest Phase IV, 30 Townhome Units with conditions below:

- Open space area be revised to provide one of the required recreation facilities detailed in Section 29-4
- Provide copy of approved stormwater permit showing capacity for proposed impervious area
- A copy of proposed Home Owners Covenants be submitted showing maintenance responsibility of all privately maintained infrastructure, to include open space and stormwater facilities
- Copies of all state issued permits be provided to staff.
- Final subdivision plat for entire area shown be submitted within 24 months of Board approval of preliminary plans.

Motion seconded by Richard Gannaway. The motion passed 8 yes 0 no.

4. (Planning and Zoning REZ: 21-12) Zoning Map Amendment. Rezoning of property.

Property owner, McFearann, LLC. have submitted a petition to rezone a portion of the parcel located at 261 Smith Ave. (PID# 18200008). The property owners have requested that 5.2 acres of this property be zoned Multi-Family 14 (MF-14). The property is currently zoned RM-10 & HB.

Action Taken:

Melody Bryant motioned to recommend to the Board of Aldermen to approve the Zoning Map Amendment: REZ 21-12 - property located at 261 Smith Ave and Arnold Street. (PID# 1820008) from RM-10 & HB to MF-14. Motion seconded by Robert Cox. The motion passed 7 yes 1 no. Bobby Williamson voted against rezoning.

Dennis Winters motioned that the Shallotte Planning Board adopt the Statement of Consistency as drafted, seconded by Ron Johnson. The motion passed 8 yes, 0 no.

5. (Planning and Zoning: TXT: 21-14) Zoning Text Amendment.

Staff has proposed a text amendment to Article 9, Section 9-15-16, Article 12, Section 12-9, & Article 28, Section 28-7, concerning the use of Performance Guarantees (PG) within the Town. NCGS 160D-804 currently allows municipalities to approve PGs so long as the three types (letter of credit, surety bond, or other form of guarantee) are available options; the Town would not be able to specify which type of guarantee be used.

Action Taken:

Robert Cox motioned to recommend to the Board of Aldermen to approve the Zoning Text Amendment: TXT 21-14 - text amendment to Article 9, Section 9-15-16, Article 12, Section 12-9, & Article 28, Section 28-7, concerning the use of Performance Guarantees with changes stating for sidewalks only. Motion seconded by Ron Johnson. The motion passed 8 yes 0 no.

Dennis Winters motioned that the Shallotte Planning Board adopt the Statement of Consistency as drafted, seconded by Richard Gannaway. The motion passed 8 yes, 0 no.

6. Discussion Item

No Action Required

Old & New Business

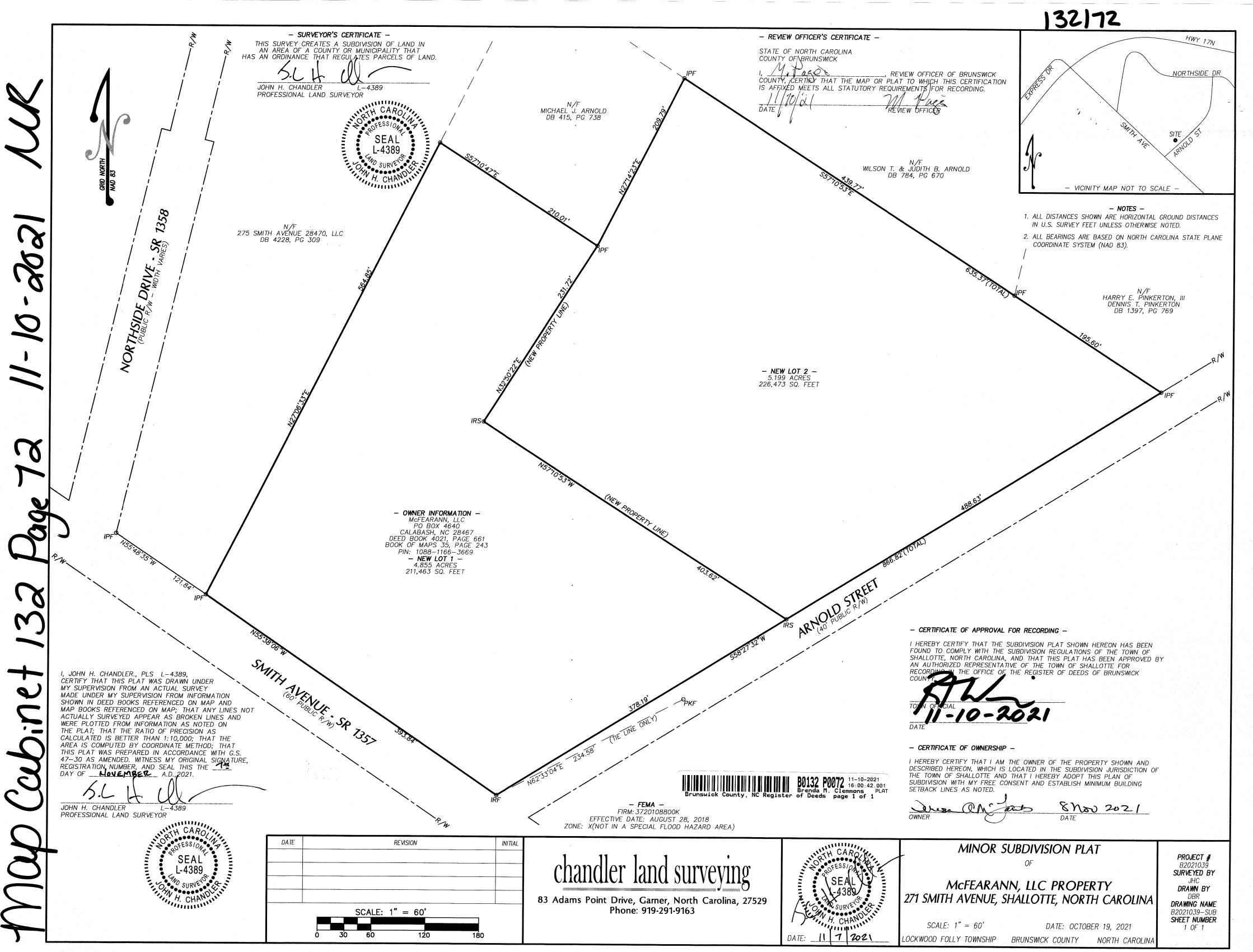
a. Monthly Planning Dept. Staff Report – No action required.

Adjournment

Ron Johnson made a motion to adjourn, seconded by Dennis Winters. The motion passed 8 yes 0 no.

Respectfully Submitted,

Debra Horn, Planning Board Clerk



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N|V|5

February 16, 2023

Environmental Site Assessment Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Project Name: Garnet Place

Location:

271 Smith Avenue in Shallotte, North Carolina (Brunswick County Parcel ID: 18200008 and 1820000801)

Review of updated information accessed on the Brunswick County GIS website and a letter provided by the Town of Shallotte Planning and Zoning Department indicate that the proposed project site was re-zoned to Multi-Family-14 (SH-MF-14) on May 4, 2021. The subject site was previously zoned as commercial and medium-density multi-family residential (SH-HD and SH RM-10) in the Shallotte and Holden Beach jurisdictions. Based on our review of the Shallotte US Census Urban Area Map from 2020 this site is mapped as "incorporated area." No compatibility, land use, or zoning issues were identified. This proposed project will provide an opportunity to create much needed affordable housing on an ideal, underutilized, vacant site.

See attached zoning documentation.

Sincerely,

NV5 Engineers and Consultants, Inc.

William B. Strayhorn, P.G. Senior Registered Geologist

Enclosures

N|V|5



NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

NIV|5



Not to Scale NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Will Strayhorn

From:Robert Waring <rwaring@townofshallotte.org>Sent:Tuesday, January 17, 2023 9:53 AMTo:Will Strayhorn; Dphorn@atmc.netSubject:RE: Environmental Review 271 Smith Ave

Mr. Strayhorn,

The Town issued a special use permit for the project and has acknowledged that the site will be serviced with Shallotte sewer utilities and Brunswick County water.

Let me know if you need anything else in this regard.

Sincerely,

Robert Waring Assistant Town Manager Planning Director Town of Shallotte 106 Cheers Street, Shallotte, NC 28470 (P) 910-754-4032, (F) 910-754-2740

From: Will Strayhorn [mailto:Will.Strayhorn@nv5.com] Sent: Monday, January 16, 2023 11:34 AM To: Rwaring@townofshallotte.org; Dphorn@atmc.net Subject: FW: Environmental Review 271 Smith Ave

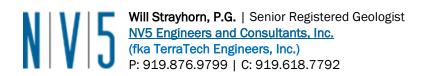
Hello,

NV5 is completing a Environmental Review for Garnet Place Apartments in Shallotte, NC. The North Carolina Office of Recovery and Resiliency (NCORR) as a recipient of Community Development Block Grant – Disaster Recovery (CDBG-DR) funds from the United States Department of Housing and Urban Development (HUD) is considering funding this proposed *affordable housing* project, **Garnet Place located at 271 Smith Avenue, Shallotte, NC 28470 (Brunswick County Parcel #1820000801)**. Site reference maps are attached.

Garnet Place will consist of the new construction of 72 units for family/generally occupancy households in Shallotte, Brunswick County, North Carolina. The project is applying for Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). The unit mix will include 12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units. Construction will include 5 three-story apartment buildings, a community center, children's play areas, picnic areas, and parking areas. Water and sewer utilities are located along nearby streets and only short connections to the site will be necessary.

As representatives of the Town of Shallotte Planning Department, would you please provide any comments regarding this proposed development in relation to municipal services including water and sanitary sewer connections? Please feel free to reach out with any questions.

Thanks,



ATTACHMENT 19:

Soil Suitability/ Slope/ Erosion/ Drainage/ Stormwater Runoff

Geotechnical Exploration

ENGINEERS, INC

aardvark

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021

Phone



338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636

www.aardvarkengineers.com

October 29, 2021

Mr. Freddie Mills FGM Development, LLC PO Box 6171 Raleigh, NC 27628

Reference: REPORT OF GEOTECHNICAL EXPLORATION Garnet Place Apartments Shallot, North Carolina

Dear Mr. Mills:

Submitted herewith is the report of our geotechnical exploration for the referenced project. This study was conducted in accordance with our Proposal No. 1277 dated August 26, 2021.

This report contains the generalized results of our findings and an engineering interpretation of these with respect to the available project characteristics. Also included are recommendations to aid in evaluating the suitability of the site and identifying possible construction difficulties on earth-related phases of this project.

We appreciate the opportunity to be of service to you on this project. If we can be of further assistance, or if you have any questions regarding this report, please contact our office.

Regards,

Kevin C. McTier, P.E. Senior Geotechnical Engineer NC Registration 029409 NC COA C-3319 10/29/2021





Aardvark Engineers, Inc. has completed the authorized geotechnical exploration of the proposed site in Shallotte, North Carolina. The following summarizes the findings of our geotechnical exploration. Please refer to the body of this report for more specific conclusions and recommendations of this report.

The proposed site is located along Arnold Street in Shallotte, North Carolina. The site is approximately 5.2 acres in size. The site is relatively wooded and undeveloped. The existing site is relatively flat.

We understand that the project will consist of seven (7) apartment buildings and a community center. The apartment buildings are anticipated to be two (2) stories in height. New parking lots and access drive will be constructed throughout the development. We anticipate the structures will be wood framed with a brick and siding veneer. The proposed buildings will likely have a post-tensioned concrete floor system. Less than 5 feet of cut (excavation) and fill will likely be required during grading to establish finished site grades.

A total of eleven (11) test pits were excavated at the project site within the proposed roads. The conclusions and recommendations presented in this report have been based on our sampling and are somewhat general in nature. The sampling revealed the following generalized and limited subsurface profile. Please refer to section Subsurface Conditions for more specific information regarding the subsurface profile.

- The exploration revealed a surface layer of cultivated soil intermixed with topsoil. The surface materials varied from approximately 12 to 24 inches thick across most of the site. The surface soil consists of moist black and gray sand with trace amounts of organic matter and fine roots. The organic contents of these materials were not determined.
- Below the surface materials, coastal plain soils were encountered at each test location to the depths explored. The coastal plain soils typically consisted of very moist gray, black, and tan clayey coarse to fine sand with layers of very moist gray and tan sandy clay. The test pits were terminated approximately 10 feet below the existing ground surface.
- Groundwater was encountered at test locations TP-1, TP-4, TP-5, and TP-11 at depths ranging from approximately 6 to 9 feet. Perched or elevated groundwater conditions should be expected during site grading, especially in the loose sands directly above the clay zones.
- Earth cuts and fill placements ranging from approximately 2 to 3 feet will likely be required to "flatten" the site and establish the building pads. The on-site soil (minus organics and fat clays) may be used as structural fill. Moisture adjustment (either wetting or drying) will be required to achieve a satisfactory degree of compaction.
- Groundwater levels fluctuate with seasonal and yearly rainfall variations and may be encountered in some excavations at this site. Temporary monitoring wells would need to be installed in significant cut areas of the site to properly assess the local groundwater conditions once the site grading plans become final. Isolated areas of perched groundwater will be encountered in cut areas of the site and should be expected to exist in the cultivated surface soils and loose sand sediments particularly following periods of rain. The cultivated surface soils are susceptible to moisture absorption and their presence may result in significantly thicker upper wet zones following periods of wet weather.
- All of the exposed subgrade soils will be very sensitive to construction traffic in the presence of excess moisture and will rapidly soften, rut, and require undercutting and replacement. The volume of undercut materials will be a function of the time of the year in which the grading occurs. Greater undercutting would be expected if grading occurs during wet winter and spring months.
- Provided our recommendations are implemented during the design and construction, the proposed structures may be supported on shallow foundations bearing on low plasticity soil or properly compacted structural fill. If unsatisfactory soil is encountered within the building area (such soil disturbed during excavation or soils with high concentrations of clay or silt), selective undercutting of this material will be required.
- The structure's floor slab may be conventionally soil supported on low plasticity soil or new structural fill, provided that the subsequently discussed site preparation and fill placement recommendations are followed.

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338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636

Introduction

Geotechnical Exploration

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021



338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636



GENERAL

FGM Development, LLC is planning the development of the approximately five (5) acre site that is located along Arnold Street in Shallotte, North Carolina. The results of the geotechnical exploration for this project are presented in this report. This exploration was carried out in general accordance with our Proposal No. 1277 dated August 26, 2021.

PURPOSE AND SCOPE

The purpose of this study was to evaluate the general subsurface conditions for the site development. Subsurface conditions at this project site were evaluated by completing a total of eleven (11) test pits at equally spaced locations across the proposed site. Also included is an evaluation of the site with respect to general recommendations regarding foundation construction, general earthwork procedures and potential construction difficulty due to rock and/or groundwater.

LIMITATIONS OF STUDY

The recommendations provided herein were developed from the information obtained in our sampling, which depicts general subsurface conditions only at specific locations. Subsurface conditions at other locations may differ from those occurring at the specific excavation sites.

The nature and extent of variations between sampling locations may not become evident until the course of construction. If variations then become evident, it will be necessary to re-evaluate the recommendations of this report after performing on-site observations during the excavation and noting the characteristics of any variation.

Our professional services have been performed, findings obtained, and recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. No warranties are either expressed or implied.

Field observations, monitoring, and quality assurance testing during earthwork and foundation installation are an extension of the geotechnical design. We recommend that the owner retain these services and that we be allowed to continue our involvement in the project through these phases of construction. Our firm is not responsible for interpretation of the data contained in this report by others, nor do we accept any responsibility for job site safety which is the sole responsibility of the contractor.

Site Information

Geotechnical Exploration

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021



338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636



EXISTING CONDITIONS

The proposed site is located along Arnold Street in Shallotte, North Carolina. The site is approximately 5.2 acres in size. The site is relatively wooded and undeveloped. The existing site is relatively flat.

PROPOSED CONSTRUCTION

We understand that the project will consist of seven (7) apartment buildings and a community center. The apartment buildings are anticipated to be two (2) stories in height. New parking lots and access drive will be constructed throughout the development. We anticipate the structures will be wood framed with a brick and siding veneer. The proposed buildings will likely have a post-tensioned concrete floor system. Less than 5 feet of cut (excavation) and fill will likely be required during grading to establish finished site grades.

SITE GEOLOGY

The project site is in North Carolina's Coastal Plain physiographic province. The Coastal Plain is a wedge of mostly marine sedimentary rocks that gradually thickens to the east. The Coastal Plain is the largest geologic belt in the state, covering about 45 percent of the land area. The most common sediment types are sand and clay, although a significant amount of limestone occurs in the southern part of the Coastal Plain. It is characterized by flat land to gently rolling hills and valleys. Elevations range from sea level near the coast to about 600 feet in the Sand Hills of the southern Inner Coastal Plain.

The Generalized Geologic Map of North Carolina indicates that area is primarily part of the sedimentary rock formation consisting of the Waccamaw Formation. The Waccamaw Formation typically consists of fossiliferous sand with silt and clay.



NRCS SOIL SURVEY

Soils maps from the United States Department of Agriculture, Natural Recourses Conservation Service, indicate the following soils are present within the project site. A NRCS Soil Survey Map is included in Appendix A displaying the approximate soil type locations.

Map Unit: BaB—Baymeade fine sand, 1 to 6 percent slopes

Component: Baymeade (90%) The Baymeade component makes up 90 percent of the map unit. Slopes are 0 to 6 percent. This component is on low ridges on marine terraces, coastal plains. The parent material consists of loamy and sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria.

Map Unit: Fo—Foreston loamy fine sand

Component: Foreston (80%) The Foreston component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad interstream divides on marine terraces, coastal plains. The parent material consists of loamy and sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Soil at the site reportedly does not exhibit characteristics of hydric soils according to records maintained by the NRCS (i.e., those soils associated with wetland areas). These soils are generally found on flood plains and are formed in loamy alluvial deposits. Wetlands are surface areas that are inundated or saturated with water under normal circumstances. Wetlands support a prevalence of hydrophilic vegetation that are adapted for life in saturated soil conditions. Wetlands will generally be found in floodplains along drainage ways, areas of topographic depression, or around the periphery of lakes. There is an inherent margin of error with this type of wetlands determination. Therefore, we recommend contacting a local wetlands environmental consultant to assist in the determination and delineation of the wetlands site.

Field Exploration

Geotechnical Exploration

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021



338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636

FIELD EXPLORATION



The soil conditions at this project site were evaluated by excavating a total of eleven (11) test pits at equally spaced locations within the proposed road locations across the project site. Our field services were completed on September 27, 2021. The approximate test locations are illustrated on the Test Location Plan in the Appendix. Due to methods used, the location and elevations of the borings should be considered approximate.

Observation pits were excavated with a CAT 304E track hoe to depths of approximately 10 feet below the existing ground surface. Our staff engineer observed the excavations and



examined and described the excavated soils. The soil descriptions in the Subsurface Conditions section of this addendum are solely based on visual examination and should be considered appropriate.

A summary table of each test pit has been prepared based upon the field log and visual classification. Indicated on the summary table are the primary strata encountered, the depth of each stratum change, depth of sample, and groundwater conditions. The summary table was prepared for each location giving the appropriate sample data and the textural description and classification. When reviewing these records, the indicated boundaries between soil strata are approximate and the transitions between strata are generally gradual. Also, variations in subsurface conditions from those encountered may exist between sample locations.

Geotechnical Exploration

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021



338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636



Our interpretation of the subsurface conditions is based upon a review of available published literature and the widely spaced soil borings at the approximate locations shown on the Boring Location Plan in the Appendix. The following is a generalized discussion of our findings. For more specific information, please refer to the Soil Boring Logs presented in the Appendix.

SUBSURFACE SOIL CONDITIONS

The exploration revealed a surface layer of cultivated soil intermixed with topsoil. The surface materials varied from about 12 to 24 inches thick across most of the site. The surface soil consists of moist black and gray sand with trace amounts of organic matter and fine roots. The organic contents of these materials were not determined.

Below the surface materials, coastal plain soils were encountered at each test location to the depths explored. The coastal plain soils typically consisted of very moist gray, black, and tan clayey coarse to fine sand with layers of very moist gray and tan sandy clay. The test pits were terminated approximately 10 feet below the existing ground surface.

GROUNDWATER CONDITIONS

The term groundwater, for the purpose of this report, pertains to any water that percolates through the naturally occurring materials found on site. This includes any overland flow that permeates through a given depth of soil, perched water, and water that occurs below the water table, a zone that remains saturated and water bearing year round.

Groundwater was encountered at boring locations HA-1, HA-4, HA-5, and HA-11 at depths typically ranging from approximately 6 to 9 feet. Perched or elevated groundwater conditions should be expected during site grading, especially in the loose sands directly above the clay zones.

It should be recognized that fluctuations in the groundwater level should be expected to occur due to variations in rainfall and other environmental or physical factors at the time measurements are made. The true static groundwater level can only be determined through observations made in cased holes over a long period of time. Slightly elevated groundwater conditions should be expected during wetter periods of the year, especially within sandy soil layers or above clay soils.

Conclusions

Geotechnical Exploration

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021



338 South Sharon Amity Road #135 Charlotte, North Carolina 28211 Phone 704.313.0644 Fax 704.644.8636



The following summarizes the findings of our geotechnical exploration.

- Earth cuts and fill placements ranging from approximately 2 to 3 feet will likely be required to "flatten" the site and establish the building pads. The on-site soil (minus organics and fat clays) may be used as structural fill. Some moisture adjustment (either wetting or drying) may be required to achieve a satisfactory degree of compaction.
- Groundwater levels fluctuate with seasonal and yearly rainfall variations and may be encountered in some excavations at this site. Temporary monitoring wells would need to be installed in significant cut areas of the site to properly assess the local groundwater conditions once the site grading plans become final. Isolated areas of perched groundwater may be encountered in cut areas of the site and should be expected to exist in the cultivated surface soils and loose sand sediments particularly following periods of rain. The cultivated surface soils are susceptible to moisture absorption and their presence may result in significantly thicker upper wet zones following periods of wet weather.
- The exposed subgrade soils will likely be very sensitive to construction traffic in the presence of excess moisture and will rapidly soften, rut, and require undercutting and replacement. The volume of undercut materials will be a function of the time of the year in which the grading occurs. Greater undercutting would be expected if grading occurs during wet winter and spring months.
- Provided our recommendations are implemented during the design and construction, the proposed structures may be supported on shallow foundations bearing on low plasticity soil or properly compacted structural fill. If unsatisfactory soil is encountered within the building area (such soil disturbed during excavation or soils with high concentrations of clay or silt), selective undercutting of this material will be required.
- The structure's floor slab may be conventionally soil supported on low plasticity soil or new structural fill, provided that the subsequently discussed site preparation and fill placement recommendations are followed.

Recommendations

Geotechnical Exploration

Garnet Place Apartments Shallotte, North Carolina

Prepared for: FGM Development, LLC

October 29, 2021



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BASIS

Subsurface variations that may not be indicated by our dispersed exploratory sampling program can exist on any site. If such variations or unexpected conditions are encountered during construction, or if the project information is incorrect or changed, we should be informed immediately since the validity of our recommendations may be affected. Refer to the Appendix for additional qualifications of this geotechnical exploration and construction contract considerations.

STRIPPING

Based on the boring results, it appears that stripping should generally average approximately 12 to 24 inches. If grading is begun during or shortly after a period of wet weather, additional amounts of stripping or undercutting may be required to remove water softened soils. The stripped topsoil, cultivated soil and organic material may be stockpiled and used later for landscaping or other non-structural areas on the site.

SITE PREPARATION

All areas that will support foundations, floors, or newly placed structural fill must be properly prepared. All loose surface soil or topsoil and other unsuitable materials must be removed. Unsuitable materials include: frozen soil, relatively soft material, relatively wet soils or soils near the surface that exhibit a high organic content. In all cases, the earthwork operations should be performed in a manner consistent with good erosion and sedimentation control practices.

The cultivated surface soils are susceptible to moisture absorption and their presence may result in significantly thick upper wet zones. Following periods of wet weather, the cultivated soils could be excessively wet and require undercutting and replacement to achieve stable subgrades. The cultivated soils should be stripped prior to fill placement.

The surface materials will likely be loosed by the stripping process. We recommend that these soils should be densified in place to establish uniform support of the building structures and new pavements. Upon stripping of the site and completion of all topsoil and cultivated soil removal, the exposed subgrades should be compacted in-place using a smooth steel drum vibratory roller with a static weight of at least 10 tons. As a procedural specification, the roller should be operated in its vibratory mode and complete at least five overlapping passes across the subgrades in a single direction and complete at least five additional passes at right angles to the first.

If in place densification is not practical, then undercutting may be required. Unstable materials in parking areas should generally be densified in place or undercut to stable soils or a maximum of 2 feet below planned grade, at which time the geotechnical engineer should evaluate options other than additional undercutting (e.g., bridging). Some remedial repair of weak areas should be anticipated during earthwork operations. Any required undercutting should be performed using a trackhoe or other similar equipment. The trackhoe should be positioned outside of the undercut area, and materials removed should be loaded on to trucks also positioned outside of the undercut area. Rubber-tired equipment should not be allowed to traverse the undercut area due to the presence of shallow groundwater.

If site conditions warrant subgrade remedial repair, such that excavation extends below the groundwater table, then the excavation should be backfilled with washed stone to above the groundwater table and then capped with a 4-inch thick layer of compacted crushed stone. As an alternative, an initial thick lift of relatively "clean" sand (less than 5% fines) can be placed so that it is about 1 foot above the groundwater table and compacted with a heavy roller. Placement of this initial thick lift should be monitored on a full-time basis by our geotechnical engineer.

Dependent upon the soil moisture content and the groundwater conditions at the time of construction, the rolling activity may develop excess pore water pressure in the underlying soils and cause pumping of the subgrade surface. This apparent surface instability is only temporary. Compaction should be temporarily halted to allow pore pressure induced by the densification process to dissipate. Delay times of less than 15 minutes are typical. Subsequently, densification of the subgrade should be completed with the roller operating in its static mode in preparation for fill placement.



PROOFROLLING

Upon the completion of stripping, the at-grade areas or areas that are to receive new structural fill, should be evaluated by an Aardvark Project Engineer or their representative. The evaluation should include proofrolling of the subgrade. If unsuitable materials are encountered, an appropriate remedial measure would be removal of the unsuitable materials, and replacement in accordance with this section.

Proofrolling should consist of repeated passes of a loaded, pneumatic-tired vehicle such as a tandem-axle dump truck or by using a smooth drum roller operating in its static mode. An Aardvark Project Engineer or approved representative should observe the proofrolling operations, and the proofrolling vehicle should be loaded as directed by the engineer or approved representative. Any area judged by the engineer to rut, pump, or deflect excessively should be compacted inplace or, if necessary, undercut and replaced with structural fill, compacted as specified below.

Care must be exercised during grading and fill placement operations. The combination of heavy construction equipment traffic and excess surface moisture can cause pumping and deterioration of the near surface soils. The severity of this potential problem depends to a great extent on the weather conditions prevailing during construction. The contractor must exercise discretion when selecting equipment sizes and also make a concerted effort to control construction traffic and surface water while the subgrade soils are exposed. It would be prudent to develop contingency plans for subgrade stabilization or undercutting where it is determined by field observation to be necessary.

Water from storm runoff must be controlled during earthwork and construction activities by intercepting and draining runoff away from the site to prevent water from ponding on or saturating the soils within the excavations or on final grades. The surface can be rolled smooth to enhance drainage if precipitation is expected. These soils will likely become unstable due to the presence of excess moisture and normal construction equipment traffic over them. Accordingly, construction traffic should be kept to a minimum on the exposed soils to reduce the potential for creating an unstable subgrade. We recommend that site development is performed during seasonally dry weather and excavation/site preparation operations not be performed during or immediately following periods of high precipitation. Surface water run-off from off-site areas should be diverted around the perimeter of the site using a system of ditches or berms.

We recommend that an all-weather building pad surfaces be constructed and maintained during grading and construction of the buildings and roadways to avoid degrading the subgrade materials when subjected to heavy construction traffic. The all-weather surfaces should include areas where rubber tire forklifts and other heavy construction equipment will be operating. Options for stabilizing all-weather surfaces include crushed stone, and/or the combination of crushed stone with geotextiles. Construction traffic should be limited in areas that are unprotected after precipitation events.



GROUNDWATER CONCERNS

The shallow groundwater encountered at the site is an indication that perched groundwater conditions relating to the shallow depths of the clay soils should be anticipated during site grading. We recommend raising the building pad elevations at least 2 feet above the existing site grades to reduce the potential for groundwater infiltration into the foundation excavations. Groundwater should be anticipated within utility trenches with excavations greater than 6 feet below the existing ground surface. The potentials for construction difficulties for a project of this type are anticipated to be less if construction is carried out during the dryer months of the year.

The bedding of utilities may result in higher water levels within utility trenches across the site. The potential infiltration of storm water runoff around building foundations should also be avoided by providing positive drainage away from structures and conveying downspout water away from the building. It is particularly important that storm water lines be well bedded and sealed at the joints to minimize leakage and the addition of water to these soils. The same consideration should be applied where silt or sandy silt soil is present, as generally indicated on the boring logs or revealed during site work.

Well points, diversion ditches or other similar dewatering methods will likely be required to control groundwater if excavation depths encroach the groundwater table. For deeper excavations, the groundwater table should be lowered to at least 1 to 2 feet below excavation depths.



FILL PLACEMENT

After the site is stripped and evaluated, as previously discussed, structural fill should be placed to bring the building pads and pavement areas to desired grade. Structural fill is defined as soil which is free of organics and deleterious material, exhibits a plasticity index less than 25, has a maximum particle size less than 6 inches, and is compacted to at least 95 percent of the soil's maximum dry density as determined by the standard Proctor compaction test (ASTM D 698). Structural fill should be placed and compacted in relatively thin (six to eight inch maximum, loose) layers. We recommend compacting the final foot of the pavement subgrade to 98 percent of the standard Proctor maximum dry density.

The on-site soils with high concentrations of clay, cultivated soils or organics are not suitable for use as structural fill or for foundation and pavement support. These soils should be excavated and hauled offsite, placed in deep fills for the pavement, and/or placed in nonstructural areas. We recommend that clean structural fill be placed within the proposed building areas. The onsite low plasticity clay and sandy soils can be used for structural fill. Some moisture adjustment (either wetting or drying) will be required to achieve a satisfactory degree of compaction. The potentials for construction difficulties for a project of this type are anticipated to be less if construction is carried out during the dryer months of the year.

Fill operations should not begin until representative samples are collected and tested. The test results will be used to determine whether the proposed fill material meets the criteria above and for quality control during grading. In-place density testing should be performed by qualified geotechnical personnel from our firm to check that the recommended compaction criterion has been achieved. Testing should be performed on a full-time basis in the building and pavement areas. For trench fill, a suggested will-call testing frequency is one test for every 100 feet of utility line backfill. Tests should be performed on at least one foot vertical increments.



FOUNDATIONS

Our exploration data indicates the proposed structures can be supported on conventional shallow spread footings bearing on densified low plasticity in-place soils or new, properly compacted fill. The foundations should be designed using a maximum net allowable bearing pressure of 2,000 psf. The recommended design bearing pressure has been reduced from the presumed design bearing pressure to limit total settlement due to the presence of low-strength soils frequently encountered in our borings at various depths.

Footings should bear at least 18 inches below adjacent grade for frost protection. Even though computed footing dimensions may be less, strip footings should be at least 18 inches wide and column footings should be at least 24 inches wide. These dimensions will facilitate hand cleaning of the footing subgrade and placement of reinforcing steel. These dimensions also reduce the potential for localized "punching" or shear failure conditions from developing.

Soil present at the bearing level may become disturbed by the excavation process or foot traffic. For this case, any loosened materials should be either densified or removed and a working surface of at least 6 inches of open-graded stone may be needed to provide a suitable working base. Loose or soft soil, debris or excess surface water should be removed from the footing bottoms before concrete or reinforcing steel is placed. Footing bottoms should also be level or suitably benched.

The foundations should be designed and constructed to maintain or promote constant moisture in the foundation soils. Drainage should be provided by surface grading and subsurface drains. Slopes should be adequate to promote rapid runoff and to avoid collecting, near the structure, ponded water, which could migrate down the foundation/soil interface.

Based on the exploration data and our experience, we estimate that maximum individual column settlement, under structural loads, will be on the order of less than 1 inch. The majority of the settlement will occur during and shortly after the application of the dead load.

Low strength bearing materials and/or fat clays may be encountered in isolated foundation excavations. All footing excavations must be evaluated by an Aardvark representatives prior to concrete placement to observe that the exposed soils are consistent with the boring results and the recommendations already provided. Hand auger borings with dynamic cone penetrometer tests should be performed in the footing excavations. If unsatisfactory soils are encountered during the footing evaluations, undercutting of this material will be required. Any bearing grades, which are identified as having insufficient shear strength, should be undercut and replaced with washed stone, flowable fill, or lean concrete. We recommend a modest allowance for undercutting in footing excavations be included in the project budget.

Footing subgrade soils will soften if exposed to weather extremes. If footing concrete cannot be placed the same day as the excavations are completed and evaluated, the excavations should be covered with polyethylene sheeting or a thin concrete "mud mat" after they have been checked by our personnel. If these protective measures are not implemented, over-excavation of disturbed soil may be necessary.





POST-TENSIONED SLAB-ON-GRADE

Post-tensioned reinforcing consists of high-strength steel wire strands, typically referred to as tendons or cables, which are encased in plastic sheathing or ducts. When also used near the bottom of grade beams, the tendons are usually located near the top of the grade beam at the ends of the span and draped into the bottom portion of the grade beam near mid-span. The tendons are elongated by hydraulic jacks and held in place at the edges of the foundation by wedge-type anchoring devices. The type of tendons typically used in slabs and grade beams are unbonded tendons, in which the prestressing steel is not actually bonded to the concrete that surrounds it except at the anchored ends. Coating the steel strands with corrosion-inhibiting grease and encasing them in extruded plastic protective sheathing that acts as a bond-breaker will accomplish this. The tendons are typically fully stressed and anchored 3 to 10 days after concrete placement.

Based on our experience and on the results of our subsurface exploration, we estimate that a modulus of subgrade reaction value (k) of 75 pounds per cubic inch should be used for design of the floor slab. However, if the floor slab design is sensitive to k, plate load tests should be performed to establish a site-specific value. The post-tensioned slab foundations should be designed using a maximum net allowable bearing pressure of 2000 psf. A friction coefficient of approximately 0.35 should be used for the portions of the slab in direct contact with the subgrade.

All appropriate requirements of the latest edition of the North Carolina Building Code and the Post-Tensioning Institute should be followed in the design and construction of post-tensioned slab foundations at this site. During construction, we recommend a representative from Aardvark Engineers be present to confirm that each cable is tensioned as specified and to record the elongations of the tendons.

Care for the slab should be maintained until the cables are properly stressed. The concrete slab is effectively unreinforced until the tendons have been stressed. As with any green concrete, it's best to avoid driving vehicles onto the slab or subjecting it to heavy point loads. Because there's little conventional rebar to help minimize shrinkage cracking, it's imperative to stress the tendons as soon as the concrete has cured enough to permit it.

Consideration should be given to "artificial" effects, such as planter units adjacent to structural bearing areas. Tree roots can be a serious and can cause volume reduction in limited areas, thus causing distress to the slab foundation. Trees that are planted closer to the foundation than half of their ultimate height can be expected to cause significant differential movement.



SLABS-ON-GRADE

The floor slab subgrades for the proposed building should be excavated to firm low plasticity soil or placed on suitable structural fill. Drainage should be provided by surface grading and subsurface drains. Slopes should be adequate to promote rapid runoff and to avoid collecting, near the structure, ponded water, which could migrate down the foundation/ soil interface.

As previously discussed, no extraordinary performance criteria have been specified for the floor slab. The floor slabs should be structurally separate from the foundations to reduce the possibility of slab cracking due to minor differential settlement. It is recommended that all floor slabs be designed as "floating," that is, fully ground supported and not structurally connected to walls or foundations. This is to minimize the possibility of cracking and displacement of the floor slab because of differential movements between the slab and the foundation. Although the movements are estimated to be within the tolerable limits for structural safety, such movements could be detrimental to the slabs if they were rigidly connected to the foundations.

Both a granular drainage layer and a vapor barrier are optional; however, there are benefits to this construction practice. An underslab granular drainage layer may reduce the tendency for disturbance of the subgrade under traffic during slab construction, and an effective vapor barrier (such as Moistop) will reduce moisture transmission through the slab due to the natural moisture content of the soil. Also, both ACI and PCA recommend installing a 3 to 4 inch aggregate layer (compacted graded aggregate base) on top of the vapor barrier to reduce the potential for slab curling.

PAVEMENTS

A detailed design of pavement thicknesses was beyond our authorized scope of services for this project. We would be pleased to perform additional testing and analysis to provide pavement thickness recommendations if desired. We recommend thickness and density testing on the stone base and asphalt pavement during placement to assess whether the paving sections meet specifications.

The pavement subgrades should be excavated to firm low plasticity soil or suitable structural fill. Drainage should be provided by surface grading and subsurface drains. Slopes should be adequate to promote rapid runoff and to avoid collecting on the pavements ponded water, which could migrate through the pavements to the soil. The pavements may be conventionally soil supported on low plasticity soil or new structural fill provided that the recommendations regarding site preparation and fill placement have been followed. The contractor will need to exercise extreme care during the grading and fill placement activities in order to achieve the necessary subgrade soil support for the pavement system.

Experience has shown that most asphalt or crushed stone pavement failures are caused by localized soft spots in the subgrade or inadequate drainage. Proofrolling by the geotechnical engineer will greatly reduce the incidence of weak spots in the subgrade as discussed earlier. However, the civil design must include proper drainage to reduce softening of the subgrade, soil migration, and pumping failures. The pavement surface and subgrade should have a minimum slope of 1½ percent. Any isolated areas that experience premature failure should be promptly repaired to prevent widespread problems from occurring due to loading and water infiltration. The pavement surfaces should be finished and sloped for positive drainage. Good perimeter drainage around the pavements is also recommended.

Any fill placed in pavement areas should be compacted to the recommended criteria. We recommend that the pavement subgrades be proofrolled just before pavement construction to help detect any soils disturbed due to weather extremes or construction activities. We also recommend that qualified geotechnical personnel from our firm perform in-place density tests and check the installed thickness of the aggregate materials. The technician can also monitor the placement and compaction of the asphaltic concrete and obtain periodic specimens for determination of the asphaltic cement content, aggregate gradation, Marshall Stability and density.

Appendices

Site Photographs Field Exploration Reference Information



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Site Photographs

View of Test Pit 1





View of Test Pit 1 typical soil conditions



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Site Photographs

View of Test Pit 2





View of Test Pit 2 typical soil conditions



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Site Photographs

View of Test Pit 3





View of Test Pit 3 typical soil conditions



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Site Photographs

View of Test Pit 4





View of Test Pit 4 typical soil conditions



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Site Photographs

View of Test Pit 5





View of Test Pit 5 typical soil conditions



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Site Photographs

View of Test Pit 6





View of Test Pit 6 typical soil conditions



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Site Photographs

View of Test Pit 7





View of Test Pit 7 typical soil conditions



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Site Photographs

View of Test Pit 8





View of Test Pit 8 typical soil conditions



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Site Photographs

View of Test Pit 9





View of Test Pit 9 typical soil conditions



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Site Photographs

View of Test Pit 10





View of Test Pit 10 typical soil conditions



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Site Photographs

View of Test Pit 11





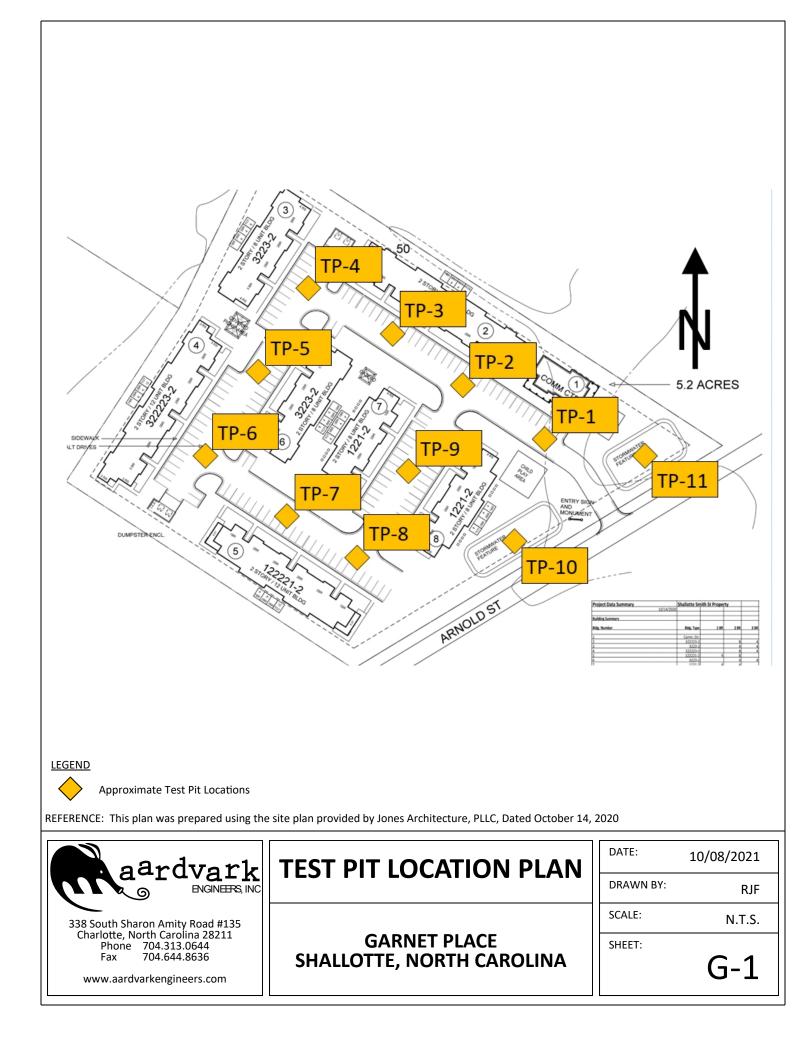
View of Test Pit 11 typical soil conditions

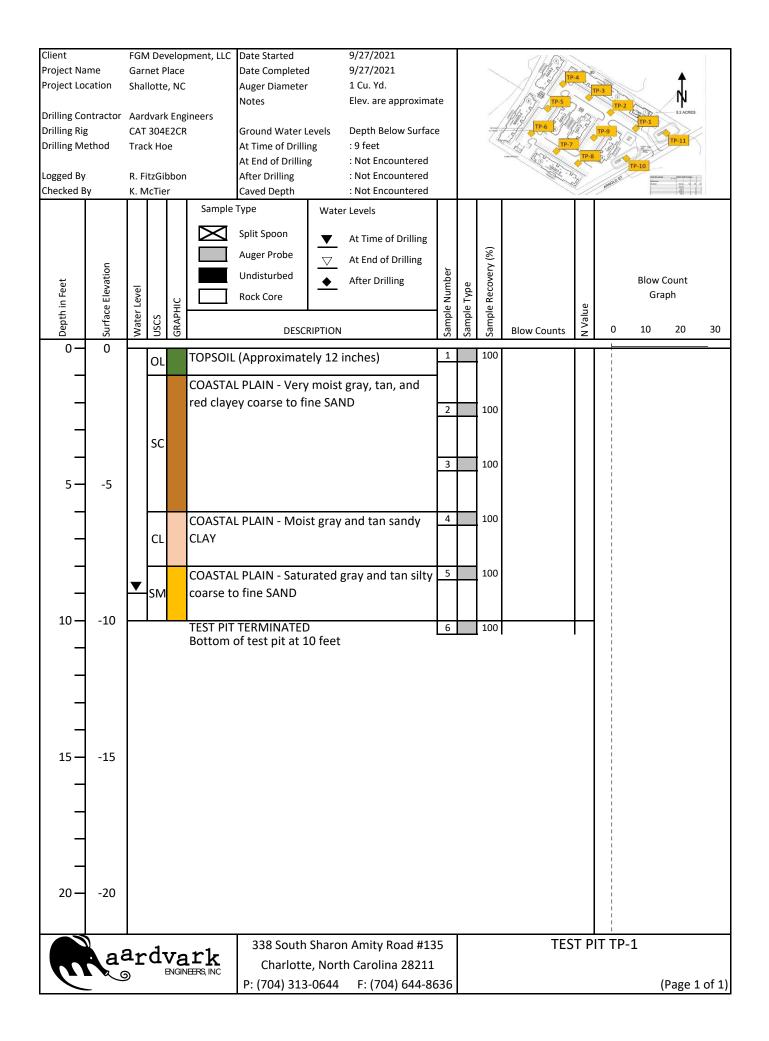
Field Exploration

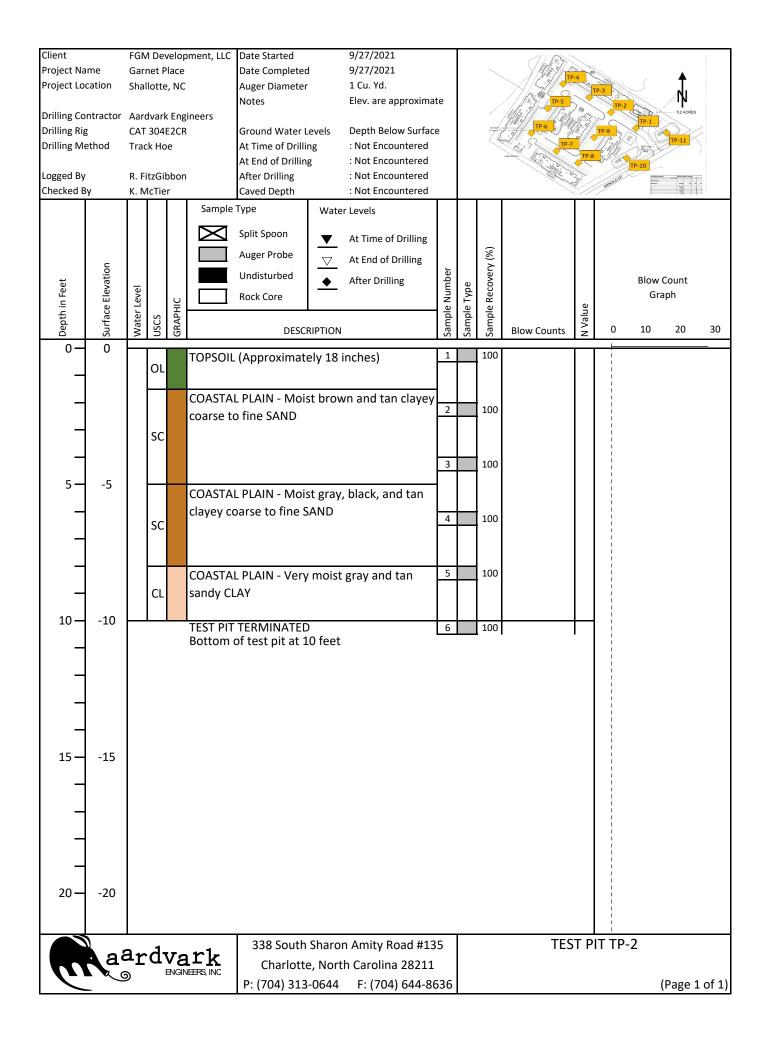
Test Pit Location Plan Test Pit Logs NRCS Custom Soil Resource Report

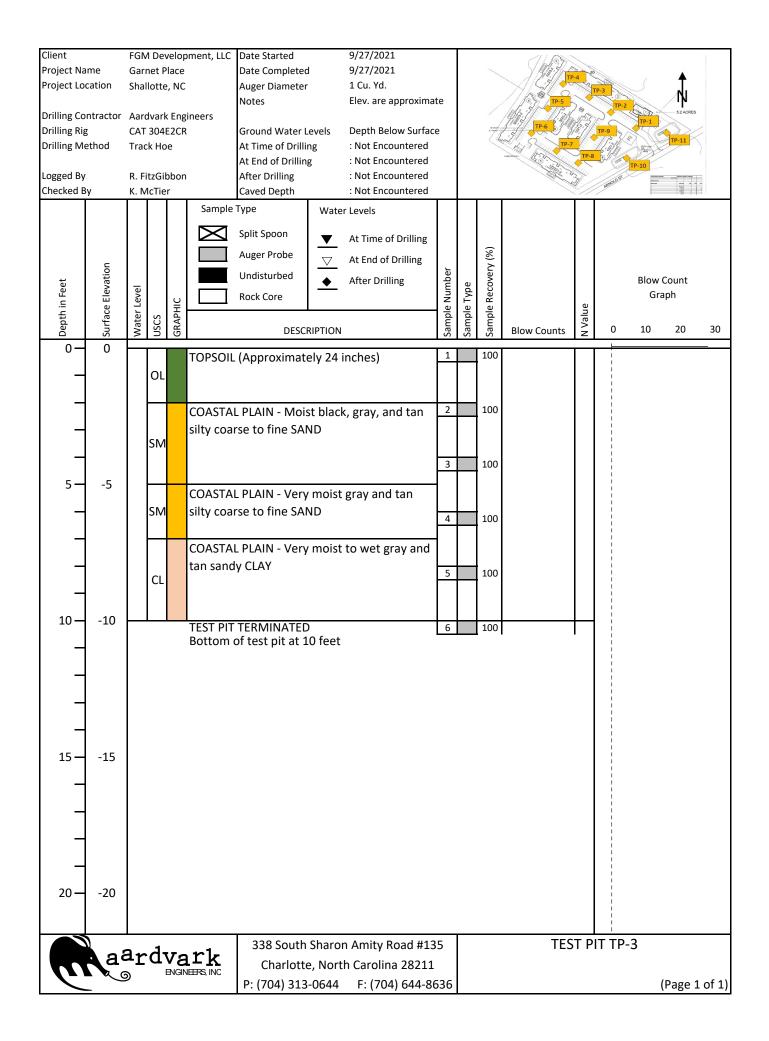


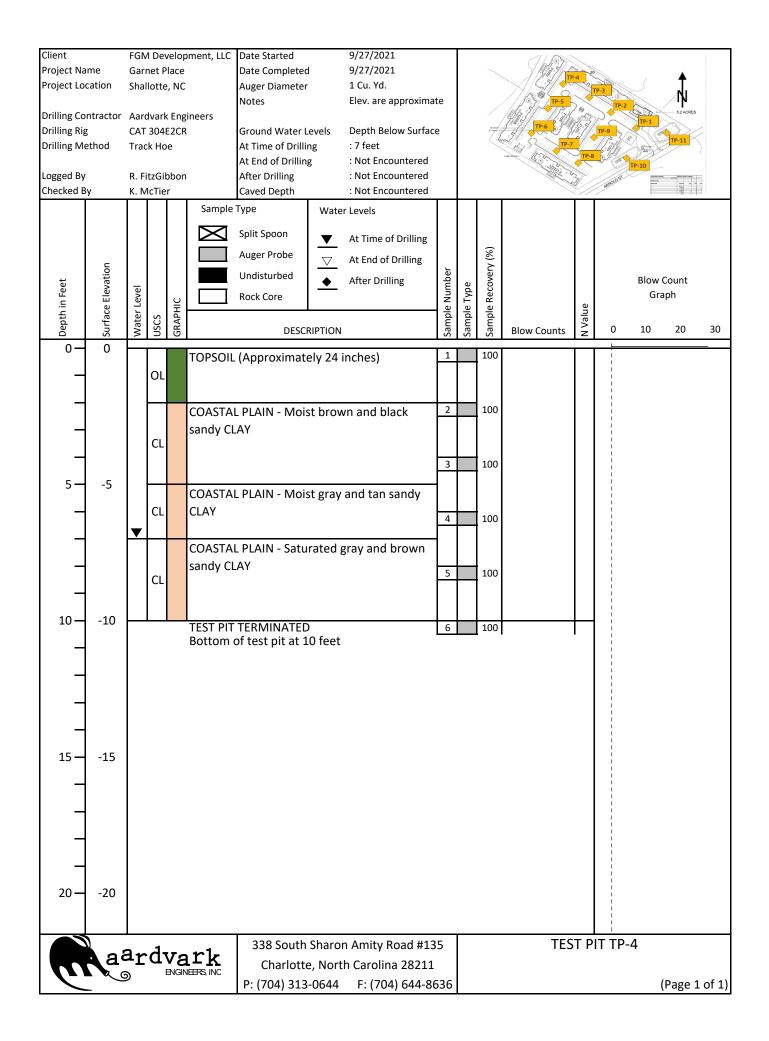
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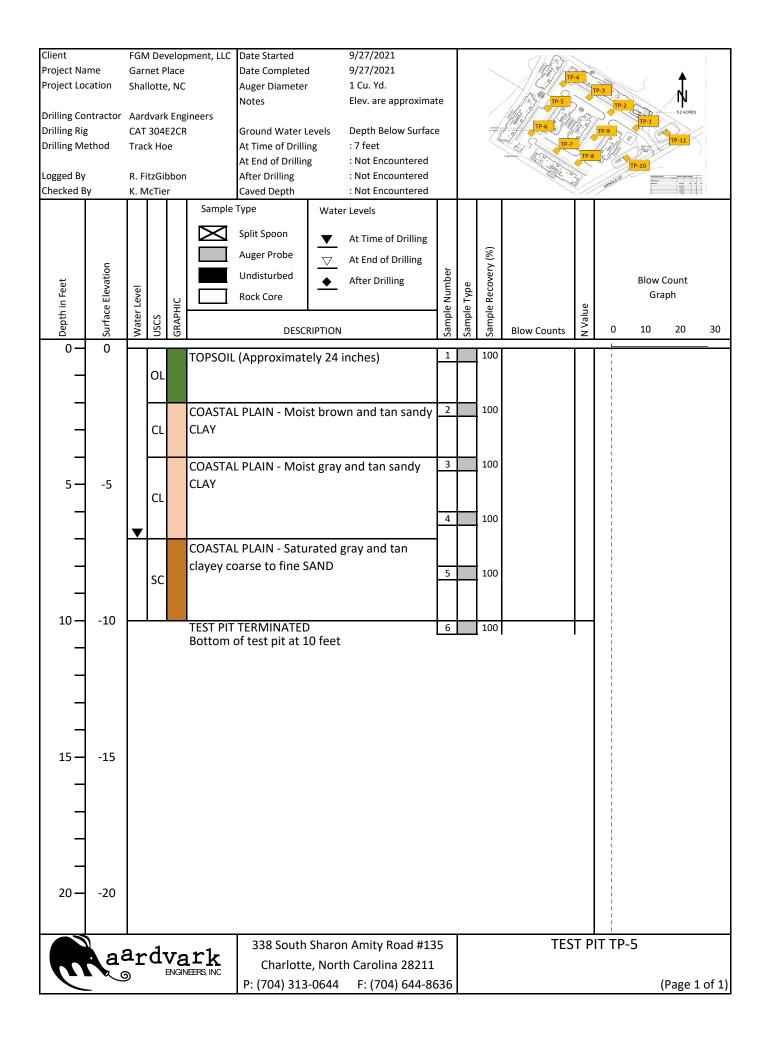


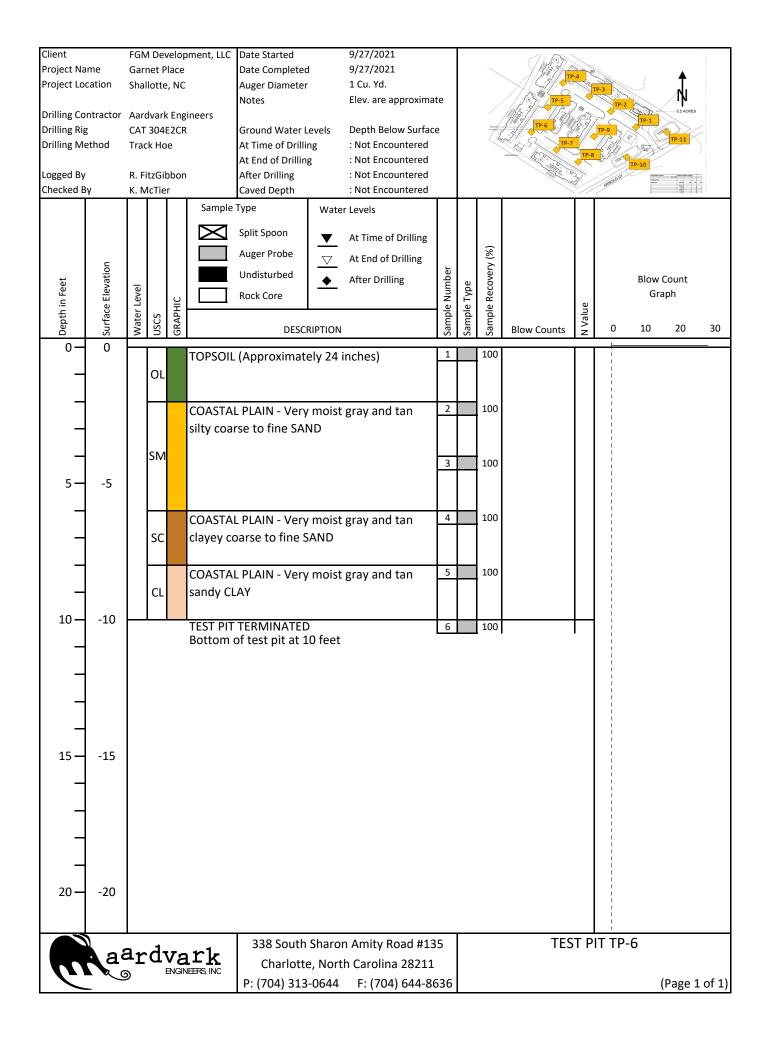


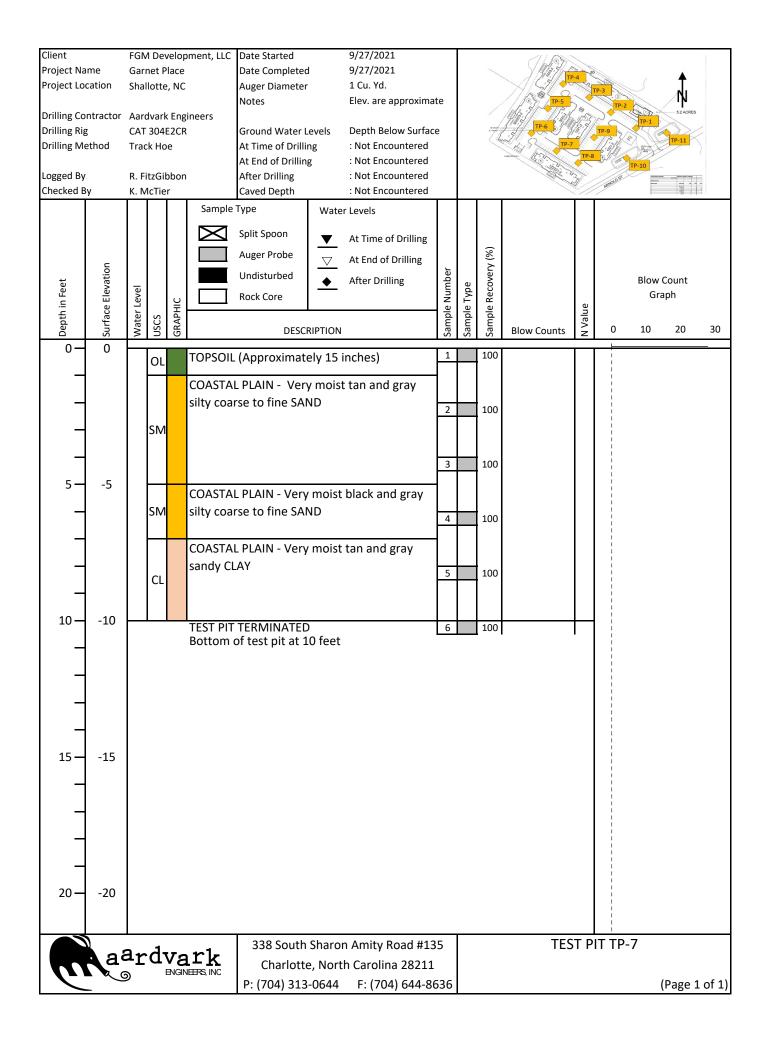


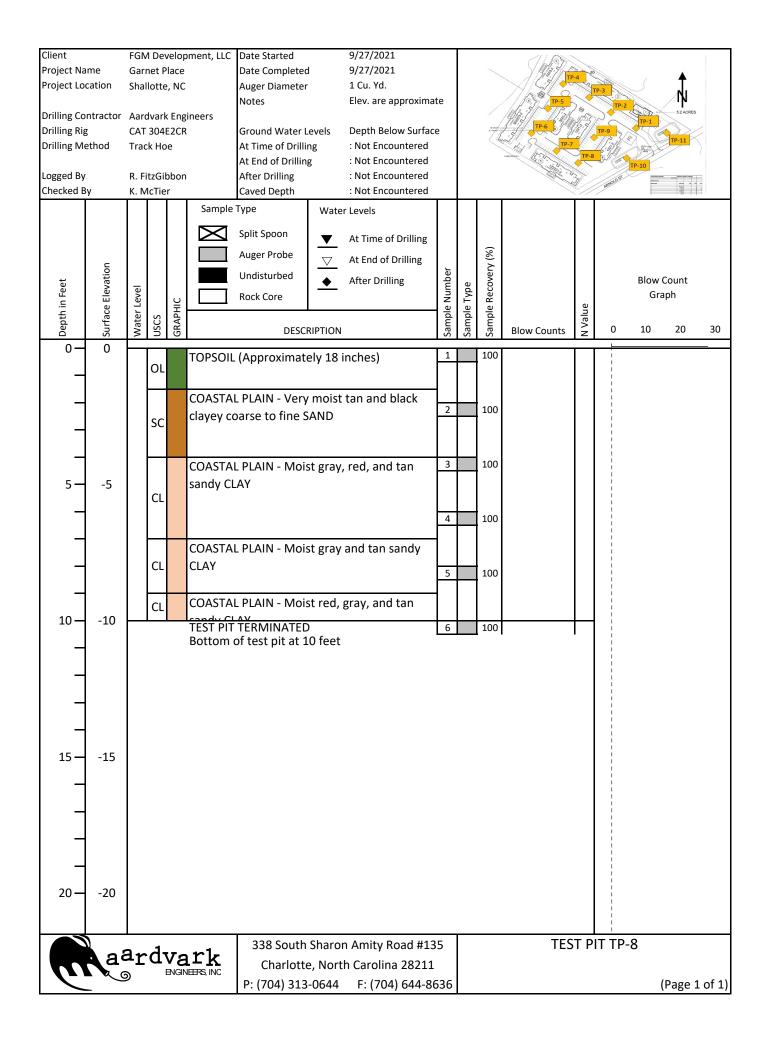


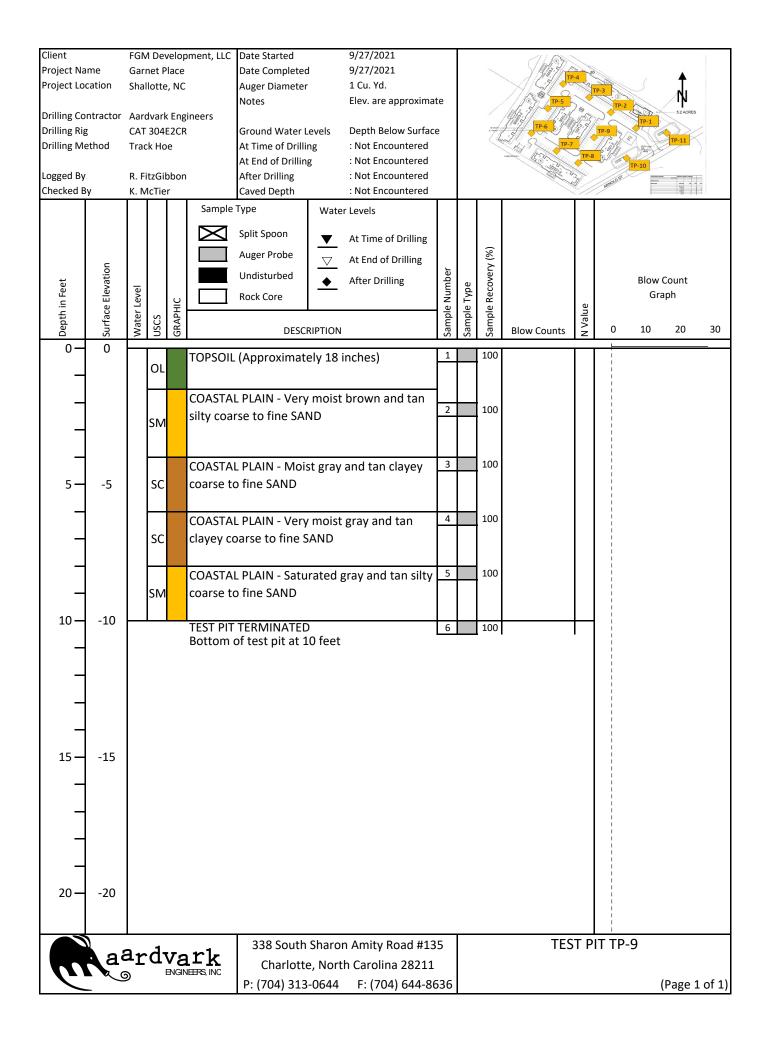


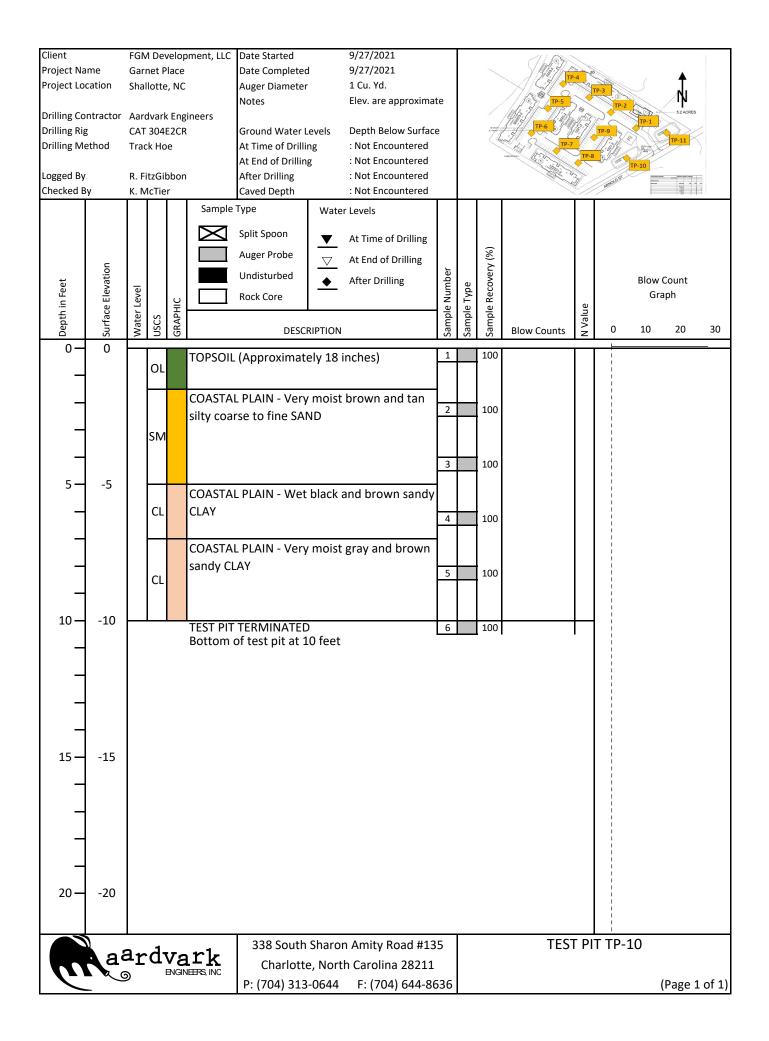


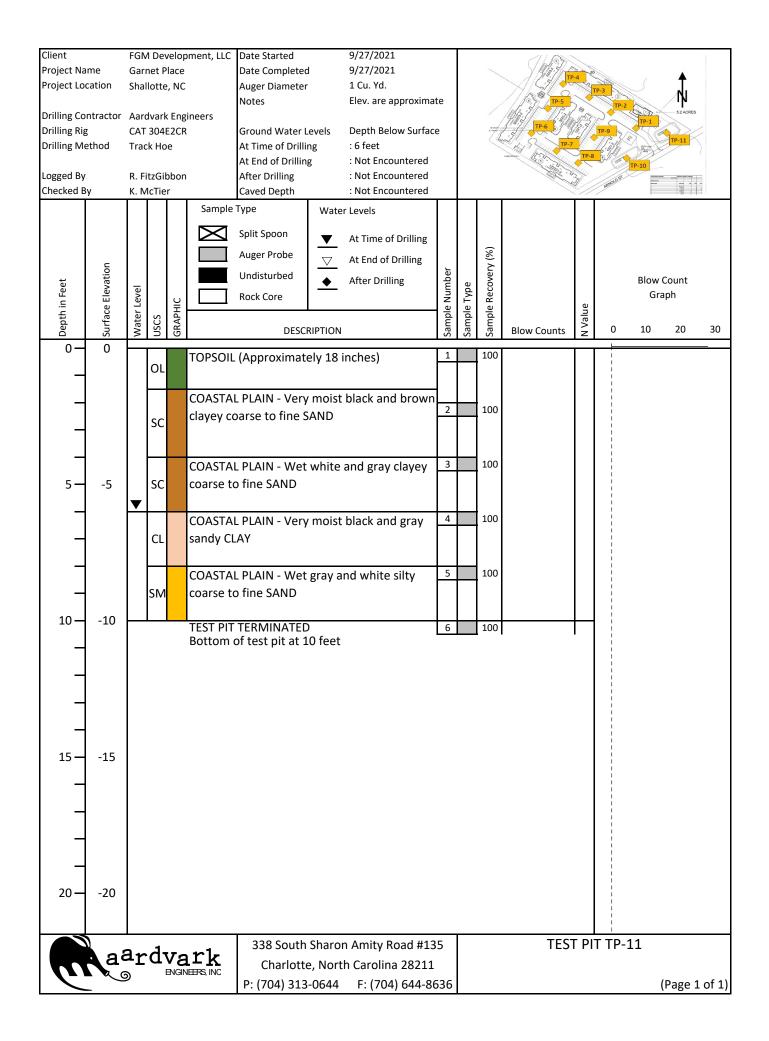












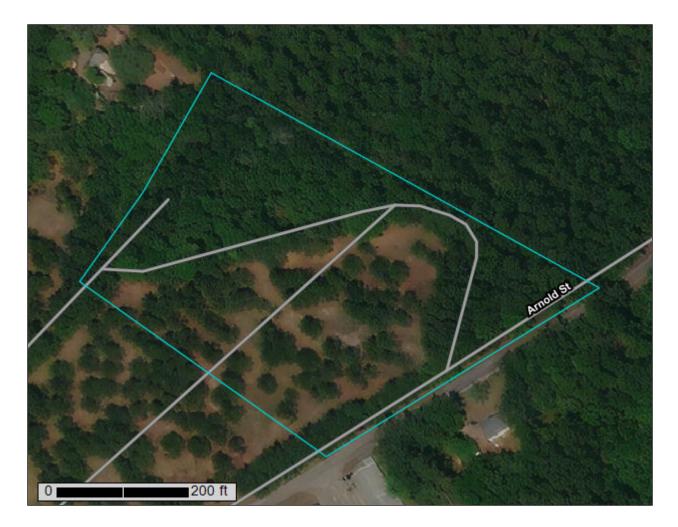


United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Brunswick County, North Carolina

Garnet Place Site



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

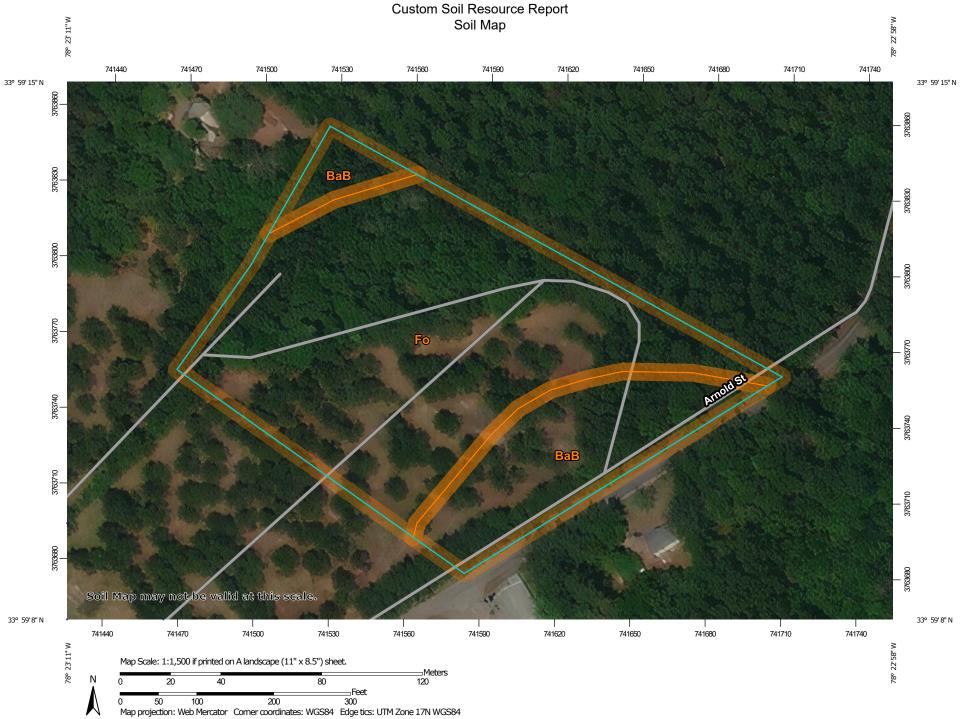
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



	MAP LEGEND			MAP INFORMATION		
Area of Int	terest (AOI) Area of Interest (AOI)	Spoil Are.	oot	The soil surveys that comprise your AOI were mapped at 1:24,000.		
~	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Point Features Blowout Borrow Pit	Water Features		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		
× < 30 < 4 < 0 < 2 < 3 < 4 < 0 < 4 < 0 < 4 < 2 < 4 < 2 < 4 < 5 < 4 < 5 < 4 < 5 < 4 < 5 < 5 < 5	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	Rails	ads	 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: Brunswick County, North Carolina Survey Area Data: Version 24, Jun 2, 2020 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. 		
\$ Ø	Slide or Slip Sodic Spot			Date(s) aerial images were photographed: Dec 31, 2009—Sep 30, 2017 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	
ВаВ	Baymeade fine sand, 1 to 6 percent slopes	1.4	26.7%	
Fo	Foreston loamy fine sand	3.8	73.3%	
Totals for Area of Interest		5.2	100.0%	

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Brunswick County, North Carolina

BaB—Baymeade fine sand, 1 to 6 percent slopes

Map Unit Setting

National map unit symbol: 3w6r Elevation: 20 to 160 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Baymeade and similar soils: 90 percent Minor components: 8 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Baymeade

Setting

Landform: Ridges on marine terraces Landform position (two-dimensional): Shoulder, summit Landform position (three-dimensional): Crest Down-slope shape: Convex Across-slope shape: Convex Parent material: Loamy and sandy marine deposits

Typical profile

A - 0 to 2 inches: fine sand E/Bh - 2 to 30 inches: fine sand Bt - 30 to 40 inches: fine sandy loam C - 40 to 80 inches: loamy fine sand

Properties and qualities

Slope: 0 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 48 to 60 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 3s Hydrologic Soil Group: A Hydric soil rating: No

Minor Components

Leon

Percent of map unit: 2 percent Landform: Flats on marine terraces *Down-slope shape:* Linear *Across-slope shape:* Concave *Hydric soil rating:* Yes

Torhunta, undrained

Percent of map unit: 2 percent
Landform: Flats on marine terraces, carolina bays on marine terraces, depressions on stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Lynn haven, undrained

Percent of map unit: 2 percent Landform: Flats on marine terraces Down-slope shape: Linear Across-slope shape: Linear Hydric soil rating: Yes

Murville, undrained

Percent of map unit: 2 percent Landform: Depressions on marine terraces, flats on marine terraces Down-slope shape: Concave Across-slope shape: Concave Hydric soil rating: Yes

Fo—Foreston loamy fine sand

Map Unit Setting

National map unit symbol: 3w71 Elevation: 20 to 160 feet Mean annual precipitation: 40 to 55 inches Mean annual air temperature: 59 to 70 degrees F Frost-free period: 200 to 280 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Foreston and similar soils: 80 percent *Minor components:* 5 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Foreston

Setting

Landform: Broad interstream divides on marine terraces, flats on marine terraces Down-slope shape: Linear Across-slope shape: Convex Parent material: Loamy and sandy marine deposits

Typical profile

A - 0 to 6 inches: loamy fine sand

E - 6 to 12 inches: loamy fine sand Bt - 12 to 40 inches: fine sandy loam E' - 40 to 51 inches: sand Btg - 51 to 85 inches: fine sandy loam *C* - 85 to 90 inches: loamy fine sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2w Hydrologic Soil Group: B Hydric soil rating: No

Minor Components

Woodington, undrained

Percent of map unit: 5 percent Landform: Flats on marine terraces, depressions on marine terraces, broad interstream divides on marine terraces Down-slope shape: Linear Across-slope shape: Concave Hydric soil rating: Yes

Soil Information for All Uses

Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

AOI Inventory

This folder contains a collection of tabular reports that present a variety of soil information. Included are various map unit description reports, special soil interpretation reports, and data summary reports.

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Brunswick County, North Carolina

Map Unit: BaB—Baymeade fine sand, 1 to 6 percent slopes

Component: Baymeade (90%)

The Baymeade component makes up 90 percent of the map unit. Slopes are 0 to 6 percent. This component is on low ridges on marine terraces, coastal plains. The parent material consists of loamy and sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria.

Component: Leon (2%)

Generated brief soil descriptions are created for major soil components. The Leon soil is a minor component.

Component: Torhunta, undrained (2%)

Generated brief soil descriptions are created for major soil components. The Torhunta, undrained soil is a minor component.

Component: Lynn Haven, undrained (2%)

Generated brief soil descriptions are created for major soil components. The Lynn Haven, undrained soil is a minor component.

Component: Murville, undrained (2%)

Generated brief soil descriptions are created for major soil components. The Murville, undrained soil is a minor component.

Map Unit: Fo—Foreston loamy fine sand

Component: Foreston (80%)

The Foreston component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad interstream divides on marine terraces, coastal plains. The parent material consists of loamy and sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Woodington, undrained (5%)

Generated brief soil descriptions are created for major soil components. The Woodington, undrained soil is a minor component.

Building Site Development

This folder contains a collection of tabular reports that present soil interpretations related to building site development. The reports (tables) include all selected map units and components for each map unit, limiting features and interpretive ratings. Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use. Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

Roads and Streets, Shallow Excavations, and Lawns and Landscaping

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. This table shows the degree and kind of soil limitations that affect local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. *Not limited* indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. *Somewhat limited* indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. *Very limited* indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the table indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate

gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

Information in this table is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil between the surface and a depth of 5 to 7 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this table. Local ordinances and regulations should be considered in planning, in site selection, and in design.

Report—Roads and Streets, Shallow Excavations, and Lawns and Landscaping

[Onsite investigation may be needed to validate the interpretations in this table and to confirm the identity of the soil on a given site. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. The table shows only the top five limitations for any given soil. The soil may have additional limitations]

Roads and Streets, Shallow Excavations, and Lawns and Landscaping–Brunswick County, North Carolina							
Map symbol and soil	Pct. of	Lawns and landscaping		Local roads and streets		Shallow excavations	
name	name map unit		Value	Rating class and limiting features	Value	Rating class and limiting features	Value
BaB—Baymeade fine sand, 1 to 6 percent slopes							
Baymeade	90	Very limited		Not limited		Very limited	
		Low exchange capacity	1.00			Unstable excavation walls	1.00
		Droughty	0.93			Depth to saturated zone	0.61
Fo—Foreston loamy fine sand							
Foreston	80	Very limited		Somewhat limited		Very limited	
		Low exchange capacity	1.00	Depth to saturated zone	0.19	Depth to saturated zone	1.00
		Depth to saturated zone	0.19			Unstable excavation walls	0.01

Land Classifications

This folder contains a collection of tabular reports that present a variety of soil groupings. The reports (tables) include all selected map units and components for each map unit. Land classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Taxonomic Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories (Soil Survey Staff, 1999 and 2003). Beginning with the broadest, these categories are the order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or from laboratory measurements. This table shows the classification

of the soils in the survey area. The categories are defined in the following paragraphs.

ORDER. Twelve soil orders are recognized. The differences among orders reflect the dominant soil-forming processes and the degree of soil formation. Each order is identified by a word ending in *sol*. An example is Alfisols.

SUBORDER. Each order is divided into suborders primarily on the basis of properties that influence soil genesis and are important to plant growth or properties that reflect the most important variables within the orders. The last syllable in the name of a suborder indicates the order. An example is Udalfs (*Ud*, meaning humid, plus *alfs*, from Alfisols).

GREAT GROUP. Each suborder is divided into great groups on the basis of close similarities in kind, arrangement, and degree of development of pedogenic horizons; soil moisture and temperature regimes; type of saturation; and base status. Each great group is identified by the name of a suborder and by a prefix that indicates a property of the soil. An example is Hapludalfs (*Hapl*, meaning minimal horizonation, plus *udalfs*, the suborder of the Alfisols that has a udic moisture regime).

SUBGROUP. Each great group has a typic subgroup. Other subgroups are intergrades or extragrades. The typic subgroup is the central concept of the great group; it is not necessarily the most extensive. Intergrades are transitions to other orders, suborders, or great groups. Extragrades have some properties that are not representative of the great group but do not indicate transitions to any other taxonomic class. Each subgroup is identified by one or more adjectives preceding the name of the great group. The adjective *Typic* identifies the subgroup that typifies the great group. An example is Typic Hapludalfs.

FAMILY. Families are established within a subgroup on the basis of physical and chemical properties and other characteristics that affect management. Generally, the properties are those of horizons below plow depth where there is much biological activity. Among the properties and characteristics considered are particle-size class, mineralogy class, cation-exchange activity class, soil temperature regime, soil depth, and reaction class. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine-loamy, mixed, active, mesic Typic Hapludalfs.

SERIES. The series consists of soils within a family that have horizons similar in color, texture, structure, reaction, consistence, mineral and chemical composition, and arrangement in the profile.

References:

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. (The soils in a given survey area may have been classified according to earlier editions of this publication.)

Report—Taxonomic Classification of the Soils

[An asterisk by the soil name indicates a taxadjunct to the series]

Taxonomic Classification of the Soils-Brunswick County, North Carolina			
Soil name Family or higher taxonomic classification			
Baymeade	Loamy, siliceous, semiactive, thermic Arenic Hapludults		
Foreston	Coarse-loamy, siliceous, semiactive, thermic Aquic Paleudults		

Soil Physical Properties

This folder contains a collection of tabular reports that present soil physical properties. The reports (tables) include all selected map units and components for each map unit. Soil physical properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Engineering Properties

This table gives the engineering classifications and the range of engineering properties for the layers of each soil in the survey area.

Hydrologic soil group is a group of soils having similar runoff potential under similar storm and cover conditions. The criteria for determining Hydrologic soil group is found in the National Engineering Handbook, Chapter 7 issued May 2007(http:// directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=17757.wba). Listing HSGs by soil map unit component and not by soil series is a new concept for the engineers. Past engineering references contained lists of HSGs by soil series. Soil series are continually being defined and redefined, and the list of soil series names changes so frequently as to make the task of maintaining a single national list virtually impossible. Therefore, the criteria is now used to calculate the HSG using the component soil properties and no such national series lists will be maintained. All such references are obsolete and their use should be discontinued. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to a seasonal high water table, saturated hydraulic conductivity after prolonged wetting, and depth to a layer with a very slow water transmission rate. Changes in soil properties caused by land management or climate changes also cause the hydrologic soil group to change. The influence of ground cover is treated independently. There are four hydrologic soil groups, A, B, C, and D, and three dual groups, A/D, B/D, and C/D. In the dual groups, the first letter is for drained areas and the second letter is for undrained areas.

The four hydrologic soil groups are described in the following paragraphs:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Depth to the upper and lower boundaries of each layer is indicated.

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, "gravelly."

Classification of the soils is determined according to the Unified soil classification system (ASTM, 2005) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 2004).

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest.

Percentage of rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

Liquid limit and *plasticity index* (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

References:

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Absence of an entry indicates that the data were not estimated. The asterisk '*' denotes the representative texture; other possible textures follow the dash. The criteria for determining the hydrologic soil group for individual soil components is found in the National Engineering Handbook, Chapter 7 issued May 2007(http://directives.sc.egov.usda.gov/ OpenNonWebContent.aspx?content=17757.wba). Three values are provided to identify the expected Low (L), Representative Value (R), and High (H).

				Engineering Pr	operties–Br	unswick Co	unty, Nort	th Carolina	a					
Map unit symbol and	Pct. of	Hydrolo	Depth	USDA texture	Classi	fication	Pct Fra	agments	Percent	age passi	ng sieve r	number—	Liquid limit	Plasticit
soil name	map unit	gic group			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		y index
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
BaB—Baymeade fine sand, 1 to 6 percent slopes														
Baymeade	90	A	0-2	Fine sand, sand	SM, SP- SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	89-93- 98	8-12- 17	6-10 -14	NP
			2-30	Fine sand, sand	SM, SP- SM	A-2-4, A-3	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	91-93- 96	9-11- 13	6-10 -14	NP
			30-40	Fine sandy loam, sandy clay loam, sandy loam	SM, SC, SC-SM	A-2-4, A-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	83-92-1 00	32-40- 50	0-12 -24	NP-5 -10
			40-80	Sand, loamy fine sand, fine sand	SM	A-2-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	87-93-1 00	30-35- 42	6-10 -14	NP

				Engineering Pro	operties–Br	unswick Co	unty, Nort	h Carolina	a					
Map unit symbol and	Pct. of	Hydrolo	Depth	USDA texture	Classi	fication	Pct Fragments		Percentage passing sieve number—				Liquid	Plasticit
soil name map unit	•	gic group			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200	- limit	y index
			In				L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H	L-R-H
Fo—Foreston loamy fine sand														
Foreston	80	В	0-6	Loamy sand, loamy fine sand	SM	A-2-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	89-93- 98	27-30- 34	9-12 -14	NP
			6-12	Loamy sand, loamy fine sand	SM	A-2-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	89-93- 98	27-30- 34	9-12 -14	NP
			12-40	Sandy loam, fine sandy loam, loamy fine sand	SM, SC- SM	A-2-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	87-91- 97	35-39- 44	0-13 -25	NP-2 -4
			40-51	Sand, loamy sand, fine sand, loamy fine sand	SM, SP- SM	A-2-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	75-79- 84	10-14- 18	6-10 -14	NP
			51-85	Sandy clay loam, fine sandy loam, sandy loam	SM, SC- SM, SC	A-4, A-2-4, A-7-6, A-6	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	84-92-1 00	33-41- 59	0-23 -45	NP-13-2 5
			85-90	Loamy fine sand, loamy sand, fine sand	SM	A-2-4	0- 0- 0	0- 0- 0	100-100 -100	98-98-1 00	89-93- 99	26-30- 34	6-10 -14	NP

Physical Soil Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, saturated hydraulic conductivity (Ksat), plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute linear extensibility, shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates in the table are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity (Ksat) is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. The amount and type of clay minerals in the soil influence volume change.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter. The content of organic matter in a soil can be maintained by returning crop residue to the soil.

Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in the table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and Ksat. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind and/or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are described in the "National Soil Survey Handbook."

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

Reference:

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. (http://soils.usda.gov)

Three values are	provided to identify the expe	cted I ow (I) Represen	tative Value (R), and High (H).
Three values are	provided to identify the expe	cied Low (L), Represen	itative value (R), and high

				P	hysical Soi	I Properties–Bru	nswick County	, North Carolina						
Map symbol and soil name	Depth	Sand	Silt	bulk		Saturated hydraulic	Available water	water extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility
					density	ensity conductivity capacity				Kw Kf 1		т		index
	In	Pct	Pct	Pct	g/cc	micro m/sec	In/In	Pct	Pct					
BaB— Baymeade fine sand, 1 to 6 percent slopes														
Baymeade	0-2	-95-	- 1-	0- 4- 8	1.60-1.68- 1.75	42.00-92.00-14 1.00	0.02-0.04-0.0 6	0.0- 1.5- 2.9	0.5- 0.8- 1.0	.05	.05	5	1	250
	2-30	-97-	- 1-	0- 2- 4	1.60-1.68- 1.75	42.00-92.00-14 1.00	0.02-0.04-0.0 6	0.0- 1.5- 2.9	0.5- 0.8- 1.0	.10	.10			
	30-40	-69-	-15-	8-17- 26	1.45-1.53- 1.60	14.00-28.00-42. 00	0.10-0.12-0.1 4	0.0- 1.5- 2.9	0.0- 0.3- 0.5	.24	.24			
	40-80	-78-	-16-	0- 6- 12	1.60-1.68- 1.75	42.00-92.00-14 1.00	0.02-0.06-0.1 0	0.0- 1.5- 2.9	0.0- 0.3- 0.5	.32	.32			
Fo—Foreston loamy fine sand														
Foreston	0-6	-82-	- 9-	5- 9- 12	1.20-1.30- 1.40	14.00-40.00-14 1.00	0.05-0.08-0.1 0	0.0- 1.5- 2.9	0.5- 1.3- 2.0	.15	.15	5	2	134
	6-12	-82-	- 9-	5- 9- 12	1.20-1.30- 1.40	14.00-40.00-14 1.00	0.05-0.08-0.1 0	0.0- 1.5- 2.9	0.3- 0.5- 0.8	.15	.15			
	12-40	-70-	-16-	10-14- 18	1.20-1.30- 1.40	14.00-28.00-42. 00	0.09-0.11-0.1 3	0.0- 1.5- 2.9	0.0- 0.3- 0.5	.24	.24			
	40-51	-90-	- 2-	4- 8- 12	1.30-1.45- 1.60	42.00-92.00-14 1.00	0.03-0.07-0.1 0	0.0- 1.5- 2.9	0.0- 0.3- 0.5	.10	.10			
	51-85	-68-	-14-	10-18- 35	1.35-1.48- 1.60	0.42-9.00-14.00	0.12-0.14-0.1 6	0.0- 1.5- 2.9	0.0- 0.3- 0.5	.24	.24			
	85-90	-83-	-10-	4- 8- 12	1.30-1.45- 1.60	42.00-92.00-14 1.00	0.03-0.07-0.1 0	0.0- 1.5- 2.9	0.0- 0.3- 0.5	.24	.24			

Soil Qualities and Features

This folder contains tabular reports that present various soil qualities and features. The reports (tables) include all selected map units and components for each map unit. Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Soil Features

This table gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A *restrictive layer* is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. *Depth to top* is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Subsidence is the settlement of organic soils or of saturated mineral soils of very low density. Subsidence generally results from either desiccation and shrinkage, or oxidation of organic material, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. The table shows the expected initial subsidence, which usually is a result of drainage, and total subsidence, which results from a combination of factors.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (Ksat), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to

corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as *low*, *moderate*, or *high*, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as *low*, *moderate*, or *high*. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Soil Features-Brunswick County, North Carolina										
Map symbol and		Res	strictive Layer		Subsidence		Potential for frost	Risk of corrosion		
soil name –	Kind	Depth to top	Thickness	Hardness	Initial	Total	- action	Uncoated steel	Concrete	
		Low-RV- High	Range		Low- High	Low- High				
		In	In		In	In				
BaB—Baymeade fine sand, 1 to 6 percent slopes										
Baymeade		_	_		0	_	None	Low	Moderate	
Fo—Foreston loamy fine sand										
Foreston		_	_		0	_	None	Moderate	High	

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

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United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Reference Information

Soil Boring Log Notes Soil Classification Fact Sheet General Test Procedures General Qualifications and Limitations



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SOIL TEST BORING NOTES

Typical Order of Soil Descriptions:

Origin, Moisture, Soil Density/Consistency, Color, Secondary Soil Type, PRIMARY SOIL TYPE, Descriptive Terms

(Silt, Sar			SYMBOLS Drilling and Sampling			
Term Relative Density "N" Value /ery Loose .0 to 4 blows/ft .oose .5 to 10 blows/ft Firm .11 to 20 blows/ft /ery Firm .21 to 30 blows/ft Dense .31 to 50 blows/ft /ery Dense .51 to 99 blows/ft	Boulde Cobles Gravel. Sand: .	Fine COa (dia Fine	o 8 inch diameter irse: 1 to 3 inch dium: ½ to 1 inch e: ¼ to ½ inch irse: 6mm to ¼ inch a. of pencil led) e: 0.05mm to 0.2mm a. of human hair)	AS BS COA CS CW DC DM FA FT HA	Bag Sample Casing: Size 64 mm, NW; 100 mm, HW Continuous Sampling Clear Water Driven Casing Drilling Mud Flight Auger Fish Tail Hand Auger Hollow Stem Auger	
Relative Proportions Descriptive Term Permit Trace 1-10 Little 11-20 Some 21-35 And 46-50	_		nnot see particle)	NR PMT PTS RB RC REC RQD RS SS	No Recovery Borehole Pressure meter Test 75 mm OD Piston Tube Sample Peat Sample Rock Bit Rock Coring Recovery Rock Quality Designation Rock Sounding Soil Sounding	
(Cla Partic <u>Consistency</u> "N" value Approx. Unco	2ST 3ST VS WPT	50 mm OD Thin-Walled Tube Sample 75 mm OD Thin-Walled Tube Sample Vane Shear Test				
Stiff 9 to 15 1	n 0.25 an 0.5).5-1.0 I.0-2.0	Plasticity <u>Term</u> <u>Index</u> (PI) None to Slight 0-4	Relative Portions			
Very Stiff	cess of 100 veathered r er inch. (NC eathered ro 1 D 1586) in by visual ins 1 3/8" I.D., inches. It is m the test. e drill log (E ures (i.e. 8+ ures (i.e. 8+ ures (a dashe times indic	Slight	Little	Qp Qu W LL PI SL LIO gd pH	Laboratory Tests Penetrometer Reading Unconfined Strength Moisture Content, % Liquid Limit, % Plastic Limit, % Plasticity Index Shrinkage Limit, % Loss on Ignition, % Dry Unit Weight Measure of Soil Alkalinity/Acidity	



UNIFIED SO	IL CLASSI	FICATION AND SYMBOL CHART	LABORATORY CLASSIFICATION CRITERIA				
(more than		SE-GRAINED SOILS erial is larger than No. 200 sieve size.)					
		Gravels (Less than 5% fines)	Dec Dec				
GRAVELS	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	GW $C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3				
More than 50% of coarse	GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines	GP Not meeting all gradation requirements for GW				
fraction larger than No. 4		s with fines (More than 12% fines)					
sieve size	GM	Silty gravels, gravel-sand-silt mixtures	GM Atterberg limits below "A" line or P.I. less than 4 Above "A" line with P.I. between 4 and 7 are borderline cases				
	GC	Clayey gravels, gravel-sand-clay mixtures	GC Atterberg limits above "A" requiring use of dual symbols line with P.I. greater than 7				
	Clean S	Sands (Less than 5% fines)	D ₆₀ D ₃₀				
SANDS	sw	Well-graded sands, gravelly sands, little or no fines	SW $C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3				
50% or more of coarse	SP	Poorly graded sands, gravelly sands, little or no fines	SP Not meeting all gradation requirements for GW				
fraction smaller than No. 4	Sands	with fines (More than 12% fines)					
sieve size	SM	Silty sands, sand-silt mixtures	SMAtterberg limits below "A" line or P.I. less than 4Limits plotting in shaded zone with P.I. between 4 and 7 are				
	sc	Clayey sands, sand-clay mixtures	SC Atterberg limits above "A" line with P.I. greater than 7				
	FINE-	GRAINED SOILS					
(50% or m	ore of materi	al is smaller than No. 200 sieve size.)	Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size),				
SILTS	ML	Inorganic silts and very fine sands, rock flour, silty of clayey fine sands or clayey silts with slight plasticity	coarse-grained soils are classified as follows: Less than 5 percent				
CLAYS		Inorganic clays of low to medium	5 to 12 percent Borderline cases requiring dual symbols				
Liquid limit less than	CL	plasticity, gravelly clays, sandy clays, silty clays, lean clays	PLASTICITY CHART				
50%		Organic silts and organic silty clays of low plasticity					
SILTS	мн	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	40 CH ALINE:				
AND CLAYS Liquid limit 50%	СН	Inorganic clays of high plasticity, fat clays	QI PI = 0.73(LL-20) 20 CL MH&OH 10				
or greater	ОН	Organic clays of medium to high plasticity, organic silts					
HIGHLY ORGANIC SOILS	<u> </u>	Peat and other highly organic soils	0 10 20 30 40 50 60 70 80 90 100 LIQUID LIMIT (LL) (%)				



GENERAL TEST PROCEDURES

Aardvark Engineers performs tests in general accordance with the American Society for Testing and Materials (ASTM) or the United States Army Corps of Engineers procedures. These procedures are generally recognized as the basis for uniformity and consistency of test results in the geotechnical engineering profession. All work is initiated and supervised by qualified engineers. Our tests are performed by skilled technicians trained in either ASTM or Corps procedures.

Subsequent portions of this Appendix present briefly describe of our testing procedures. Where applicable, we have referenced these procedures to either ASTM or the Corps of Engineers standards which contain specific descriptions of apparatus, procedures, reporting, etc.

<u>Annual Book of ASTM Standards, Section 4, Volumes 4.08 and 4.09: Soil and Rock</u>. American Society for Testing and Materials, Latest Edition

EM 1110-2-1803. Subsurface Investigations, Soils, Chapter 3. U.S. Army Corps of Engineers, 1972.

EM 1110-1-1801, Geological Investigations. U.S. Army Corps of Engineers, 1978.

EM 1110-2-1907, Soil Sampling. U.S. Army Corps of Engineers, 1972.

EM 1110-1-1802, Geophysical Exploration. U.S. Army Corps of Engineers, 1979.

EM 1110-2-1906, Laboratory Soils Testing. U.S. Army Corps of Engineers, 1970.

OBSERVATION TEST PITS

Observation pits are dug to evaluate the origin, type, and continuity of in place soils. If shallow rock or buried fill is present, these pits are useful in determining the thickness, extent, and composition of the fill, the soundness and continuity of the rock, and the relative ease in excavating these materials.

The pits were excavated with a CAT 304E track hoe. A geotechnical engineer or engineering geologist observed the excavations, and recorded descriptions of the soil and rock encountered.





GENERAL QUALIFICATIONS

This report has been prepared at the request of our client for their use on this project. The work, including the field work, laboratory testing, and engineering analysis, was performed in accordance with generally accepted soil and foundation engineering practices. This warranty is in lieu of all other warranties either expressed or implied.

This report may not contain sufficient information for purposes of other parties or other uses. Should there be any sufficient differences in structural arrangement, loading or location of the structure, our analysis should be reviewed.

The analysis, conclusions, and recommendations contained in our report are based on site conditions as they existed at the time of our exploration and further assume that the borings are representative of the subsurface conditions throughout the site.

If during construction, different subsurface conditions from those encountered during our explorations are observed or appear to be present beneath excavations, we must be advised promptly so that we can review these conditions and reconsider our recommendations where necessary.

If there is a substantial lapse of time between the submission of our report and the start of work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, we urge that our report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse.

We urge that we be retained to review those portions of the plans and specifications that pertain to earthwork and foundations to determine whether they are consistent with our recommendations. In addition, we are available to observe construction, particularly the compaction of structural backfill and preparation of the foundations, and such other field observations as may be necessary.

In order to fairly consider changed or unexpected conditions that might arise during construction, we recommend the following verbiage (Standard Clause for Unanticipated Subsurface Conditions) be included in the project contract.

STANDARD CLAUSE FOR UNANTICIPATED SUBSURFACE CONDITIONS

"The owner has had a subsurface exploration performed by a soils consultant, the results of which are contained in the consultant's report. The consultant's report represents their conclusions on the subsurface conditions based on their interpretations of the data obtained in the exploration. The contractor acknowledges that they have reviewed the consultant's report and any addenda thereto, and that their bid for earthwork operations is based on the subsurface conditions as described in that report. It is recognized that a subsurface exploration may not disclose all conditions as they actually exist and further, conditions may change, particularly groundwater conditions, between the time of a subsurface exploration and the time of earthwork operations. In recognition of these facts, this clause is entered in the contract to provide a means of equitable additional compensation for the contractor if adverse unanticipated conditions are encountered and to provide a means of rebate to the owner if the conditions are more favorable than anticipated.

At anytime during construction operations that the contractor encounters conditions that are different than those anticipated by the soils consultant's report, they shall immediately (within 24 hours) bring this fact to the owner's attention. If the owner's representative on the construction site observes subsurface conditions which are different than those anticipated by the consultant's report, they shall immediately (within 24 hours) bring this fact to the contractor's attention. Once a fact of unanticipated conditions has been brought to the attention of either the owner or the contractor, and the consultant has concurred, immediate negotiations will be undertaken between the owner and the contractor, to arrive at a change in contract price for additional work or reduction in work because of the unanticipated conditions. The contractor agrees that the following unit prices would apply for additional or reduced work under the contract. For changed conditions for which unit prices are not provided, the additional work shall be paid for on a time and materials basis."

Another example of a changed conditions clause can be found in paper No. 4035 by Robert F. Borg, published in ASCE Construction Division Journal, No. CO2, September 1964, page 37.

ATTACHMENT 20:

Educational and Cultural Facilities

Will Strayhorn

From:	Craig Eckert <ceckert@bcswan.net></ceckert@bcswan.net>
Sent:	Tuesday, February 28, 2023 3:16 PM
То:	Will Strayhorn
Subject:	Fwd: Garnet Place Apartments, Environmental Review for HUD Funded Projects.
Attachments:	Garnet Place Schools.pdf

Mr Strayhorn

Attendance zones are correct. At this time there is excess capacities at the schools.

Craig

BRUNSWICK COUNTY SCHOOLS

Craig Eckert, Director of Capital Projects & Planning (W) 910-782-5078 (C) 910-398-3815 ceckert@bcswan.net

------ Forwarded message ------From: Freyja Cahill <<u>fcahill@bcswan.net</u>> Date: Wed, Feb 22, 2023 at 11:31 AM Subject: Fwd: Garnet Place Apartments, Environmental Review for HUD Funded Projects. To: Larry Smith <<u>ljsmith@bcswan.net</u>>, Craig Eckert <<u>ceckert@bcswan.net</u>>

Larry and Craig - See below

------ Forwarded message -------From: **Randy Hohnstreiter** <<u>rhohns@bcswan.net</u>> Date: Wed, Feb 22, 2023 at 7:37 AM Subject: Fwd: Garnet Place Apartments, Environmental Review for HUD Funded Projects. To: Cahill, Freyja <<u>fcahill@bcswan.net</u>>, Wisse, Cherie <<u>cwisse@bcswan.net</u>>

------ Forwarded message ------From: **Erica West** <<u>etwest@bcswan.net</u>> Date: Wed, Feb 22, 2023 at 6:54 AM Subject: Fwd: Garnet Place Apartments, Environmental Review for HUD Funded Projects. To: Randy Hohnstreiter <<u>rhohns@bcswan.net</u>>

N|V|5

February 16, 2023

Brunswick County Schools

Environmental Site Assessment Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

Project Name: Garnet Place

Location:

271 Smith Avenue in Shallotte, North Carolina (Brunswick County Parcel ID: 18200008 and 1820000801)

NV5 Engineers and Consultants, Inc. is performing an environmental assessment for a new development in Shallotte, North Carolina. The proposed project is for the construction of Garnet Place Apartments. Garnet Place will consist of the new construction of 72 units for family/generally occupancy households in Shallotte, Brunswick County, North Carolina. The project is applying for Low-Income Housing Tax Credit (LIHTC) financing, targeting family households with incomes up to 30%, 50%, 60%, and 80% of the Area Median Income (AMI). The unit mix will include 12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units. Construction will include 5 three-story apartment buildings, a community center, children's play areas, picnic areas, and parking areas.

As part of our review, we are contacting representatives within the Brunswick County School District to determine whether the schools have capacity to accommodate additional students that may live in the upcoming development. The planned apartments are currently located within the Supply Elementary School District, The Shallotte Middle School District, and West Brunswick High School District. It is anticipated that residents of the proposed project will come from within the community and potentially already be enrolled in the school system. At your earliest convenience, please respond with letters to the Raleigh address below or directly to me via email (will.strayhorn@NV5.com) stating the findings of your review. Thank you for your cooperation.

Sincerely,

NV5 Engineers and Consultants, Inc.

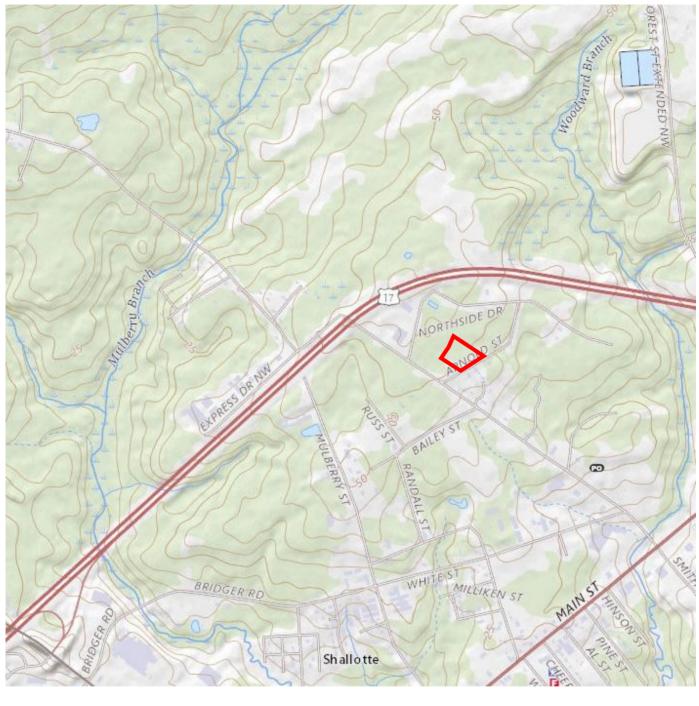
ill Stringthe

William B. Strayhorn, P.G. Senior Registered Geologist

Enclosures

NV5 Engineers and Consultants, Inc. NC Engineering Corporation F-1333 4905 Professional Court, Raleigh, North Carolina 27609 (919) 876-9799

<u>N | V | 5</u>



Obtained from TopoZone Website

Figure 1: Site Location Map

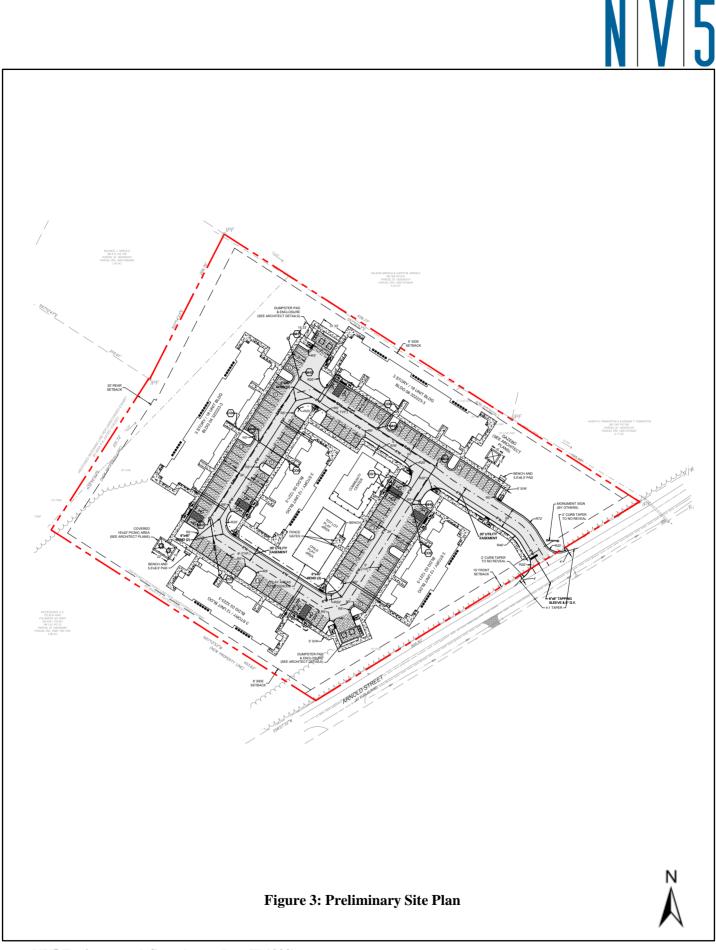


Not to Scale

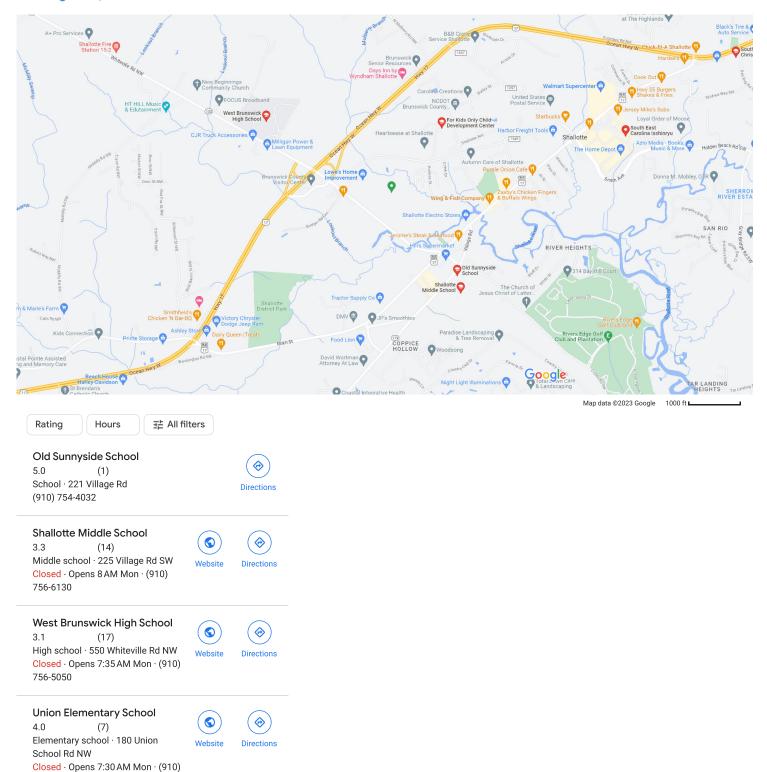
NV5 Engineers and Consultants, Inc. (F-1333) 4905 Professional Court Raleigh, NC 27609 919-876-9799 Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110



4905 Professional Court Raleigh, NC 27609 919-876-9799



Google Maps schools



"We love this school and all it stand for!"

 \bigcirc

Website

 \Diamond

Directions

756-5900

Academy 4.2

754-2389

Red Bug Rd SW

Southeastern Christian

(15)

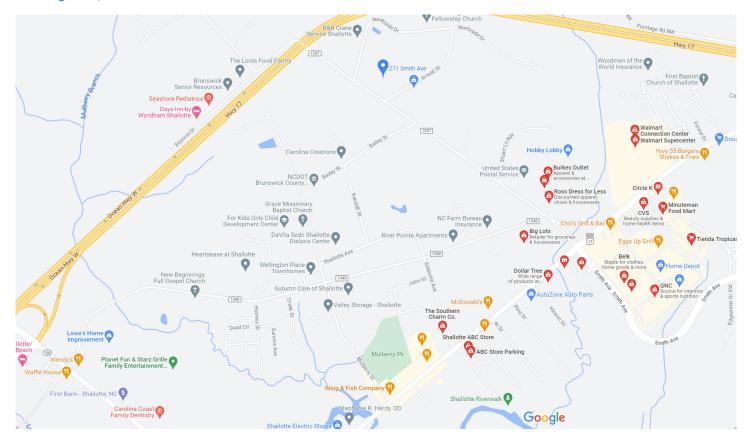
Private educational institution \cdot 19

Closed · Opens 8 AM Mon · (910)

ATTACHMENT 21:

Commercial Facilities

Google Maps stores



Map data ©2023 Google 🛛 500 ft 🖿

Rating Hours

主 All filters

Ross Dress for Less4.3(109)Clothing store · 135 Smith Ave Unit 5Discounted apparel, shoes &housewaresOpen · Closes 9 PM · (910) 754-4002

In-store shopping

 Walmart Supercenter

 3.8
 (3,227) · \$

 Department store · 4540 Main St B3079

 Open · Closes 11 PM · (910) 754-2880



In-store shopping · Curbside pickup · Delivery

Marshalls

4.4 (140) Department store · 135-3 Smith Ave Brand-name apparel & decor Open · Closes 9:30 PM · (910) 755-2363

In-store shopping

Family Fare4.9(9)Convenience store · 4585 Main StOpen · Closes 2 AM · (910) 754-6783

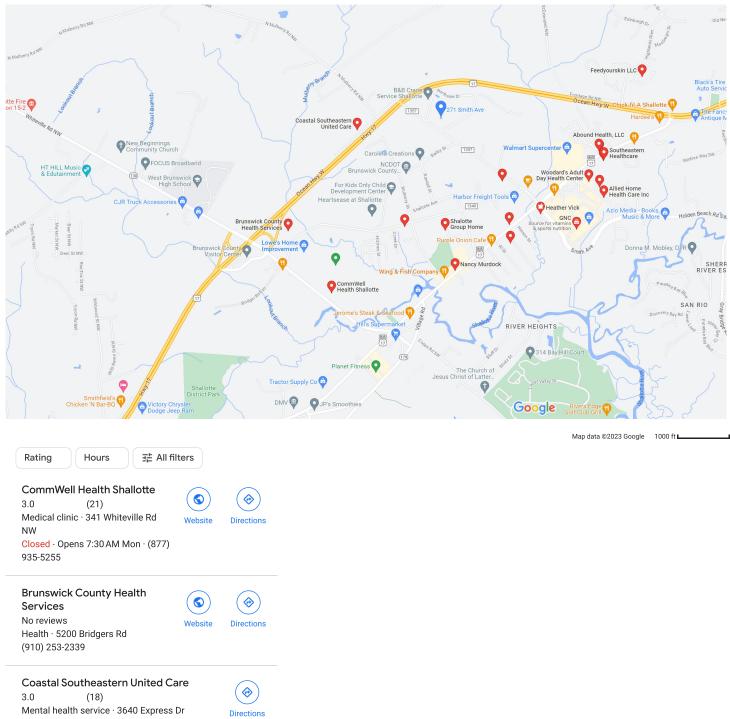


In-store shopping

ATTACHMENT 22:

Health Care and Social Services

Google Maps health



Closed · Opens 8 AM Mon · (910) 755-5222

Family First Health Center \bigcirc 4.9 (41) Chiropractor · 4911 Bridgers Rd Website Closed · Opens 7:30 AM Mon · (910) 755-5483

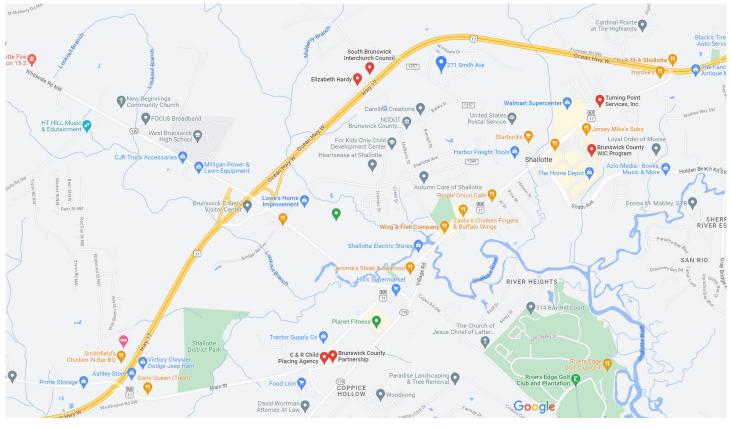
Southeastern Healthcare No reviews Alternative medicine practitioner · 4501 Main St (910) 718-9165

 \bigcirc \Diamond Website Directions

 \Diamond

Directions

Google Maps social services



Map data ©2023 Google 1000 ft 🗖

Brunswick County Partnership 5.0 (1) Social services organization · 5140 Sellers Rd Closed · Opens 7:30 AM Mon · (910) 754-3166	Oirections
C & R Child Placing Agency No reviews Social services organization · 5285 Main St #18 (910) 754-9544	Oirections
Turning Point Services, Inc. No reviews Social services organization · 4498 Main St #4 Closed · Opens 8 AM Mon · (910) 754-8386	Oirections
Elizabeth Hardy No reviews Social worker · 3640 Express Dr (910) 755-5222	Directions
Brunswick County WIC Program No reviews Social services organization · 150 Holden Beach Rd SW #9 (910) 253-2878	Oirections

記 All filters

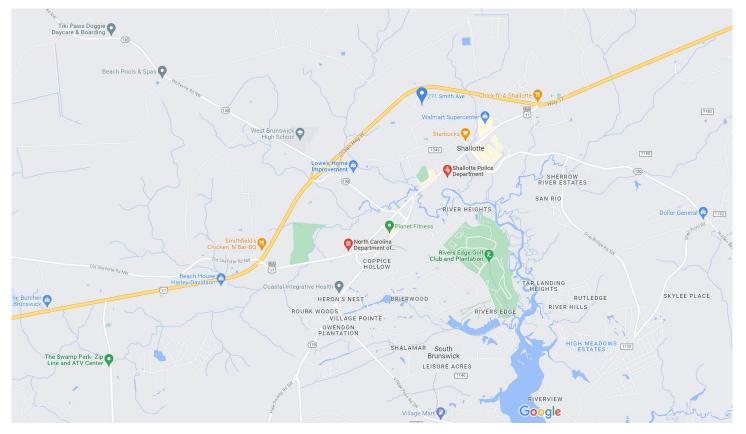
Rating

Hours

ATTACHMENT 23:

Public Safety – Police, Fire and Emergency Medical

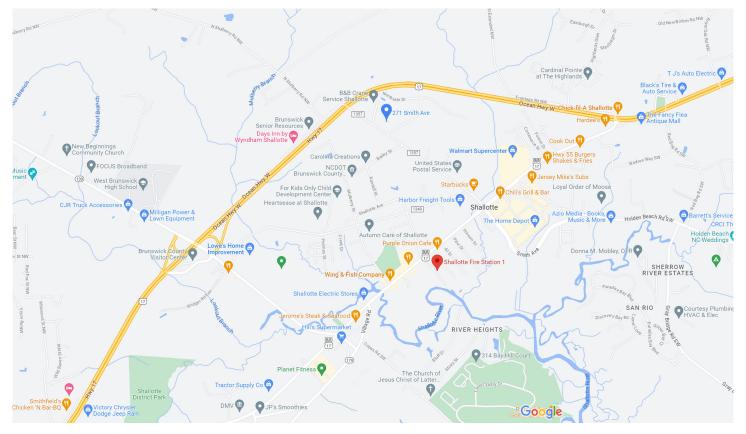
Google Maps police services



Map data ©2023 Google 2000 ft L

Rating Hours It All filters	
Shallotte Police Department 5.0 (5) Police department · 114 Cheers St (910) 754-6008	(The second seco
Ocean Isle Beach Police Department No reviews City government office · 111 Causeway Dr (910) 579-4221	Oirections
Ocean Isle Beach Police Department 3.8 (9) Police department · 2 W 3rd St (910) 579-4221	Directions
Holden Beach Police Department 2.6 (5) Police department · 110 Rothschild St (910) 842-6707	Directions
Sunset Beach Police Department 2.2 (10) Police department · 700 Sunset Blvd N (910) 579-2151	Directions

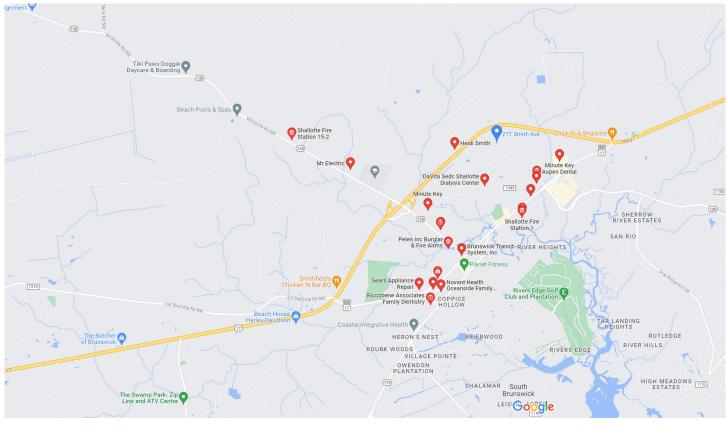
Google Maps Shallotte Fire Station 1



Rating Hours 記 All filters Shallotte Fire Station 1 \Diamond \bigcirc 4.2 (5) Fire station · 125 Wall St Website Directions Open 24 hours · (910) 754-6262 **Civietown Volunteer Fire** € \Diamond Department No reviews Website Directions Fire station · 2227 Civietown Rd SW (910) 754-8392 Shallotte Point Vol Fire € ⊘ Department 5.0 (2) Website Directions Fire station · 4126 Pigott Rd SW (910) 754-6505 Shallotte Fire Station 15-2 Image: A start of the start of No reviews Fire station · 920 Whiteville Rd NW Directions Tri-Beach VFD Station 3 (\diamond) 5.0 (1) Fire station · 2707 Seashore Rd SW Directions Tri-Beach VFD Station 2 \Diamond 5.0 (1) Fire station · 574 Ocean Blvd W Directions Open 24 hours

Map data ©2023 Google 1000 ft L

Google Maps emergency services



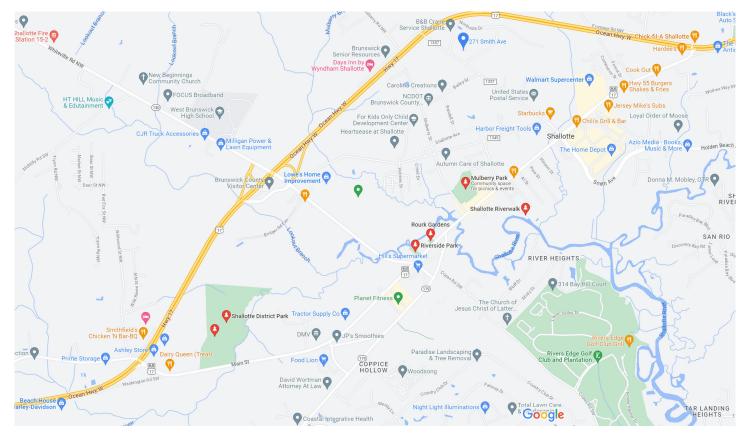
Rating Hours	로 All filters
Shallotte Fire Station 1 4.2 (5) Fire station · 125 Wall St Open 24 hours · (910) 754- "Kay Jewelers referred r ring removed."	Website Directions 6262 ne to Fire Department to have
Shallotte Fire Station 15 No reviews Fire station · 920 Whiteville	
Pelen Inc Burglar & Fire No reviews Fire station (910) 754-5333	Airms
Brunswick Family Assis Agency Of North Caro Food Distribution Cent No reviews Food bank · 5285 Main St (910) 754-4766	lina - 🔇 📀
Shallotte Police Depart 5.0 (5) Police department · 114 Ch (910) 754-6008	

Map data ©2023 Google 2000 ft 🗖

ATTACHMENT 24:

Parks, Open Space and Recreation

Google Maps parks



Map data ©2023 Google 1000 ft L

Rating Hours

Mulberry Park

主 All filters



4.7 (397) Park · 123 Mulberry St Community space for picnics & events Open · Closes 8 PM

 Shallotte Township Park

 4.5
 (388)

 Park · 5550 Main St

 Park with sports & picnic facilities

 Open · Closes 9 PM

Riverside Park 4.5 (10) Park · 4950 Main St

Shallotte District Park 4.5 (2) Park · 5550 Main St







Ocean Isle Beach Park 4.8 (303) Park · 6483 Old Georgetown Rd SW Play areas, tennis courts & a field Open · Closes 12 AM



ATTACHMENT 25:

Transportation and Accessibility

Brunswick Transit Services

What services does BTS offer? What is Dial-a-Ride? Who can ride? When can I ride? How do I schedule a ride? What information do I need? How do I cancel a ride? How much does it cost? Service Policy

What services does BTS offer?

BTS provides non-emergency transportation services to the general public through our Dial-a-Ride grant funded program and to various agency clients through contracts with those respective agencies.

What is Dial-a-Ride?

Dial-a-ride is a fare assistance transportation program sponsored by the North Carolina Department of Transportation. The service is open to the residents of Brunswick County. There is a fare and reservations are required. Reservations must be made at least forty-eight (48) hours in advance. Transportation is available on a first-come/first-serve basis as space and schedules permit.

Who can ride?

Any resident of Brunswick County is eligible to ride with BTS. Some agency contracts or funding programs may have other stipulations depending on funding sources. BTS provides transportation for general purpose trips, medical trips, and most non-emergency trip destinations.

When can I ride?

Monday-Friday 8:00 a.m. - 4:30 p.m. as space permits. When you make your reservation please allow 2 hours for service before your requested drop-off as pick-up times may vary depending on the number of riders. Once a reservation is confirmed you will receive an automated phone call including a pick-up time. A driver may only wait five (5) minutes for you to board the van.

How do I schedule a ride?

To request general public transportation services, call the BTS office at (910) 253-7800 or toll-free at 877-754-2764 between the hours of 8:00 a.m. and 4:30 p.m., Monday-Friday. Although BTS recommends scheduling your trips as far in advance as possible, requests must be made at least 48 hours in advance. Requests left with the answering service are not scheduled until our staff has contacted you.

What information do I need?

You will need to provide the dispatcher/scheduler with the following information when you call to schedule your trip:

- Your name
- Your address
- Your destination address
- Your telephone number
- Any return trip information
- Any special requirements (space needed for a child seat, wheel chair, etc.)
- The name, relationship, and age of anyone traveling with you.

How do I cancel a ride?

If you must cancel a scheduled trip please notify the BTS office at (910) 253-7800 or toll-free at 877-754-2764 as soon as possible, but at least 2 hours in advance of your pick-up time. Early notification allows BTS to provide transportation to others and will eliminate any no-show charges, which must be paid before future rides are scheduled.

How much does it cost?

Fares for general public riders are \$3.00 or \$5.00 one-way depending on the destination. When you call the dispatcher/scheduler you will be given the correct fare for your scheduled trip. Tickets can be purchased from the BTS office. Arrangements can be made by calling the BTS office at (910) 253-7800 or toll-free at 877-754-2764.

Service Policy

- Seat belts MUST be worn at all times.
- Seat Belts must remain fastened until vehicle stops.
- Fares must be paid when boarding the vehicle.
- Children under three (3) ride free.
- Children under 16 must be accompanied by an adult.
- Parents must provide child seats as the law requires.
- Food, drinks and tobacco products are prohibited.
- Loud, disruptive or offensive behavior is prohibited.
- Weapons of any type are prohibited.
- Passengers may not interfere with the safety or privacy of the driver or other passengers.
- Passengers should be ready when the vehicle arrives. Automated phone call will give an estimated pick-up window.
- Drivers will only wait 5 MINUTES before leaving.
- Trip stops may not be changed without prior approval.
- Passengers must be able to carry all personal items.
- Drivers do not enter residences or establishments.
- Drivers do not leave the vehicle unattended.
- Drivers do not handle the personal belongings of passengers (mail, locks, doors, pets, etc.).
- Drivers do not carry change.

SERVICES

BTS provides non-emergency transportation services to the general public through our Dial-a-Ride program and to human service agency clients through contract services.

(Services)

POLICIES

It is the policy of Brunswick Transit System, Inc. to provide equal opportunity to all people who are admitted to, participate in, or are the recipients of BTS services.

(Policies)

CONTACT US TODAY!

Please feel free to contact BTS if we can assist you. Our office hours are Monday-Friday 8:00 a.m. - 4:30 p.m. *Reservations must be made 48 hours in advance BY PHONE.*

(Contact)

LEARN MORE!



Want to learn more about Brunswick Transit System?

Watch our short video!

NOW HIRING DRIVERS!

Part-Time Positions Available

Flexible Hours and Benefits

Call 910-253-7800 for Details

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ADDRESS

Brunswick Transit System, Inc: 5040 Main Street Shallotte, NC 28470

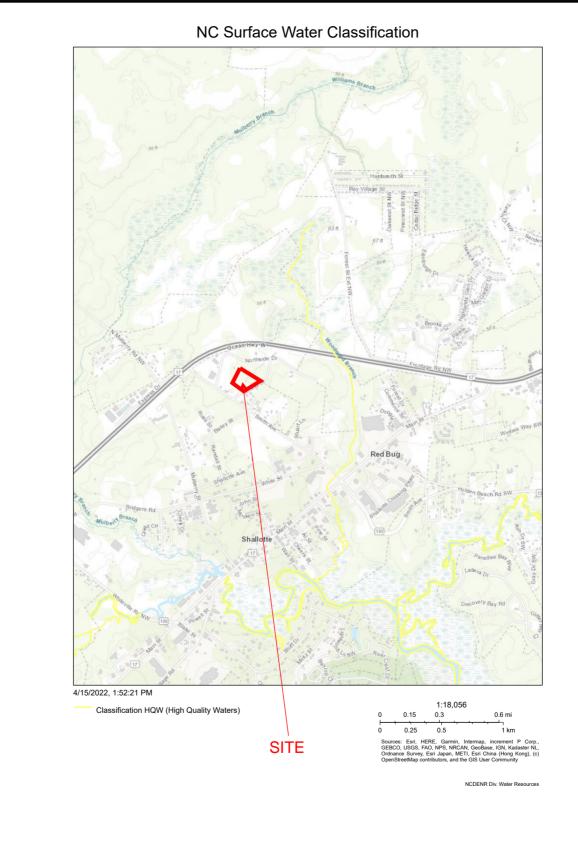
PHONE & FAX

Local (910) 253-7800 (tel:+19102537800) Toll-Free (877) 754-2764 (tel:+18777542764) TDD/TTY (800) 735-2962 or 711 (tel:+18007352962) Fax (910) 754-4545 (tel:+19102537806)

ATTACHMENT 26:

Unique Natural Features & Water Resources

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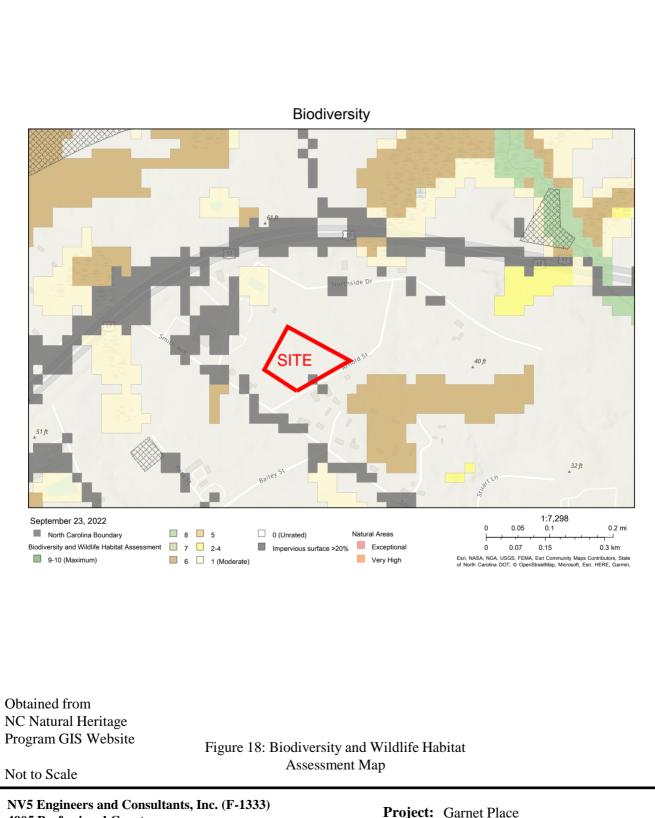


Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110

ATTACHMENT 27:

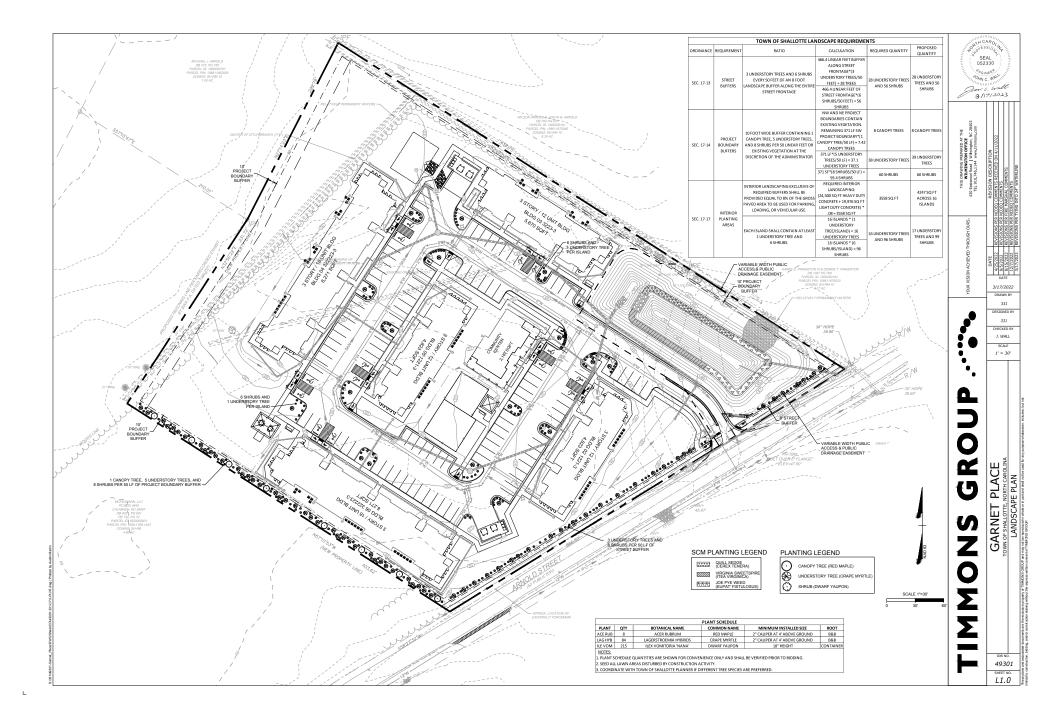
Vegetation & Wildlife

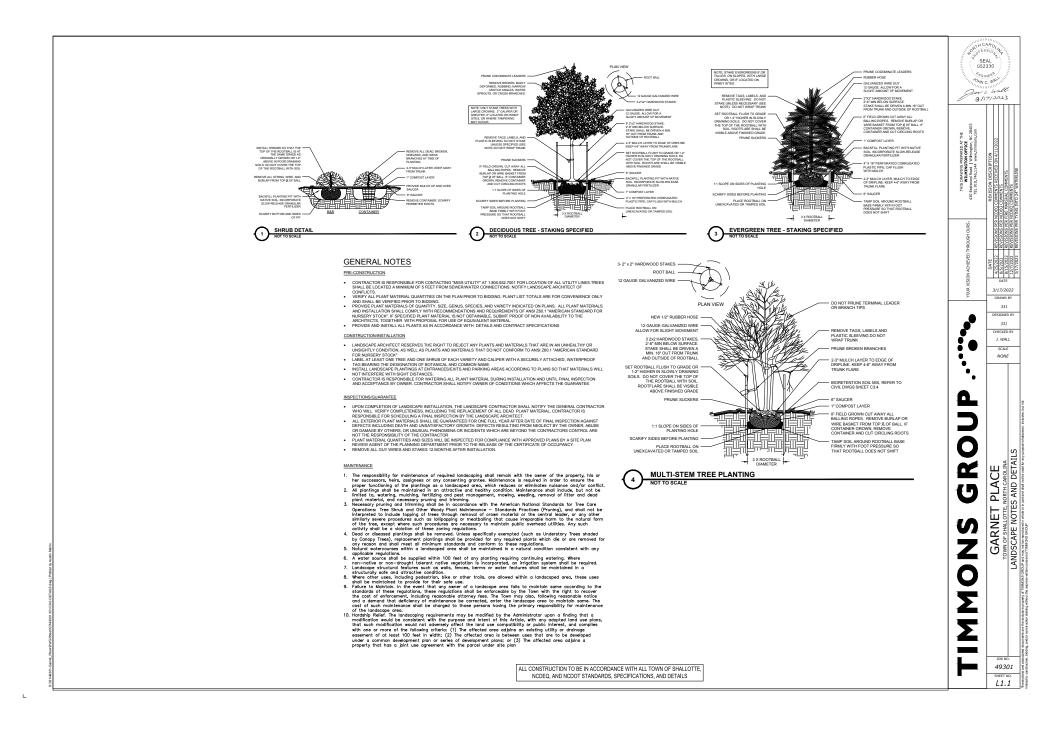
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NV5 Engineers and Consultants, Inc. (F-1333 4905 Professional Court Raleigh, NC 27609 919-876-9799

Project: Garnet Place Shallotte, North Carolina Our Project Number 121-21-107110





ATTACHMENT 28:

Climate Change

Brunswick County Hazard Report

37019 Brunswick County



Brunswick County Hazard Report

37019 Brunswick County



0.55 Expected Annual Loss Rating

Expected Annual Loss Total (\$) ③ \$428,790.55

⁽ⁱ⁾ Relatively Moderate



Future Climate Indicators

1 B .	Early Century Modeled History (2015 - 2044) (1976 - 2005)			Mid Century (2035 - 2064)		Late Ce (2070 -	
Indicator	(1770 2000)	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	
Temperature thresholds:							
Annual days with maximum temperature $>90^\circ\mathrm{F}$	30 days	58 days	61 days	72 days	82 days	84 days	
	30 - 36	36 - 78	42 - 80	42 - 100	53 - 104	52 - 114	
Annual days with maximum temperature > 95°F	4 days	12 days	13 days	18 days	25 days	27 days	
	3 - 5	5 - 24	7 - 27	6 - 37	11 - 43	10 - 54	
Annual days with maximum temperature > 100°F	0 days	1 days	1 days	2 days	3 days	4 days	
	0 - 0	0 - 4	0 - 3	0 - 6	0 - 9	0 - 6	
Annual days with maximum temperature $> 105^\circ \text{F}$	0 days	0 days	0 days	0 days	0 days	0 days	
	0 - 0	0 - 0	0 - 0	0 - 1	0 - 1	0 - 1	
Annual temperature:							
Annual single highest maximum temperature °F	97 °F	99 °F	99 °F	100 °F	101 °F	101 °F	
	96 - 98	97 - 101	97 - 101	97 - 102	98 - 103	98 - 104	
Annual highest maximum temperature averaged over a 5-day period °F	94 °F	96 °F	96 °F	97 °F	98 °F	98 °F	
	93 - 94	93 - 98	94 - 98	94 - 99	95 - 100	95 - 101	
Cooling degree days (CDD)	1903 degree-days	2,283 degree-days	2,318 degree-days	2,486 degree-days	2,649 degree-days	2,695 degree-days	
	1831 - 1991	2,001 - 2,661	2,065 - 2,608	2,091 - 2,954	2,257 - 3,027	2,257 - 3,193	
						N/A = Data Not Availal	

Hazard Report

National Risk Index Rating Drought Annualized Frequency (i) 91/ Deletively Medewate

Drought

• Brunswick County, North Carolina



Total Population 131,815

Non-Hispanic White Population (%)
18%

Nelatively Moderate

Income Below Poverty in Last 12 Mo (%) 12%



Durang Codes nazara Resist
 Dower Resistance

% Population Disa
 3 25.22%



Explore additional data



U.S. Climate Resilience Toolkit Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

Brunswick County Hazard Report 37019 Brunswick County

Brunswick County



0 - 4

N/A = Data Not Availal

0 - 6



0 - 0

Expected Annual Loss Rating

Future Climate Indicators

0 - 3

0 - 6

0 - 9

Non-mspanic write ropulation (78)							
18%		Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Ce (2070 -
Income Below Poverty in Last 12 Mo (%)	Indicator	(1770-2003)	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions
12%		Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Dettation Contract Destatement	Precipitation:						
Building Codes Hazard Resistance	Days per year with no precipitation (dry days)	176 days	177 days	178 days	177 days	180 days	177 days
		171 - 179	165 - 185	169 - 192	165 - 188	164 - 200	164 - 191
>>> % Population Disadvantaged							
	Maximum number of consecutive dry days	13 days	13 days	13 days	13 days	13 days	13 days
.M.		11 - 15	10 - 14	11 - 15	11 - 14	11 - 15	11 - 15
Explore additional data	Description of the sector for the Association (400 July	100 1	407.1	100 1	100 1	100 1
	Days per year with precipitation (wet days)	189 days	188 days	187 days	188 days	186 days	188 days
No Rear		186 - 194	180 - 201	173 - 196	177 - 200	165 - 202	174 - 201
Willhington	Temperature thresholds:						
	Annual days with maximum temperature $> 90^\circ F$	30 days	58 days	61 days	72 days	82 days	84 days
		30 - 36	36 - 78	42 - 80	42 - 100	53 - 104	52 - 114
22							
	Annual days with maximum temperature > 100°F	0 days	1 days	1 days	2 days	3 days	4 days
		0 - 0	0 - 4	0 - 3	0 - 6	0 - 9	0 - 6
😲 U.S. Climate Resilience Toolkit							

N/A = Data Not Availal

58"

50 - 64

Brunswick County Hazard Report

O Lower Resistance

Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD

37019 Brunswick County

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National Risk Index Rating Flooding Annualized Frequency Area in a 100-year / 500-year flood zone (%) Hazard Report ^① 2.13 ^① 34.28% / 1.75% **Relatively High** Flooding Expected Annual Loss Rating Area outside 100-year or 500-year flood zone (%) ③ 63.76% ⁽ⁱ⁾ Relatively Moderate • Brunswick County, North Carolina Expected Annual Loss Total (\$) Area unmapped/undetermined for flooding (%) ③ \$2,320,764.60 0.21% 0 131,815 according to the FEMA National Risk Index **Future Climate Indicators Early Century** Mid Century Late Ce 18% **Modeled History** (2015 - 2044) (2035 - 2064) (2070 (1976 - 2005) Indicator • Lower Emissions **Higher Emissions** Lower Emissions **Higher Emissions** Lower Emissions 12% Min - Max Precipitation:

55"

52 - 57

57"

52 - 60

57"

52 - 61

57"

52 - 64

57"

50 - 62

Annual average total precipitation

المجلح % Population Disadvantaged © 25.22%	Days per year with precipitation (wet days)	189 days 186 - 194	188 days 180 - 201	187 days 173 - 196	188 days 177 - 200	186 days 165 - 202	188 days 174 - 201
Explore additional data	Maximum period of consecutive wet days	16 days 13 - 18	16 days 13 - 19	16 days 13 - 19	16 days 13 - 20	16 days 12 - 21	16 days 12 - 20
	Annual days with:						
2° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4° 4°	Annual days with total precipitation > 1inch	10 days 9 - 11	11 days 9 - 12	11 days 8 - 13	11 days 9 - 13	11 days 8 - 13	12 days 8 - 14
Wilhington	Annual days with total precipitation > 2 inches	1 days 1 - 2	2 days 1 - 2	2 days 1 - 3	2 days 1 - 2	2 days 1 - 3	2 days 1 - 3
22	Annual days with total precipitation > 3 inches	0 days 0 - 1	1 days 0 - 1				
	Annual days that exceed 99th percentile precipitation	8 days 7 - 10	9 days 8 - 11	9 days 8 - 11	10 days 9 - 12	10 days 9 - 11	10 days 9 - 12
_	Days with maximum temperature below 32 °F	0 days					
💱 U.S. Climate Resilience Toolkit		0 - 1	0 - 1	0 - 1	0 - 1	0 - 0	0 - 0
Source: Census Bureau, CEQ, Esri, FEMA, MRLC, NOAA, UCSD							N/A = Data Not Availal

Brunswick County Hazard Report 37019 Brunswick County

Hazard Report Coastal Inundation

• Brunswick County, North Carolina



Non-Hispanic White Popula

Income Below Poverty in Last 12 Mo (%)



Building Codes Hazard Resist
O Lower Resistance



% Population Disadvantaged 25.22%



Explore additional data

No. A.	12
ar tes	
Wilming	gton

National Risk Index Rating Relatively Moderate	Coastal Inundation Annualized Frequency ^① 2.75
citizet	Expected Annual Loss Rating ^① Relatively Moderate
according to the <u>FEMA National Risk Index</u>	Expected Annual Loss Total (\$) ① \$1,204,875.84

Future Climate Indicators							
	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Ce (2070 -	
Indicator	(1970-2003)	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	
Sea level rise:							
Percent of selected county impacted by global sea level rise	N/A	0%	0%	1%	1%	2%	





N/A = Data Not Availal

ATTACHMENT 29:

State Environmental Clearinghouse Comments



Roy Cooper Governor Pamela B. Cashwell Secretary

November 22, 2022

Andrea Gievers Garnet Place c/o NC Department of Public Safety Office of Recovery and Resiliency Durham, NC 27709-

Re: SCH File # 23-E-4600-0069 Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units

Dear Andrea Gievers:

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



Location 116 West Jones St. | Raleigh NC 27603 984-236-0000 T

ncadmin.nc.gov

Control No.:	23-E-4600-0069	Date Received:	10/21/2022
County .:	BRUNSWICK	Agency Response:	11/21/2022
		Review Closed:	11/21/2022

DEVON BORGARDT CLEARINGHOUSE COORDINATOR DEPT OF NATURAL & CULTURAL RESOURCE

Project Information

Type:	National En	vironmental	Policy	Act ping
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Applicant: Garnet Place

Project Desc.: Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas.

As a result of this review the following is submitted:

✓ No Comment	Comments Below	Documents Attached

Reviewed By: DEVON BORGARDT

Control No.:	23-E-4600-0069	Date Received: 10/21/2022
County .:	BRUNSWICK	Agency Response: 11/21/2022
		Review Closed: 11/21/2022

JINTAO WEN CLEARINGHOUSE COORDINATOR DPS - DIV OF EMERGENCY MANAGEMENT

Project Information

Type: National Environmental Policy Act ping

Applicant: Garnet Place

Project Desc.: Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas.

As a result of this review the following is submitted:

✓No Comment	Comments Below	Documents Attached

Reviewed By: JINTAO WEN

Control No.:	23-E-4600-0069	Date Received: 10/21/2022
County .:	BRUNSWICK	Agency Response: 11/21/2022
		Review Closed: 11/21/2022

LYN HARDISON CLEARINGHOUSE COORDINATOR DEPT OF ENVIRONMENTAL QUALITY

Project Information

Type: National Environmental Policy Act ping

Applicant: Garnet Place

Project Desc.: Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas.

As a result of this review the following is submitted:

No Comment	Comments Below	Documents Attached
	□ No Comment	□ No Comment □ Comments Below

Reviewed By: LYN HARDISON



ROY COOPER Governor ELIZABETH S. BISER Secretary

- To: Crystal Best State Clearinghouse NC Department of Administration
- From: Lyn Hardison Division of Environmental Assistance and Customer Service Washington Regional Office
- Re: 23-0069

Scoping - Proposed project is for the construction of Garnet Place Apartments which will consist of the new construction of 72 units, three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas for multifamily affordable housing. Brunswick County

Date: November 21, 2022

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



Reviewing Regional Office: <u>Wilmington</u> Project Number: <u>23-0069</u> Due Date: <u>11/21/2022</u> County: <u>Brunswick</u>

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.

		Normal Process Time	
PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	(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	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.		
Dredge and Fill Permit	Application copy must be served on each adjacent riparian property		
Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100 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)	
sedimentation control plan will be required if one by applicable Regional Office (Land Quality Section Stormwater permit (NCG010000) is also usually is:	nust be properly addressed for any land disturbing activity. An erosion & or more acres are to be disturbed. Plan must be filed with and approved n) at least 30 days before beginning activity. A NPDES Construction sued should design features meet minimum requirements. A fee of express review option is available with additional fees.	20 days (30 days)	
\$100 for the first acre or any part of an acre. An express review option is available with additional fees. (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 <u>Local Government's</u> 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.			
•	ones for Trout Waters shall have an undisturbed buffer zone 25 feet wide o percent (25%) of the buffer zone nearest the land-disturbing activity, which		
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, 30-60 days (00 days)			
Municipal Separate Storm Sewer System & Construction activities that disturb ≥1 acre.(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)			

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

Reviewing Regional Office: <u>Wilmington</u> Project Number: <u>23-0069</u> Due Date: <u>11/21/2022</u>

	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		
\boxtimes	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)		
		ake, Randleman, Tar Pamlico or Neuse Riparian Buffer Rules is required. Bu es/water-resources-permits/wastewater-branch/401-wetlands-buffer-perm			
	watersheds, as part of the nutrient-management	n and phosphorus in the Neuse and Tar-Pamlico River basins, and in the Jor strategies in these areas. DWR nutrient offset information: es/planning/nonpoint-source-management/nutrient-offset-information	dan and Falls Lake		
	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.				
\boxtimes	Division of Water Resources/Public Water Supply as per 15A NCAC 18C .0300 et. seq., Plans and spe	ansion, or alteration of a public water system must be approved by the Section prior to the award of a contract or the initiation of construction crifications should be submitted to 1634 Mail Service Center, Raleigh, ly systems must comply with state and federal drinking water monitoring	30 days		
\boxtimes	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- 30 days 1634. For more information, contact the Public Water Supply Section, (919) 707-9100.30 days				
	Plans and specifications for the construction, expansion approval authority. Please contact them at	ansion, or alteration of the water system must be approved through for further information.	the delegated		

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

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

Division	Initials	No	Comments	Date
		comment		Review
DAQ			See checked box(es) above	/ /
DWR-WQROS			See checked box(es) above &	/ /
(Aquifer & Surface)	&			
DWR-PWS			See checked box(es) above	/ /
DEMLR (LQ & SW)			See checked box(es) above	/ /
DWM – UST				/ /
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	

ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



MEMORANDUM

TO: Michael Scott, Division Director through Sharon Brinkley

FROM: Drew Hammonds, Eastern District Supervisor - Solid Waste Section

DATE: November 21, 2022

SUBJECT: Review: SW 23-0069 Brunswick County (Scoping – Garnet Place - Proposed project is for the construction of Garnet Place Apartments)

The Division of Waste Management, Solid Waste Section (Section) has reviewed the documents submitted for the subject project in Brunswick County, NC. Based on the information provided in these documents, 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.

It is recommended that during any land clearing, demolition, and construction, Garnet Place 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 projects that cannot be beneficially reused or recycled must be disposed of at a solid waste management facility permitted by the Division. The Section strongly recommends that Garnet Place 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: <u>https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/solid-waste-management-annual-reports/solid-waste-permitted-facility-list</u>

And the site locator tool at:

https://ncdenr.maps.arcgis.com/apps/webappviewer/index.html?id=7dd59be2750b40bebebfa49fc 383f688

Questions regarding solid waste management for this project should be directed to Ms. Liz Patterson, Environmental Senior Specialist, Solid Waste Section, at (910) 796-7506.

cc: Liz Patterson, Environmental Senior Specialist



ROY COOPER Governor ELIZABETH S. BISER Secretary MICHAEL SCOTT Director



Date:	November 1, 2022
То:	Michael Scott, Director Division of Waste Management
Through:	Janet Macdonald Inactive Hazardous Sites Branch

From:	Robert J Kelley
	Inactive Hazardous Sites Branch

Subject: NEPA Project # 23-0069 Garnet Place, Brunswick County, North Carolina

The Superfund Section has reviewed the proximity of sites under its jurisdiction to the Garnet Place Project. Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas.

No (0) 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.



North Carolina Department of Environmental Quality | Division of Waste Management 217 West Jones Street | 1646 Mail Service Center | Raleigh, North Carolina 27699-1646 919.707.8200

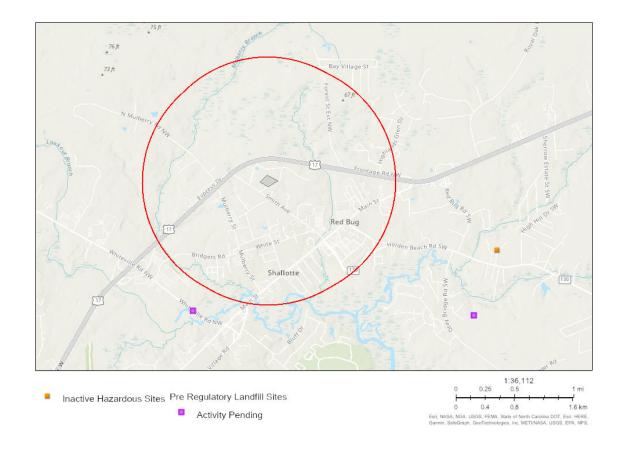


Area of Interest (AOI) Information

Brunswick County NEPA Project #23-0069

Area : 2,247.39 acres

Nov 1 2022 13:32:07 Eastern Daylight Time



Proposed project is for the construction of Garnet Place Apartments. The project will consist of the new construction of 72 units for multifamily affordable housing in Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12 one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community center, children's play areas, picnic areas, and parking areas.

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

Project Number: 23-0069

County: Brunswick

Date Received: 10-21-2022

Due Date: 11-15-2022

Project
Description:Scoping - Proposed project is for the construction of Garnet Place Apartments. The project
will consist of the new construction of 72 units for multifamily affordable housing in
Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12
one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community
center, children's play areas, picnic areas, and parking areas.

Regional Office	Regional Office Area	In-House Review		
Asheville Fayetteville Mooresville Raleigh Washington ✓ Wilmington Winston-Salem	✓ Air ✓ DWR ✓ DWR - Public Water ✓ DEMLR (LQ & SW) ✓ DWM	 Air Quality Parks & Recreation Waste Mgmt Water Resources Mgmt (Public Water, Planning & W Quality Program) DWR-Transportation Unit 	Coastal Management Marine Fisheries Military Affairs DMF-Shellfish Sanitation Wildlife Maria Wildlife/DOT	
Manager Sign-Off/Region:		Date: 11/9/22	In-House Reviewer/Agency: Melodi Deaver, Hazardous Waste Section	
Response (check all applic	Response (check all applicable)			
No objection to project as proposed. No Comment Insufficient information to complete review Other (specify or attach comments) If you have any questions, please contact: Lyn Hardison at lyn.hardison@ncdenr.gov or (252) 948-3842 943 Washington Square Mall Washington NC 27889 Courier No. 16-04-01				

Department of Environmental Quality Project Review Form

Project Number: 23-0069

County: Brunswick

Date Received: 10-21-2022

Due Date: 11-15-2022

Project
Description:Scoping - Proposed project is for the construction of Garnet Place Apartments. The project
will consist of the new construction of 72 units for multifamily affordable housing in
Shallotte, North Carolina. Construction will include 5 three-story apartment buildings (12
one-bedroom units, 42 two-bedroom units, and 18 three-bedroom units), a community
center, children's play areas, picnic areas, and parking areas.

Regional Office	Regional Office Area	In-House Review		
 Asheville Fayetteville Mooresville Raleigh Washington Wilmington Winston-Salem 	✓ Air ✓ DWR ✓ DWR - Public Water ✓ DEMLR (LQ & SW) ✓ DWM	 Air Quality Parks & Recreation Waste Mgmt Water Resources Mgmt (Public Water, Planning & W Quality Program) DWR-Transportation Unit 	Coastal Management Marine Fisheries Military Affairs DMF-Shellfish Sanitation ✓ Wildlife <u>Maria</u> Wildlife/DOT	
Manager Sign-Off/Region:		Date: 10-27-2022	In-House Reviewer/Agency: Mai / NCNRC	
Response (check all applie	cable)			
No objection to project as proposed. No Comment Insufficient information to complete review Other (specify or attach comments)				
If you have any questions, please contact: Lyn Hardison at <u>lyn.hardison@ncdenr.gov</u> or (252) 948-3842 943 Washington Square Mall Washington NC 27889 Courier No. 16-04-01				