



**US Army Corps  
Of Engineers**  
Wilmington District

# PUBLIC NOTICE

Issue Date: November 21, 2022  
Comment Deadline: December 21, 2022  
Corps Action ID Number: SAW-2014-00610

The Wilmington District, Corps of Engineers (Corps) received an application on November 8, 2022, from VinFast Manufacturing US, LLC seeking Department of the Army authorization to permanently discharge dredged or fill material into a total of 3,688 linear feet of stream channel, 22.789 acres of wetlands, and 1.0 acre of open water impoundments, and temporarily discharge dredged or fill material into a total of 4,095 linear feet of stream channel and 14.292 acres of wetlands, associated with developing an electric vehicle (EV) manufacturing complex and associated infrastructure in Chatham County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at:

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

**Applicant/Co-Applicant:** Mr. Thi Van Anh Nguyen  
VinFast Manufacturing US, LLC  
160 Mine Lake Court, Suite 200  
Raleigh, North Carolina 27615

Mr. Jeffrey L. Teague  
North Carolina Department of Transportation  
Division of Highways, Division 8  
121 DOT Drive  
Carthage, North Carolina 28327

**AGENT (if applicable):** Mr. Jason Hartshorn  
Kimley-Horn  
421 Fayetteville Street, Suite 600  
Raleigh, North Carolina 27601

## Authority

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

Section 404 of the Clean Water Act (33 U.S.C. 1344)

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

## Location

### Location Description:

Project Area (acres): ~2,534

Nearest Town: Moncure, NC

Nearest Waterway: Shaddox Creek, Gulf Creek, Haw River, Deep River, Wombles Creek, Little Shaddox Creek, Hughes Creek, Copper Mine Creek, Gum Fork, Little Buffalo Creek.

River Basin: Cape Fear; Hydrologic Unit Codes (HUCs) 03030002, 03030003, and 03030004

Latitude and Longitude: 35.614384 N, -79.018704 W

The proposed project (Project) consists of three major components: “Project Blue”, “NCDOT STIP# HE-0006”, and “Utilities.”

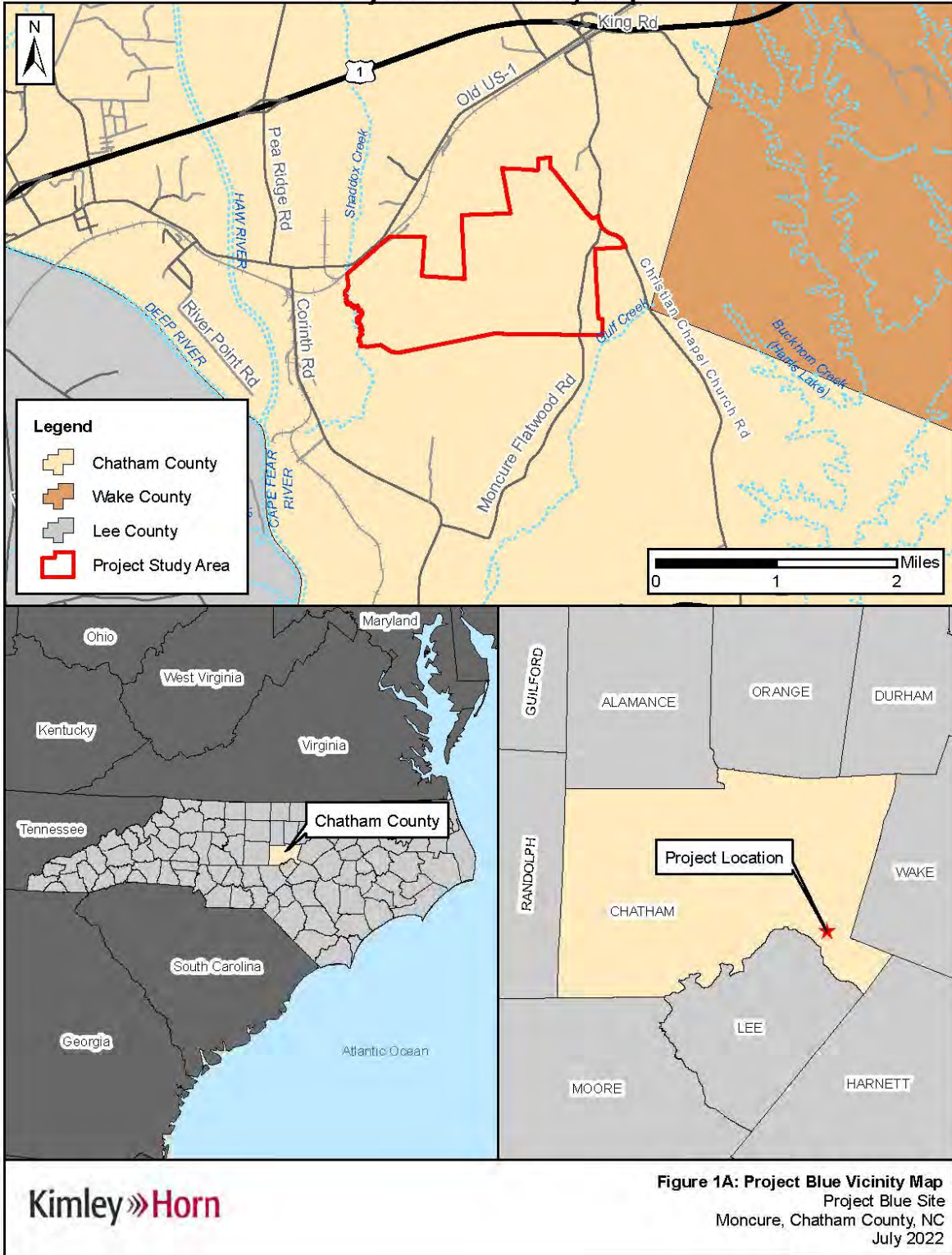
### Project Blue:

Project Blue, as shown on the “Project Blue Vicinity Map” below, comprises approximately 1,300 acres of land within the larger Triangle Innovation Point (TIP) development area in southeastern Chatham County, North Carolina. This site is located approximately 3.5 miles east of Moncure and 1.0 mile west of Shearon Harris Reservoir, approximately 0.5 mile west of the Wake County line. Project Blue is bounded by Old US-1 (SR 1011) to the north, Corinth Road (SR 1916) and Moncure Flatwood Road (SR 1924) to the south, Shaddox Creek to the west, and Christian Chapel Church Road (SR 1912) to the east.

### NCDOT STIP# HE-0006:

HE-0006, as shown on the “HE-0006 Vicinity Map” below, would include approximately 6 miles of roadway improvements in the southeastern area of Chatham County to improve the connection between US Highway 1 (US-1) and the Project Blue site. These sites are primarily centered along the existing interchanges of US-1 with Pea Ridge Road (SR 1972) and Old US-1 (SR 1011), and generally extending south to the Project Blue site.

### Project Blue Vicinity Map

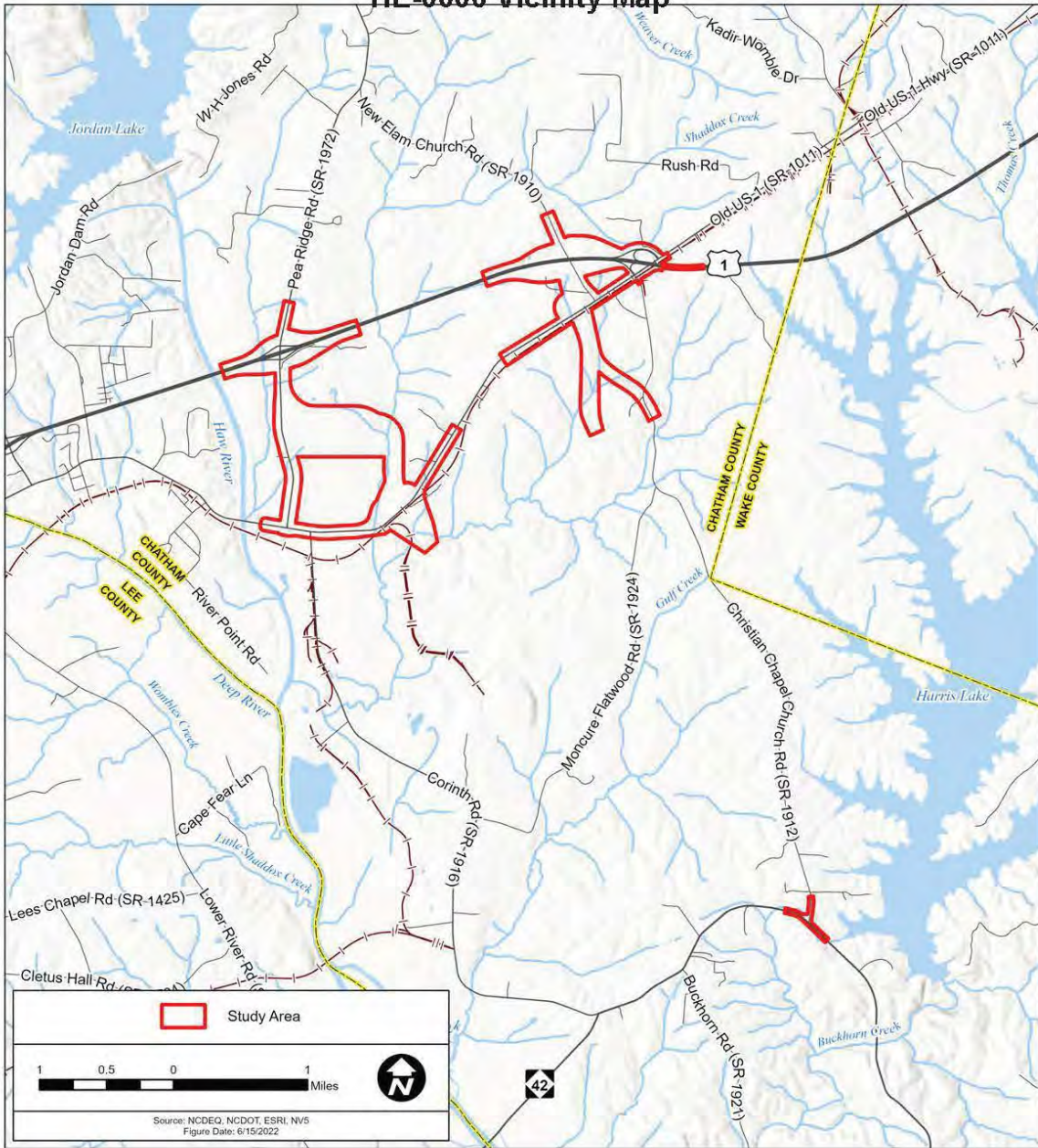


**Figure 1A: Project Blue Vicinity Map**  
 Project Blue Site  
 Moncure, Chatham County, NC  
 July 2022





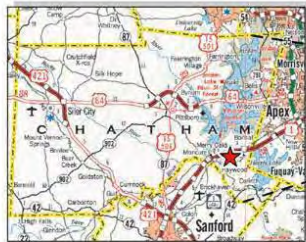
# HE-0006 Vicinity Map



Study Area

1 0.5 0 1 Miles

Source: NCDEQ, NCDOT, ESRI, NVS  
Figure Date: 6/15/2022



NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
HIGHWAY DIVISION 8

**STIP HE-0006**  
Triangle Innovation Point  
Roadway Network Improvements  
Chatham County

**Figure 1B: Vicinity Map**

## Utilities:

The proposed offsite utility connections to the Project Blue development would include sanitary sewer and water infrastructure provided by the City of Sanford (see “Sewer and Water Vicinity Map” below), power from Duke Energy Progress, Inc. (Duke Energy), and natural gas infrastructure provided by Dominion Energy, Inc (see “Natural Gas Vicinity Map” below). All infrastructure improvements would be constructed in phases to align with the construction schedule for Project Blue and anticipated staffing and production timelines.

Phase 1 of the proposed City of Sanford sanitary sewer connection would extend approximately 2.75 miles from existing infrastructure along Old US-1 (SR 1011) to Woodland Road and through the western portion of the Project Blue Site. Phase 2 of the sanitary sewer connection would extend approximately 13 miles from Iron Furnace Road (SR 1463) in Sanford, Lee County to Corinth Road (SR 1916) southwest of the Project Blue site. Phase 1 of the proposed City of Sanford waterline connection would extend approximately 3.5 miles from Jordan Dam Road (SR 1970) west to Woodland Road in the northwestern portion of the Project Blue Site. Phase 2 of the waterline connection would extend 7.3 miles north from Poplar Springs Church Road (SR-1537) to the Old US-1 and Corinth Road intersection, with an additional 3,000-foot extension from Lower Moncure Road (SR 1002) to Moncure Pittsboro Road (SR 1012). Dominion Energy proposes to extend an existing natural gas line located north of the Project Blue site along Old US-1. The extension would construct approximately 2.24 miles of new natural gas pipeline along Moncure Flatwood Road (SR 1924) and tie into the northern portion of the Project Blue site.

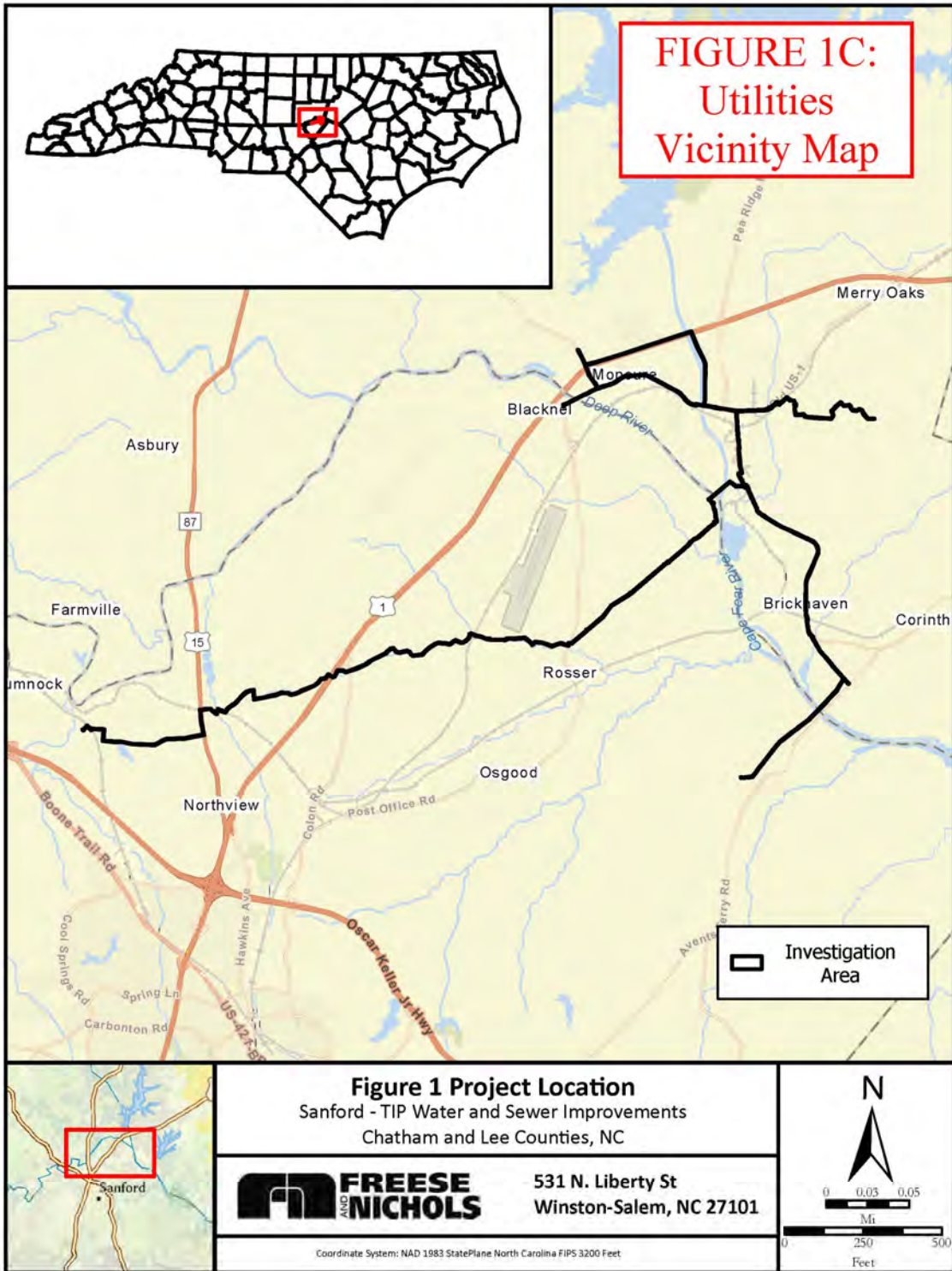
## **Existing Site Conditions**

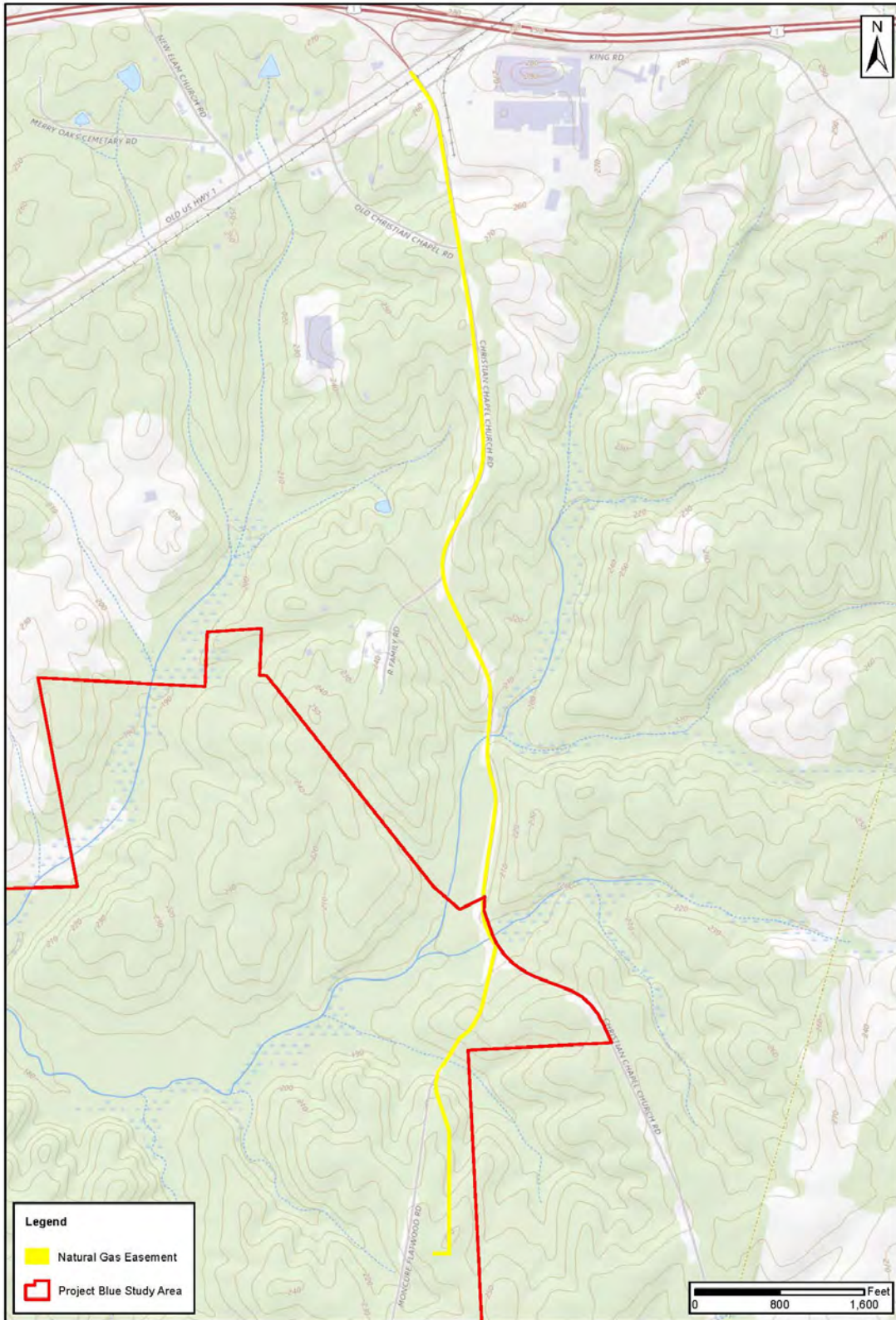
The overall development, including Project Blue, STIP# HE-0006, and utilities, is located within the Piedmont (45) Level III Ecoregion of North Carolina, and specifically within the Triassic Basin (45g) Level IV Ecoregion. Per the 2002 Ecoregions of North Carolina and South Carolina publication from the USGS, “The Triassic Basins of the Carolinas occur in four narrow bands and have unusual Piedmont geology of unmetamorphosed shales, sandstones, mudstones, siltstones, and conglomerates. Local relief and elevations are often less than in surrounding regions, and, with rocks that are easier to erode, stream valleys that cross the region tend to widen. Soils tend to be clayey with low permeability, and streams have low base flows. The clay has a high shrink-swell potential that can hinder construction; it is also utilized by many brick makers in the region. A mosaic of mixed and deciduous forest, pasture, cropland, and urban land cover occurs here.”

Elevations within the Project Blue and HE-0006 areas range from 170 feet to 280 feet above mean sea level (MSL). The steepest slopes exist along drainages close to Shaddox Creek. Multiple hill tops, ridgelines and drainages exist throughout the Site. Although summaries of the existing site conditions are included below, detailed descriptions of existing site conditions for each Project component are described in



# Sewer and Water Vicinity Map





**Kimley»Horn**

**Natural Gas Vicinity Map**

Figure 3D: Natural Gas USGS Topographic Map  
 Project Blue - Utilities  
 Chatham County, NC  
 October 2022



Section 1.3 of the supplemental information located on the District Website at <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

### Project Blue:

Project Blue is located within the unincorporated community of Moncure in southeastern Chatham County and is within the zoning jurisdiction of Chatham County. The current zoning of the Project Blue Site is Heavy Industrial District (IH). The approximately 1,300-acre Site is primarily composed of forestry tracts managed for timber production with unimproved road corridors and utility easements crossing the Site in multiple locations. Project Blue is located in the Cape Fear River Basin outside of the Jordan Lake Water Supply Watershed, within HUCs 03030002 and 03030004.

Per the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey for Chatham County, 12 soil series are mapped within the site. The majority of soil series identified are non-hydric, though 27.1% of soil series within the site have hydric inclusions.

The site is a mix of planted pine stands transected by a large overhead powerline easement, with pockets of hardwood tree signatures and riparian systems dispersed throughout. Select timber harvest operations have occurred over the years as recent as 2017. Invasive species commonly found in North Carolina such as autumn olive (*Elaeagnus umbellata*), Chinese privet (*Ligustrum sinense*), Japanese wisteria (*Wisteria floribunda*), and Japanese honeysuckle (*Lonicera japonica*) are prevalent throughout different areas within the site. Japanese stilt-grass (*Microstegium vimineum*) was also observed within the lower, mesic mixed hardwood areas. Upland areas consisted of dominant species such as loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), and red maple (*Acer rubrum*).

Potential waters of the US (WOUS) within this project component were delineated by Kimley-Horn over the course of 5 years from November 2017 to March 2022, identifying 17 individual streams totaling approximately 33,339 linear feet, 36 wetlands totaling approximately 99.2 acres, and two open waters totaling approximately 0.36 acre. The Corps issued a Preliminary Jurisdictional Determination (PJD) for the majority of this area on July 19, 2022. A PJD request for the remainder of this area was submitted to the Corps on November 3, 2022, and is currently under review.

The streams identified are all Unnamed Tributaries (UTs) to Shaddox Creek and appear to be characteristic of surface water features in the Triassic Basin, composed of primarily silt and sand substrate and prone to drying out during periods of low precipitation and/or high evapotranspiration. These features all have an NCDWR Best Usage Classification of WS-IV. Wetland types within the Site have been classified as Bottomland Hardwood Forests, Headwater Forests, and Floodplain Pools based on the North Carolina Wetland Assessment Methodology (NCWAM) classification system. Stream and wetland functional assessment scores using NCSAM and NCWAM, respectively, ranged from Low to High across the site.



Within the headwater forest community, the canopy and understory species were dominated by loblolly pine, black willow (*Salix nigra*), and sweetgum. Common species observed in the herbaceous layer typically included Pennsylvania smartweed (*Polygonum pennsylvanica*), Pennsylvania sedge (*Carex pennsylvanica*) bushy knotweed (*Polygonum ramosissimum*), and Japanese stilt-grass. Within the Bottomland Hardwood Forest community, the vegetation was dominated by red maple, sweetgum, and a few loblolly pines scattered throughout the canopy and sapling levels. Other vegetation observed includes knotweed, Japanese silt-grass, dog fennel (*Eupatorium capillifolium*), and common sedge (*Carex sp.*). Within the floodplain pool community, the vegetation was dominated by sweetgum, common rush (*Juncus effusus*), and broad-winged sedge (*Carex alata*). Other vegetation observed includes bulrush (*Scirpus sp.*), and broadleaf cattail (*Typha latifolia*).

NCDOT STIP# HE-0006:

The roadway network improvements extend through an unincorporated area of Chatham County, just east of the Haw River. The study area for the roadway network improvements includes three noncontiguous areas encompassing proposed roadway improvements. These areas generally include the vicinity of New Elam Church Road (from just north of US-1 to just south of Old US-1), Pea Ridge Road (from just north of US-1 to just south of Old US-1), and the Christian Chapel Church Road intersection with NC 42. These areas are referred to as the NCDOT study area(s). The NCDOT study area is largely characterized by wooded properties and established homes. Residential uses are scattered along Old US-1, New Elam Church Road, and Pea Ridge Road, with several clusters of homes along these roads and intersecting unpaved private roads. One of these clusters, at Old US-1 and New Elam Church Road, comprises the community of Merry Oaks. Businesses in the NCDOT study area are more prevalent along Pea Ridge Road. The southern-most NCDOT study area (at NC 42) is wooded, with several adjacent homes on large parcels. Access to a Harris Lake boat ramp is just north of this portion of the DCIA on Christian Chapel Church Road (via Cross Point Road). These areas are all located in HUC 03030002.

Per the USDA Soil Survey for Chatham County, 18 soil series are mapped within the NCDOT study areas. The majority of soil series identified are non-hydric, though 24.6% of these soil series are listed as partially hydric or have hydric inclusions.

The NCDOT study areas include five terrestrial communities, including Maintained/Disturbed, Mixed Pine/Hardwood Forest, Pine Forest, Bottomland Hardwood Forest, and Mixed Hardwood Forest. Upland forested areas consisted of dominant species such as loblolly pine, sweetgum, red maple, shortleaf pine (*Pinus echinata*), and American holly (*Ilex opaca*).

Potential waters of the US (WOUS) within this project component were delineated by RK&K, identifying 25 individual streams totaling approximately 22,219 linear feet, numerous ponds totaling 4.6 acres, and 85 wetlands totaling approximately 105 acres. The Corps field-verified the delineation on August 12, 2022, and a PJD is pending.

The streams identified are all UTs to Shaddox Creek or the Haw River, have an NCDWR Best Usage Classification of WS-IV, and appear to be characteristic of surface water features in the Triassic Basin. Wetland types within the Site have been classified as Bottomland Hardwood Forests, Headwater Forests, Riverine Swamp Forest, Hardwood Flat, Seep, Floodplain Pool, and Basin Wetlands based on NCWAM. Stream and wetland functional assessment scores using NCSAM and NCWAM, respectively, ranged from Low to High across the NCDOT study areas. Vegetation within the delineated wetlands ranged widely but was generally consistent with species listed for the Project Blue component.

#### Utilities:

The proposed offsite Utility Corridors are located in various directions stemming from the Project Blue site and primarily run through undeveloped areas consisting primarily of agricultural land, natural and planted forestry tracts, and riparian corridors. The Phase 1 and 2 water corridors cross the Haw River, Shaddox Creek, the Deep River and the Cape Fear River, 11 wetland complexes, and 10 UTs of the Haw, Deep and Cape Fear Rivers. Additionally, Phase 1 and 2 sewer corridors would cross the Haw River, Little Shaddox Creek, Hughes Creek, Gum Fork, Little Buffalo Creek, Copper Mine Creek, Wombles Creek, Shaddox Creek, and the Deep River, 15 wetland complexes, and 24 UTs of the Haw, Cape Fear, and Deep Rivers. No home sites or associated structures are located within the Utility Corridor. Portions of the corridor utilize existing powerline easements and roadway corridors. The Utility Corridor is located in HUCs 03030002, 03030003, and 03030004.

Per the USDA Soil Surveys for Chatham and Lee Counties, 39 soil series are mapped within the proposed utility corridors. The majority of soil series identified are non-hydric, though 14.4% of these soil series are listed as partially hydric or have hydric inclusions.

The utility corridors include similar terrestrial communities, to those described above

Potential WOUS within this project component were delineated by Freese and Nichols in July and August 2022, identifying 47 individual streams totaling approximately 3,717 linear feet and 85 wetlands totaling approximately 14.3 acres. A PJD request for these areas was submitted to Corps on August 26, 2022, and is currently under review.

The streams identified are all UTs to or main stems of Shaddox Creek, the Haw and Deep Rivers, Gulf Creek, Wombles Creek, Little Shaddox Creek, Hughes Creek, Copper Mine Creek, Gum Fork, and Little Buffalo Creek. Wetland types within the Site are Bottomland Hardwood Forests and Headwater Forest types, based on NCWAM. Stream and wetland functional assessment scores using NCSAM and NCWAM have not been completed for these areas. Vegetation within the delineated wetlands range widely but are generally consistent with species listed for the Project Blue component.

## Applicant's Stated Purpose

The proposed Project purpose is to create an automotive manufacturing facility capable of taking raw materials and producing finished electric vehicles for sale in the US. The production facility would initially focus on the VF 8 and VF 9 Sport Utility Vehicles (SUV), with additional models being manufactured at the Site as design and sales progress. Manufacturing facilities proposed for the Site include the Press Shop, Body Shop, General Assembly, Paint Shop, Final Car Lot, Gigafactory, supplier park, and associated parking, along with the necessary supporting infrastructure such as roadways, rail spur, utilities, and stormwater management facilities intended to address the Site and local, regional, and state economic development needs. The proposed work would benefit the state of North Carolina, Chatham County, and the Town of Moncure by providing jobs and expanding the tax base through clean industry.

## Project Description

VinFast would be responsible for the design, construction, and mitigation requirements for the Project Blue portion of the Project. The North Carolina Department of Transportation (NCDOT) would be responsible for the design, construction, and mitigation requirements for the State Transportation Improvement Project (STIP) # HE-0006 road improvements portion of the Project. Additionally, VinFast would be entering into developer agreements with the City of Sanford, Dominion Energy, and Duke Energy Progress to design, construct, and mitigate for the necessary offsite utilities connecting to the Project Blue site. In addition to the information provided below, detailed descriptions of the proposed Project components are provided in Section 2 of the supplemental information located on the District Website at <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

### Project Blue:

VinFast proposes the construction of a manufacturing complex within the approximately 1,300-acre Project Blue site, which would be constructed in multiple phases over the next 2-5 years:

- Phase 1A is currently under construction and consists of approximately 205 acres of high ground uplands in the southeastern corner of the Site, accessed from existing public roadway corridors. The Phase 1A build consists of multiple manufacturing shops to take raw materials to finished vehicles and includes a rail spur to provide connectivity from Phase 1A to the existing rail lines in the Site and the adjacent CSX railroad. The Phase 1A layout would facilitate a stepped manufacturing process flow and includes the following shops (described in process order):
  - Press Shop – takes raw coils of steel, cut them into blanks, and stamp sheet metal parts for use on vehicles;
  - Body Shop – takes body panels and frames and assembles the vehicle body;



- Paint Shop – paint and coating operations for the assembled vehicle bodies;
- General Assembly – takes the painted vehicle bodies and assembles all other components (battery, drivetrain, electronics, interior/exterior pieces);
- Final Car Lot – storage area for completed vehicles ready for shipping;
- Phase 1B is the proposed roadway connection from the high ground in the southeastern portion of the Site north to the proposed HE-0006 improvements at that US-1/Old US-1 interchange. This roadway corridor would provide improved connectivity within the Site and move vehicle and truck traffic off of the area roadways to a more direct corridor between the Site and US-1;
- Phase 2 is the proposed Gigafactory that would produce the EV battery cells for use in the vehicles being produced by VinFast on the Site, along with supporting internal roadway infrastructure and parking areas;
- Phase 3 of the VinFast facility is an expansion of the interior roadway network, providing a new roadway connection heading west to connect to the US-1 and Pea Ridge Road interchange improvements proposed by NCDOT as STIP# HE-0006. This interior roadway is planned to come online as VinFast ramps up production on the Site and is anticipated to exceed traffic capacity for a single interchange point of access to US-1 at Old US-1.

Stream and wetland impacts associated with Project Blue are associated with roadway crossings of three different locations:

- Impact Site #1 (Stream S1 - Perpendicular Road Crossing): permanent discharge of dredged or fill material into 215 linear feet (LF) of stream channel, 110 LF of which would not constitute a loss of stream channel, for culvert installation and rip rap outlet protection;
- Impact Site #2 (Stream S13 and Wetland W15 - Perpendicular Road Crossing): permanent discharge of dredged or fill material into 91 LF of stream channel and 0.009 acre of wetlands, necessary to extend an existing culvert carrying S13 beneath Moncure-Flatwood Road;
- Impact Site #3 (Stream S3 – Perpendicular Road Crossing): permanent discharge of dredged or fill material into 159 LF of stream channel, 67 LF of which would not constitute a loss of stream channel, for culvert installation and rip rap outlet protection.

NCDOT STIP# HE-0006:

NCDOT proposes roadway network improvements, such as interchange creation/modification, new location roads, and road widening, to support Project Blue. Proposed roadway improvements are currently anticipated to include:

- Modifying the US-1 interchange with Old US-1 at Exit 84;
- Adding a new US-1 interchange with New Elam Church Road (SR 1910) (i.e., converting the existing overpass to an interchange);
- Realigning New Elam Church Road between US-1 and Old US-1 and upgrading to a four-lane median-divided roadway (50 mph design speed) with limited access control;

- Constructing interchange access from realigned New Elam Church Road to Old US-1 and spanning the railroad right of way with the interchange bridge;
- Modifying the existing US-1 interchange with Pea Ridge Road (SR 1972) at Exit 81;
- Realigning Pea Ridge Road (SR 1972) between US-1 and Old US-1 and upgrading to a four-lane median-divided roadway (50 mph design speed) with limited access control;
- Constructing interchange access from realigned Pea Ridge Road to Old US-1 and spanning the railroad right of way with the interchange bridge;
- Improving the existing Pea Ridge Road intersection with Old US-1, including the potential to add turn lanes and/or signalization;
- Upgrading Old US-1 to a multi-lane facility at the new interchanges with realigned New Elam Church Road and realigned Pea Ridge Road;
- Improving the Christian Chapel Church Road (SR 1912) intersection with NC 42.

HE-0006 is included in the 2020-2029 State Transportation Improvement Program and is state funded. It is currently programmed for planning and environmental study only. Funding for the roadway network improvements and associated wetlands mitigation needed to support the project would be through the state's Economic Development Project Reserve.

HE-0006 is proposed to be constructed in two phases. Construction of HE-0006 Phase 1 is planned to begin in January 2023. However, this schedule is subject to change and is contingent on funding. While the State of North Carolina has allocated funding for HE-0006 Phase 1, funding for HE-0006 Phase 2 construction is expected to follow notification from the industry that necessary job creation thresholds have been met. Per North Carolina General Assembly Session Law 2022-74, the industry must meet a target of 3,875 jobs prior to release of funds for Phase 2 construction, therefore there is no defined timetable for delivery of Phase 2 improvements.

- HE-0006 Phase 1 provides roadway improvements in the eastern portion of the study area in the vicinity of New Elam Church Road, US-1, and Old US-1. In addition, potential intersection improvements at Pea Ridge Road with Old US-1 and at NC 42 with Christian Chapel Church Road are included in Phase 1.
- HE-0006 Phase 2 provides additional roadway improvements in the western portion of the study area in the vicinity of Pea Ridge Road, US-1, and Old US-1.

Although impacts to streams and wetlands would be avoided and minimized to the extent practicable, permanent impacts are unavoidable. Impacts based on preliminary design (slope stakes plus a 40-foot buffer) are summarized below:

- East (Phase 1): permanent discharge of dredged or fill material into 1,634 LF of stream channel and 6.52 acres of wetlands;
- West (Phase 2): permanent discharge of dredged or fill material into 1,589 LF of stream channel and 16.26 acres of wetlands

Utilities:

To facilitate the development within the Project Blue Site, extensive offsite utility improvements are necessary due to the lack of existing infrastructure in this part of Chatham County. The proposed improvements include water and sewer upgrades planned by the City of Sanford, natural gas infrastructure extensions planned by Dominion Energy, and rerouting of an existing overhead power transmission line planned by Duke Energy.

The City of Sanford is currently designing the water and sewer infrastructure improvements in two phases. Sanford's Phase 1 consists of approximately 19,216 feet of water line, an 8.75 million gallon per day (MGD) capacity sewer lift station, 12,630 feet of gravity sewer, and 4,430 feet of force main to provide additional water supply facilities from Chatham County and wastewater service to the existing Sanford-Chatham County wastewater system located along Corinth Road. Sanford's Phase 2 consists of approximately 38,117 feet of water line, modifications to 3 sewer lift stations, 1,900 feet of gravity sewer, and 67,545 feet of force main to provide new water transmission facilities from the Sanford Water Treatment Plant (WTP) and wastewater system to parallel the existing Sanford-Chatham County system. The proposed sanitary sewer line improvements extend from the City of Sanford in Lee County northeast across NC Highway 87 (NC-87) and US-1 and under the Deep River to an existing pump station on Corinth Road and from the intersection of Corinth Road and Old US-1 southeast below Shaddox Creek and into the Site. The proposed water line improvements would extend from two locations in Lee County to the Site: one section extends from north of the US-1 and Moncure Pittsboro Road (SR 1012) interchange east to the Site, and the second section extends from the Sanford Water Plant located along NC Highway 42 (NC-42) west of Poplar Springs Church Road (SR 1537) northeast to the Project Blue site.

Construction of these facilities would result in temporary impacts to wetlands and streams for the installation of the utilities, as well as permanent conversion of forested or shrub/scrub wetlands to herbaceous wetlands (wetland conversion) for the establishment of permanent utility easements and maintenance corridors. The following impacts are proposed for the water and sewer utilities, the product of numerous proposed crossings:

- Temporary discharge of dredged or fill material into 8.82 acres of wetlands, requiring permanent wetland conversion;
- Temporary discharge of dredged or fill material into an additional 5.47 acres of wetlands;
- Temporary discharge of dredged or fill material into 0.61 acre (4,055 LF) of stream channel.

Dominion Energy is currently designing the natural gas transmission line improvements to provide service to the manufacturing facility. Approximately 2.24 miles of new natural gas pipeline are necessary and would connect to the existing natural gas line at Old US-1 north of the Project Blue site. The new natural gas line would connect to the Site along Moncure Flatwood Road. Timing for the natural gas improvements is anticipated to be concurrent with Phase 1B of the VinFast facility. Once Moncure Flatwood Road is abandoned, VinFast would dedicate a maintenance easement back to Dominion Energy



within the Site. Construction of these facilities are estimated to result in the following impacts related to two crossings:

- Temporary discharge of dredged or fill material into 0.002 acre of wetlands;
- Temporary discharge of dredged or fill material into 40 LF of stream channel.

Currently, the transmission line realignment is being evaluated by Duke Energy, and exact timing and realignment needs or locations have not been determined. It is anticipated for purposes of this permit application package that any realignment would be co-located with existing transmission line corridors and no additional impacts (permanent or temporary) would result from the transmission line realignment. Should that be determined as not practicable by Duke, a permit modification would be discussed with the Corps and the North Carolina Division of Water Resources (NCDWR) and submitted accordingly when specifics are known. It is anticipated that the Duke Energy realignment, if determined to be necessary by Duke Energy, would occur along with the Phase 2 development within the VinFast facility.

The “Permit Impact Drawings” included in Appendix G of the supplemental information depict the temporary and permanent impact areas for the project components, including detailed impact types and impact quantities for the Project Blue and Utilities components, and conceptual plans for HE-0006. This information is located on the District Website at <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

## **Avoidance and Minimization**

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

In general, perpendicular stream crossings were maintained where possible to achieve minimum impact to streams and wetlands. Existing drainage patterns would also be maintained to avoid overall impacts to the human and natural environment. In addition to modifying the general layout of the site, VinFast has also carefully designed each crossing to avoid and minimize impacts to streams and wetlands to the extent practicable.

At VinFast Impact Site 1, the design utilizes a perpendicular crossing of stream S1 to reduce impact lengths, and crosses S1 at a particularly straight stream reach further minimizing impacts. A large culvert system is proposed to ensure aquatic connectivity and provide unobstructed base flow and storm flow through the culvert, while protecting aquatic life movement. Riprap outlet protection is proposed to be keyed into the stream bed and banks to ensure long term stability at the crossing location.

At VinFast Impact Site 2, the design utilizes an existing culvert crossing of Stream S13 and proposes to extend the culvert slightly to accommodate the required roadway typical section width. As part of the crossing at Site 2, the existing culvert would be upsized, allowing better flow and aquatic connectivity beneath the roadway. Currently

the culvert is undersized and appears to overtop the road occasionally. The culvert extension is primarily to the west as well, which avoids the majority of wetland W15 on the upstream side. Minimal impacts (<0.01 ac) to the wetland would result. At Site 2, riprap outlet protection would again be keyed into the bed and banks to ensure long term stability while minimizing loss of waters.

At VinFast Impact Site 3, perpendicular crossings are used for the crossing over stream S3, and a very straight section of stream has been utilized for the culvert installation, minimizing impacts to the extent practicable. Riprap outlet protection would be keyed into the bed and banks of the stream to avoid loss of stream length while still providing long term erosion control and preventing stream degradation.

NCDOT has similarly avoided and minimized impacts to aquatic resources to the extent practicable. Measures taken by NCDOT in the design process to minimize unavoidable impacts include:

- Adjusting the alignment and curve on a hydraulic bridge to cross Shaddox Creek at a straight section of the creek.
- For any hydraulic crossings under 10 feet of fill that would need more than a 60-inch pipe opening, a box culvert would be constructed with sills/baffles sized as necessary.
- Perpendicular crossings would be maintained to achieve minimum impact to streams and/or wetlands.
- Proposed bridges are shown spanning three crossings on Shaddox Creek, including the removal of a 1928 (4-barrel) box culvert under Old US-1 and possible channel improvements upon removal to restore stream function.

Utilities have been carefully designed to avoid and minimize impacts to provide utility service to the manufacturing facility. Water and sewer lines would be directionally drilled beneath streams and wetlands where practicable, and maintenance easements have been narrowed where practicable in stream or wetland areas.

The applicant submitted additional descriptive information about the proposed project, including an Alternatives Analysis for four off-site and three additional on-site alternatives for Project Blue, and four additional on-site alternatives for NCDOT STIP# HE-0006. This information is included in Section 7 and Appendices A, B, and C of the supplemental information found on the District Website at <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>

### **Compensatory Mitigation**

The applicant offered the following compensatory mitigation plan to offset unavoidable functional loss to the aquatic environment:

Due to the long construction timeline and duration of development between the permit application and the ultimate buildout of each of the respective phases of the Project, the Applicants propose to mitigate for unavoidable stream and wetland impacts on a per-

phase basis. Each Applicant would be responsible for the mitigation requirement associated with their respective impacts in each phase. The Applicants would notify the Corps and NCDWR in advance of anticipated construction initiation for each phase and would secure mitigation for that phase and submit the required documentation to Corps and NCDWR for review prior to initiating impacts associated with each phase. For purposes of mitigation, the following phases are proposed:

Project Entity	Phase	Unavoidable Impacts	Mitigation Ratio Proposed	Mitigation Proposed
VinFast	Phase 1B	0.009 ac Wetland	2:1	0.018 ac
		196 LF Stream	2:1	392 LF
		110 LF Stream; PNNL*	N/A (PNNL)	None
	Phase 2	(No wetland impacts)	N/A	None
		(No stream impacts)	N/A	None
	Phase 3	(No wetland impacts)	N/A	None
		92 LF Stream	2:1	184 LF
		67 LF Stream; PNNL*	N/A (PNNL)	None
NCDOT	Phase 1 (East)	6.52 ac Wetland	2:1	13.04 ac
		1,634 LF Stream	2:1	3,268 LF
	Phase 2 (West)	16.26 ac Wetland	2:1	32.52 ac
		1,589 LF Stream	2:1	3,178 LF
City of Sanford	No Phasing Split Proposed	8.82 ac Wetland; Conversion	1:1	8.82 ac
		5.47 ac Wetland; Temporary	N/A (Temporary)	None
		4,055 LF Stream; Temporary	N/A (Temporary)	None
Dominion Energy	No Phasing Split Proposed	0.002 ac Wetland; Temporary	N/A (Temporary)	None
		40 LF Stream; Temporary	N/A (Temporary)	None
Duke Energy	No Phasing Split Proposed	(No wetland impacts)	N/A	None
		(No stream impacts)	N/A	None
<b>Total Mitigation Proposed</b>				54.40 ac Wetland
				7,022 LF Stream

\* - Permanent No Net Loss Impacts

Project Blue:

VinFast would be responsible for mitigation associated with the construction of the Project Blue site. Impacts to streams and wetlands are located within the Haw River watershed (HUC 03030002). VinFast proposes to mitigate for permanent impacts to wetlands by purchasing riparian wetland mitigation credits and warm water stream credits from the NC Division of Mitigation Services (NCDMS). Available banks in the watershed were contacted and did not have enough credits at the time of request, however given the long lead time and phased mitigation approach, VinFast would verify credit availability from approved 3rd party mitigation banks in the watershed prior to utilizing NCDMS. For purposes of this application, mitigation has been reserved with NCDMS so that in the event that 3rd party mitigation bank credits are not available when needed, mitigation can still be provided for proposed impacts in each phase. As shown in the table above, minor impacts to streams are proposed associated with riprap outlet protection. Shown in the table as “Permanent No Net Loss”, or PNNL, riprap is proposed to be keyed into the bed and bank of the stream channels to better armor and



protect the stream from long term erosional risks associated with the installation of the culverts. The riprap would be installed in accordance with NCDOT, Corps, and NCDWR requirements to ensure no permanent loss of function in the stream or impacts to aquatic life movement. Since no loss of function is anticipated, no mitigation is proposed for PNNL impacts.

#### NCDOT STIP# HE-0006:

The NCDOT has avoided and minimized impacts to jurisdictional resources to the maximum extent practicable at this stage of design. NCDOT plans to continue to refine designs to minimize impacts. The proposed construction of HE-0006 would likely result in unavoidable impacts to jurisdictional streams, open water ponds, non-riparian and riparian wetlands within the Haw River watershed (HUC 03030002). NCDOT would use NCDMS for compensatory mitigation for HE-0006 permanent stream and wetland impacts at a 2:1 ratio.

#### Utilities:

The majority of the impacts associated with the water, sewer, and natural gas utility improvements would be temporary in nature. Extensive horizontal directional drilling (HDD) and boring would be used to avoid impacts to streams and wetlands along the utility corridors, however some areas of the alignment would not be able to be installed via HDD or boring and would require open cut trench installation. These open cut trench installations are the temporary impacts quantified in the application. Temporary impacts to streams and wetlands would be re-graded and revegetated to pre-construction conditions, however establishment of permanent utility maintenance easements is anticipated to result in permanent loss of function to forested wetlands along the utility corridors. Mitigation for the loss of function for conversion of forested wetlands to herbaceous wetlands is proposed at a 1:1 ratio, and mitigation credits would be secured by available 3rd party mitigation bank credits and/or NCDMS. The utility alignment crosses three different HUCs (03030002, 03030003, and 03030004), and mitigation credit availability is highly variable between the three watersheds.

In addition to the information provided above, a more detailed description of the proposed compensatory mitigation is provided in Section 8 of the supplemental information located on the District Website at

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

#### **Essential Fish Habitat**

The Corps' determination is that the proposed project would not effect EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

## Cultural Resources

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

- Historic properties, or properties eligible for inclusion in the National Register, are present within the Corps' permit area; moreover, the undertaking may have an adverse effect on these historic properties. The Corps subsequently requests initiation of consultation with the SHPO (or THPO).

Note that the cultural resources review for the HE-0006 Project component is proceeding according to the "Programmatic Agreement among the Federal Highway Administration, United States Army Corps of Engineers, Wilmington District, North Carolina Department of Transportation, Advisory Council on Historic Preservation, and North Carolina State Historic Preservation Officer for the Transportation Program in North Carolina", dated December 2020, designed to facilitate consultation for Section 106 of the NHPA for federally funded and/or authorized transportation undertakings in North Carolina that may affect historic properties.

- The proposed work takes place in an area known to have the potential for the presence of prehistoric and historic cultural resources; however, the area has not been formally surveyed for the presence of cultural resources. No sites eligible for inclusion in the National Register of Historic Places are known to be present in the vicinity of the proposed work. Additional work may be necessary to identify and assess any historic or prehistoric resources that may be present.

For the Project Blue Project component, SHPO provided a letter to the Applicant, dated August 16, 2022, stating that they "determined that the project as proposed will not have an effect on any historic structures." However, SHPO also recommended that a comprehensive archaeological survey of the site be conducted by an experienced archaeologist. The Applicant stated that they are currently contracted with a Professional Archaeologist to conduct archaeological surveys within proposed limits of disturbance for each Phase of Project Blue, and that those surveys will be conducted over the coming months and provided to allow for continued consultation.

For the Utilities Project component, the Applicant has conducted a limited desktop cultural resources review within 1-mile of the proposed corridors, consisting of review of North Carolina Archaeology Site Files, the HPOWEB 2.0 online mapper, and archaeological research reports. The Corps subsequently initiates consultation with the SHPO for this Project component.

For additional information, please see Section 1.3.9 of the supplemental information, located on the District Website at <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

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

### **Endangered Species**

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

The Corps determines that the proposed project may affect federally listed endangered or threatened species or their formally designated critical habitat.

By copy of this public notice, the Corps requests initiation of consultation under Section 7 of the ESA and will not make a permit decision until the consultation process is complete.

Based on information provided by the Applicant, the Corps offers the following determination for Cape Fear shiner (*Notropis mekistocholas*) for the Project Blue and HE-0006 Project components: May Affect Not Likely to Adversely Affect.

Determinations of No Effect were found for all other listed species per Project component.

For specific information used as justification for these determinations, please see Section 1.3.8 of the supplemental information, located on the District Website at <https://www.saw.usace.army.mil/Missions/Regulatory-Permit-Program/Public-Notices/>.

### **Other Required Authorizations**

The Corps forwards this notice and all applicable application materials to the appropriate State agencies for review.

### **North Carolina Division of Water Resources (NCDWR):**

The applicant did not provide or satisfy all the elements required for a complete 401 certification request. Therefore, the 401 Certification process has not started. The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500).

- The Corps will generally not make a final permit decision until the NCDWR issues, denies, or waives the state Certification as required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice at the NCDWR Central Office in Raleigh constitutes initial receipt of an application for a 401 Certification. Unless NCDWR is granted a time review extension, a waiver will be deemed to occur if the NCDWR fails to act on this request for certification within 120 days of the date of this public notice. Additional information regarding the 401 Certification may be reviewed at the NCDWR Central Office, 401 and Buffer Permitting Unit, 512 North Salisbury Street, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for a 401 Certification should do so, in writing, by December 13, 2022, to:

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

Or,

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

**North Carolina Division of Coastal Management (NCDWM):**

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

**Evaluation**

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



United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

### **Commenting Information**

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

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

The Corps of Engineers, Wilmington District will receive written comments pertinent to the proposed work, as outlined above, until 5pm, December 22, 2022. Comments should be submitted to David E. Bailey, Raleigh Regulatory Field Office, 3331 Heritage Trade Drive, Suite 105 , Wake Forest, North Carolina 27587, at (919) 817-2436. Comments may also be submitted to [RaleighNCREG@usace.army.mil](mailto:RaleighNCREG@usace.army.mil)