

## **PUBLIC NOTICE**

**CHARLESTON DISTRICT, CORPS OF ENGINEERS  
69A Hagood Avenue  
Charleston, South Carolina 29403-5107**

REGULATORY DIVISION  
Refer to: SAC-2023-01173

October 19, 2023

Pursuant to the Final Rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332 and 40 CFR Part 230), Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the South Carolina Coastal Zone Management Act (48-39-10 et.seq.), and Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1341) a prospectus for the proposed establishment of the Brosnan Forest Umbrella Mitigation Bank (BFUMB) has been submitted to the Department of the Army and the South Carolina Interagency Review Team by

**Norfolk Southern Corporation  
Brosnan Forest  
125 Brosnan Forest Road  
Dorchester, South Carolina 29437**

The prospectus is for the establishment and operation of the BFUMB and includes the proposed addition of a stream and wetland mitigation site called Indian Field II Mitigation Site. The proposed umbrella bank is located within the

### **Edisto River and Four Hole Swamp Subbasins**

At a location bisected by U.S. Highway 78, northwest of and adjacent to Sandridge Road in Dorchester County, South Carolina (Latitude 33.1513, Longitude: -80.4308), Maple Cane Swamp Quadrangle sheet.

In order to give all interested parties an opportunity to express their views

## **NOTICE**

is hereby given that written statements regarding the proposed work will be received by the **Corps** until

**30 Days from the Date of this Notice,**

from those interested in the activity and whose interests may be affected by the proposed work.

**NOTE: This public notice and associated plans are available on the Corps' website at: <http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices>**

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

As stated by the program sponsor, the BFUMB is being developed with the programmatic goal of developing mitigation credits to offsets permitted impacts to stream and wetland resources in Dorchester County and regionally.

The overall goal of the BFUMB is to responsibly address 70 years of anthropogenic impacts from land alteration and drainage on stream and wetland systems. The objectives are to restore a naturally functioning ecosystem that includes the restoration of stream channels, wetlands, natural hydrology, and vegetation as they existed prior to the significant drainage alterations that started in the 1950s, or to the extent practical with current and future intended land use practices. Implementation of the BFUMB would complement the completed Brosnan Forest Mitigation Bank and the on-going Brosnan Forest Coldwater Branch Mitigation Bank, continuing and expanding restoration of ecological functions on a watershed scale across Brosnan Forest. The sponsor is proposing to meet these goals and objectives mainly through the identified objectives and associated changes in functional status as proposed below:

- Restore naturally functioning stream and wetland systems that provide appropriate aquatic habitats for plants and animals.
- Treat invasive/non-native vegetation during the restoration process
- Reconnect streams to their historic floodplains
- Restore degraded stream channels by establishing appropriate channel geomorphology based upon Rosgen stream type.
- Install in-stream structures that increase the quantity of large woody debris, improve bed form diversity, and provide stream channel and stream bank stability.
- Restore and protect riparian buffers to further provide bank protection and stability.
- Restore hydrology and vegetation in altered headwater stream systems and wetland systems.
- Reduce sediment inputs by stabilizing eroding banks, removing concentrated flow points, filling drainage ditches restoring and protecting riparian buffers and protecting restored headwater systems.



- Reduce sediment inputs from lateral sources by filling drainage ditches to restore wetlands and promoting higher water table conditions, and thus denitrification, along the restored stream, riparian buffer, and floodplain areas.

### **Project Description**

The proposed project consists of establishing a freshwater stream and wetland umbrella mitigation bank in the Edisto River (HUC 03050206) and Four Hole Swamp (HUC 03050205) Subbasins within the Middle Atlantic Coastal Plain Level III Ecoregion. The BFUMB is entirely contained within Brosnan Forest and is proposed to be comprised of five individual mitigation bank sites, each associated with and situated within one of five unrestored watersheds on Brosnan Forest as follows: Indian Field I, Indian Field II, Tom & Kate Branch, Turkey Creek South, and Walnut Branch. With the exception of a small portion of the Walnut Branch watershed, the BFUMB is proposing to extend from the headwaters of each of these unrestored watersheds to the points where each of these watersheds exit Brosnan Forest. The five watersheds evaluated for the proposed BFUMB span approximately 8,629 acres of Brosnan Forest's 14,405 acres. BFUMB is proposed to complement the currently established adjoining Brosnan Forest Mitigation Bank (BFMB) and Brosnan Forest Coldwater Branch Mitigation Bank (BFCBMB).

Preliminary evaluations conducted to approximate the potential stream and wetland mitigation opportunities within each of the five sites initially proposed within the BFUMB resulted in the estimated opportunity for approximately 121,000 linear feet of stream mitigation (an estimated 60,539 FF) and approximately 2,200 acres of potential wetland mitigation within the BFUMB.

The plan for the BFUMB involves the restoration, enhancement, and/or preservation of the streams, riparian wetlands, non-riparian wetlands, and associated forested buffers and uplands within each of the five mitigation sites. Primary restoration activities for the bank sites would include: 1) removing loblolly pine plantations, 2) removing dams, roads, and other earthwork to the extent practicable, 3) filling/plugging ditches to restore hydrology, 4) planting native trees and shrubs to restore wetland plant communities, 5) restoring stream channels and associated wetlands in historic valleys, and 6) suppressing nuisance and invasive species vegetation.

For all mitigation site stream reaches, restoration activities would focus on floodplain connectivity by reconnecting the streams to their historic floodplain elevations whenever feasible. Restoration, enhancement, and preservation of riparian wetland areas adjacent to the stream channels would be a component of the ecosystem restoration design plan for each mitigation site. Restoration, enhancement, and preservation of riparian wetlands as part of the protected stream corridor would be proposed to maximize the functional improvements in water quality and riparian habitat that can be achieved for the stream and tributaries for each mitigation site. Existing



intact high-functioning riparian wetlands would be preserved and permanently protected.

Wetland hydrology would be restored or enhanced by raising and reconnecting the restored stream beds to an active wetland floodplain, promoting higher water table conditions and more frequent overbank flooding and by plugging and decommissioning ditch systems currently draining and otherwise impacting the wetlands. Native forested wetland vegetation species would be planted that are appropriate for the region and expected hydrologic conditions. Restoration, enhancement, and preservation of non-riparian wetland areas at the headwaters and upland areas of each mitigation site would also be a component of the ecosystem restoration design plan for each mitigation site. Existing intact, high-functioning, non-riparian wetlands would be preserved and permanently protected. Hydraulic models of the five watersheds would be created using the Hydraulic Engineering Center River Analysis System (HEC-RAS) Software Version 5.0.7. Topographic LiDAR data and surveyed elevations would be combined into a digital elevation model (DEM).

Monoculture loblolly pine plantations would be harvested from the bank sites prior to earthwork construction. If additional site preparation is needed to remove row beds, remnant slash or other disturbances, it would be undertaken following harvesting. Planting of wetland trees and shrubs would be implemented in all of the wetland mitigation areas following plantation removal and regrading activities, concentrating obligate wetland species in areas where longer hydroperiod is expected and more facultative plants on edges or higher elevation areas. Harvested upland buffer areas would be maintained and/or planted with longleaf pines.

The Sponsor is proposing to add the Indian Field II (IFII) Mitigation Site (33.1513, Longitude: -80.4308) as the first site under the BFUMB. Preliminary evaluations conducted to approximate the potential stream and wetland mitigation opportunities for the IFII Mitigation Site resulted in the estimated opportunity for approximately 18,000 linear feet of stream mitigation, representing more than 9,500 functional feet, and approximately 200 acres of potential wetland mitigation.

As proposed the Indian Field II Mitigation Site would provide in-kind compensatory mitigation for authorized impacts to aquatic resources within the proposed service areas in the Middle Atlantic Coastal Plain and Southeastern Plains Level III Ecoregion (as shown on the attached map). The work required to complete the proposed activities on the mitigation site would be reviewed under Department of the Army Nationwide Permit #27.

### **South Carolina Department of Health and Environmental Control**

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the certifying authority, South Carolina Department of Health and Environmental Control, in accordance with provisions of Section 401 of the Clean Water Act (CWA). The CWA Section 401



Certification Rule (Certification Rule, 40 CFR 121), effective September 11, 2020, requires certification, or waiver, for any license or permit that authorizes an activity that may result in a discharge. The scope of a CWA Section 401 Certification is limited to assuring that a discharge from a Federally licensed or permitted activity would comply with water quality requirements. The applicant is responsible for requesting certification and providing required information to the certifying authority. In accordance with Certification Rule part 121.12, the Corps will notify the U.S. Environmental Protection Agency Administrator when it has received a Department of the Army (DA) permit application and the related certification. The Administrator is responsible for determining if the discharge may affect water quality in a neighboring jurisdiction. The DA permit may not be issued pending the conclusion of the Administrator's determination of effects on neighboring jurisdictions.

### **Essential Fish Habitat**

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would not impact estuarine substrates and emergent wetlands utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer's initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). The District Engineer's final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

### **Endangered Species**

Pursuant to Section 7(c) of the Endangered Species Act of 1973 (as amended), the District Engineer's final determination relative to site specific project impacts associated with individual site development plans would be subject to review by and coordination with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS), as appropriate. Consultation with USFWS and/or NMFS would be conducted for each individual site development plan prior to any Corps authorizations, or approvals. Each mitigation site proposed under the Umbrella Bank would be placed on public notice and consultation requirements of Section 7(c) of the Endangered Species Act of 1973 (as amended) would be met prior to any Corps authorizations, or approvals.

In regard to the Indian Field II site included in the prospectus, pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the Corps has reviewed the most recently available information and based on the location of the project the following federally threatened and/or endangered species may be present in the vicinity of the proposed work: Red-cockaded Woodpecker (*Picoides borealis*), Northern-Long eared Bat (*Perimyotis subflavus*), Canby's Dropwort (*Oxypolis canbyi*), and Pondberry (*Lindera melissifolia*).



Based on information provided in the prospectus, the District Engineer has determined the following:

The project may affect Red-cockaded Woodpecker (*Picoides borealis*), Northern-Long eared Bat (*Perimyotis subflavus*), Canby's Dropwort (*Oxypolis canbyi*), and Pondberry (*Lindera melissifolia*).

This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any listed or proposed endangered or threatened species or designated or proposed critical habitat may be present in the area which would be affected by the activity.

### **Cultural Resources**

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with the National Historic Preservation Act (NHPA), the District Engineer's final eligibility and effects determination for individual site development plans would be based upon coordination with the SHPO and/or THPO, as appropriate and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area. Each mitigation site proposed under the umbrella instrument would be placed on public notice and consultation requirements of the NHPA would be met prior to any Corps authorizations, or approvals.

In regard to the Indian Field II mitigation site included in the prospectus, in accordance with Section 106 of the NHPA, the District Engineer has consulted South Carolina ArchSite (GIS), for the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(1)), and has initially determined that there are historic properties present, but they will not be affected; therefore, there will be no effect on historic properties. To ensure that other historic properties that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office and other interested parties to provide any information they may have with regard to historic properties. This public notice serves as a request for concurrence within 30 days from the SHPO (and/or Tribal Historic Preservation Officer).

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.

### **Corps' Evaluation**



The decision whether to approve or deny the proposed mitigation bank will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest. The benefit which reasonably may be expected to accrue from the project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project 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, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. In cases of conflicting property rights, the Corps cannot undertake to adjudicate rival claims.

### **Solicitation of Public Comment**

The Corps is soliciting comments from the public; Federal, state, and local agencies, and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to approve or deny the proposed mitigation bank. 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 and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity. **Please submit comments by email, identifying the project of interest by public notice number (SAC-2023-01173), to [David.B.Wilson@usace.army.mil](mailto:David.B.Wilson@usace.army.mil) or in writing to the following address:**

**U.S. Army Corps of Engineers  
ATTN: REGULATORY DIVISION  
  
69A Hagood Avenue  
Charleston, SC 29403-5107**

A complete copy of the prospectus is available online in the Regulatory In-Lieu Fee and Bank Information Tracking System (RIBITS) at <https://ribits.ops.usace.army.mil/> and can be provided for review upon request. If there are any questions concerning this public notice, please contact David Wilson, project manager, at (843) 329-8026 or by email at [David.B.Wilson@usace.army.mil](mailto:David.B.Wilson@usace.army.mil).



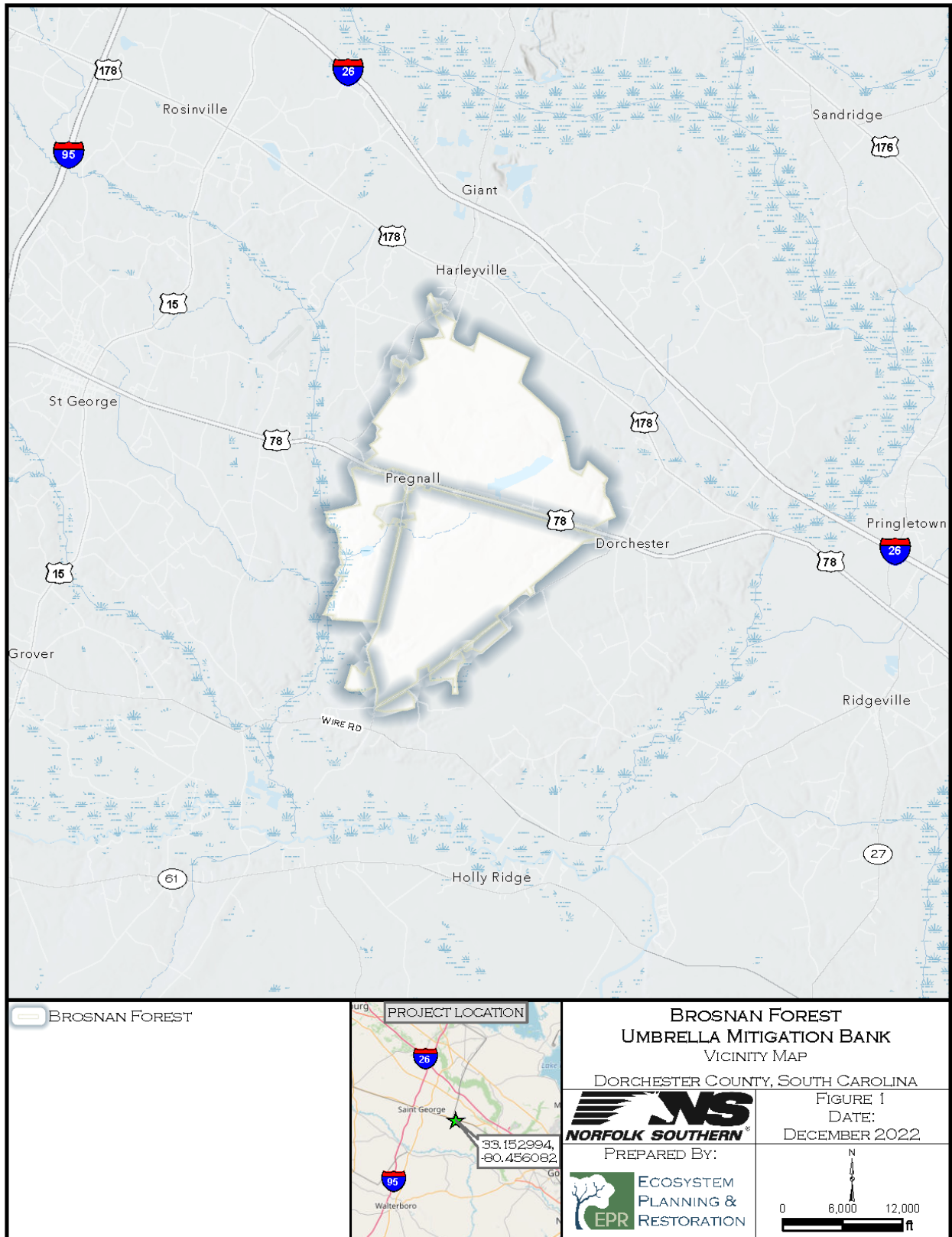


Figure 1. BFUMB Site Vicinity Map



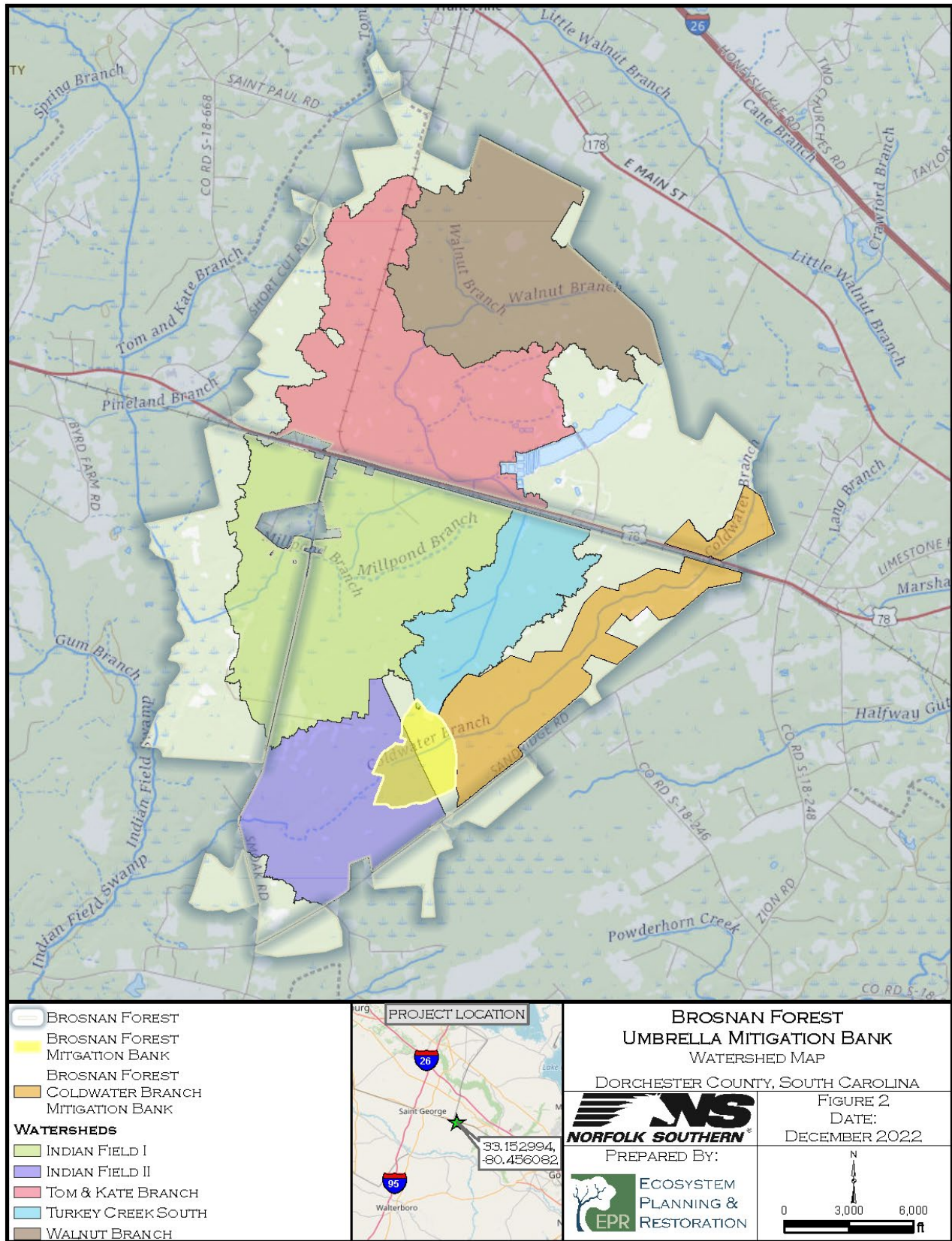


Figure 2. BFUMB Watershed Overview Map



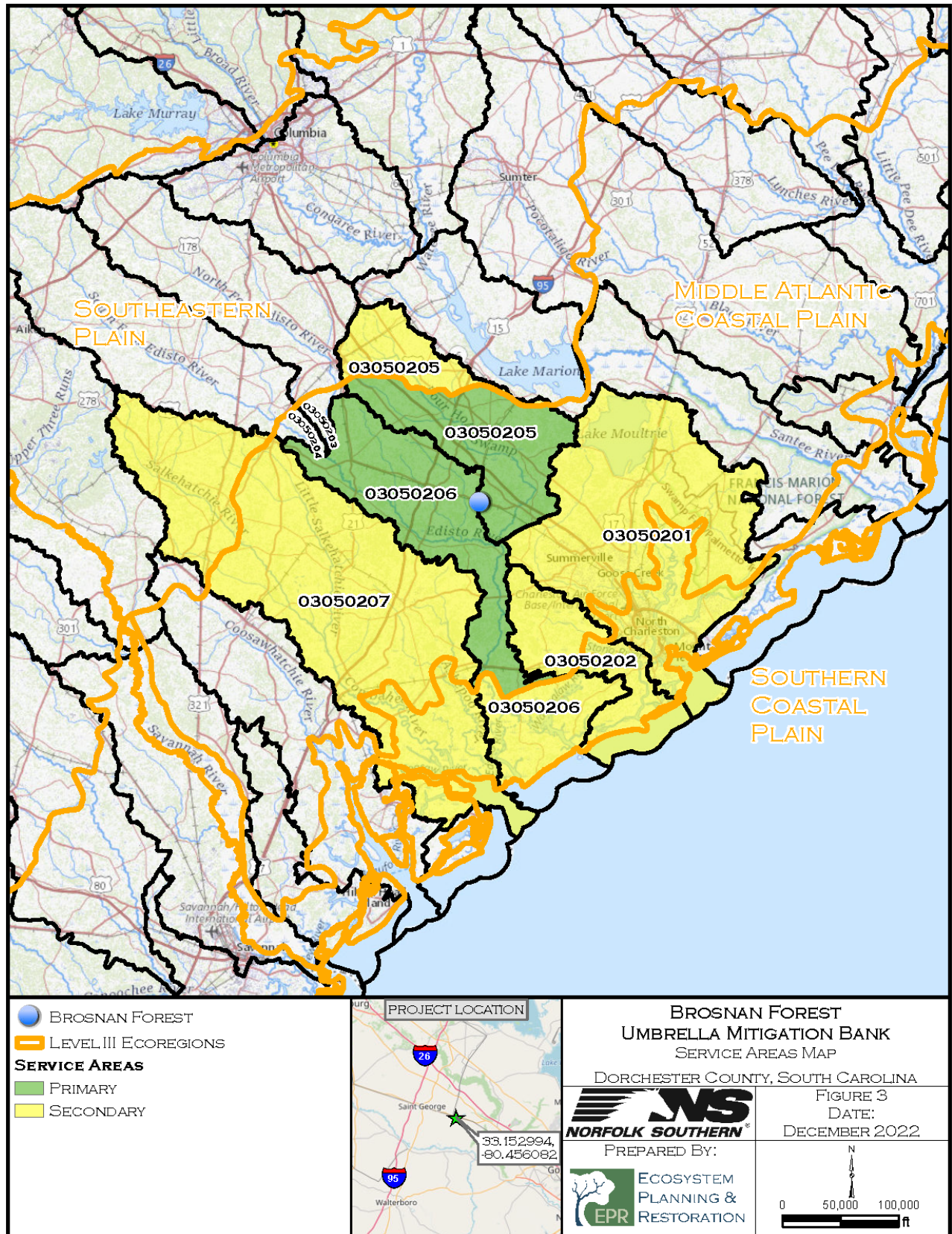


Figure 3. BFUMB Service Area Map



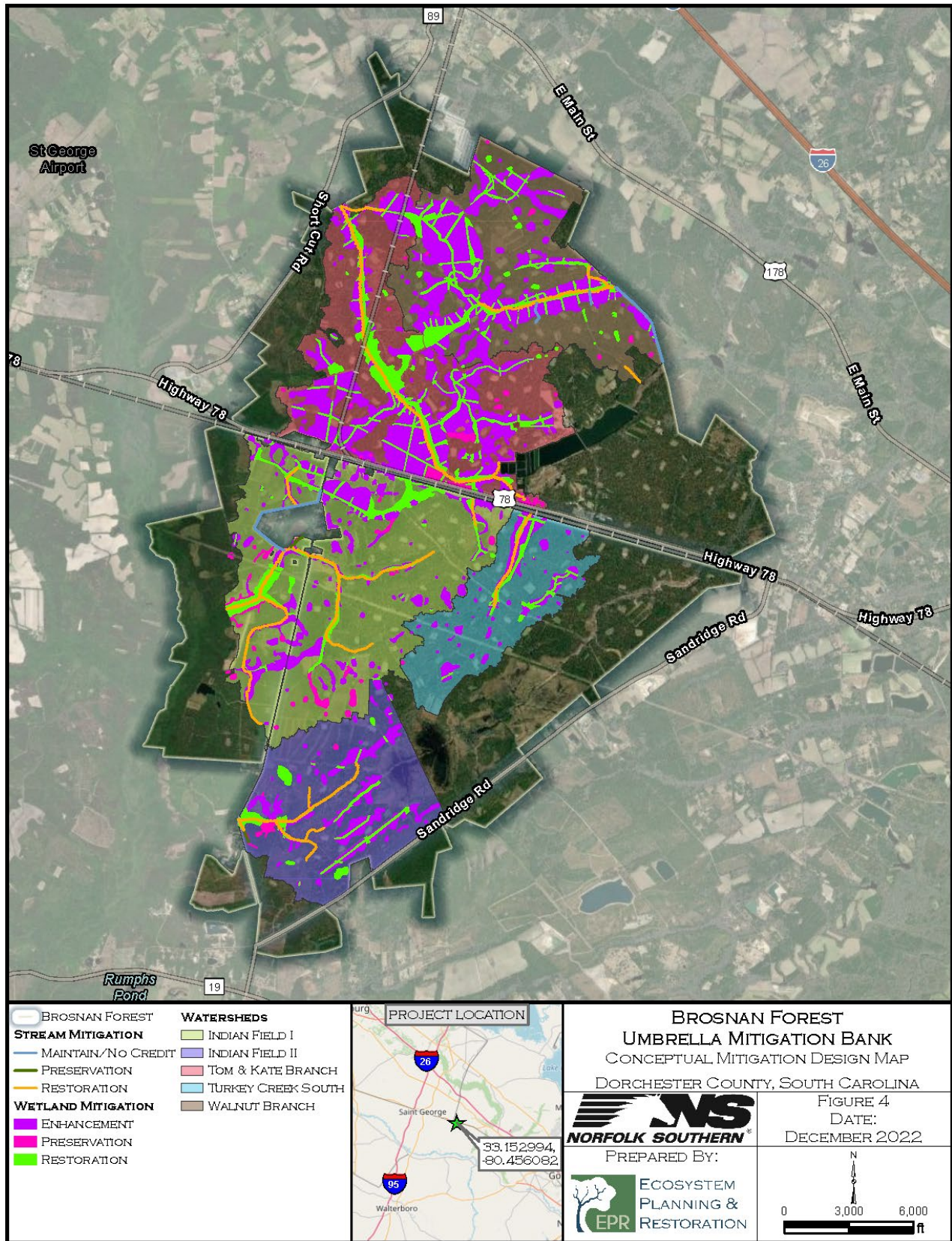


Figure 4. BFUMB Conceptual Design Map



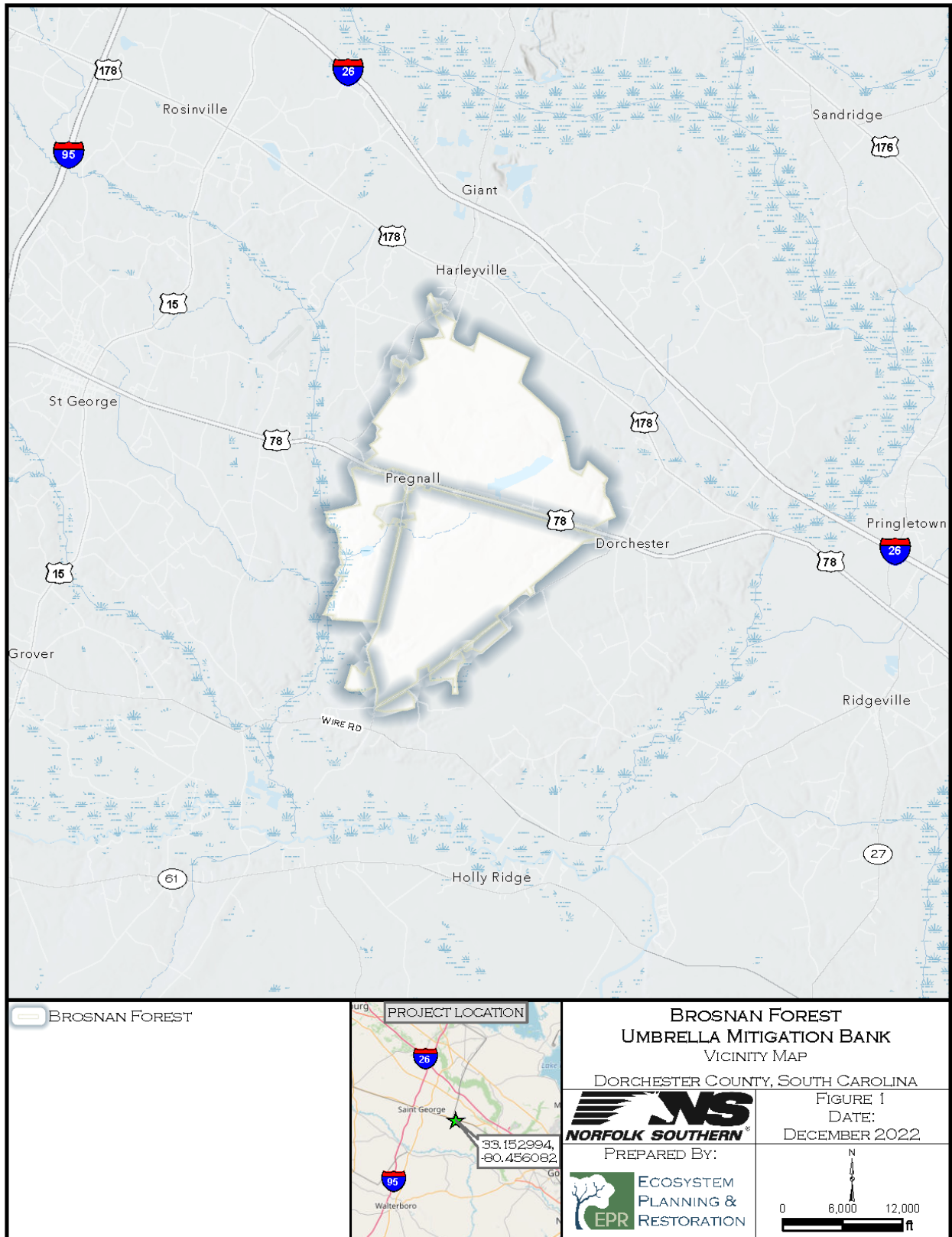


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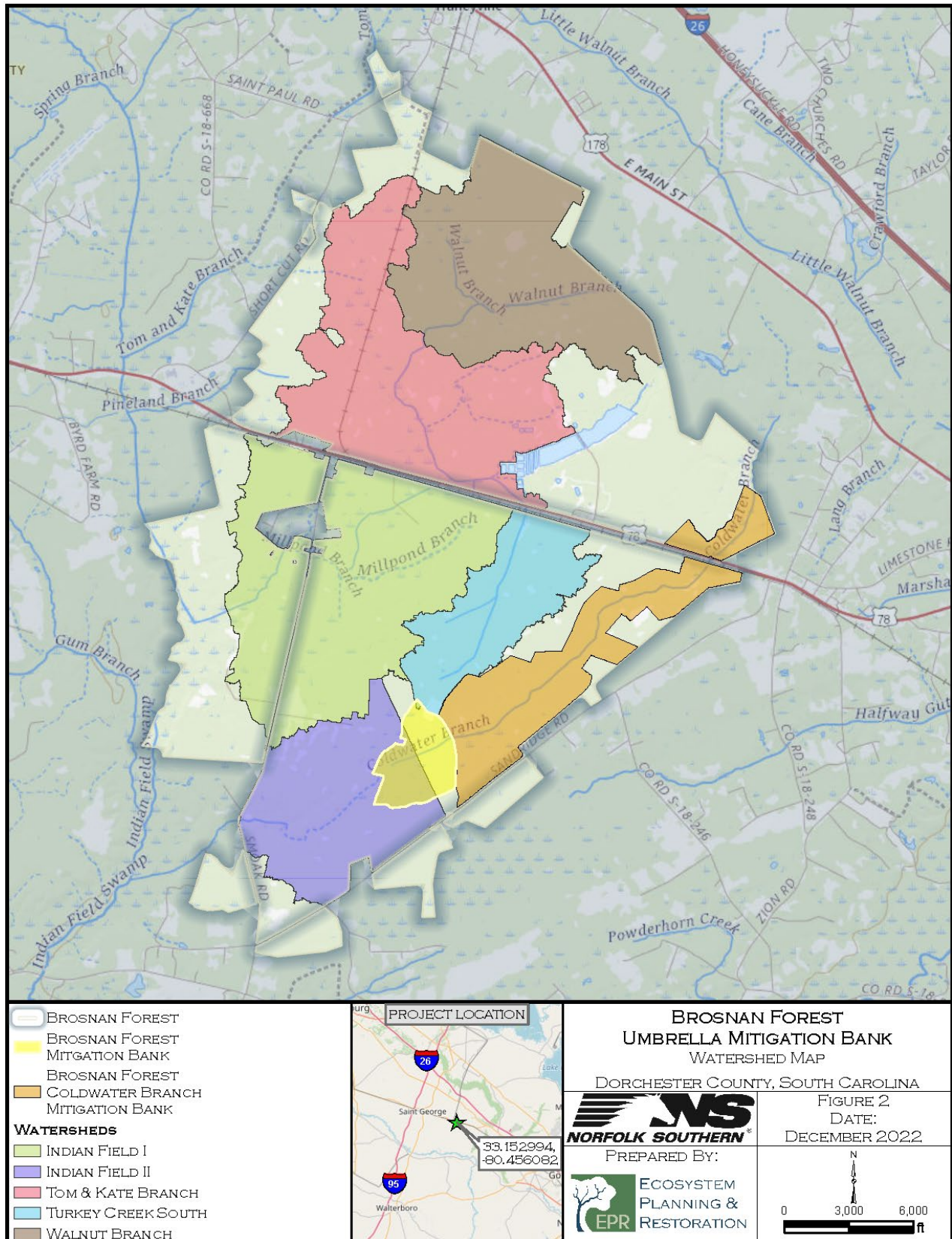


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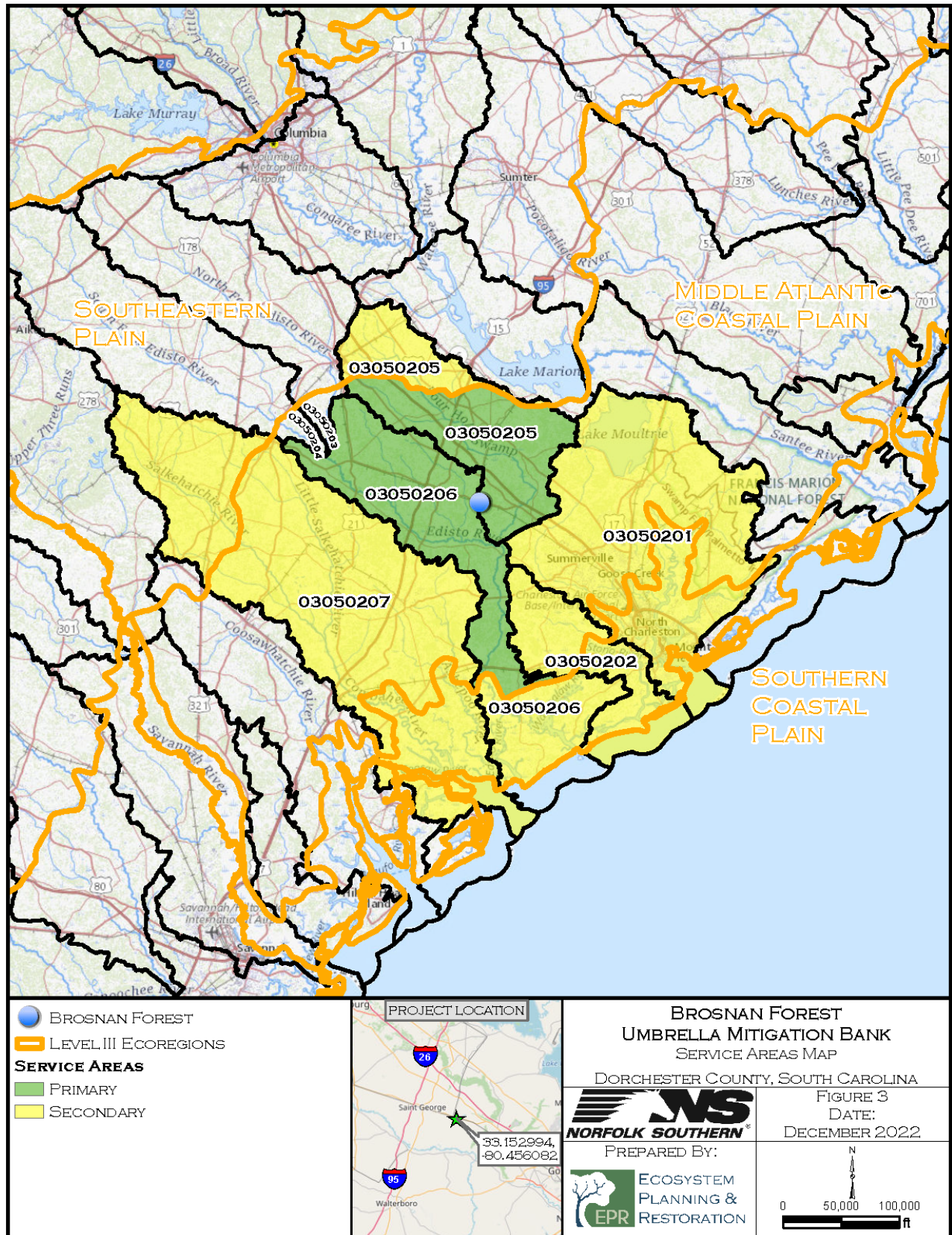


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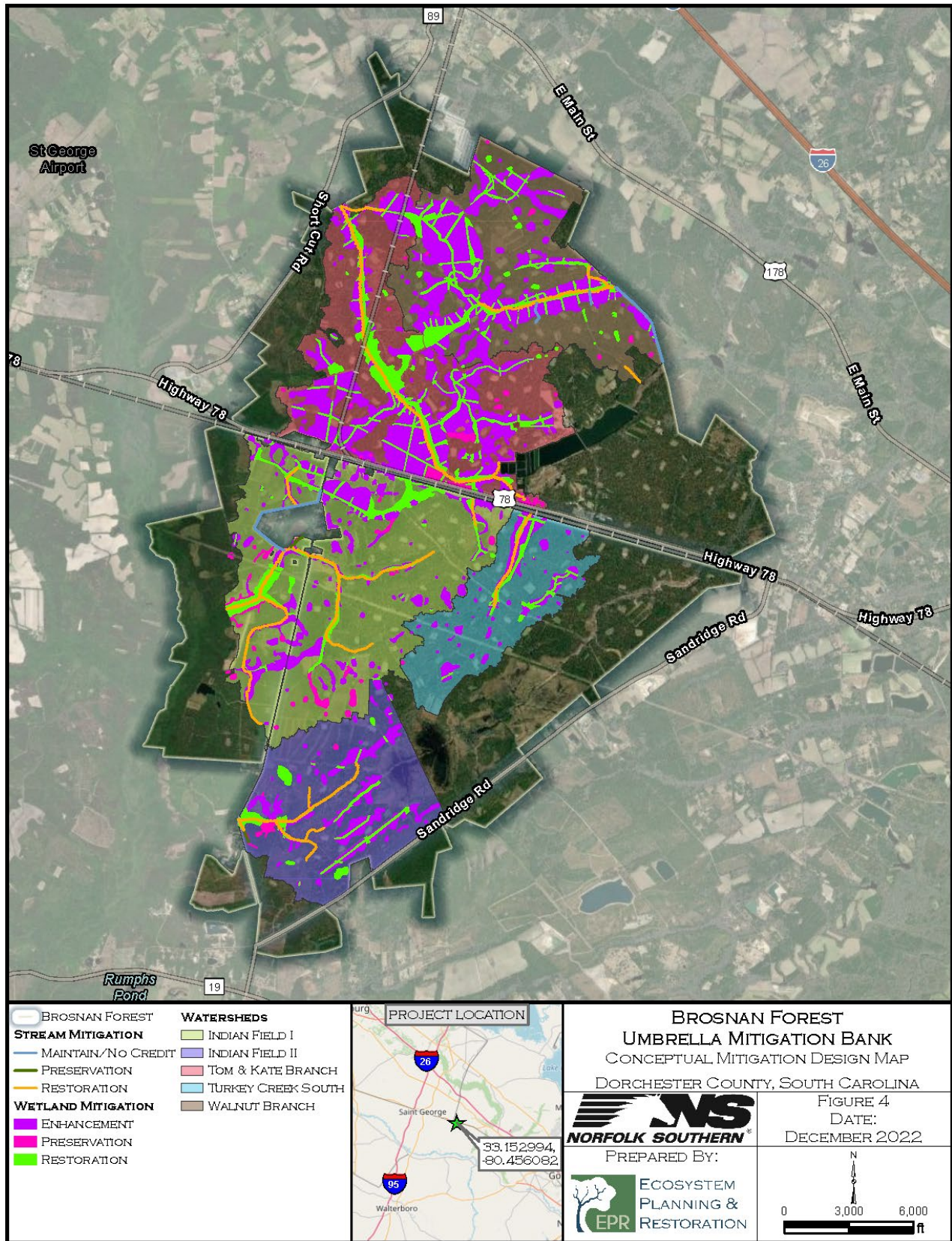


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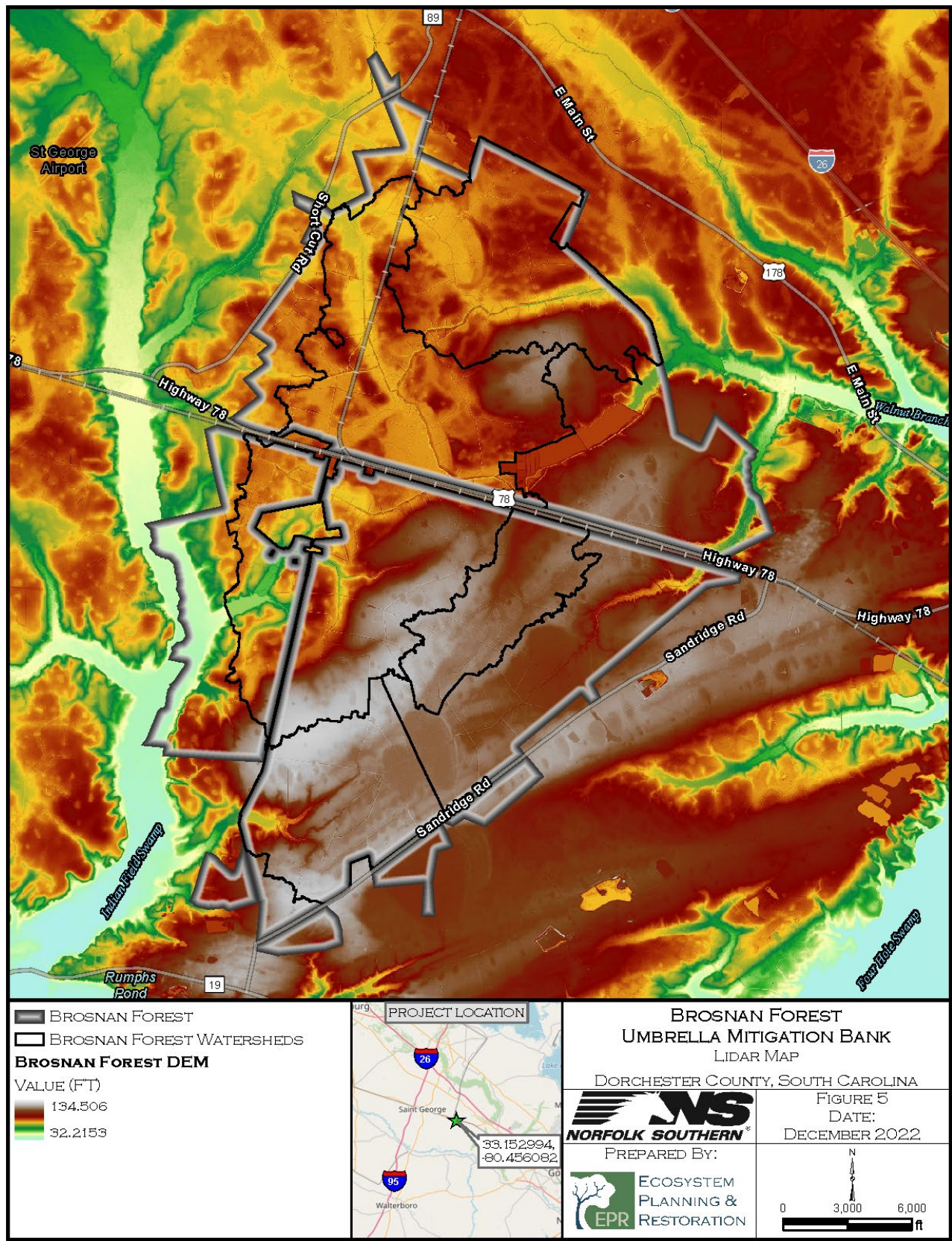


Figure 5. BFUMB Lidar Map



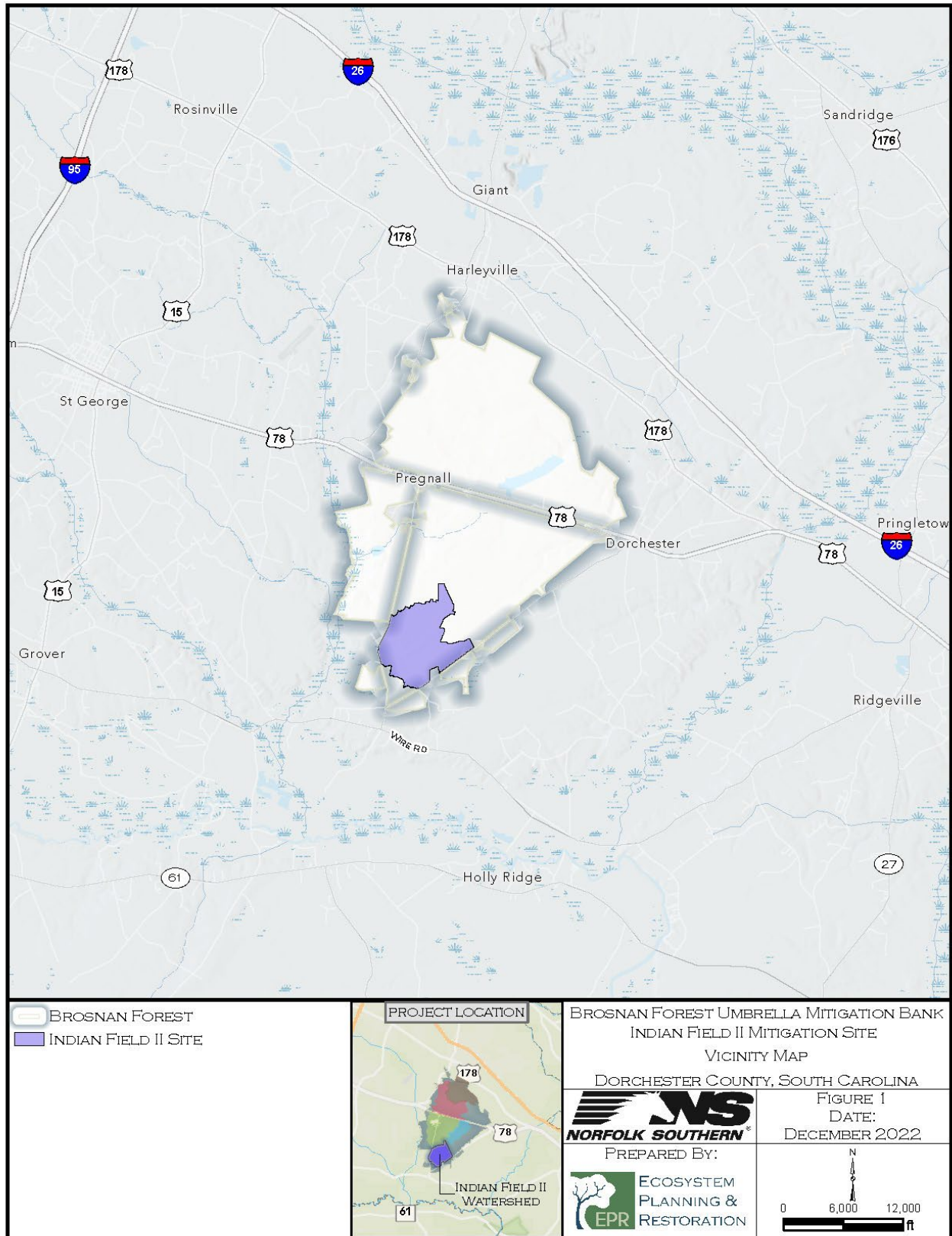


Figure 1. Indian Field II Mitigation Site, Vicinity Map



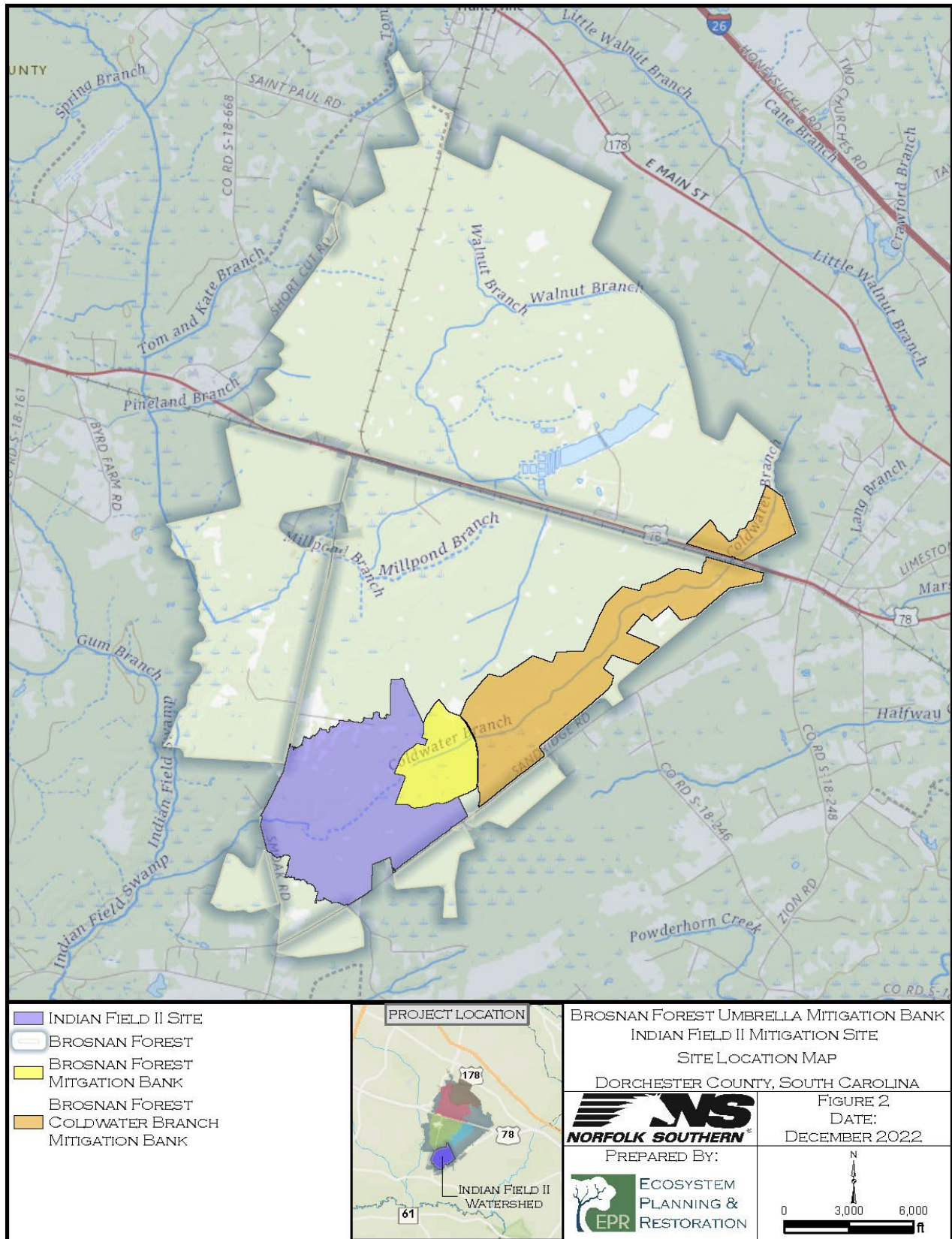


Figure 2. Indian Field II Mitigation Site, Site Location Map



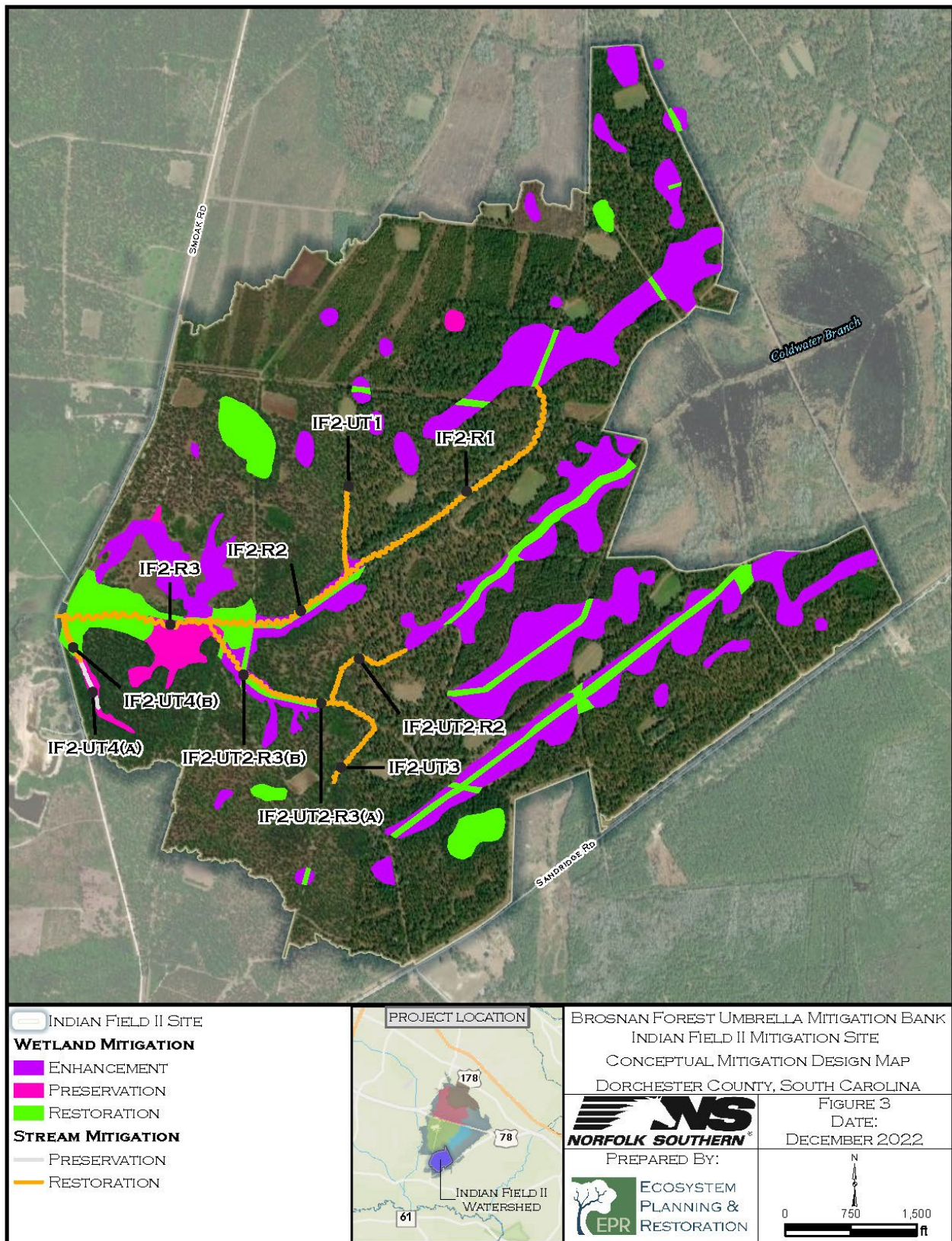


Figure 3. Indian Field II Mitigation Site, Conceptual Mitigation Design Map



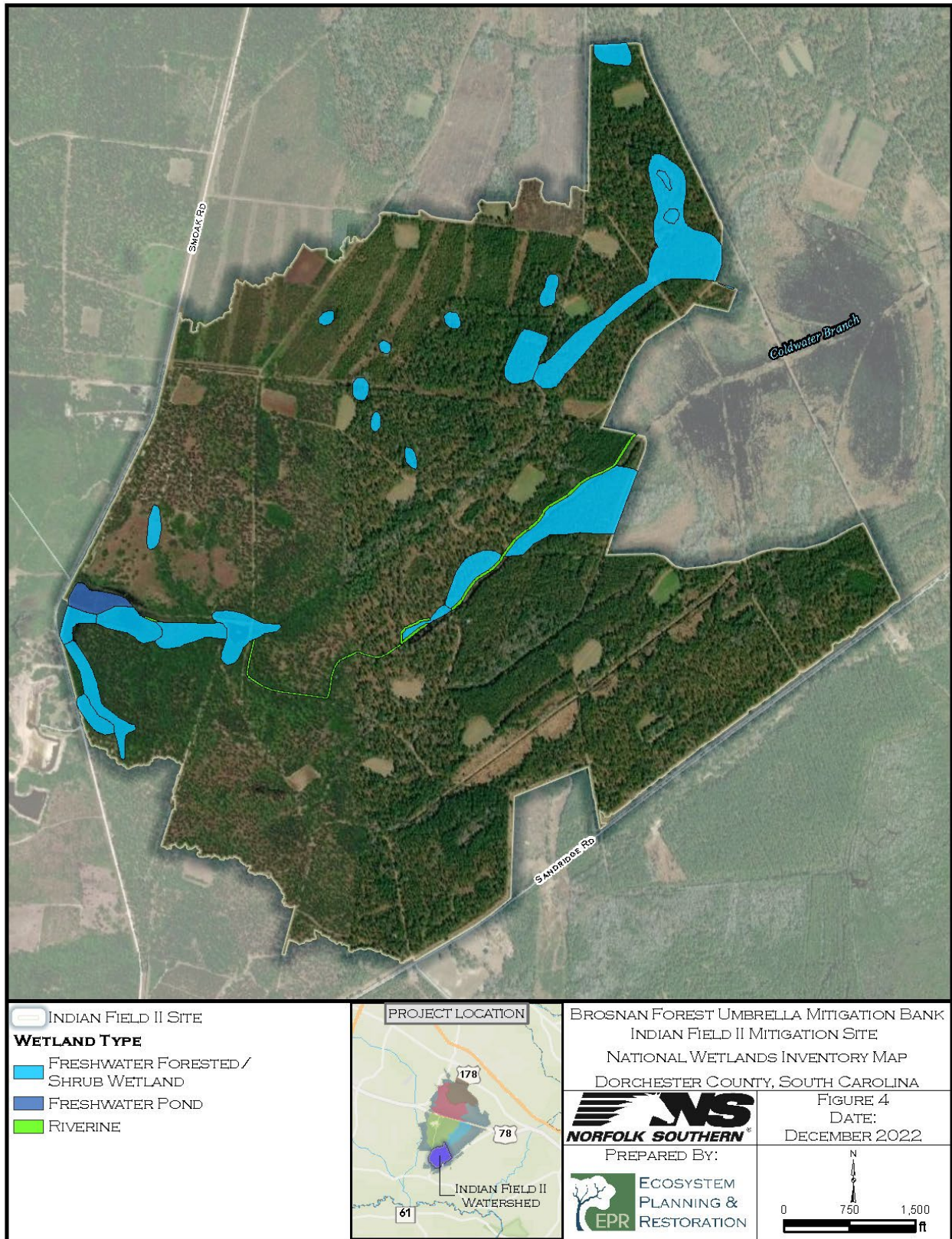


Figure 4. Indian Field II Mitigation Site, National Wetlands Inventory Map



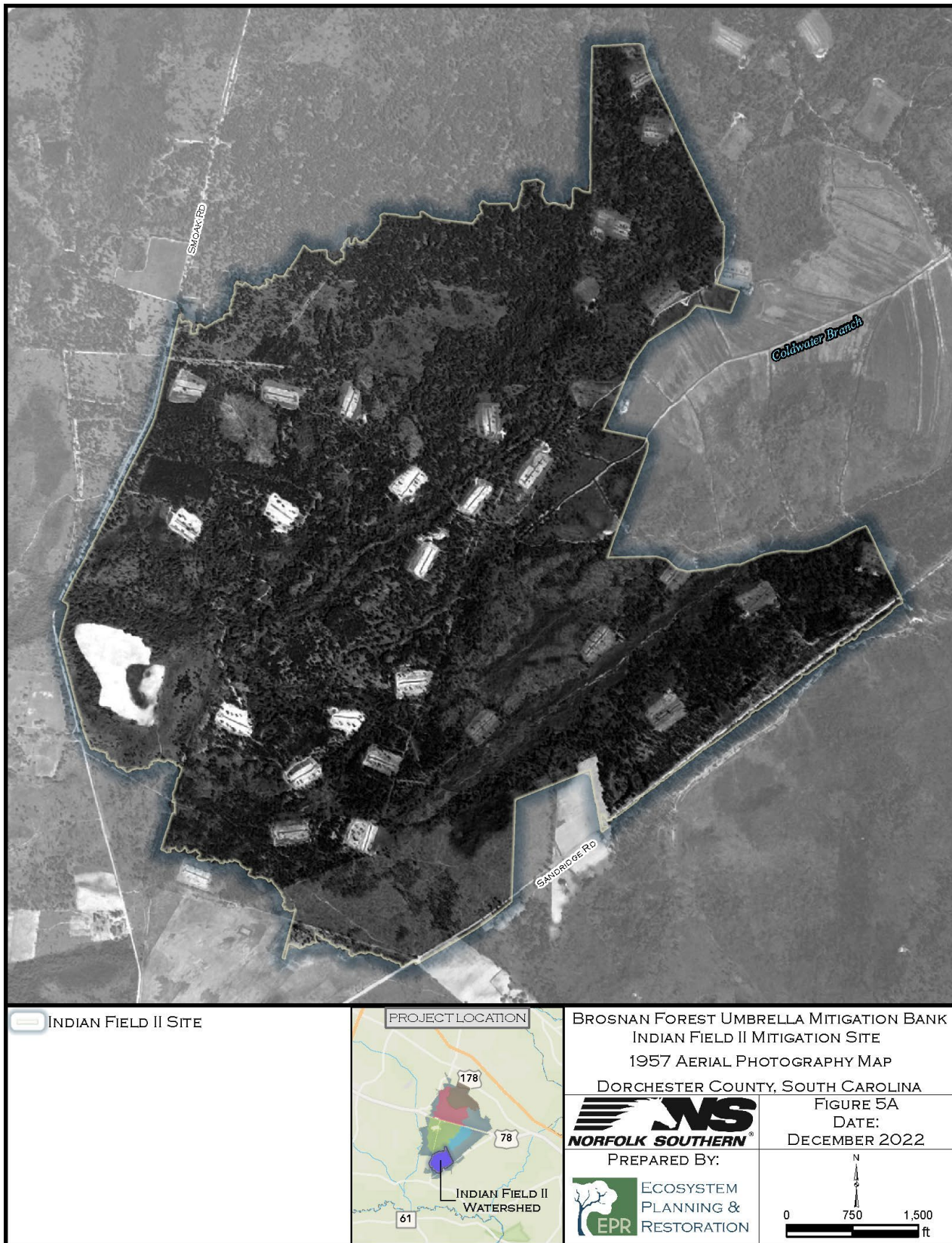


Figure 5A. Indian Field II Mitigation Site, 1957 Aerial Photography Map



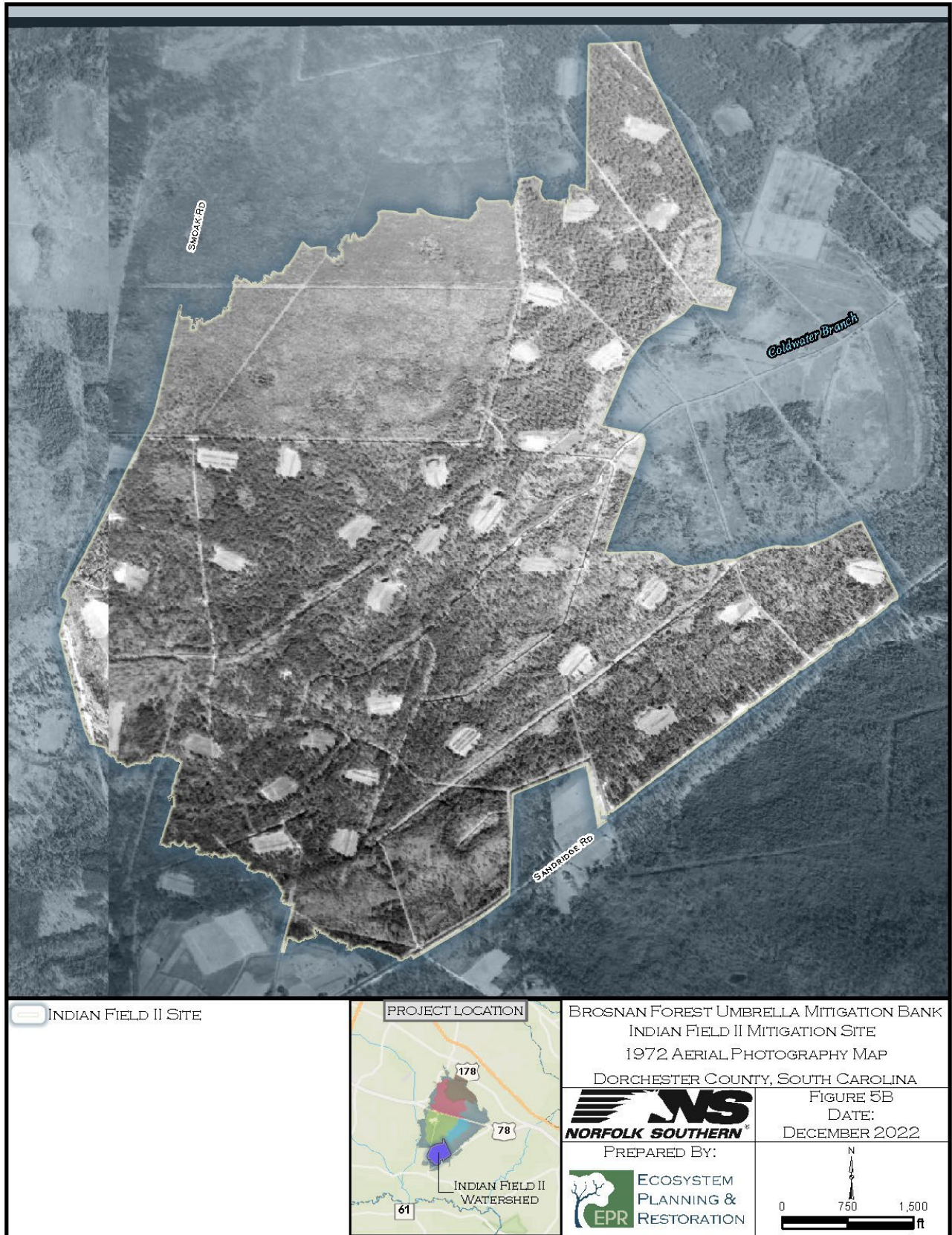


Figure 6B. Indian Field II Mitigation Site, 1972 Aerial Photography Map



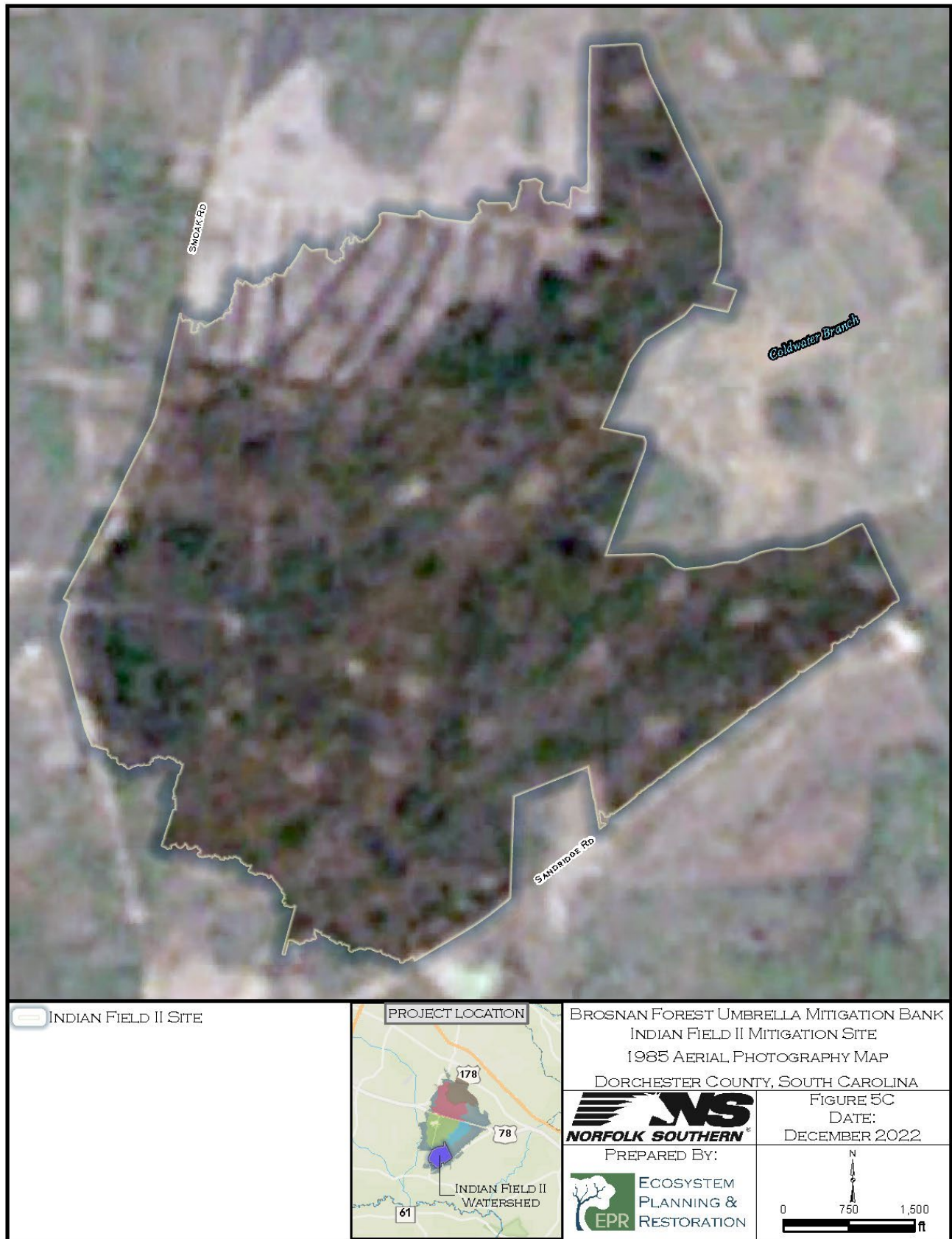


Figure 7B. Indian Field II Mitigation Site, 1985 Aerial Photograph Map



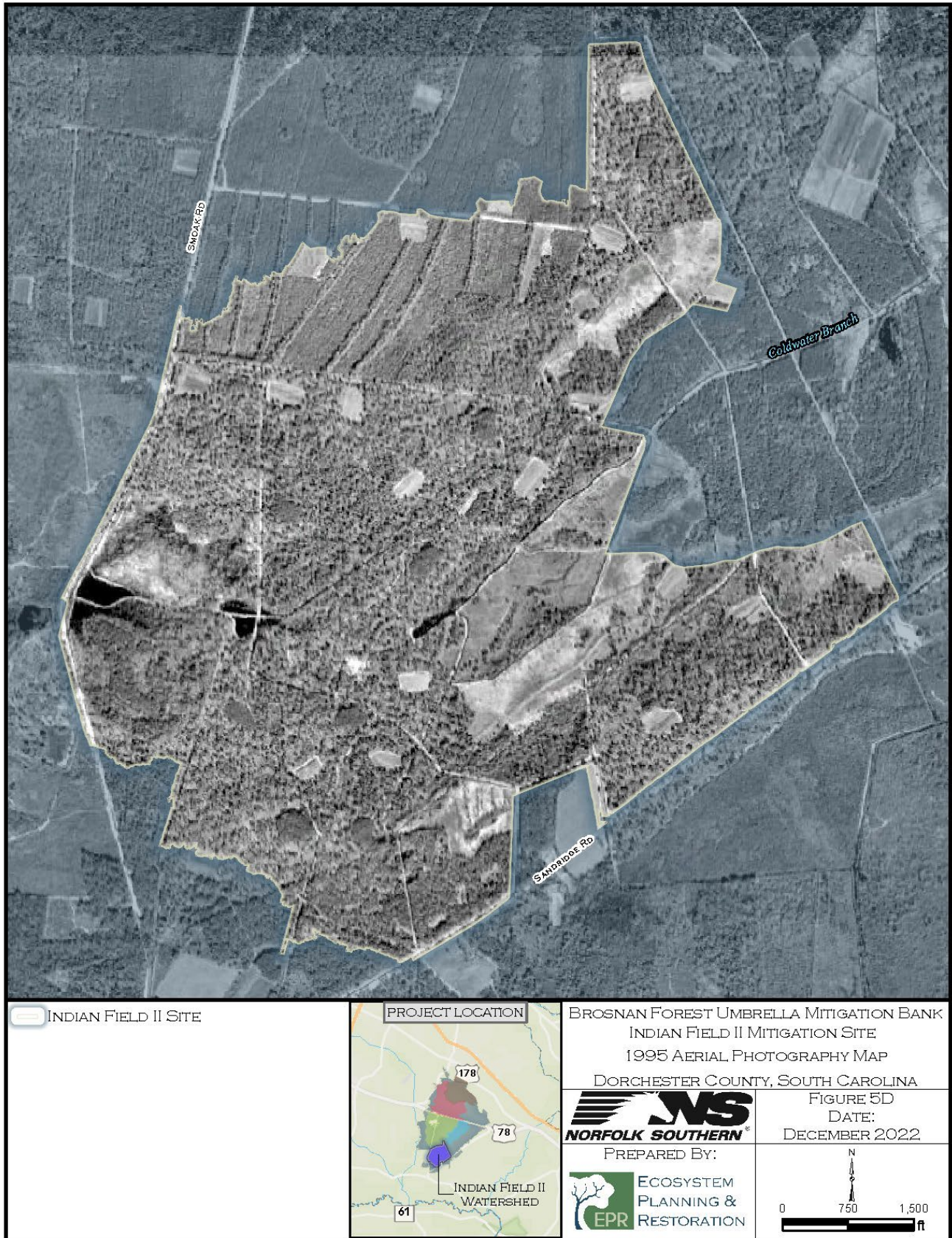


Figure 8C. Indian Field II Mitigation Site, 1995 Aerial Photograph Map



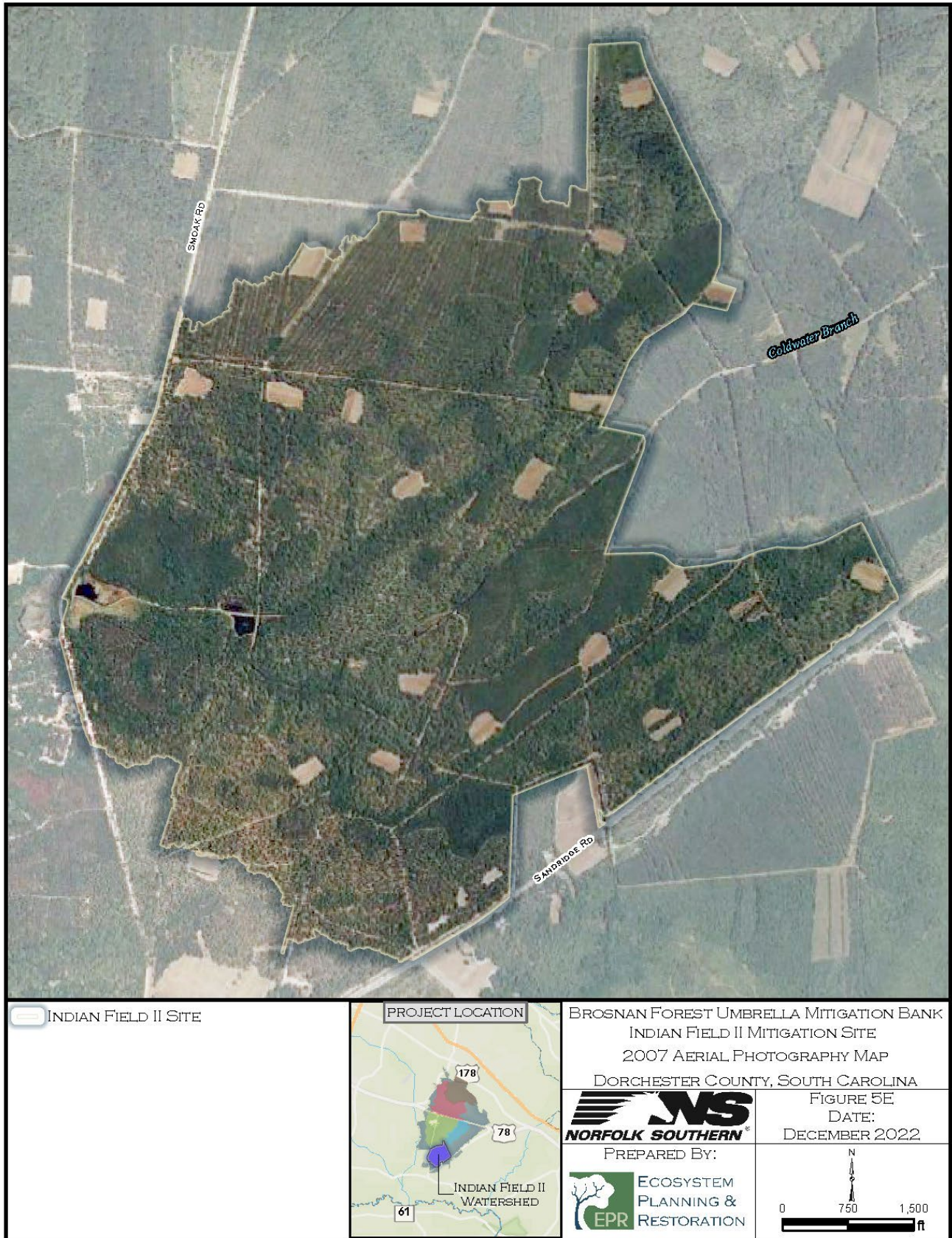


Figure 9D. Indian Field II Mitigation Site, 2007 Aerial Photograph Map



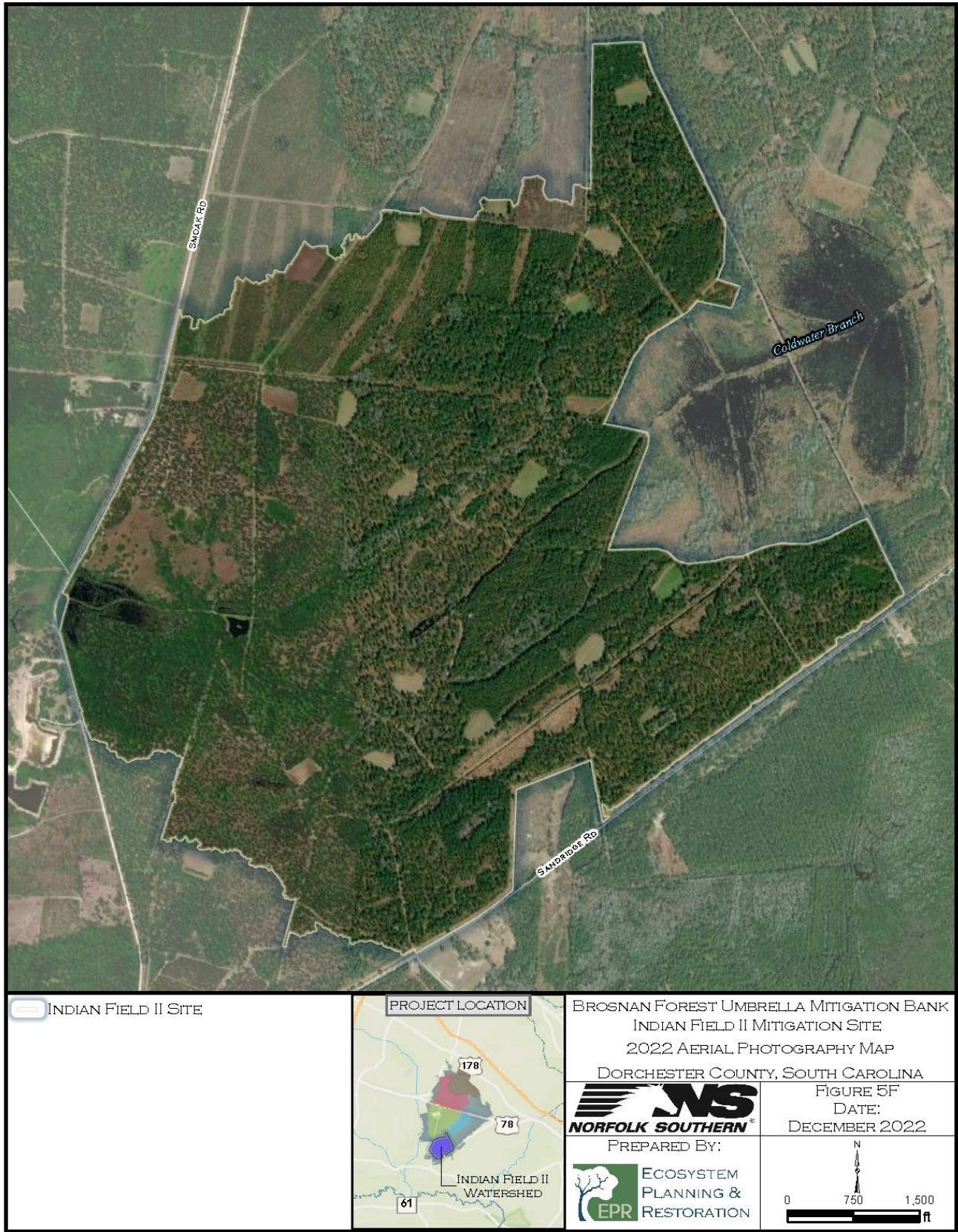


Figure 10E. Indian Field II Mitigation Site, 2022 Aerial Photograph Map



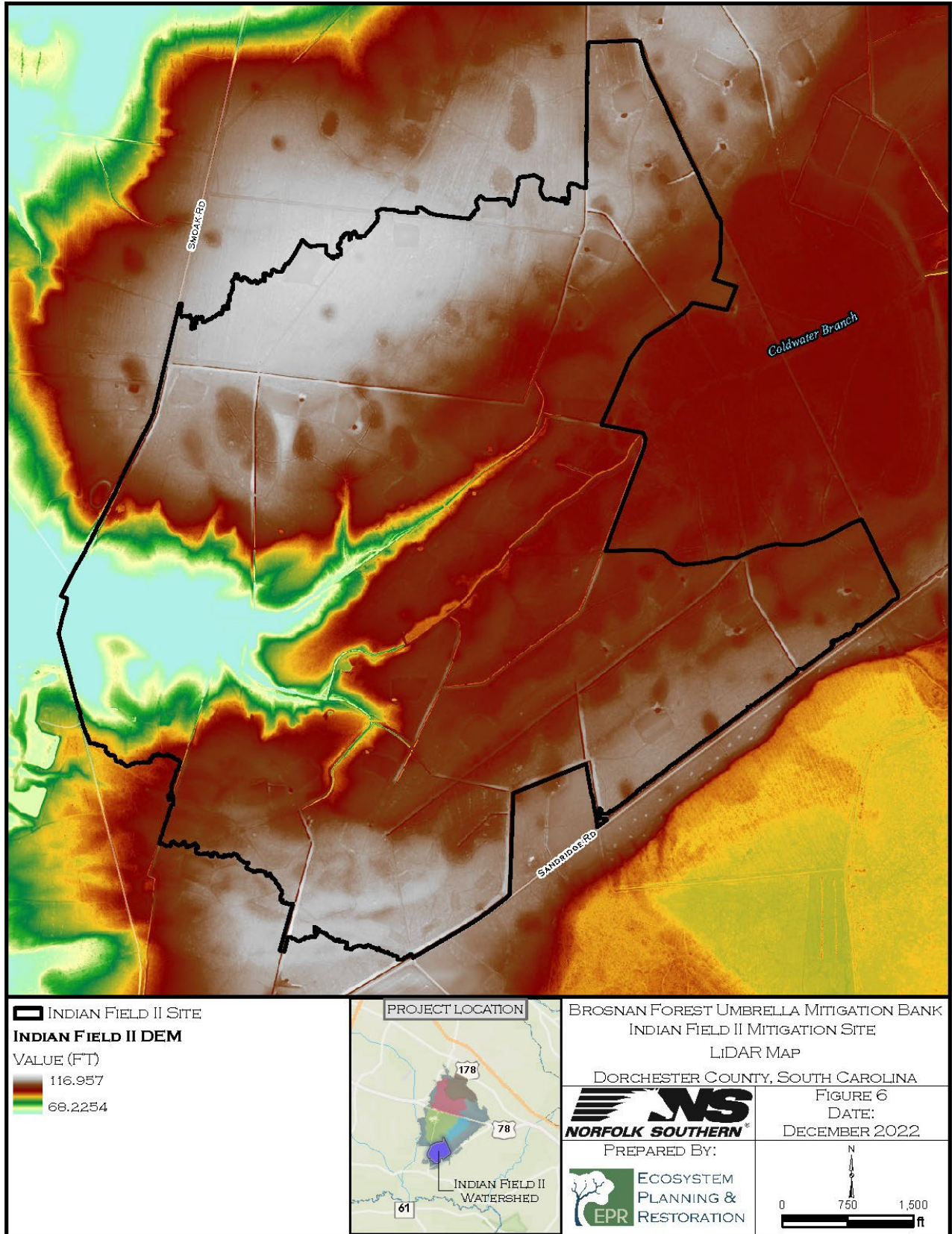


Figure 11. Indian Field II Mitigation Site, LIDAR Map



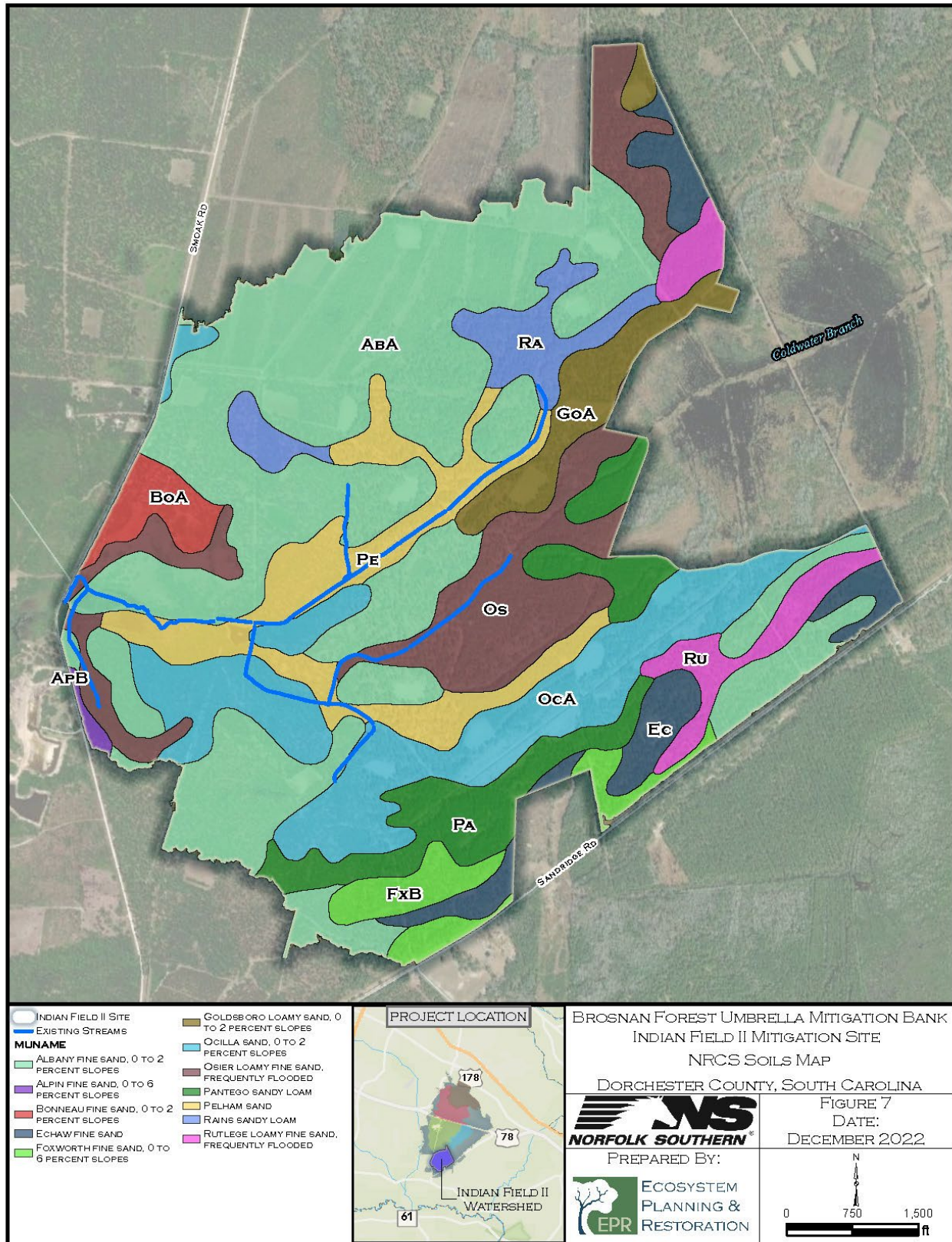


Figure 12. Indian Field II Mitigation Site, NRCS Soils Map



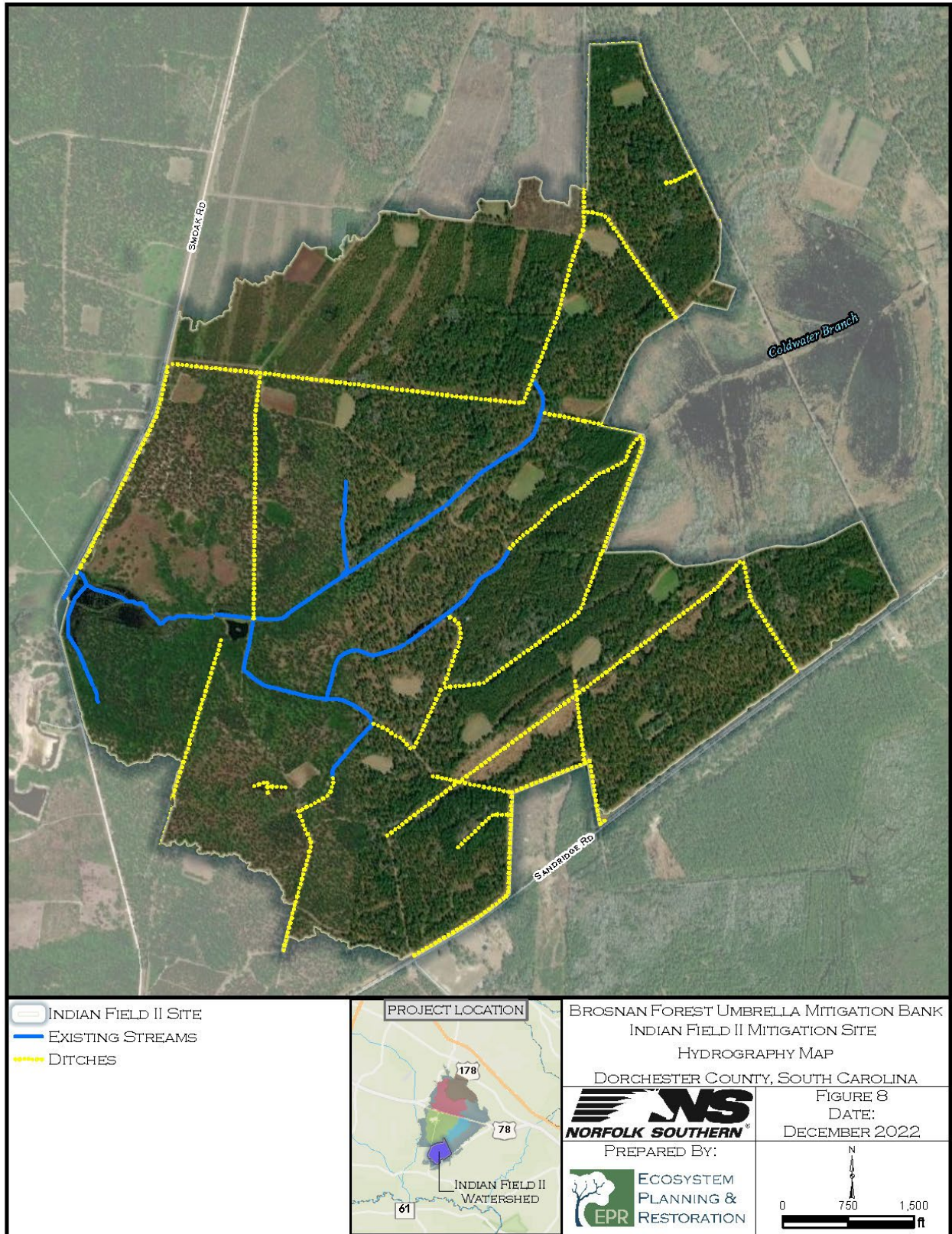


Figure 13. Indian Field II Mitigation Site, Hydrography Map



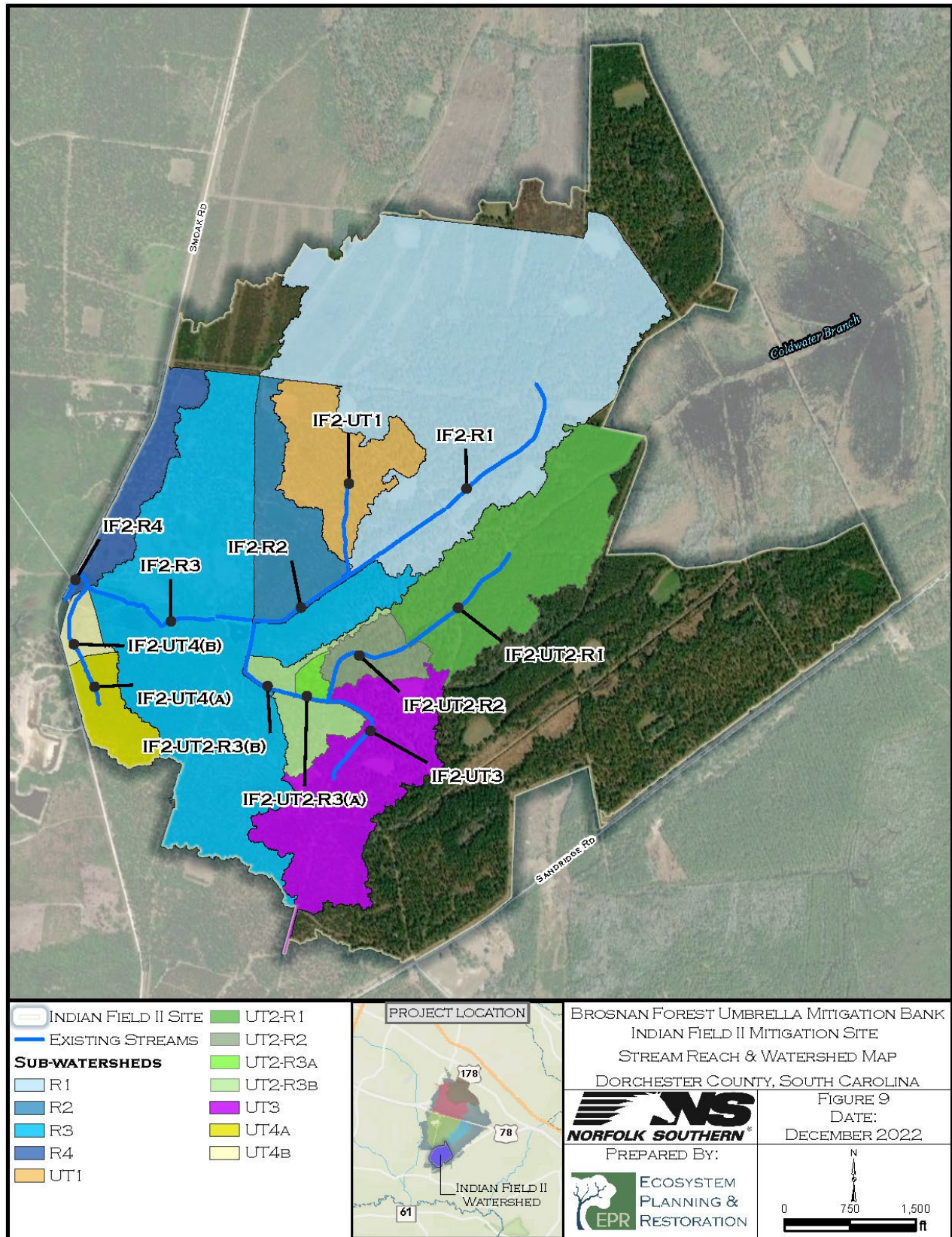


Figure 14. Indian Field II Mitigation Site, Stream Reach & Watershed Map



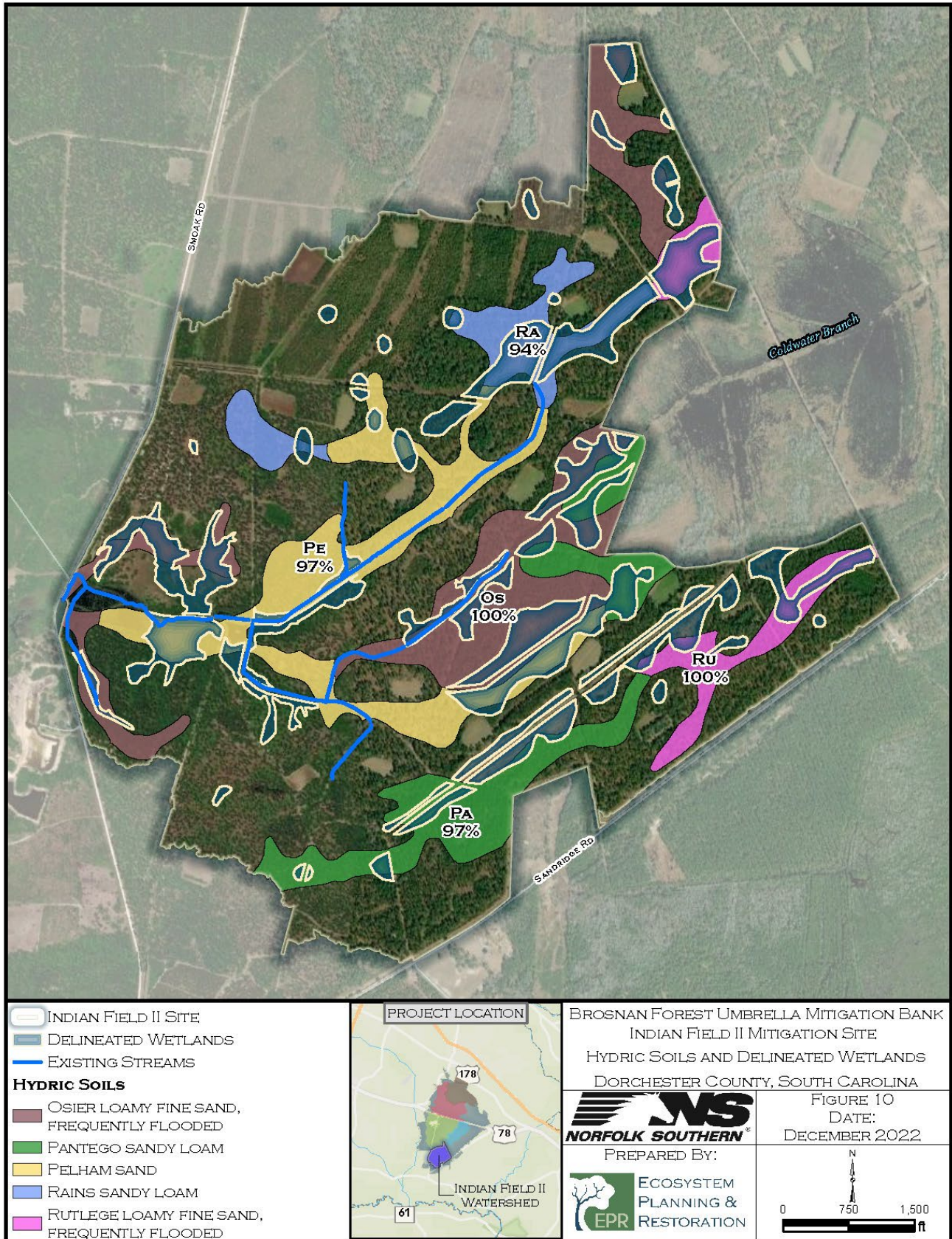


Figure 15. Indian Field II Mitigation Site, Hydric Soils and Delineated Wetlands Map



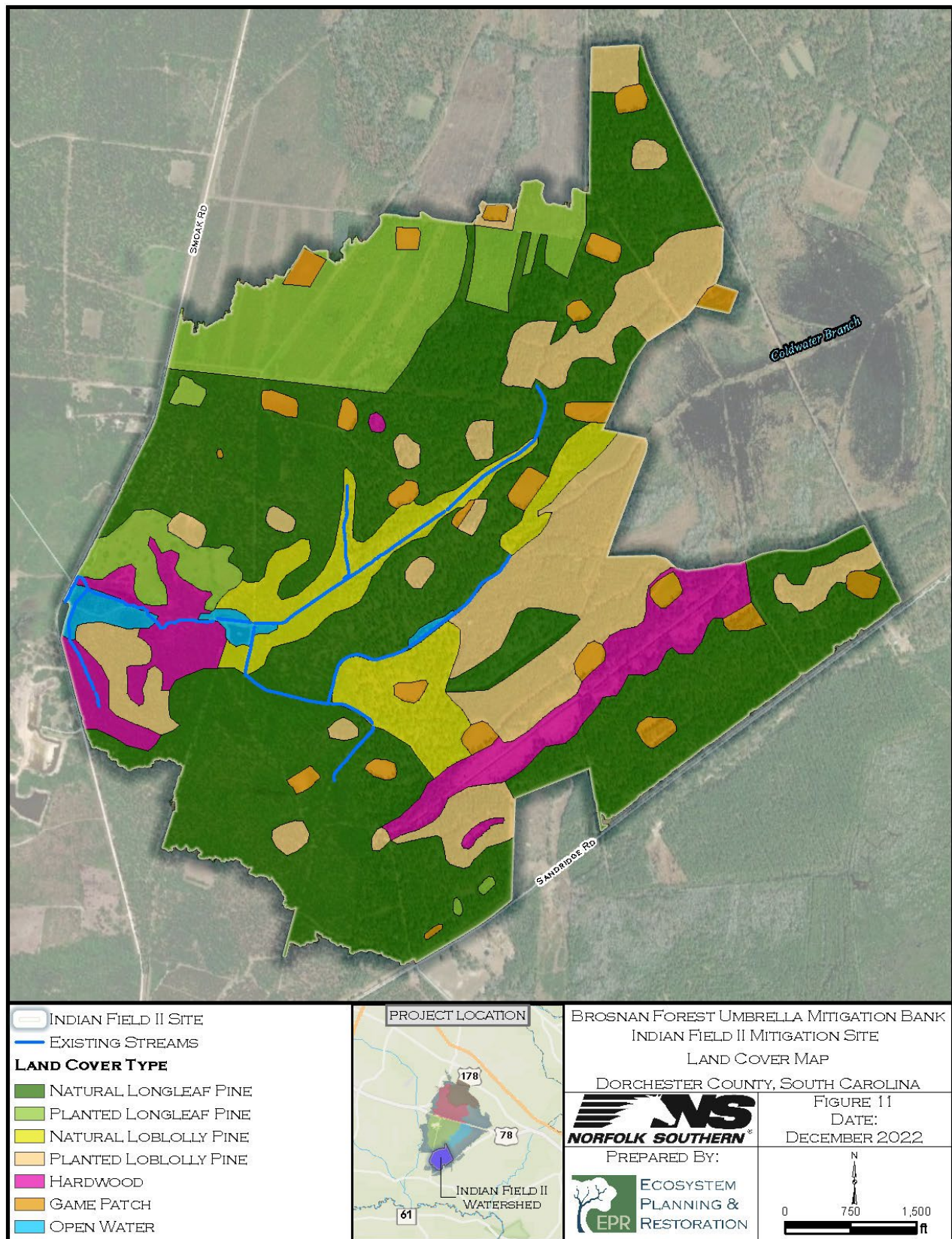


Figure 16. Indian Field II Mitigation Site, Land Cover Map



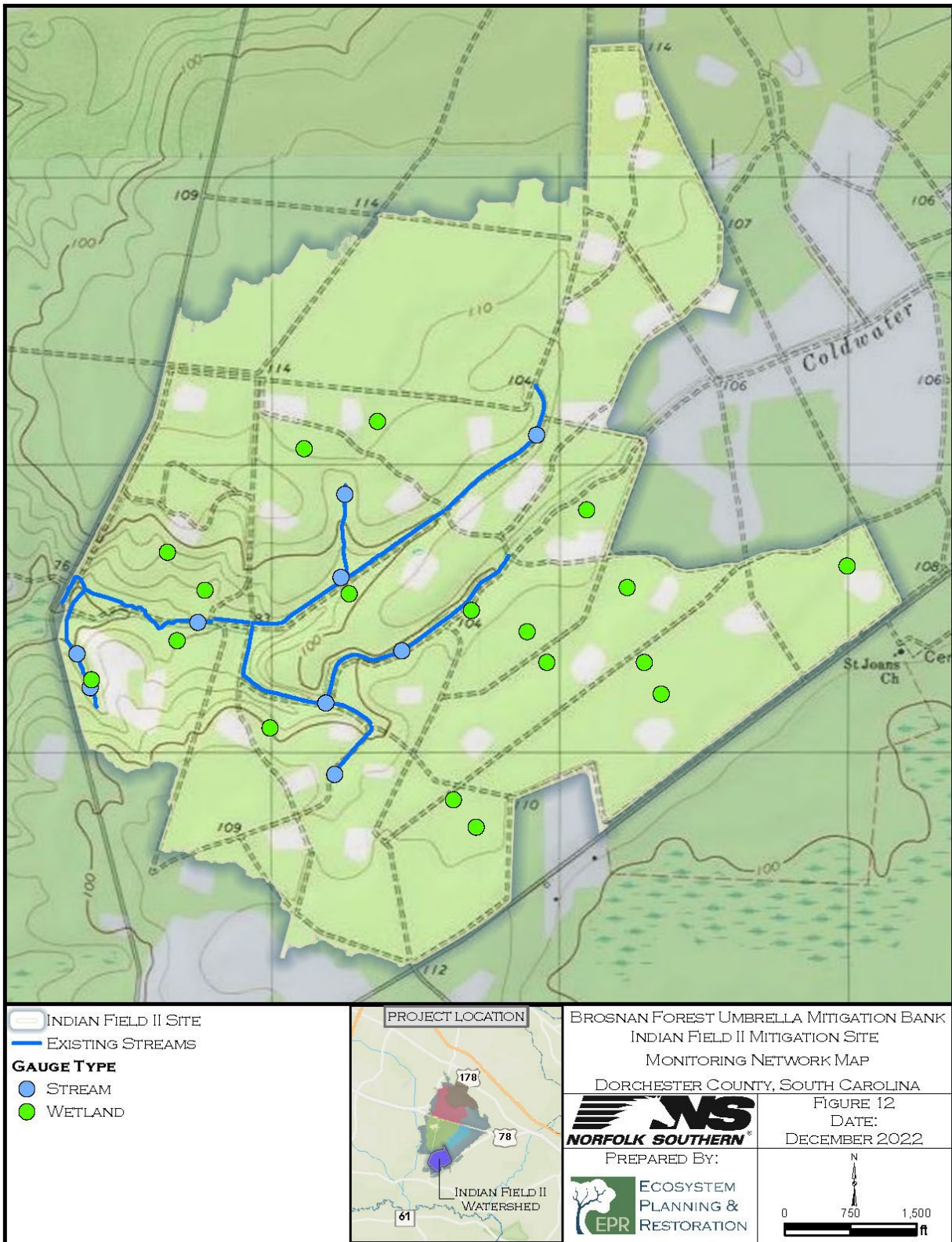


Figure 17. Indian Field II Mitigation Site, Monitoring Network Map