

11-0720

# THE JOHN R. McADAMS COMPANY, INC.

## LETTER OF TRANSMITTAL

To: Ms. Katie Merritt  
NCDENR-DWQ  
512 N. Salisbury Street  
Raleigh, NC 27603

Date: October 17, 2012

**\*\* FEDERAL EXPRESS \*\***

Re: Hatley Bank Site

Job No.: EBX-12010

I am sending you the following item(s):

COPIES	DATE	NO.	DESCRIPTION
1			Bank Parcel Development Package
1			11 x 17 of Figure 2
1			Response to Comment Letter

These are transmitted as checked below:

☐ As requested

☐ For your use

☒ For approval

☐ \_\_\_\_\_

☐ For review and comment

☐ \_\_\_\_\_

Remarks: On behalf of the Environmental Banc & Exchange, LLC (EBX), EcoEngineering is submitting 1  
hardcopies of the Hatley Site Bank Parcel Development Package

Copy to: \_\_\_\_\_  
\_\_\_\_\_

Signed: *Brandon R. Finch*  
Brandon R. Finch, PE  
Senior Project Manager

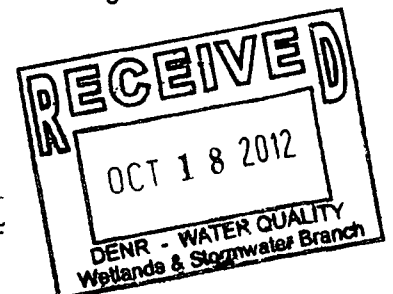
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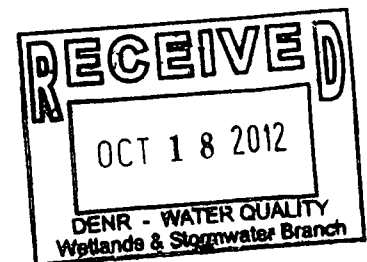
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## **1.0 Project Location and Description**

Located at 888 John Rogers Road, in Hurdle Mills, North Carolina, is the proposed Neuse buffer and nutrient offset mitigation site currently known as the Hatley Bank Site (Site). The Site is located in the Flat River Township in the south central section of Person County, North Carolina, approximately 8.6 miles southwest of the City of Roxboro, North Carolina, and approximately 14 miles northeast of the Town of Hillsborough (**Figure 1**). More specifically, the Site is located at the southwest corner of the intersection of John Rogers Road and Terry Road and approximately 0.15 miles west of the intersection of John Rogers Road and Berry Pearce Road.

The land containing the Site is comprised of 3 parcels (Person County PIN Numbers: 9991-01-45-4653, 9991-02-66-2192, and 9991-02-55-8873) that total approximately 179 acres (Latitude: 36.265927°, Longitude: -79.020285°). A conservation easement will protect the Site and will be approximately 20.27 acres in size. The Site will be developed in two (2) phases: Phase 1 and Phase 2 (**Figure 2**). Phase 1 consist of  $\pm$  3.97 acres and is located on the northwestern portion of the site. Phase 2 consists of  $\pm$  16.30 acres and is located along the western, southern, and eastern portions of the site. Within the conservation easement, existing riparian areas will be restored and enhanced to generate both Neuse buffer and nutrient offset (nitrogen and phosphorus) credits (**Figure 2**). Please refer to **Table 3**, below, for additional information regarding buffer restoration, buffer enhancement, and nutrient offset credits proposed within this Site.

The Site is located within the Upper Falls Lake watershed in the Neuse River Basin (8-digit USGS HUC 03020201, 12-digit USGS HUC 030202010102), more specifically within Neuse Sub-basin 03-04-01. Stormwater runoff from this site drains into South Flat River (Stream Index #27-3-3) and into 2 of its unnamed tributaries. According to the N.C. Division of Water Quality Basinwide Information Management System (BIMS), South Flat River is classified as Water Supply III (WS-III) and NSW (Nutrient Sensitive Waters). The WS-III classification is for *"waters used as sources of water supply for drinking, culinary, or food processing purposes where a more protective WS-I or II classification is not feasible"* and the NSW designation is a *"supplemental classification intended for waters needing additional nutrient management due to being subject to excessive growth of microscopic or macroscopic vegetation."* The purpose of this Site is to improve water quality within the Neuse River Basin, specifically the Falls Lake watershed, by providing off-site mitigation for development (both existing and proposed) requiring stream buffer mitigation and nutrient offset credits. The proposed Site Service Area is shown in **Figure 3**.

This Site will be established under the terms and conditions of the EBX Upper Neuse Riparian Buffer and Nutrient Offset Umbrella Mitigation Bank (Bank), signed on February 10, 2012, made and entered into by Environmental Banc and Exchange, LLC (EBX), acting as the Bank Sponsor (Sponsor), and the North Carolina Department of Environment and Natural Resources - Division of Water Quality (DWQ).

## **2.0 Project Area - Existing Conditions**

### **2.1 Geologic & Soil Characteristics**

Based upon review of the United States Geological Survey (USGS) Hurdle Mills, North Carolina Quadrangle, the Site contains low to moderate relief with elevations ranging from  $\pm$  520 feet to  $\pm$  550 feet. The Site has a topographic gradient that generally slopes south towards the South Flat River. Surface drainage is generally directed into the South Flat River and into 2 of its unnamed tributaries (**Figure 4**).

The Site is located within the Piedmont Physiographic Province of North Carolina, and more specifically within the Carolina Slate Belt Ecoregion. A review of "Ecoregions of North





Carolina and South Carolina” (Griffith et al., 2002) shows the physiography in the area is comprised of dissected irregular plains, some hills, linear ridges, and isolated monadocks with low to moderate gradient streams. The geology in the area is comprised of quaternary to tertiary silty to clayey saprolite, Precambrian to Cambrian felsic to mafic metavolcanic rock, metamudstone, and granite.

The Soil Survey of Person County, North Carolina (Soil Conservation Service, 1995) lists the soils within the Site as from the Cecil Association. As stated in the soil survey, these soils can be generally classified as gently sloping or moderately sloping well drained soils that have a loamy surface layer and a clayey subsoil. As described by the online USDA NRCS Official Soil Series Descriptions (OSD), the specific soils within the Site are shown on **Figure 5** and are listed, below, in **Table 1**:

**Table 1: Mapped Soils within the Site**

Soil Type	Hydrologic Soil Group	General Description
Georgeville loam, 6 to 10% slopes (GeC)	HSG B	This very deep, well drained soil has moderate permeability and has a seasonal high water table that is more than 6 feet below the surface.
Wickham sandy loam, 6 to 10% slopes (WeC)	HSG B	This very deep, well drained soil has moderate permeability and has a seasonal high water table that is more than 6 feet below the surface. The soil is gently sloping with a medium surface runoff rate.

## 2.2 Vegetative Communities

Distribution and composition of plant communities throughout the Site reflect landscape-level variations in topography, soils, hydrology, and past and present land use practices. At the time of field investigations by EcoEngineering, the majority of the land within the Site was being used for tobacco production and natural forested areas were limited. In addition, on the western portions for Site, there are a number of existing buildings and lagoons that were used approximately 10-12 years ago (per conversations with the current land owner) as part of a hog farm operation. Therefore, the existing conditions of the Site can be characterized as a maintained/disturbed land.

Field investigations were conducted by EcoEngineering to assess vegetative assemblages within forested areas of adjacent properties located to the south, east, and north of the Site. This exercise was conducted to interpret potential vegetative conditions for the Site. According to the North Carolina Natural Heritage Program (NCNHP) classification system (Schafale and Weakley, 1990), the assessed forested areas would generally be characterized as a Dry Mesic Oak-Hickory Forest. Tree species on the adjacent property include various oak species (*Quercus* spp.), American beech (*Fagus grandifolia*), tulip poplar (*Liriodendron tulipifera*), various hickory species (*Carya* spp.), loblolly pine (*Pinus taeda*), red maple (*Acer rubrum*), and sweet gum (*Liquidambar styraciflua*). Groundcover and secondary canopy layer species consist of common greenbrier (*Smilax rotundifolia*), giant cane (*Arundinaria gigantea*), sweet pepperbush (*Clethra alnifolia*), Virginia creeper (*Parthenocissus quinquefolia*), American holly (*Ilex opaca*), red cedar (*Juniperus virginiana*), various viburnum species (*Viburnum* spp.), Christmas fern (*Polystichium acrostichoides*), New York fern (*Thelypteris noveboracensis*), and netted chain fern (*Woodwardia aerolata*).





### 2.3 Threatened and Endangered Species

Some populations of plants and animals are declining because of natural forces or their inability to coexist with human activity. Plants and animals with Threatened or Endangered status are protected under the Endangered Species Act (ESA) of 1973 (16 US 1531 et seq.). According to the U.S. Fish and Wildlife Service (USFWS) web page (<http://www.fws.gov/nc-es/es/countyfr.html>); accessed May 4, 2012) there is one (1) endangered species ((dwarf wedgemussel (*Alasmidonta varicosa*)) and nine (9) federal species of concern ((Carolina darter (*Ethrostoma collis lepidinion*), pinewoods shiner (*Lythrurus matutinus*), Roanoke bass (*Ambloplites cavifrons*), Atlantic pigtoe (*Fusconaia masoni*), green floater (*Lasmigona subviridis*), yellow lampmussel (*Lampsilis cariosa*), prairie birdsfoot-trefoil (*Lotus unifoliolatus* var. *helleri*), sweet pinesap (*Monotropsis odorata*), and Virginia quillwort (*Isoetes virginica*)).

EcoEngineering conducted field surveys on April 30, 2012 by walking transects within the proposed Site parcel area to determine the presence of federally Threatened or Endangered species. There were no federally Threatened or Endangered species observed during the field surveys and the work inherent in restoring stream and riparian buffers does not result in habitat destruction or modification for the above listed species. Therefore, it is reasonable to conclude the proposed work will have no effect on Threatened and Endangered species.

### 2.4 Cultural Resources

A review of the N.C. State Historic Preservation Office (SHPO) HPOWEB GIS Service database (<http://gis.ncdcr.gov/hpoweb/>; accessed May 4, 2012) was also conducted as part of site due diligence. According to the website, HPOWEB “has current location data for all National Register listings, most Study List entries and Determinations of Eligibility, and surveyed rural properties for many counties”. Based on the review, no listings are located within the proposed Site parcel. The Truss Bridge #35 (PR0290) listed as Determined Eligible for the National Registry is located approximately 0.3 miles southeast of the Site. Since there are no database entries on the Site, it is reasonable to conclude the proposed restoration project will not have an adverse impact with regards to this issue.

### 2.5 Environmental Issues

Preliminary data was obtained from Environmental Data Resources, Inc. (EDR) regarding the potential for on-site or nearby sources of contamination. EDR maintains an updated database of current and historical sources of contamination. All storage tanks, whether above-ground or underground are identified, as well as superfund sites, landfills, hazardous waste sites, and other potential hazards. According to EDR records, the Site is not listed in any of the databases searched by EDR. In addition, there are no federal or state records within the required search distances of the Site.

As mentioned above in Section 2.2, there are a number of existing buildings and lagoons on the western portion of this Site that were used in hog farm operations approximately 10-12 years ago. Based on correspondence with DWQ and a field meeting with representatives from DWQ and NRCS on October 10, 2012, there is still an active NPDES permit associated with the historical hog farm operation. Therefore, prior to implementation of the proposed restoration plan in these areas (i.e. Phase 2), the existing lagoons and NPDES permit will need to be properly closed out (i.e. lagoons removed) with DWQ and NRCS. Proper close-out of these facilities is not expected to cause any significant environmental damage.





## **2.6 FEMA Floodplain / Floodway Mapping**

As shown in **Figure 6**, areas along the western, southern, and eastern section of the Site area located within the Federal Emergency Management Association's (FEMA's) designated floodplain associated with the South Flat River, but outside of the mapped floodway. Prior to implementing the restoration plan within the proposed Site, the Bank Sponsor will coordinate with the local community official responsible for development within the floodplain to ensure all local floodplain development ordinances have been met. A floodplain development permit (if required) will be obtained by the Bank Sponsor prior to implementation of the restoration plan.

## **3.0 Proposed Neuse Buffer & Nutrient Offset Restoration Plan**

Maintained/disturbed lands located outside forested areas within the Site will be considered for Neuse buffer restoration/enhancement for areas less than or equal to 50 feet of the stream bank and nutrient offset restoration for areas located greater than 50 feet but less than or equal to 200 feet from the stream bank. These areas will be ripped and scarified prior to vegetation planting activities. The established microtopography on leveled surfaces will promote diffuse flow and surface water storage. In addition, subsurface hardpans will be eliminated to promote vegetation growth/survival and to increase groundwater recharge rates. Existing grasses may be treated with herbicide to reduce competition with planted species. Where necessary, invasive species will also be treated with herbicide to ensure they do not become dominant, or hinder the establishment, growth and survival of planted vegetation. It is important to note the Bank Sponsor may elect to use the initial 50 feet on each side of the stream bank as either Neuse buffer or nutrient offset restoration, but not both.

As mentioned in Section 2.2, natural forested areas are limited within many areas of the Site. These forested areas have been selectively timbered with much of the secondary understory cleared. Neuse buffer enhancement will be considered for those forested areas that are within 50 feet of the stream, but lacking adequate stem counts. Neuse buffer enhancement is defined as the process of converting a sparsely woody vegetated area (greater than or equal to 100 trees per acre but less than 200 trees per acre that are greater than or equal to 5 inches dbh for trees (15A NCAC 02B .0233 (2)(m)) and greater than two feet in height for shrubs) to a forested riparian buffer area (15A NCAC 02B .0242). Nuisance and exotic vegetation are not included in the stem count. The areas proposed for enhancement are shown on **Figure 2**. As noted in 15A NCAC 02B .0242, enhancement areas are credited at a ratio of 3:1 (i.e. for every 3 acres of enhancement, 1 acre of credit is generated). The existing trees and shrubs within the proposed enhancement areas within the Site have been surveyed by EcoEngineering and the tree locations, along with densities, are shown in **Figure 2**.

The proposed riparian planting plan will be developed by integrating native plant species observed within the Site and adjacent property, in addition to selected species known to inhabit a Dry Mesic Oak-Hickory Forest community type as described in Classification of the Natural Communities of North Carolina (Schafale and Weakley, 1990) and procedures outlined in Guidelines for Riparian Buffer Restoration (NCEEP 2004) to institute species diversity. The restored and enhanced riparian zones will be planted with bare root seedlings or containerized material. Bare root seedlings, or containerized material, will be planted during the fall or early spring season. Supplemental planting will be utilized until the required densities have been achieved and maintained for five years.

The planting plan for Neuse buffer and nutrient offset restoration areas will consist of individual tree species as listed in the **Table 2**, below. For those areas, the goal is to plant 436 to 681 trees per acre, with an approximate 8-foot to 10-foot spacing. Plant composition will consist of at a minimum of at least 6 of the tree species. For areas specified as Neuse buffer





enhancement in **Figure 2**, the planting plan will include a minimum of at least two native hardwood trees species. In both instances, restoration and enhancement, planting is required such that a density sufficient to provide an average of 320 trees per acre following five years of successful monitoring at the Site.

**Table 2. Plant List**

Scientific Name	Common Name
<b>Trees</b>	
<i>Fraxinus pennsylvanica</i>	green ash
<i>Platanus occidentalis</i>	sycamore
<i>Quercus pagoda</i>	cherrybark oak
<i>Betula nigra</i>	river birch
<i>Quercus nigra</i>	water oak
<i>Quercus lyrata</i>	overcup oak
<i>Quercus michauxii</i>	swamp chestnut oak
<i>Quercus phellos</i>	willow oak
<i>Quercus laurifolia</i>	laurel oak
<i>Ulmus americana</i>	American Elm
<b>Small Trees</b>	
<i>Cornus florida</i>	flowering dogwood
<i>Cercis Canadensis</i>	eastern redbud
<i>Asimina triloba</i>	pawpaw
<i>Symplocos tinctoria</i>	horse-sugar, sweetleaf
<i>Carpinus caroliniana</i>	ironwood
<i>Magnolia virginiana</i>	sweet bay
<i>Amelanchier arborea</i>	downy serviceberry, shadbush
<i>Juniperus virginiana</i>	eastern red cedar

\* Species composition may be adjusted based on local availability.

Temporary and permanent native herbaceous seed will be applied simultaneously to existing grass areas located outside forested areas within the Site. Temporary seed will provide cover until the permanent seed becomes established. Temporary cover will consist of millet (*Echinochloa crusgalli*), annual rye grain (*Secale cereale*), and crimson clover (*Trifolium incarnatum*). Permanent ground cover will consist of switchgrass (*Panicum virgatum*), deertongue (*Panicum clandestinum*), black-eyed susan (*Rudbeckia hirta*), and riverbank wildrye (*Elymus riparius*).

It is important to note the proposed restoration plan will be implemented in two phases. Phase 1 areas generally consist of all portions of the proposed restoration plan except the areas near the existing hog lagoons described in Section 2.2 and 2.5 on the western side of the Site. Phase 2 activities take place on the areas of the existing hog lagoons. At this time, it is expected that the current property owner will undertake the necessary steps, in coordination with DWQ and NRCS, to properly remove and close-out the existing lagoons. Prior to implementing the proposed restoration plan for Phase 2, EBX will confirm that the proper close out process of the hog lagoons and active NPDES permit has been performed and will provide documentation/confirmation of proper close out to DWQ as part of the future as-built report for Phase 2.

#### **4.0 Monitoring and Maintenance Plan**

As mentioned above, restoration activities proposed at this Site will occur in two phases. Phase 1 is expected to occur in the Fall/ early Winter of 2012, while Phase 2 will not occur until after the existing hog lagoon issue has been properly closed out, which has not yet been determined. Each





phase will be monitored for 5 consecutive years after completion/approval of the as-built report for each phase or until the required success criteria has been met as determined by DWQ. Monitoring activities will begin immediately following the completion of planting of each phase in order to alleviate any potential problems as they occur. If necessary, supplemental planting and additional site modifications will be implemented. For Phase 1, the riparian restoration/enhancement will be monitored the following growing season, projected to be in the late summer and early fall (September-October) of 2013. First monitoring data will not be measured less than 5 months after completion of initial planting. DWQ will be notified when planting is to occur within each phase of the Site. A monitoring report will be submitted annually to DWQ no later than December 31 of each monitoring year describing the conditions of the Site and relating those conditions to the success criteria. Monitoring activities will follow the terms and conditions of the EBX Upper Neuse Riparian Buffer and Nutrient Offset Umbrella Mitigation Bank made and entered into by EBX, acting as the Bank Sponsor, and the DWQ.

The Site will contain 5 vegetative monitoring plots, which will be monitored in general accordance with the CVS-EEP Protocol for Recording Vegetation (CVS-EEP, v4.2). 10 by ten 10 meter square plots will be permanently established following completion of the planting phase and at least two opposing corners will be permanently installed and surveyed for future use. The plant species, density, survival rates, and the cause of mortality, if identifiable, will be recorded within each plot. Vegetation plots will be sampled and reported annually. The primary focus of the vegetative monitoring will be solely on the tree stratum, although shrub and herbaceous species encountered may also be recorded.

Within Neuse buffer and nutrient offset restoration areas, success criteria will be based on the survival of a minimum density of 320 planted trees per acre after five years of monitoring. Within Neuse buffer enhancement areas, success criteria will be based on a minimum of at least two tree species at an average density of 320 planted trees per acre following five years of monitoring. Vegetation monitoring will occur between late summer and early fall (September-October). A determination will be made regarding the success of the project following the collection and evaluation of ecological and physical monitoring data, photographs, and site observations.

## **5.0 Financial Assurance**

EBX agrees to provide financial assurances for this Site in accordance with the terms and conditions of the EBX Upper Neuse Riparian Buffer and Nutrient Offset Umbrella Mitigation Bank made and entered into by EBX, acting as the Bank Sponsor, and the DWQ.

Following approval of the Bank Parcel Development Package (BPDP), the Bank Sponsor will provide a Performance Bond from a surety company that is rated no less than an "A-" rated by A.M. Best. The Performance Bond amount will be 100% of the estimated cost for implementation of the buffer restoration project as described in the approved BPDP, but not less than \$150,000.00. Alternatively, in lieu of posting the Performance Bond, the Bank Sponsor may elect to construct the project prior to the first credit release. After completion of the restoration/construction, a separate Performance/Maintenance Bond will be secured for 100% of the estimated cost to implement the monitoring and maintenance plan not less than \$100,000.00. The Performance/Maintenance Bond will be in effect for a minimum of five years, and until DWQ has released all mitigation credits to the Bank Sponsor. Upon DWQ approval, this may be lowered each year based on the adjusted cost to complete the monitoring.

## **6.0 Neuse Buffer & Nutrient Offset Mitigation Potential**

The Hatley Site will provide Neuse buffer mitigation credits for development impacts within the Neuse River Basin. Additionally, it will provide nutrient offset mitigation credits for





development impacts within the Falls Lake Watershed of the Neuse River Basin, HUC 03020201 (**Figure 3**). Nutrient offset credits from this site can be used towards development in both the Lower and Upper Falls Lake sub-watersheds. The 20.27 acres conservation easement (**Figure 2**) will be dedicated to Neuse buffer restoration/enhancement and nutrient offset restoration. Including areas in both Phase 1 and Phase 2, a Neuse buffer restoration area of 7.94 acres (346,246 sf) will be used to generate 7.94 acres (346,246 sf) of Neuse buffer credits. A Neuse buffer enhancement area of 1.75 acres (76,066 sf) will be used to generate 0.58 acres (25,355 sf) (enhancement area divide by 3) of Neuse buffer credits. Therefore, a total of 8.52 acres (371,601 sf) of Neuse buffer credit will be generated on the Site. The remaining 9.78 acres of riparian restoration area within the Site (i.e. areas outside of the Neuse buffer) will provide nutrient offset credits for nitrogen and phosphorus. The Site (Phases 1 and 2) will provide 22,230.14 pounds of Nitrogen Nutrient Offset credit and 1,431.79 pounds of Phosphorous Nutrient Offset credit. The exact amount of nutrient offset mitigation potential (currently based on 2,273.02 lbs of nitrogen/ac and 146.4 lbs of phosphorous/ac of riparian restoration) will be included in the As-Built Report and on the corresponding Bank Ledger.

**Table 3**, below, provides a summary of mitigation credit for the Site.

**Table 3: Mitigation Credit Summary**

<b>NEUSE BUFFER RESTORATION/ENHANCEMENT</b>			
<b>Conservation Area</b>	<b>Stem Counts / Density #/(trees / acre)</b>	<b>Neuse River Buffer (Acres/SF)</b>	
		<b>Restoration</b>	<b>Enhancement</b>
1 – Phase 2	46 (33 trees/acre)	1.39 ac. (60,763 sf)	
2 – Phase 1	Restoration = 171 (57 trees/acre) Enhancement = 316 (181 trees/acre)	3.01 ac. (131,283 sf)	1.75 ac. (76,066 sf)
3 – Phase 1	78 (28 trees / acre)	2.76 ac. (120,114 sf)	
4 – Phase 1	42 (54 trees/acre)	0.78 ac. (34,086 sf)	
<b>TOTAL ACERAGE</b>		7.94 ac. (346,246 sf)	
<b>RATIO</b>		1:1	3:1
<b>TOTAL CREDITS</b>		7.94 ac. (346,246 sf)	0.58 ac. (25,355 sf)
<b>NUTRIENT OFFSET RESTORATION</b>			
<b>Conservation Area</b>	<b>Nutrient Offset Restoration (Acres)</b>	<b>Nitrogen Credit (2,273.02 lbs/ac)</b>	<b>Phosphorus Credit (146.4 lbs/ac)</b>
1 – Phase 2	2.40	5,455.25	351.36
2 – Phase 1	3.12	7,091.82	456.77
3 – Phase 1	2.60	5,909.85	380.64
4 – Phase 1	1.66	3,773.21	243.02
<b>TOTAL</b>	9.78	22,230.14	1,431.79



## **7.0 References**

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United States Geological Survey, 7.5 Minute, Topographic Map of the Grissom, North Carolina Quadrangle, 1987.

United States Fish and Wildlife Service. *Endangered Species, Threatened Species, Federal Species of Concern, and Candidate Species, Person County, North Carolina*. Updated September 22, 2012. Available at internet site: <http://www.fws.gov/nc-es/es/countyfr.html>. Accessed May 4, 2012.

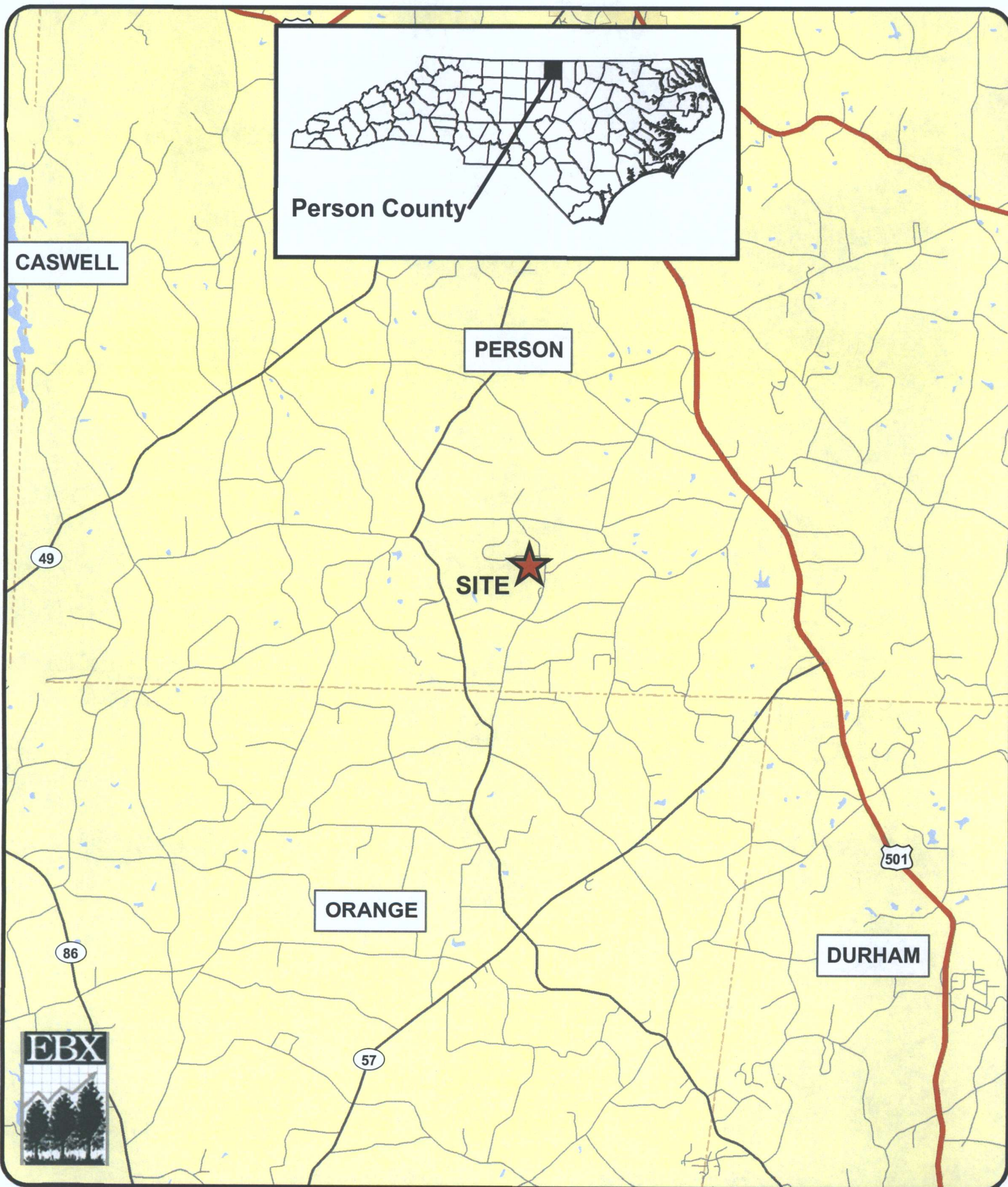




## **APPENDIX A**

### Site Maps





**HATLEY BANK SITE  
VICINITY MAP**

0 5,000 10,000 20,000  
Feet

1 inch = 10,000 feet

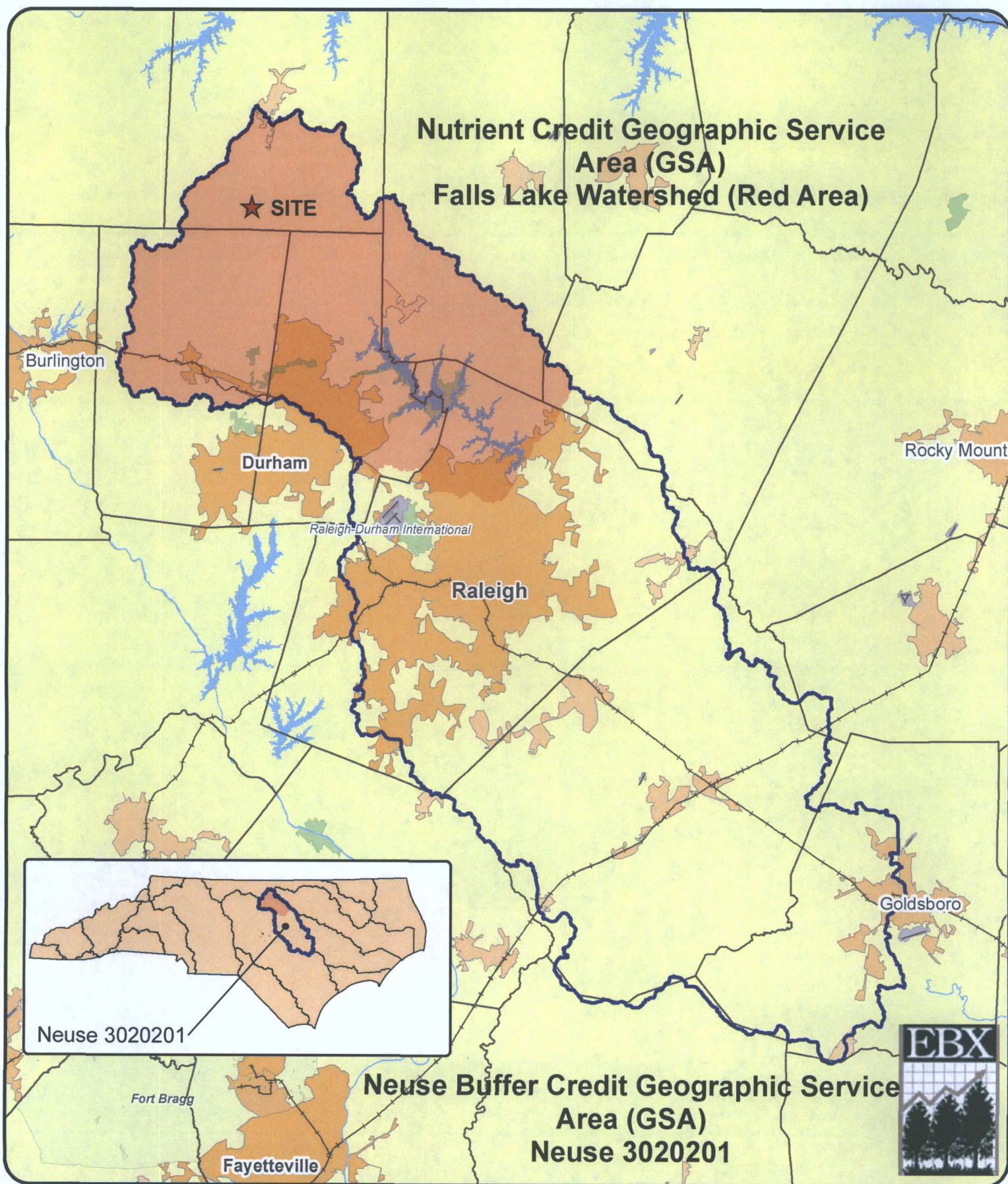


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**Figure 1**





**HATLEY BANK SITE  
 GEOGRAPHIC SERVICE AREA (GSA)**

0 30,000 60,000 120,000  
 Feet

1 inch = 60,000 feet

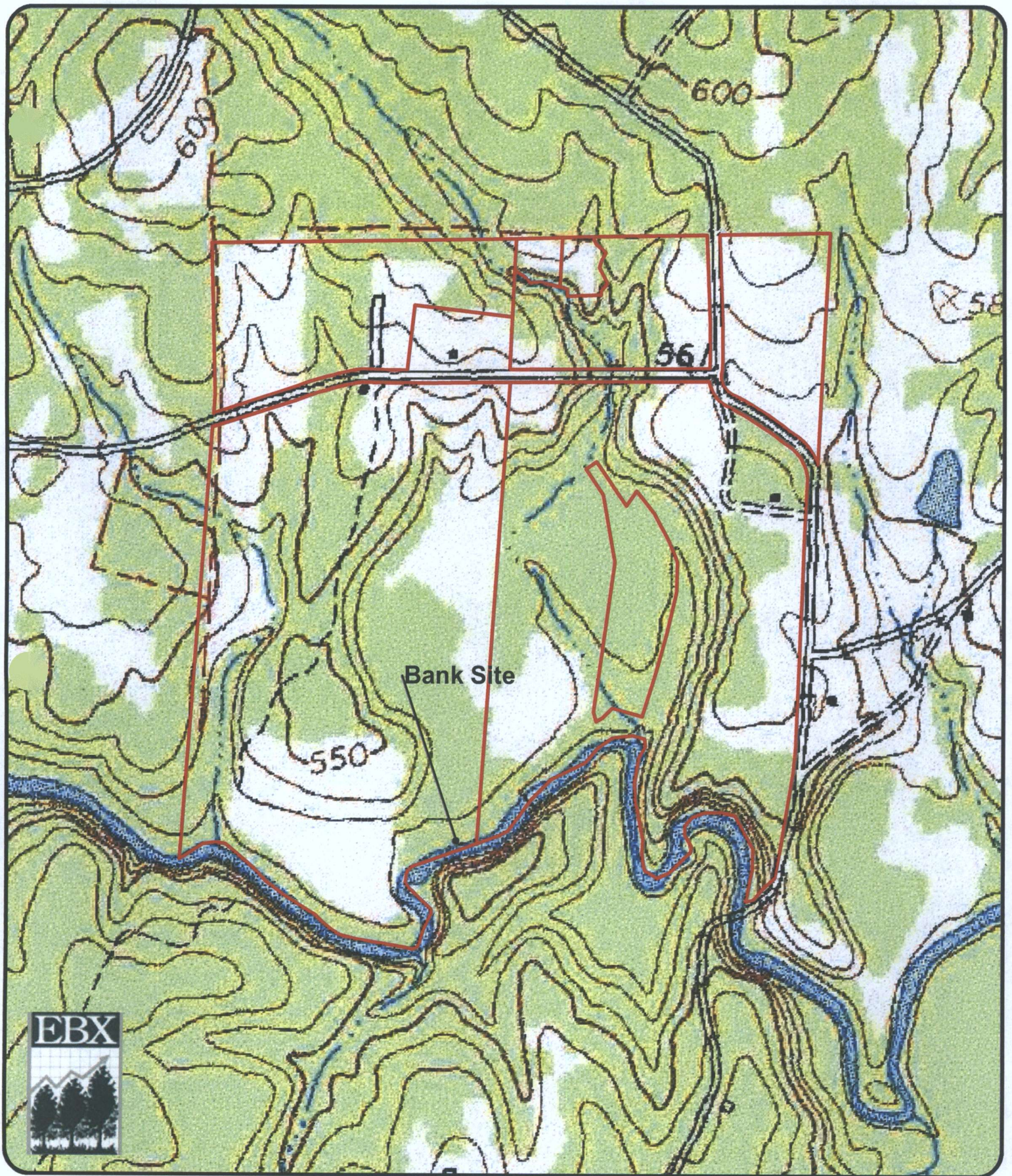


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**Figure 3**





**HATLEY BANK SITE  
USGS SITE MAP**

0 300 600 1,200  
Feet

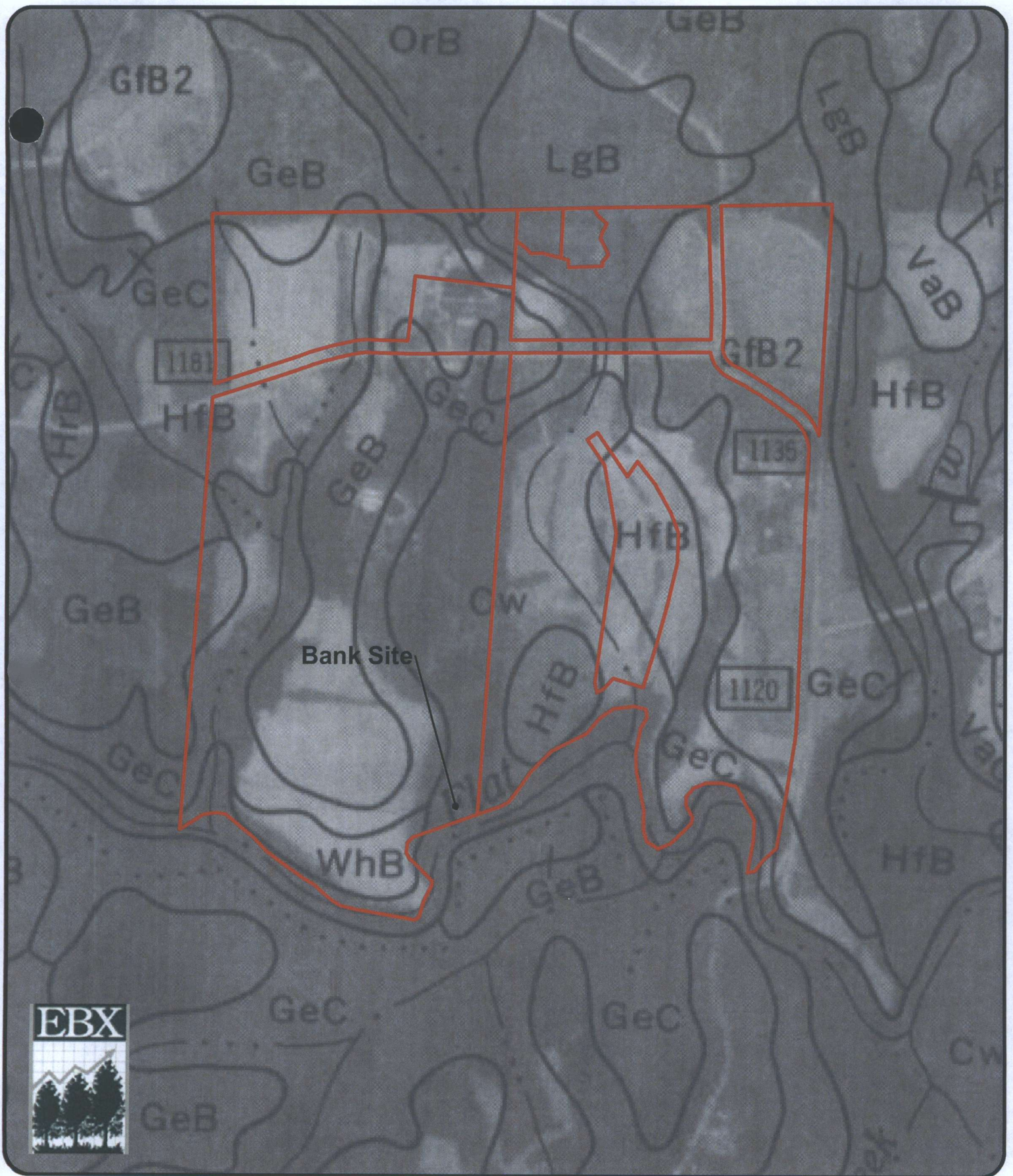
1 inch = 600 feet



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**Figure 4**





**HATLEY BANK SITE  
SOIL SURVEY MAP**

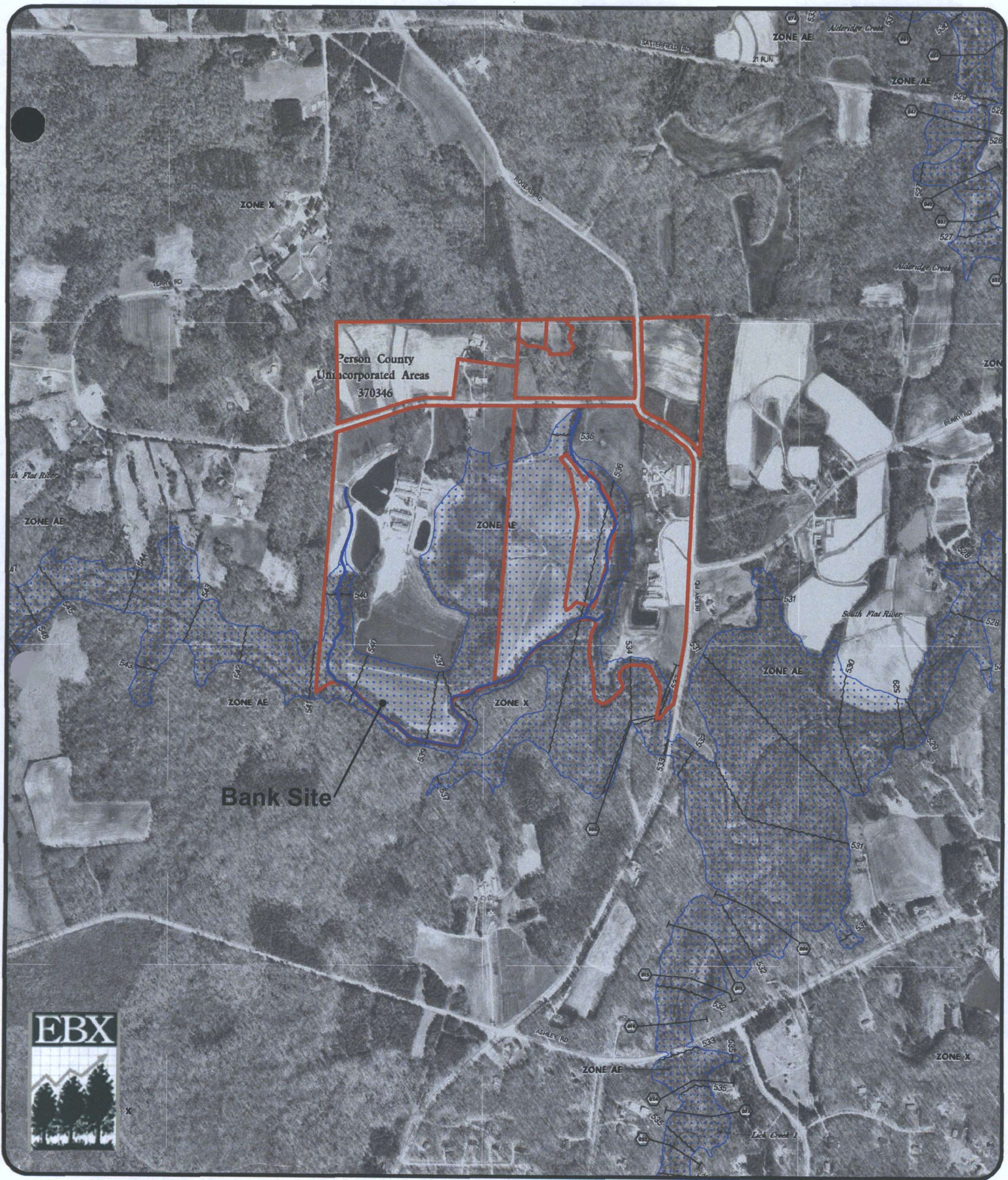
0 300 600 1,200  
Feet  
1 inch = 600 feet



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**Figure 5**





**HATLEY BANK SITE  
FEMA FLOODPLAIN / FLOODWAY MAP**



0 500 1,000 2,000  
Feet

1 inch = 1,000 feet



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**Figure 6**



## **APPENDIX B**

### Site Photographs





Picture 1: Located along the western section of Bank Site facing south.



Picture 2: Located in southern section of Bank Site facing west.







Picture 3: Located in southern section of Bank Site facing northwest..



Picture 4: Located along the eastern section of Bank Site facing south.





## **APPENDIX C**

### DWQ Buffer Determination Letter







North Carolina Department of Environment and Natural Resources  
Division of Water Quality

Beverly Eaves Perdue  
Governor

Charles Wakild PE  
Director

Dee Freeman  
Secretary

June 15, 2012

Tommy Cousins  
EBX  
909 Capability Drive, Suite 3100  
Raleigh, NC 27606

NBRRO#12-101  
Person County

Determination Type:	
Buffer Call	Isolated or EIP Call
<input checked="" type="checkbox"/> Neuse (15A NCAC 2B .0233) <input type="checkbox"/> Tar-Pamlico (15A NCAC 2B .0259) <input type="checkbox"/> Jordan (15A NCAC 2B .0267)	<input type="checkbox"/> Ephemeral/Intermittent/Perennial Determination <input type="checkbox"/> Isolated Wetland Determination

Project Name: Hatley Mitigation Site

Location/Directions:

Subject Stream: UT to Flat River and Flat River

Date of Determination: 6/4/12

Feature	Not Subject	Subject	Start@	Stop@	Soil Survey	USGS Topo
A		X	Throughout		X	X
B		X	Throughout		X	X
C*		X	Throughout		X	X
D (not evaluated)						
E (not evaluated)						

\*Feature C is not depicted correctly on Soil Survey or USGS. Depicted correctly on attached aerial photograph.

Explanation: The feature(s) listed above has or have been located on the Soil Survey of Person County, North Carolina or the most recent copy of the USGS Topographic map at a 1:24,000 scale. Each feature that is checked "Not Subject" has been determined not to be a stream or is not present on the property. Features that are checked "Subject" have been located on the property and possess characteristics that qualify it to be a stream. There may be other streams located on your property that do not show up on the maps referenced above but, still may be considered jurisdictional according to the US Army Corps of Engineers and/or to the Division of Water Quality.

One  
North Carolina  
Naturally



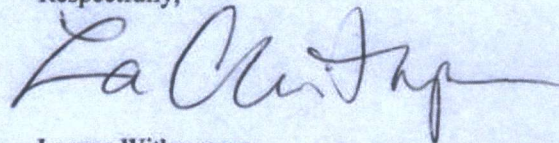
This on-site determination shall expire five (5) years from the date of this letter. Landowners or affected parties that dispute a determination made by the DWQ or Delegated Local Authority may request a determination by the Director. An appeal request must be made within sixty (60) days of date of this letter or from the date the affected party (including downstream and/or adjacent owners) is notified of this letter. A request for a determination by the Director shall be referred to the Director in writing c/o Karen Higgins, DWQ WeBSCaPe Unit, 1650 Mail Service Center, Raleigh, NC 27699.

If you dispute the Director's determination you may file a petition for an administrative hearing. You must file the petition with the Office of Administrative Hearings within sixty (60) days of the receipt of this notice of decision. A petition is considered filed when it is received in the Office of Administrative Hearings during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00 am and 5:00 pm, except for official state holidays. To request a hearing, send the original and one (1) copy of the petition to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. The petition may also be faxed to the attention of the Office of Administrative Hearings at (919) 733-3478, provided the original and one (1) copy of the document is received by the Office of Administrative Hearings within five (5) days following the date of the fax transmission. A copy of the petition must also be served to the Department of Natural Resources, c/o Mary Penny Thompson, General Counsel, 1601 Mail Service Center, Raleigh, NC 27699-1601.

This determination is final and binding unless, as detailed above, you ask for a hearing or appeal within sixty (60) days.

The owner/future owners should notify the Division of Water Quality (including any other Local, State, and Federal Agencies) of this decision concerning any future correspondences regarding the subject property (stated above). This project may require a Section 404/401 Permit for the proposed activity. Any inquiries should be directed to the Division of Water Quality (Central Office) at (919)-733-1786, and the US Army Corp of Engineers (Raleigh Regulatory Field Office) at (919)-554-4884.

Respectfully,



Lauren Witherspoon  
Environmental Senior Specialist

cc: WeBSCaPe – 1650 Mail Service Center  
RRO/SWP File Copy





**HATLEY BANK SITE**  
**OVERALL PROPOSED NEUSE BUFFER &**  
**NUTRIENT OFFSET RESTORATION AREA**

0 300 600 1,200  
Feet

1 inch = 600 feet



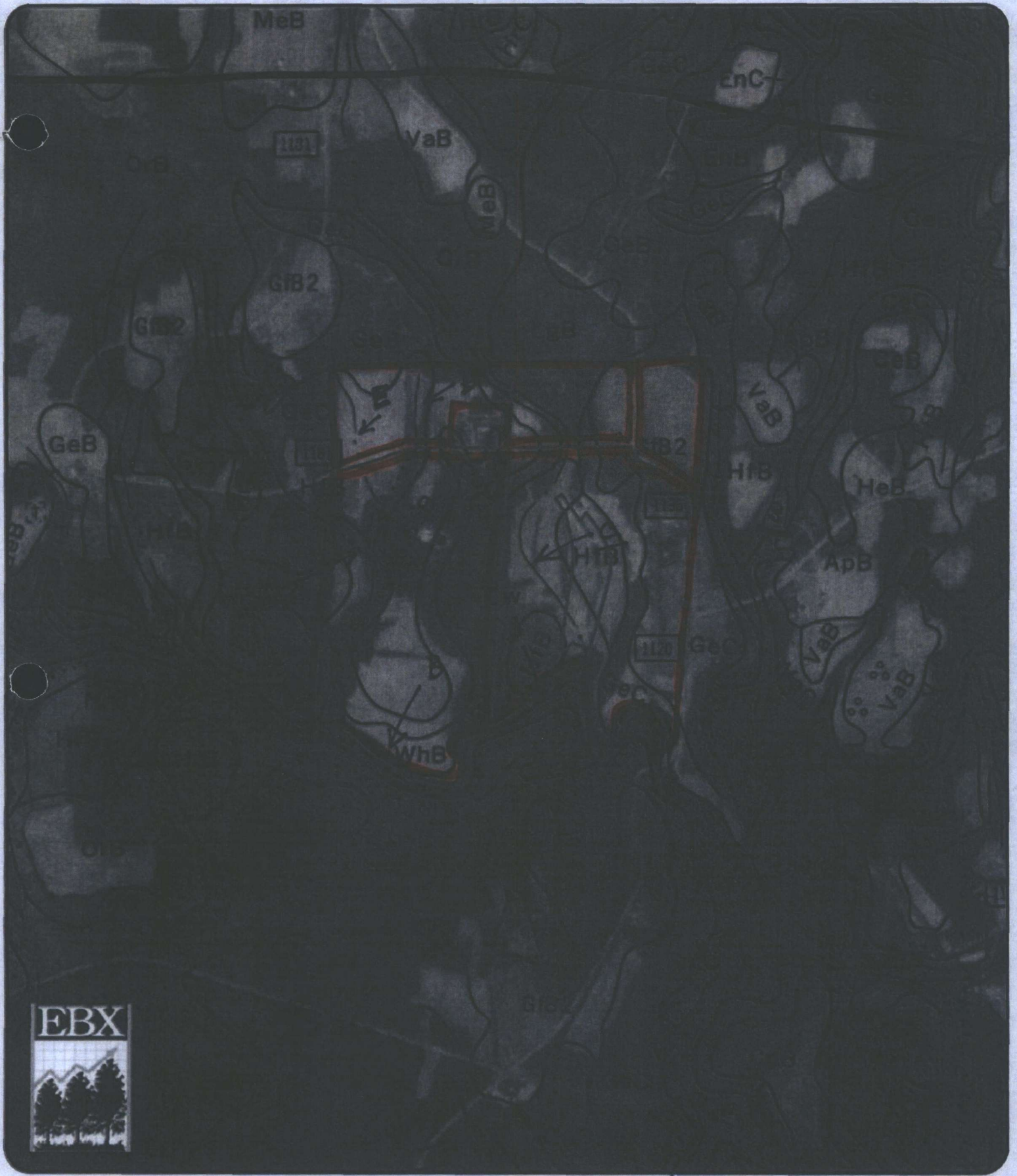
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**Figure 2A**









# HATLEY MITIGATION SITE SOIL SURVEY MAP

0 500 1,000 2,000  
Feet

1 inch = 1,000 feet



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**Figure 5**



