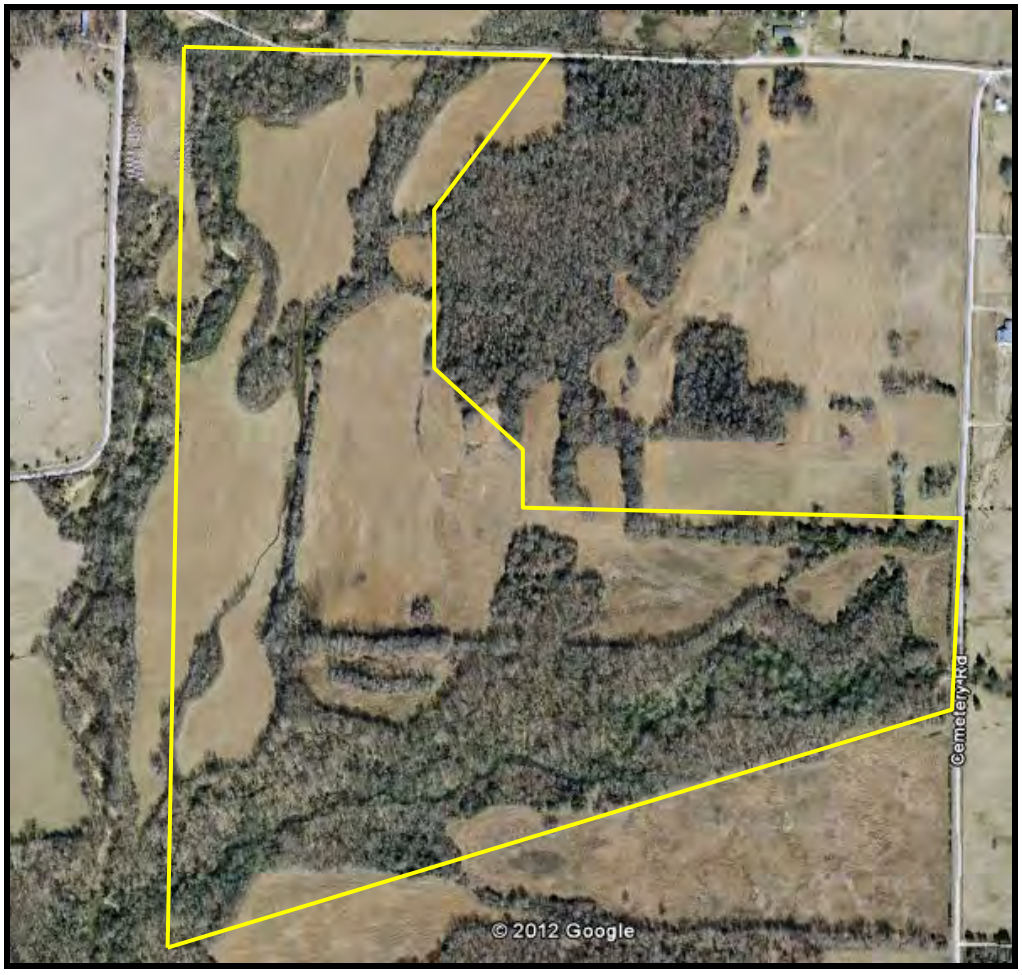
Proposed
Little Creek Mitigation Bank
Prospectus
White County, Arkansas



Prepared By:

Wetland Consultants Unlimited, LLC
3116 Hutcheson Rd. Benton, AR. 72019

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Clint Hutcheson
501-776-7797

WCU

Bill Bailey
501-626-5004

Prospectus
Proposed Little Creek Mitigation Bank
White County, Arkansas

I. Introduction

The objective of this prospectus is the creation of the Little Creek Mitigation Bank (LCMB) on a 95.6-acre site located near Mt Vernon, Arkansas. The proposed mitigation bank is owned by Keathley Farms. The sponsor of the proposed mitigation bank is Keathley Farms with Wetland Consultants Unlimited serving as the consultant. The proposed service areas include all portions of the AR HUC 11110205 and adjacent watersheds. The prospectus will detail the location of the mitigation bank site, provide ecological information for the proposed site and describe the plan to fully develop the site into a functioning and sustainable hardwood ecosystem. This document discusses the ecological suitability of the site to achieve the objective of the proposed mitigation bank, including the physical, chemical and biological characteristics of the site and how the site will support the planned types of aquatic resources and functions. A jurisdictional determination (2011-00706) was performed on the bank site on January 13, 2012.

II. Project Site

The proposed mitigation bank site encompasses a total of 95.6-acres and is located southeast of the town of Mt. Vernon in White County, Arkansas. The proposed mitigation bank is located within the Cadron Watershed (HUC 11110205) (Figure 1). Historically the site contained wooded buffers along the existing and/or former streams with associated wetlands. Due to land clearing for agricultural practices these wooded buffers were removed or reduced. Former stream channels were manipulated or removed during the years of agricultural practices. The remaining riparian buffer along Little Creek and its tributaries were destroyed by a tornado on April 25, 2011. The storm either snapped off or blew down any of the remaining mature hardwood timber along the creek.

This left the property non-traversable, therefore the landowner is cleaning up the storm damage with mechanized equipment.

III. Mitigation Bank Goals and Objectives

The proposed Little Creek Mitigation Bank will encompass a 95.6-acre tract that is currently managed in hay fields. The goal of the LCMB is to re-establish and restore stream/wetland functions and values associated with this type of habitat. The proposed site will serve as a stream and wetland mitigation bank offering for sale mitigation credits as compensation for unavoidable impacts to waters of the United States associated with Department of the Army Section 404 permits and / or USACE Civil Works Projects. Conservation servitude will be executed for the mitigation implemented. Through a contractual agreement with individual permit recipients, Keathley Farms will, for a fee to be paid by permittees, commit to implementing the mitigation specified in USACE permits and incur the responsibility for long-term maintenance, management, protection, and overall success of the site.

Table 1 - LCMB Stream Lengths

Stream	Restore Channel/Riparian Buffer	Re-establish Riparian Buffer
Stream 1		3,333 feet
Stream 1A		2,298 feet
Original Stream 2		2,105 feet
Stream 2	1,871 feet	
Stream 3	847 feet	
Totals	**2,718 feet**	**7,736 feet**

IV. Establishment and Operation

The Sponsor proposes to re-establish and/or restore approximately 41.5-acres of riparian buffer along existing streams, restore 2,718 linear feet of former stream channels with riparian buffers, and restore 5.2-acres of forested wetlands (Figure 3). Re-establishment of the former stream channels will be determined by using historic aerials and quadrangle maps (Figure 4 and 5). Restoration will be accomplished by restoring the appropriate species mixture of bottomland hardwoods during the standard planting season (December – March). Seedlings will be planted on 12x12 spacing, for a standard density of at least 302 seedlings per acre. The species of seedlings planted will consist of: white oak *(Quercus alba),* sycamore *(Platamus occidentalis)*, nuttall oak *(Quercus texana)*, hackberry *(Celtis occidentalis)*, eastern red cedar *(Ligustrum vulgare)*, persimmon *(Diospyrus virginiana)*, green ash *(Fraxinus pennsylvanica)*, and water oak *(Quercus nigra)*.

Wetland restoration will be accomplished by restoring the appropriate species mixture of bottomland hardwoods to the proposed wetland area. The trees will be planted on 12x12 spacing for a standard density of at least 302 seedlings per acre. The hydrology has been manipulated due to agricultural practices. Hydrologic factors will be restored based on historic aerial photography and historic drainage patterns in the wetland area. The species of seedlings planted will consist of: Nuttall oak (*Quercus texana*), water oak (*Quercus nigra*), green ash (*Fraxinus pennsylvanica*), nutmeg hickory (*Carya myristiciformis*), willow oak (*Quercus phellos*), overcup oak (*Quercus lyrata*), and persimmon (*Diospyrus virginiana*).

Stream credits generated by the LCMB will be calculated based on linear feet of stream, riparian buffer establishment, and stream channel restoration. All stream and riparian credits shall be determined by the Little Rock District Stream Method (USACE 2011). Wetland credits generated by LCMB will be calculated using the Charleston Method For Calculating Required Mitigation Credits. The wetland credits generated will be approved by the Little Rock District Corps of Engineers. The Sponsor will obtain all

appropriate environmental documentation, permits, or other authorizations needed to establish and maintain the LCMB.

The Sponsor agrees to perform all necessary work to monitor the LCMB to demonstrate compliance with the criteria established for the bank. The Sponsor will establish both short and long-term monitoring plots when the initial seedling planting occurs. The monitoring reports will be provided to the Little Rock District no later than December 15th following the 1st, 2nd, 3rd, 5th, 8th, and 10th growing seasons. In the event that monitoring reveals that initial planting failed to meet the success criteria of 50% survival rate or 150 trees per acre, the Sponsor will take measures to achieve the criteria the following year.

V. Proposed Service Area

The proposed LCMB is located within United States Geological Survey (USGS) Hydrologic Cataloging Unit 11110205 (Cadron), which includes portions of Cleburne, White, Faulkner, Van Buren and Conway Counties (Figure 1). Hydrologic Cataloging Unit (HUC) 11110205 will serve as the LCMB's primary service area. The Cadron Watershed includes Muddy Bayou-East Fork Cadron Creek, Turkey Creek-East Fork Cadron Creek, Headwaters East Fork Cadron Creek, Clear Creek-East Fork Cadron Creek, Needs Creek-East Fork Cadron Creek and Outlet East Fork Cadron Creek. The bank also satisfies HUC 11110203 (Lake Conway-Point Removed Watershed) and HUC 11110207 (Lower Arkansas-Maumelle Watershed). The LCMB will be used to compensate for unavoidable stream and wetland impacts occurring within the primary basin and surrounding watersheds. However, the Little Rock District in conjunction with the IRT (Inter-Agency Review Team) may, on a case-by-case basis, allow the mitigation bank to be used to compensate for impacts occurring outside the recognized area.

VI. Need and Feasibility of Bank Site

The need for this project is precipitated by the increased industrial development associated with natural gas exploration in the area and the limited mitigation options available, as well as urban growth. Potential clients of the proposed mitigation bank include: Natural Gas Companies utilizing the surrounding areas for gas exploration, cities within the service area, industrial development, residential lot owners with reasonable use exceptions, and private developers.

VII. Ownership and Long-Term Management

Keathley Farms is the owner of the property and will record conservation servitude on the property. The restriction will require that any activity on the property complies with the terms of a mitigation plan or banking instrument. The long-term ownership arrangements for this property will include retention of the property by Keathley Farms and utilization of the property by Keathley Farms as an outdoor recreational property, not to be further developed. To ensure long-term protection of all lands included in the mitigation bank, the Sponsor (Keathley Farms), its heirs or successors, will be responsible for maintaining and protecting lands contained within the restored portions of the LCMB in perpetuity.

VIII. Qualifications of the Sponsor

Wetland Consultants Unlimited LLC. (WCU) is the consultant representing the Sponsor (Keathley Farms) for the Little Creek Mitigation Bank. WCU has conducted preliminary investigations and developed this prospectus in conjunction with the U.S. Army Corps of Engineers (COE). WCU is an environmental consulting firm that has been in business since 2007 and has continuously provided professional service to industry, government agencies, private companies and individuals. WCU has developed on site mitigation plans for private individuals, Waste Management Inc., and multiple

consulting firms. WCU is currently in the process of establishing a wetland and stream mitigation bank in the Vicksburg Corp District.

IX. Ecological Suitability

The proposed mitigation bank site is located in the Arkansas River drainage basin. Utilizing the ecoregions map *Level III Ecoregions of the Conterminous United States* as defined by the United States Environmental Protection Agency, 2004, this site is located in the Arkansas Valley Hills ecoregion (Level IV). The Arkansas Valley Hills ecoregion is more hilly than the Arkansas Valley Plains ecoregion, but less rugged than other adjacent ecoregions (Boston Mountains, Ouachita Mountains, and the Scattered High Ridges and Mountains of the Arkansas Valley). Historically, oak-hickory or oak-hickory-pine forests were prevalent. Today, pastureland is extensive but rugged, wooded areas do exist.

The proposed property is primarily fallow fields that were previously used for agricultural purposes. Historically, wooded buffers existed along the streams identified on the property. The fallow fields are vegetated with herbaceous grasses and emerging tree saplings commonly found in hay pastures.

The wooded buffer that historically existed along Stream 1 and Stream 1A consisted of mature, hardwood timber. On April 25, 2011, the proposed property sustained tornado damage. Due to the severity of the storm damage, the wooded buffers along the streams were destroyed. The mature timber was either snapped off or blown down due to the severe weather.

The Natural Resource Conservation Service (NRCS) has mapped the soils located on the property. There were five mapped soil types identified on the proposed property. The predominate soil type identified on the property is Barling Silt Loam. The second soil type identified is Steprock-Linker Complex. The third soil type identified is Spadra Fine Sandy Loam. The fourth soil type identified is Leadvale Silt Loam, 1-3% slopes. The fifth soil type identified is Taft Silt Loam. Barling Silt Loam is a deep, moderately well drained, level soil that is found in flood plains of small streams. Permeability is

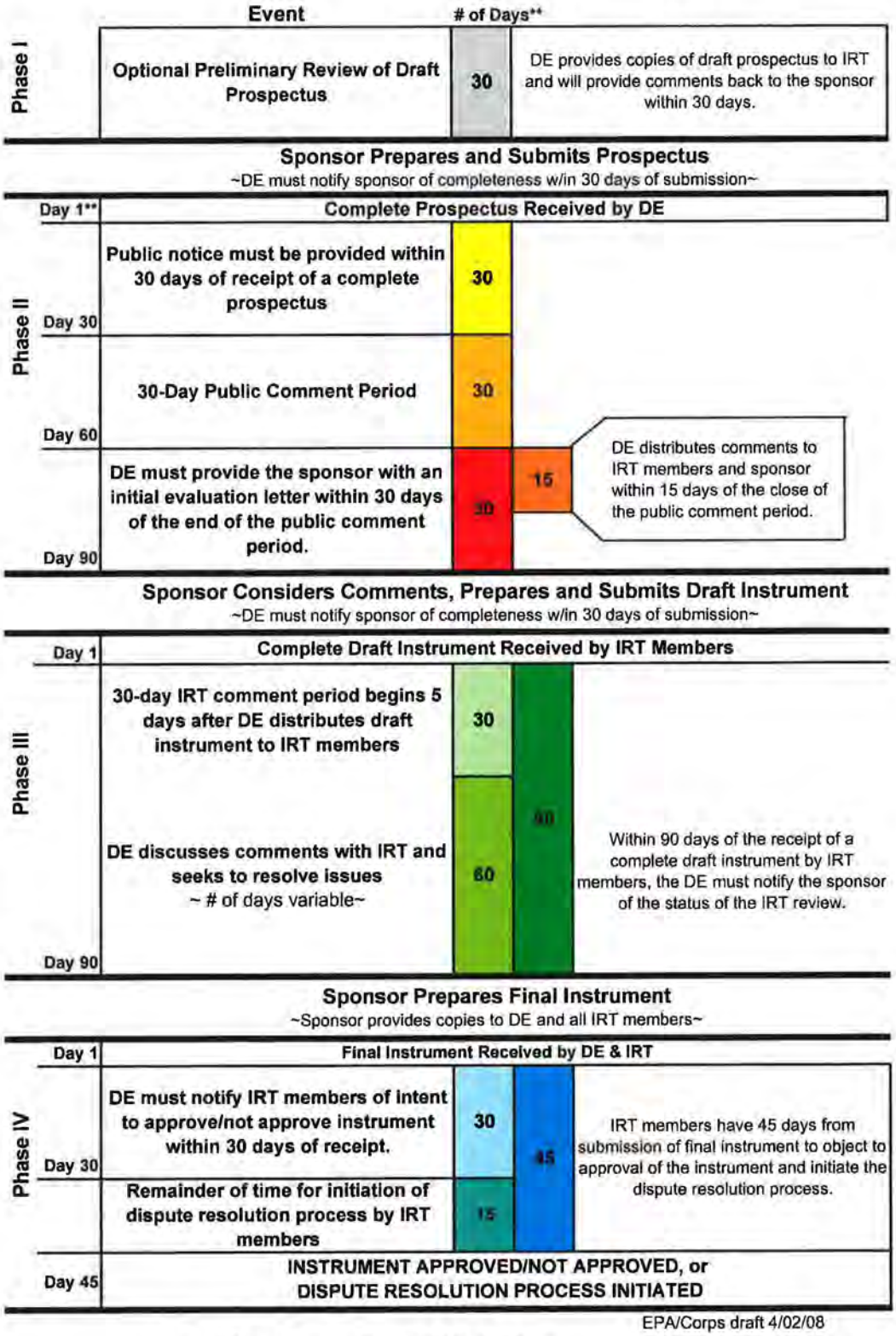
moderate and the water capacity is high. Steprock-Linker Complex is found on low ridges, hillsides, and side slopes. The soil is moderately deep and well drained. Permeability is moderate and the water capacity is low. Spadra Fine Sandy Loam is a deep, well drained, level soil that is found on older natural levees and low terraces. Permeability is moderate and the water capacity is medium. Leadvale Silt Loam, 1-3% slopes, is a deep, moderately well drained, nearly level soil found on valley terraces. Permeability is slow to moderately slow and the water capacity is medium. Taft Silt Loam is a deep, somewhat poorly drained, level to nearly level soil that is found on small stream terraces and upland flats. Permeability is low and the water capacity is medium.

X. Water Rights

Hydrology on the site will continue to be precipitation-driven and no water rights are necessary.

XI. Procedures and Timeline for Establishing the Little Creek Mitigation Bank

Compensatory Mitigation Rule
Timeline for Bank or ILF Instrument Approval*



EPA/Corps draft 4/02/08

Total Required Federal Review (Phases II-IV): ≤225 Days

*Timeline also applies to amendments

**The timeline in this column uses the maximum number of days allowed for each phase.

APPENDIX A

Preliminary Jurisdictional Determination Letter

DEPARTMENT OF THE ARMY
LITTLE ROCK DISTRICT, CORPS OF ENGINEERS
POST OFFICE BOX 867
LITTLE ROCK, ARKANSAS 72203-0867
www.swl.usace.army.mil/

REPLY TO
ATTENTION OF

January 13, 2012

Regulatory Division

FILE No. **2011-00706**

Mr. Clint Hutcheson
Wetland Consultants Unlimited, LLC
3116 Hutcheson Road.
Benton, Arkansas 72019

Dear Mr. Hutcheson:

Please refer to your letter of October 21, 2011, concerning a preliminary jurisdictional determination of a site for possible use as a mitigation bank on the Keathley property. The area is located in section 6, T. 6 N., R. 10 W., Mount Vernon, White County, Arkansas.

The review of USGS Quadrangle Maps and the National Hydrological Dataset revealed that the property may contain areas that meet the definition of waters of the United States, as determined by appropriate guidance and Department of the Army (DA) regulations. Approximately 9,353 linear feet of streams were identified as Little Creek and two unnamed tributaries to Little Creek. This potential mitigation area is shown on the attached map of the site.

Little Creek and the two tributaries may have potential for restoration or enhancement. The current Little Rock District Stream Method (LRDSM) has rules regarding riparian credits. Page 11 states of LRDSM states "no more than 50% of the bank credits can be generated by riparian buffers."

Please be advised that the discharge of dredged or fill material in waters of the United States requires a DA permit prior to the beginning of work in most situations. A permit is required pursuant to Section 404 of the Clean Water Act and Corps of Engineers implementing regulations, 33 CFR Parts 320 – 332. The clearing of wetlands with mechanized equipment; landleveling; construction of ditches, dikes, and dams; placement of fill to raise the elevation of a site; and stabilization of banks are examples of activities that routinely require a permit. All these activities involve the discharge of dredged or fill material in waters of the United States.

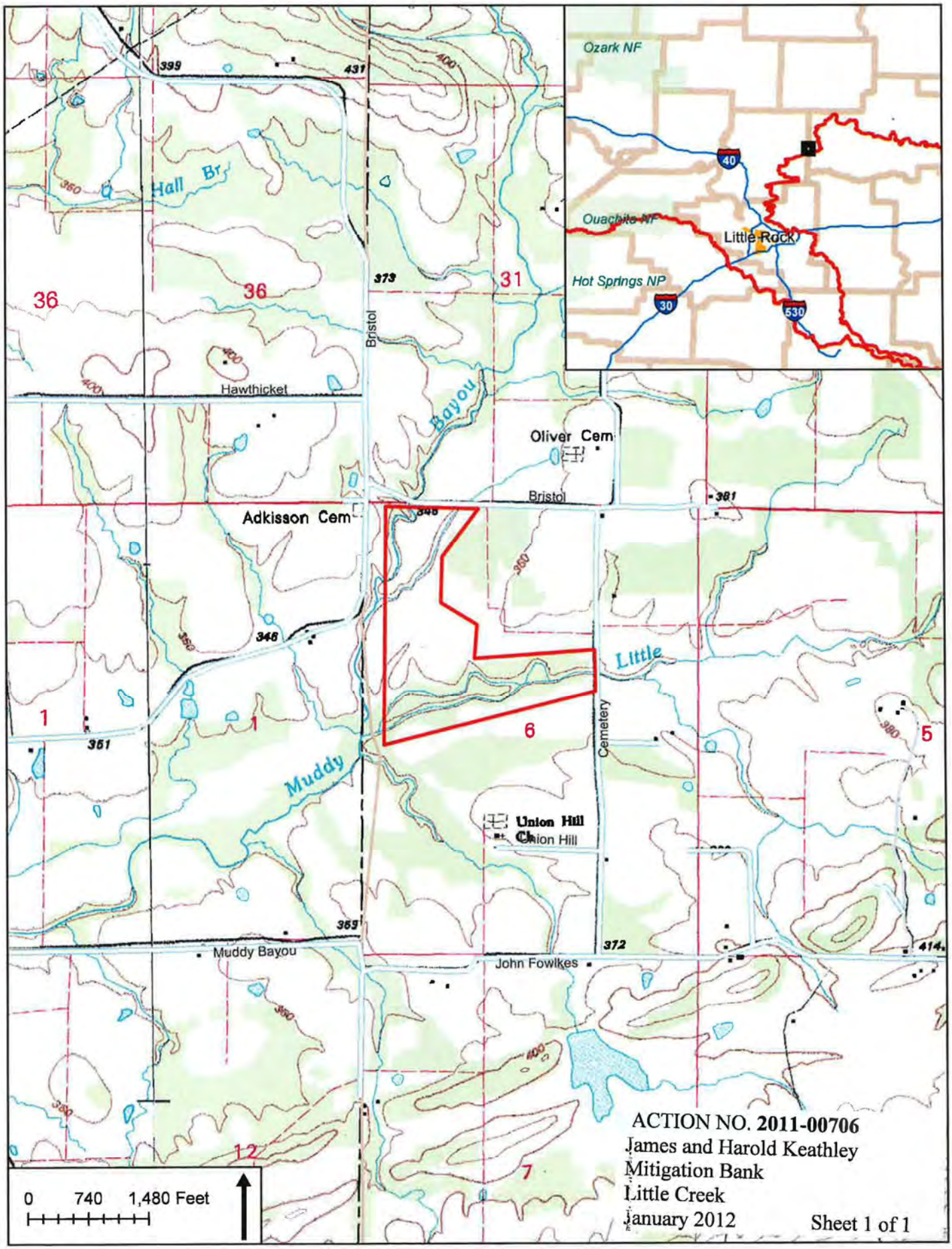
Your cooperation in the Regulatory Program is appreciated. If you have any questions, please contact Mr. Mickey Matthews or me at (501) 324-5295 and refer to File No. **2011-00706.**

Sincerely,

Mickey Matthews
Project Manager

Enclosures

Copy Furnished:
PM, Mr. Mickey Matthews, w/cy dwg


Ozark NF
Ouachita NF
Little Rock
Hot Springs NP
40
30
530
Hall Br
Hawthicket
Bristol
Bayou
Oliver Cem
Adkisson Cem
Little
Muddy
Cemetery
Union Hill
Union Hill
Muddy Bayou
John Fowlkes
36
31
1
6
5
12
7
0 740 1,480 Feet
ACTION NO. 2011-00706
James and Harold Keathley
Mitigation Bank
Little Creek
January 2012
Sheet 1 of 1

FIGURES

WCU

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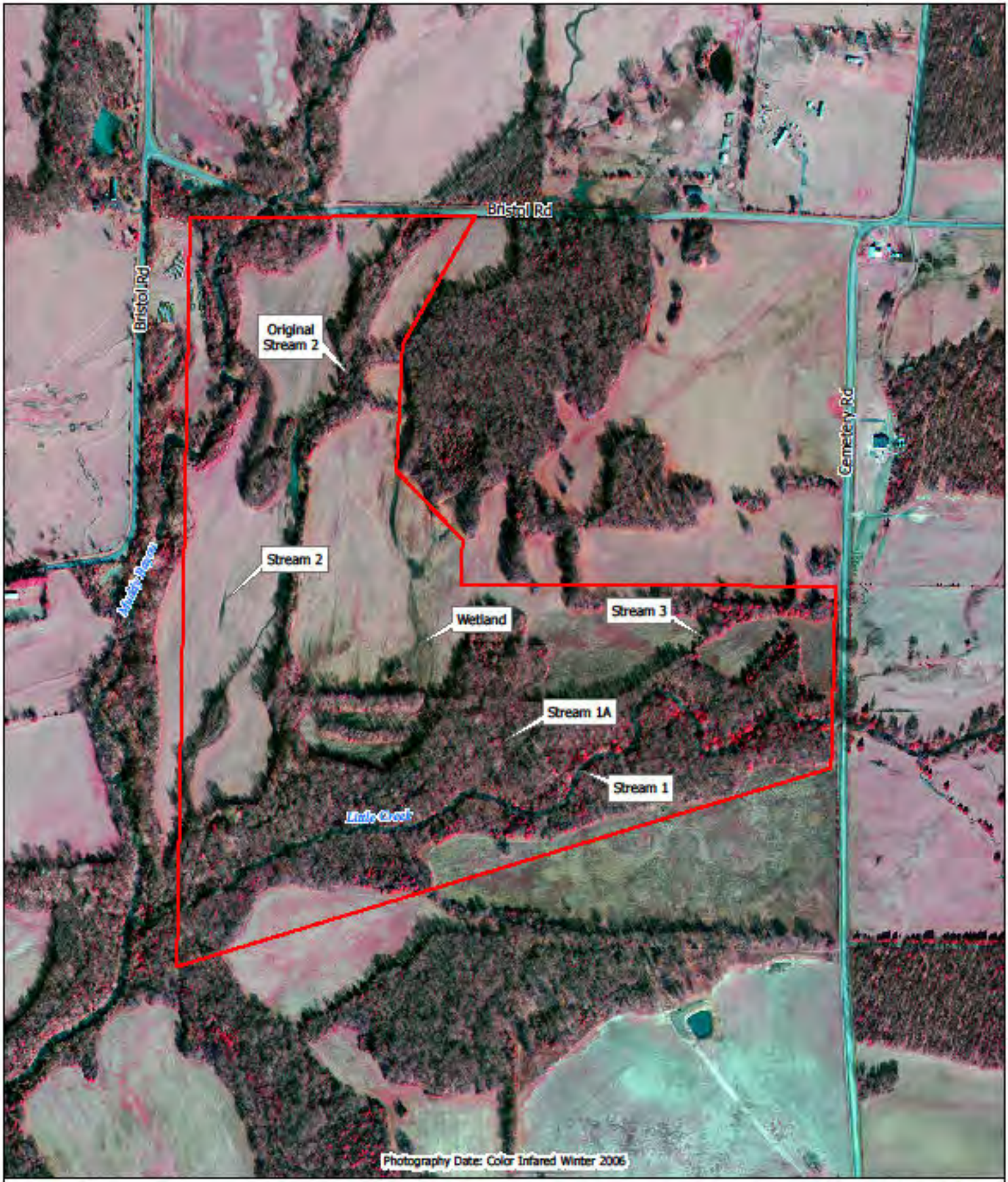
FIGURE 1
8-DIGIT HUC LOCATION MAP
PROPOSED LITTLE CREEK MITIGATION BANK

Primary Service Area
Case-by-Case Basis

January 25, 2012



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0 250 500 Feet

Project Location

FIGURE 2
SITE LOCATION MAP ON AERIAL
PROPOSED LITTLE CREEK MITIGATION BANK

April 23, 2012

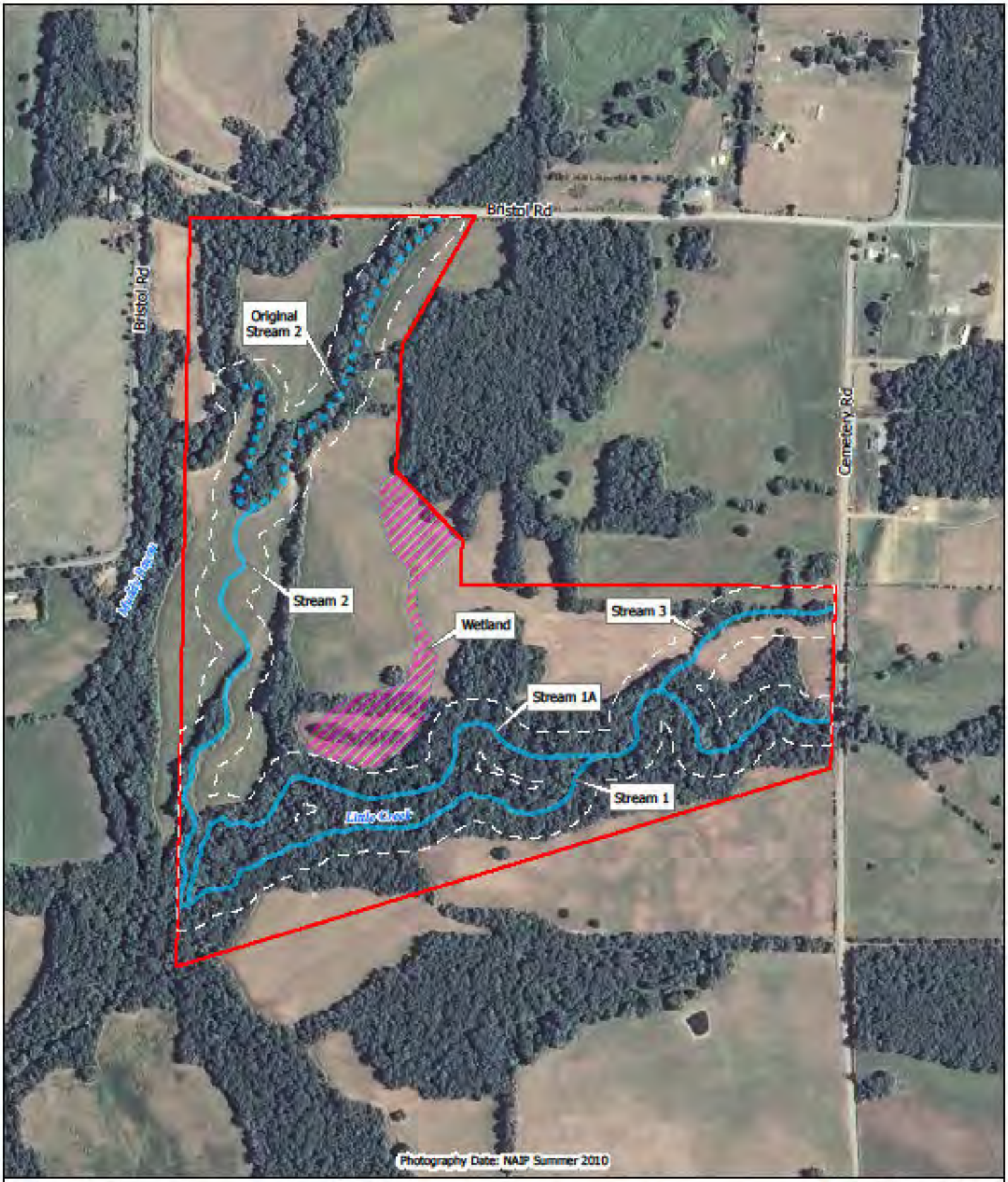

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FIGURE 3
STREAM/WETLAND LOCATION MAP WITH BUFFERS
PROPOSED LITTLE CREEK MITIGATION BANK

0 250 500 Feet

Stream Channel
100ft Stream Buffer
Project Location

April 23, 2012

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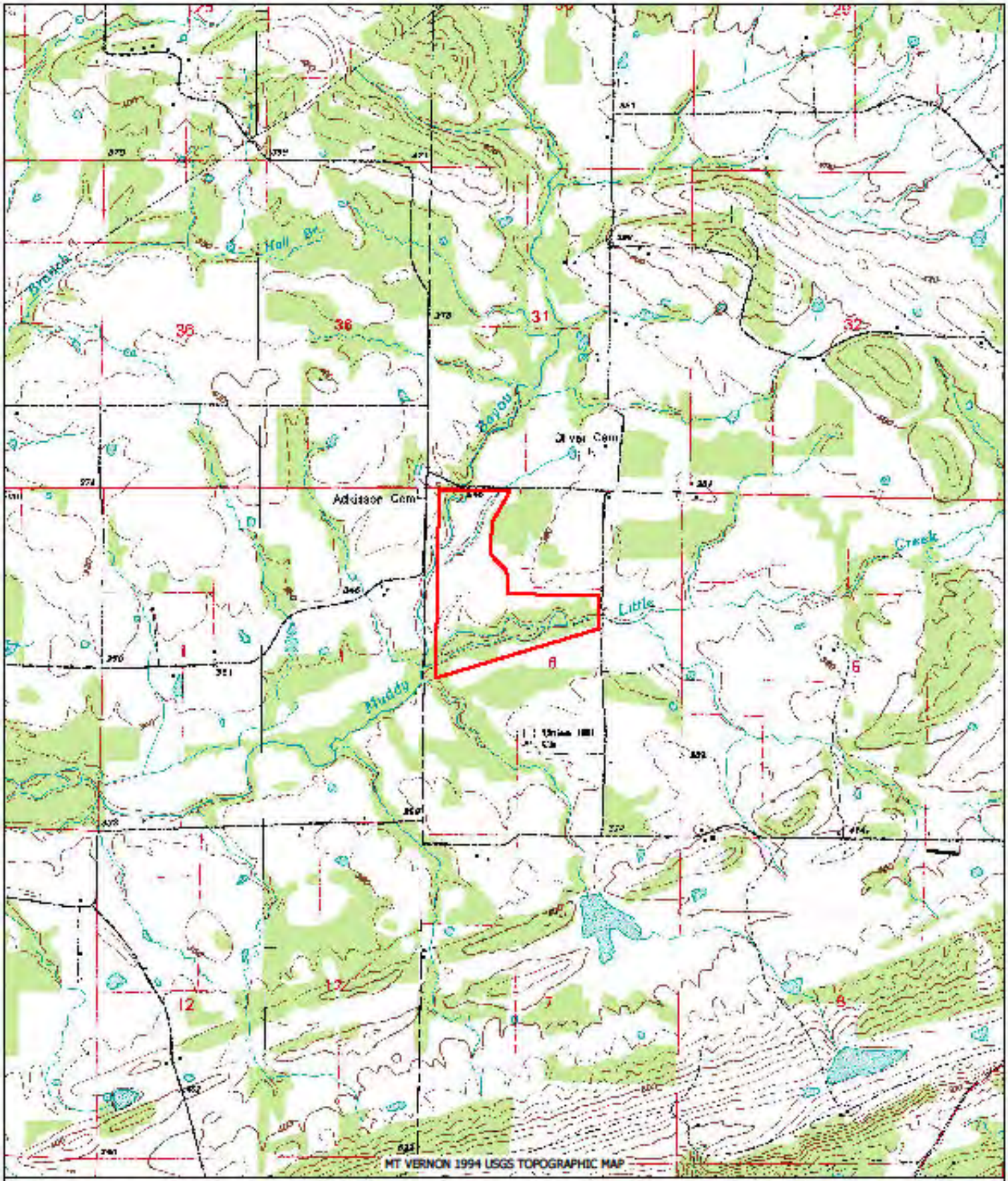
FIGURE 4
HISTORICAL AERIAL 1971
PROPOSED LITTLE CREEK MITIGATION BANK

0 175 350 Feet

Project Location

January 25, 2012



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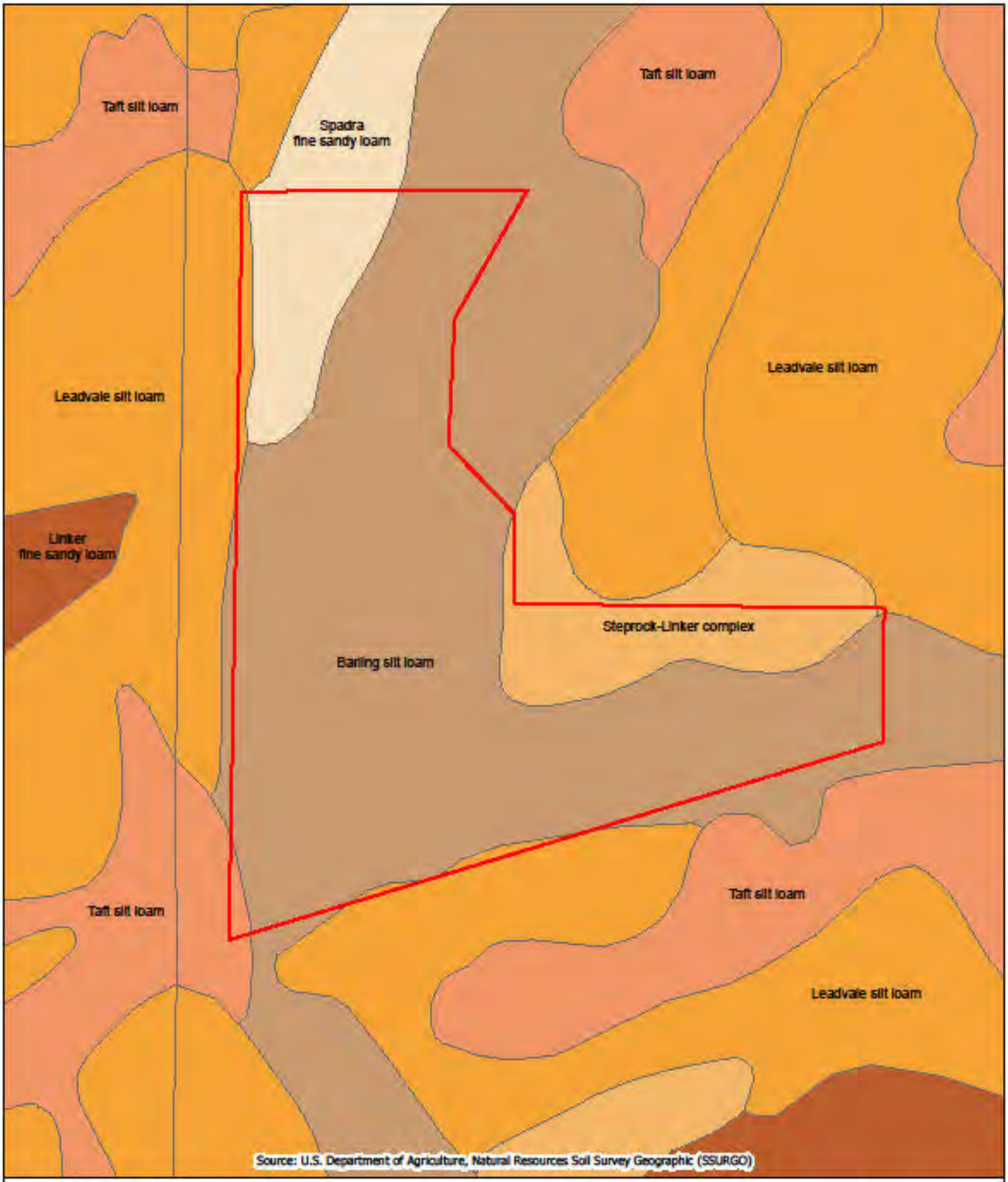
TOPOGRAPHIC MAP
PROPOSED LITTLE CREEK MITIGATION BANK

Scale - 1:24,000

Project Location

October 17, 2011



WCU

WETLAND CONSULTANTS UNLIMITED

SOILS MAP
PROPOSED LITTLE CREEK MITIGATION BANK

0 250 500 Feet

Project Location

October 17, 2011