

**Prospectus for the
ARDOT Ink Bayou Mitigation Bank
Pulaski County, Arkansas**

Arkansas Department of Transportation

January 2019

The Arkansas Department of Transportation (ARDOT) proposes the establishment of a wetland mitigation bank in Pulaski County, Arkansas. The mitigation area is located just west of Interstate 440, southeast of Highway 161 and north of Interstate 40 near McAlmont, Arkansas (Figure 1). ARDOT's Rixey Bayou Mitigation Area is located approximately 0.7 mile north of the proposed bank site. This 436.86-acre site includes portions of sections 14, 15, and 16, Township 2 North, Range 11 West (Figure 2). The property was purchased by ARDOT expressly to mitigate wetland impacts resulting from highway construction and maintenance activities. The property would be used for compensatory mitigation for unavoidable impacts resulting from ARDOT highway activities authorized under Section 404 of the Clean Water Act.

A. Management Goal and Objectives: The management goal for the mitigation bank is the restoration, enhancement, and preservation of wetlands and associated uplands. Objectives include the preservation of existing forested wetlands and the enhancement of existing wetlands through reforestation of agricultural land with bottomland hardwood tree species. The past, associated agricultural practices will be removed from the property. There is a total of 269.99 acres of wetlands on the proposed mitigation bank site. There is a *0.6-acre* permittee responsible mitigation area that is not included as part of the mitigation bank acreage. Eligible acreage includes: *137.01 acres* of wetland preservation, and *132.38 acres* of wetland enhancement that will be reforested with bottomland hardwood trees (Figure 3). Nonnative pasture grasses will be removed from the potential wetland bank site to promote the growth of bottomland hardwood trees.

B. Establishment and Operation: An Interagency Review Team (IRT) would facilitate the establishment of the mitigation bank or area. The IRT would allow review and seek consensus from Federal, state, and public entities on the Mitigation Banking Instrument (MBI). The US Army Corps of Engineers Little Rock District (SWL) and Vicksburg District (MVK) would serve as Chair of the IRT and will make final decisions regarding the terms and conditions of the MBI. ARDOT would be the sponsor of the bank and owner of the mitigation property and would be responsible for all mitigation and monitoring actions.

Agencies invited to participate on the IRT include the U.S. Environmental Protection Agency, Region VI (EPA); the U.S. Fish and Wildlife Service, Region IV (FWS); the Federal Highway Administration, Arkansas Division (FHWA); the Natural Resources Conservation Service (NRCS), the Arkansas Department of Environmental Quality (ADEQ); the Arkansas Game and Fish Commission (AGFC); the Arkansas Natural Heritage Commission (ANHC); and the Arkansas Natural Resources Commission (ANRC).

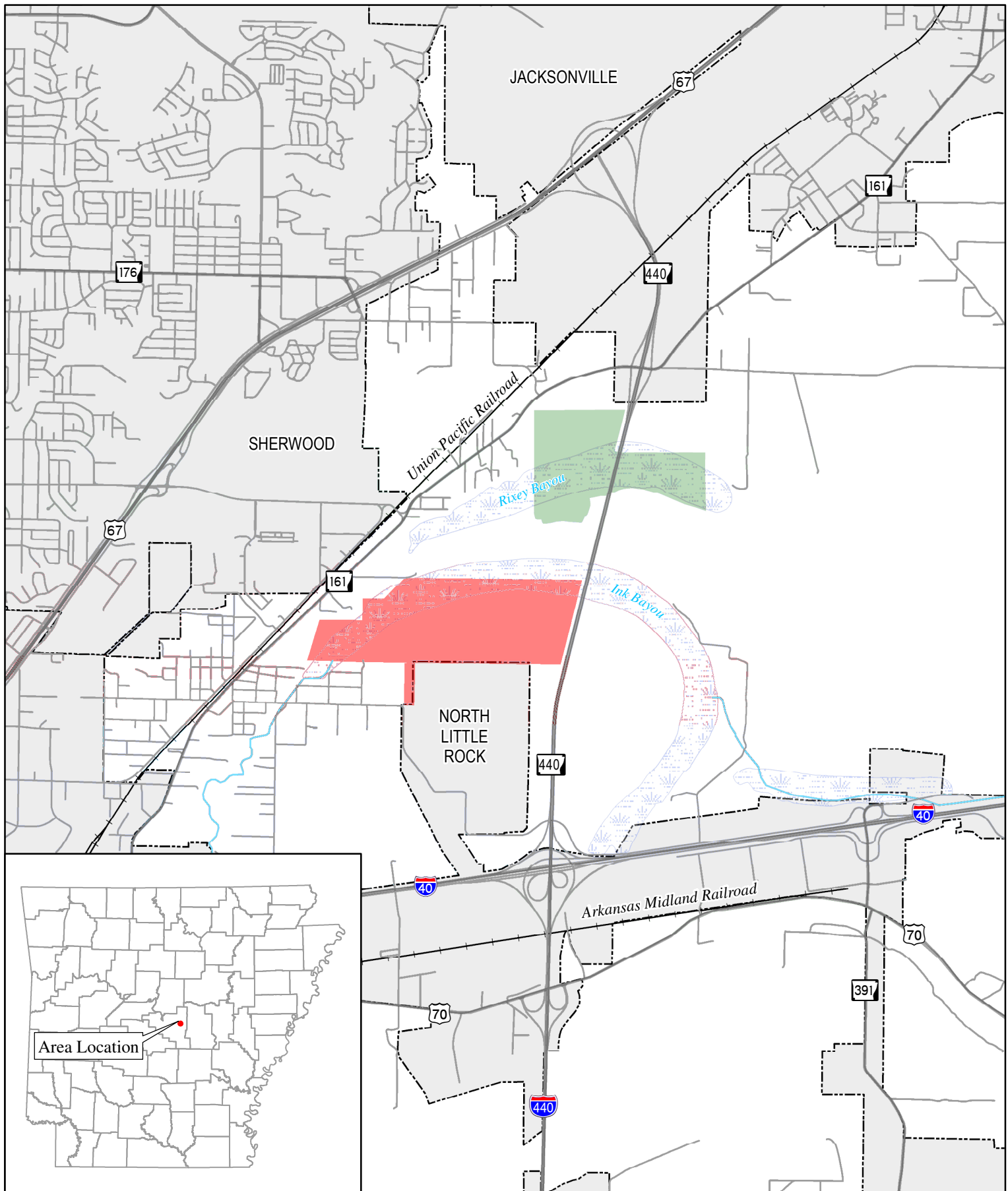
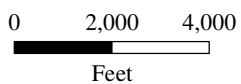
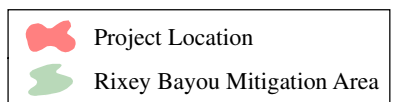


Figure 1
Proposed Ink Bayou
Mitigation Bank



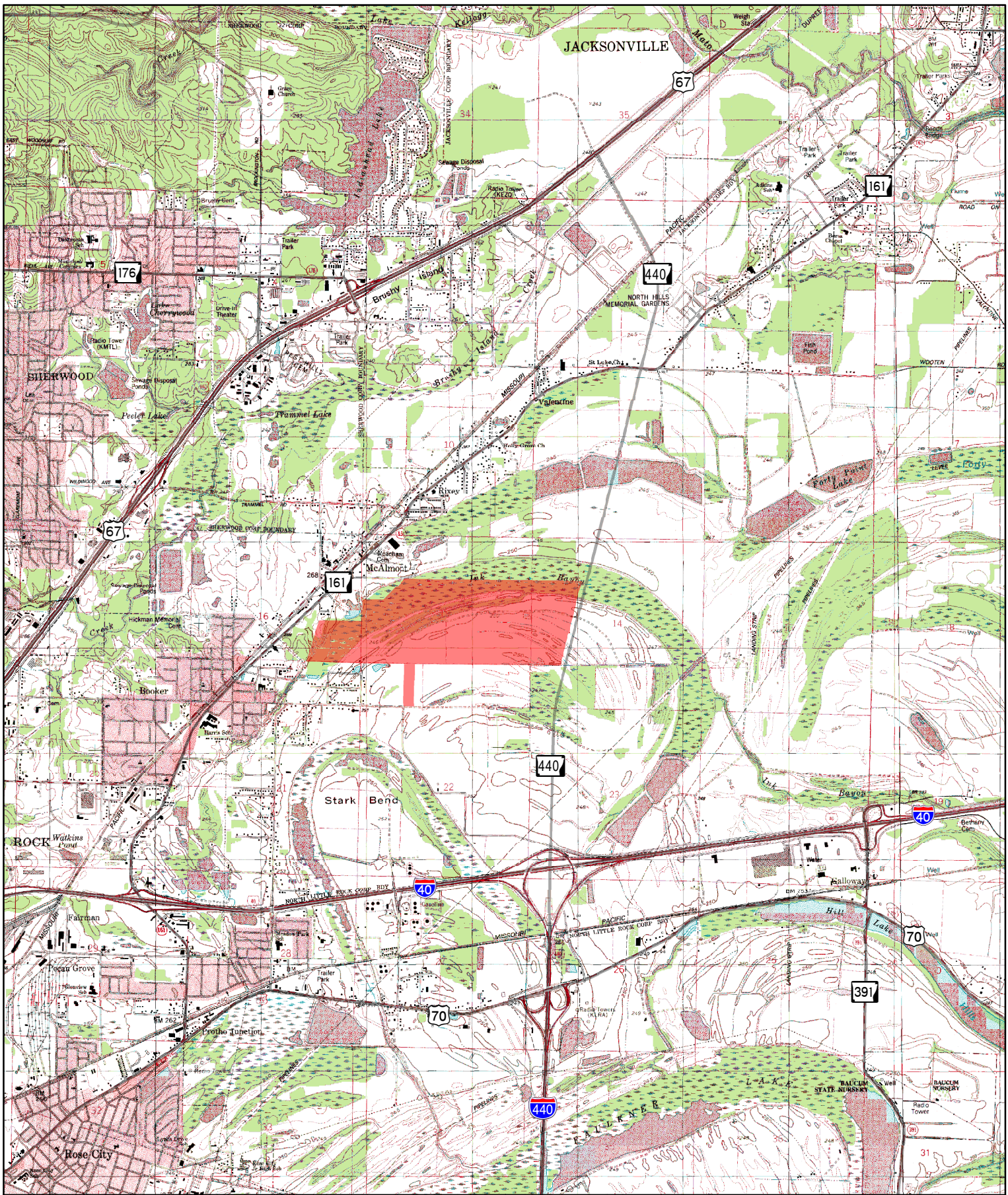



Figure 2
Proposed Ink Bayou
Mitigation Bank

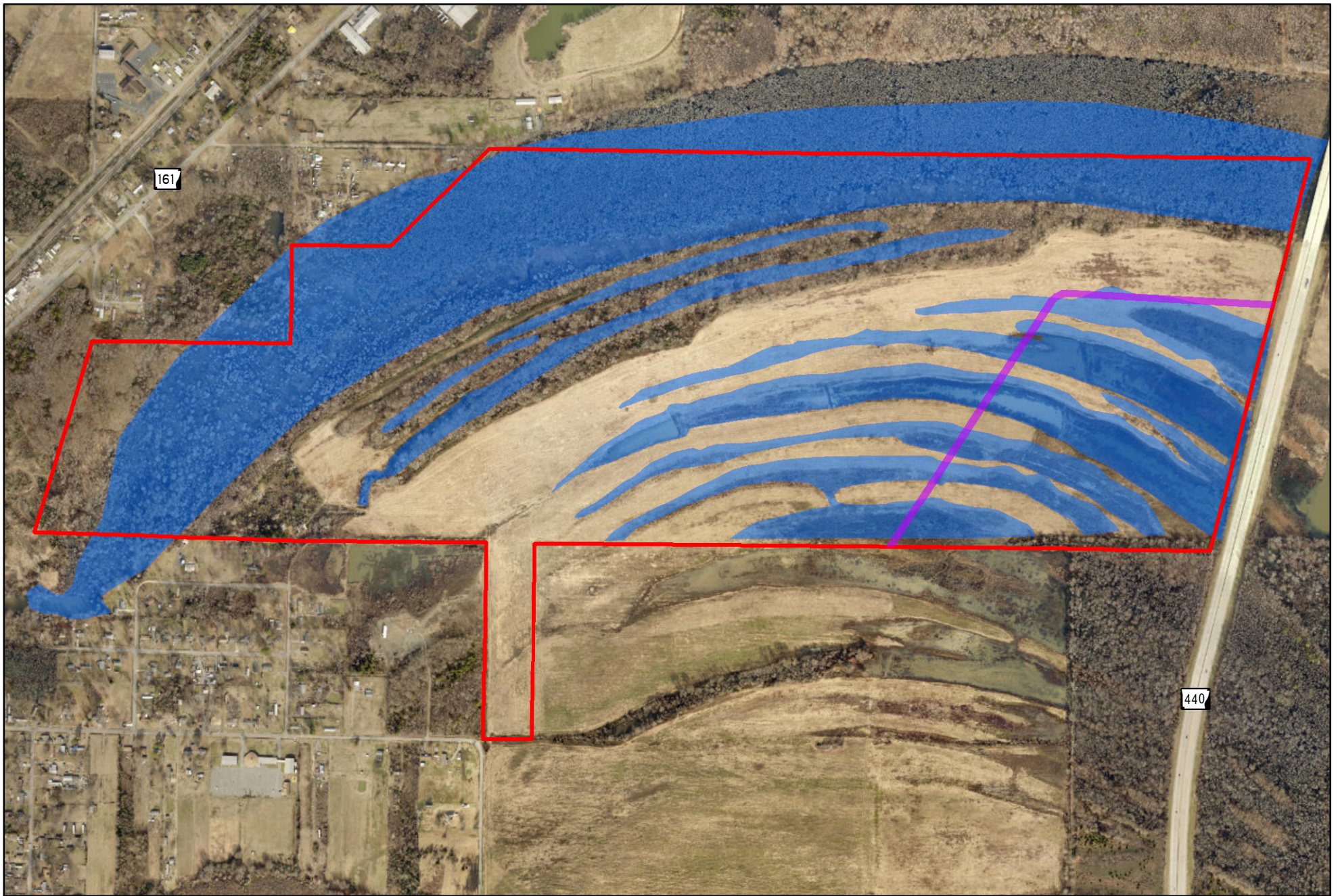
 Project Location

USGS Topographic Map:
McAlmont 1986



0 2,000 4,000
Feet

AHTD Environmental GIS - Dudley
November 4, 2016






0 500 1,000



Feet

AHTD Environmental GIS - Dudley
November 28, 2016

Figure 3
Wetland Locations

-  Project Location
-  Pipeline Easement
-  Wetland

C. Proposed Service Area: The primary service area (Figure 4) includes Bayou Meto (08020402) and the Lower Arkansas Maumelle (11110207) sub-basins (8 digit HUCs). The secondary service areas (Figure 4) would include portions of the sub-basins, listed in the table below, clipped to the Arkansas River Valley Ecoregion from the Arkansas River Dam at Ozark to the Arkansas River Dam at Pine Bluff. For accounting purposes, the corresponding USGS cataloging codes, which are also listed below in Table 1.

Table 1.
USGS Hydrologic Unit Codes
For Sub-Basins
In the Geographic Service Area

HUC	Sub-basin Name	Service Area
08020402	Bayou Meto	Primary
11110207	Lower Arkansas Maumelle	Primary
11110202	Dardanelle Reservoir	Secondary
11110203	Lake Conway-Point Remove	Secondary
11110204	Petit Jean	Secondary
11110205	Cadron	Secondary
11110206	Fourche La Fave	Secondary

D. General Need and Feasibility: ARDOT is required to mitigate unavoidable losses to wetlands due to highway construction and maintenance projects in the proposed service area.

E. Ownership: ARDOT is the owner of the property and has recorded a restriction on the Warranty Deed to the property. The restriction requires that any activity on the property complies with the terms of a mitigation plan or banking instrument. ARDOT will manage the property for the operational life of the bank. The operational life of the bank terminates when compensatory mitigation credits have been exhausted and the bank site is self-sustaining. Subsequently, ARDOT may deed the property to or enter into a management agreement with an appropriate state or Federal agency provided the agency manages the property in accordance with the provisions of the MBI.

F. Long-term management: ARDOT is responsible for securing adequate funding to monitor and maintain the mitigation bank throughout its operational life, as well as beyond the operational life if not self-sustaining. ARDOT would be responsible for securing sufficient funds to cover contingency actions in the event of default or failure. Additionally, ARDOT would be responsible for providing alternative compensatory mitigation if it is determined necessary by the US Army Corps of Engineers.

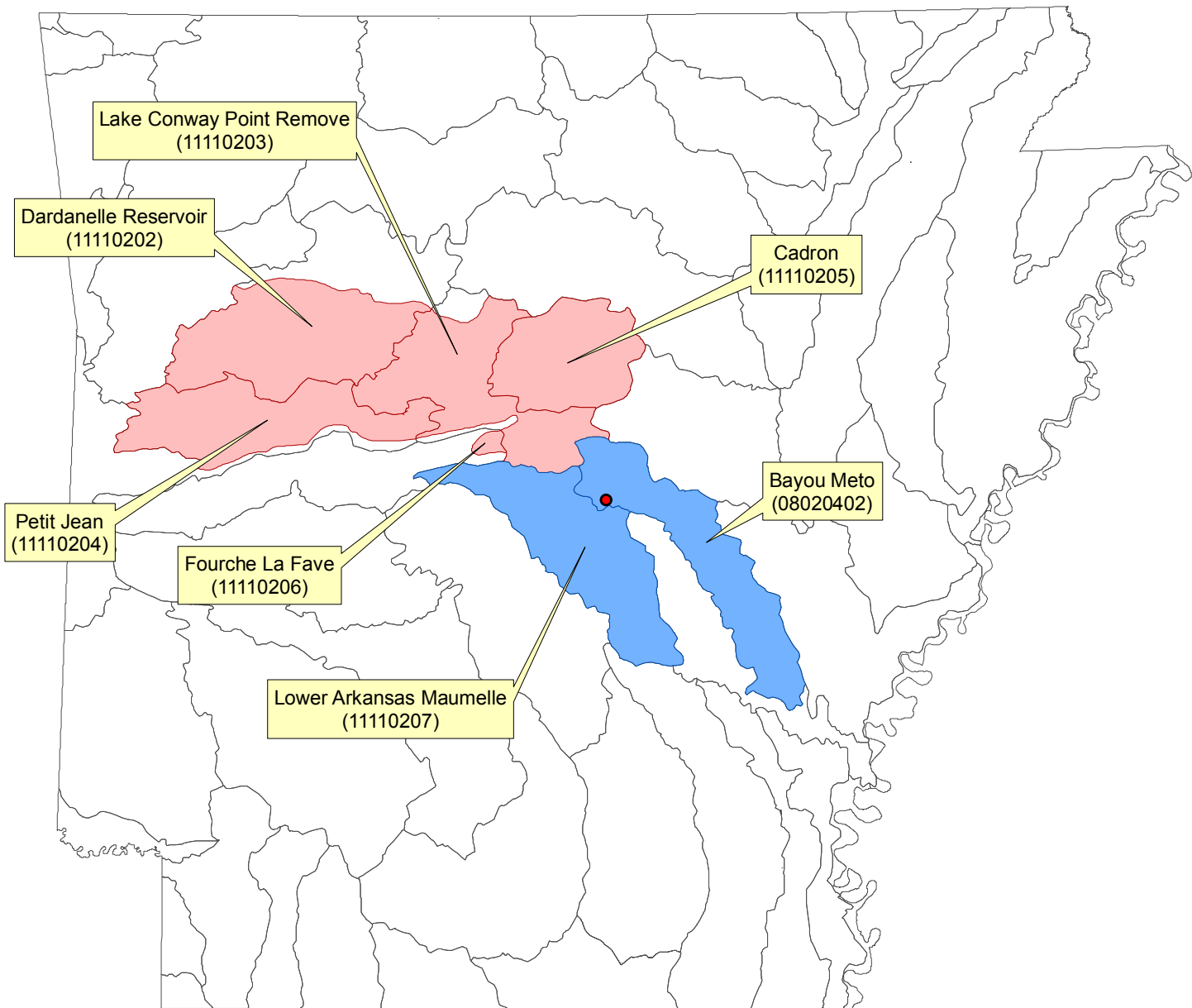
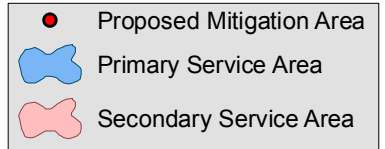
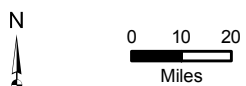


Figure 4
Proposed Service Area Watersheds



G. Qualifications of the sponsor: ARDOT is presently the owner and sponsor of eight mitigation banks, totaling 2,709 acres of wetland and stream mitigation bank properties managed according to approved banking instruments.

H. Ecological Suitability: The primary considerations for site selection were watershed needs, baseline conditions, and habitat connectivity. The proposed mitigation bank is located in an oxbow lake/meander scar of the Arkansas River and is 0.7 miles south of ARDOT's Rixey Bayou Mitigation Bank. Historic records of the federally endangered interior least tern (*Sterna antillarum*) are located both north and south of the proposed bank site. ANHC has historic records for several rare species from other oxbow lakes/meander scars near the proposed mitigation bank including: the bald eagle (*Haliaeetus leucocephalus*), the Gulf crayfish snake (*Regina rigida sinicola*), the glossy swampsnake (*Liodytes rigida*), the yellow water crowfoot (*Ranunculus falbellaris*), the bottle brush sedge (*Carex comosa*), the common Gallinule (*Gallinule galeata*), the purple Gallinule (*Porphyrio martinicus*), the king rail (*Rallus elegans*), the common moorhen (*Gallinula chloropus*).


The proposed Ink Bayou Mitigation Bank is in the Arkansas/Ouachita River Holocene Meander Belts Ecoregion (EPA Level III) within the Mississippi Alluvial Plain Ecoregion (EPA Level IV). Much of the property lies within the 100 year floodplain of the Arkansas River. A 2001 aerial image illustrates that the areas identified for wetland restoration and enhancement were forested (Figure 5). These areas were cleared to expand agricultural production purposes. Upland areas of the property will function as a buffer and wildlife sanctuary for terrestrial wildlife and migratory birds in times of flooding.

Soils on the site are mapped (Figure 6) into three soil units by the USDA (*Soil Survey of Pulaski County, Arkansas* 1975). Keo silt loam, 0 to 1 percent slopes, is described as a well-drained soil on undulating topography consisting of swales and low ridges in the floodplains of the Arkansas River in the Mississippi Valley. Perry clay, 0 to 1 percent slopes, is described as poorly drained, very slowly permeable soils that formed in clayey alluvium. The soils are on level to gently undulating slopes in backswamps and alluvial plains of the Arkansas River and associated distributaries. Perry clay is considered a hydric soil and, unless protected by levees, is flooded for short periods nearly every year. The Rilla-Perry complex is in areas of alternating long and narrow ridges and swales of bottomlands of the Arkansas River. Slopes range from 0 to 5 percent. Rilla soils are located on the top and sides of the ridges, while Perry soils comprise the swales.

Native vegetation in meander scars/oxbow lakes; e.g., Ink Bayou, is mainly bald cypress (*Taxodium distichum*), water tupelo (*Nyssa aquatica*), swamp loosestrife (*Decodon verticillatus*) and where trees have been cleared, facultative and obligate herbaceous vegetation such as primrose-willows (*Ludwigia spp.*), smartweeds (*Persicaria spp.*), sedges (*Carex spp.*), rushes (*Juncus spp.*) occurs. Native vegetation on the floodplains and natural levees; e.g., those higher areas with soils mapped as Keo and Rilla, is fall panic grass (*Panicum dichotomiflorum*), crab grass (*Digitaria sanguinalis*) and barnyard grass (*Echinochloa crus-galli*).



Figure 5
1960 Historical Imagery

 Proposed Ink Bayou
Mitigation Bank



0 750 1,500
Feet

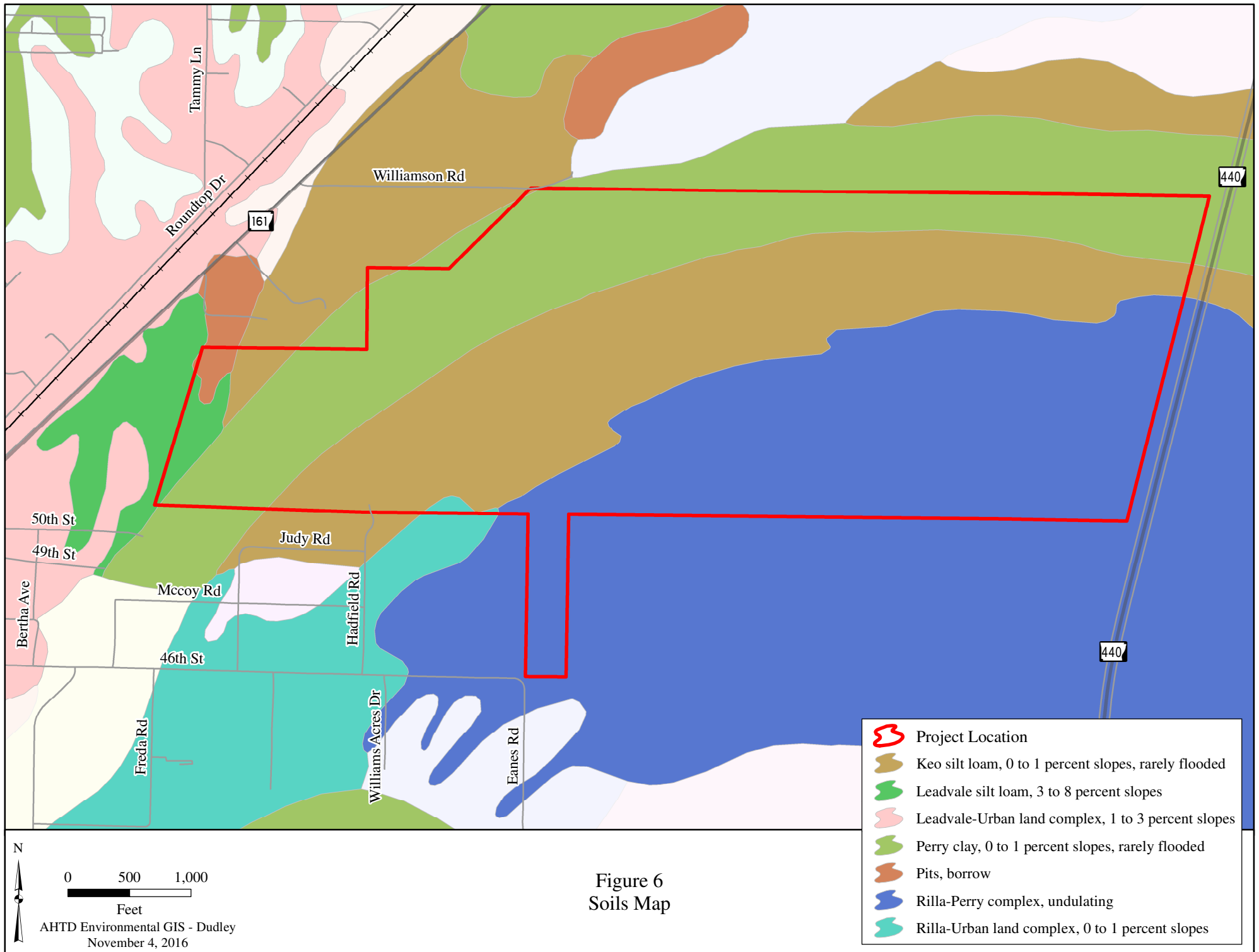


Figure 6
Soils Map



Figure 7. Typical view of the ridge and swale wetland complex at the proposed Ink Bayou Mitigation Bank.



Figure 8. Ridge and swale wetland complex. The ridges are dominated by pasture grasses, while the swales are dominated by *Ludwigia glandulosa*.



Figure 9. Typical view of swale within ridge and swale wetland complex.



Figure 10. Large wetland swale at eastern edge of the proposed Ink Bayou Mitigation Bank.



Figure 11. Typical view of forested wetland preservation (Ink Bayou itself).