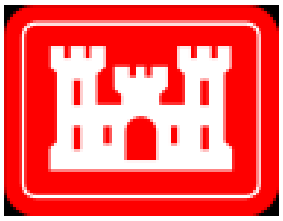
Prospectus for the Black River Mitigation Bank Randolph County, Arkansas

Prepared for:

U.S. Army Corps of Engineers, Little Rock District



Prepared by:

Arkansas Department of Transportation

June 2024

The Arkansas Department of Transportation (ARDOT) proposes the establishment of a wetland and stream mitigation bank in Randolph County, Arkansas. The mitigation property is located south of Highway 62 just east of the City of Pocahontas and southeast of Biggers (Figure 1). The proposed Black River Mitigation Bank is located on the western end of the Dave Donaldson Black River Wildlife Management Area. The 614-acre site includes portions of sections 22, 27, and 28, Township 19 North, Range 2 East (Figure 2). The property was purchased by ARDOT expressly to mitigate wetland and stream impacts resulting from highway construction and maintenance activities. The property will 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 enhancement, restoration, and preservation of wetlands and streams. Objectives include the preservation of existing forested wetlands and restoration of bottomland forested wetlands through the reforestation of agricultural fields. Other objectives include stream channel preservation and restoration and riparian buffer preservation and restoration. Hydrology will be restored by removing the existing farm levees and reestablishing the historic stream channel connectivity. There are 8.3-acres of wetland preservation and 476.5-acres of wetland restoration. The wetland restoration acres will be reforested with native bottomland hardwood species. There is approximately 13,514 linear feet of stream that will include channel preservation and a combination of 11.6-acre riparian buffer preservation and 63.1-acre riparian buffer restoration. Approximately 2,777 linear feet of stream channel reconstruction will be done to reconnect natural stream function within the mitigation bank. Additionally, there are will be 8.1-acre of upland preservation and 46.6-acre of upland that will be reforested. (Figure 3).

B. Establishment and Operation: An Interagency Review Team (IRT) will facilitate the establishment of the mitigation bank. The IRT will review and seek consensus from Federal, state, and public entities on the Mitigation Banking Instrument (MBI). The U.S. Army Corps of Engineers Little Rock District (SWL) will serve as Chair of the IRT and will make final decisions regarding the terms and conditions of the MBI. ARDOT will be the sponsor of the bank and owner of the mitigation property and will be responsible for all mitigation and monitoring actions. Agencies invited to participate on the IRT include the U.S. Army Corps of Engineers Memphis District (MVM); U.S. Environmental Protection Agency, Region VI (EPA); the U.S. Fish and Wildlife Service, Region IV (FWS); the Federal Highway Administration, Arkansas Division of Energy and Environment (ADEE); the Arkansas Game and Fish Commission (AGFC); the Arkansas Natural Heritage Commission (ANHC); and the Arkansas Natural Resources Commission (ANRC).

C. Proposed Service Area: The geographic service area (Figure 4) would include four sub-basins (8-digit HUCs). This includes the Upper Black (11010007), the Lower Black (11010009), the Upper White-Village (11010013), and the Current (11010008). These sub-basins all are included in the Upper White Sub-Region of the Arkansas-White-Red Hydrological Region.

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

HUC	Sub-basin Name	Service Area
11010007	Upper Black	Primary
11010009	Lower Black	Secondary
11010013	Upper White-Village	Secondary
11010008	Current	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 mitigation bank. The operational life of the bank terminates when compensatory mitigation credits have been exhausted and the bank 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 Little Rock District.

G. Qualifications of the sponsor: ARDOT is presently the owner and sponsor of 10 mitigation banks, totaling 3,343 acres of wetland mitigation property managed according to approved banking instruments.

H. Ecological Suitability: The primary considerations for the site selection were watershed needs, baseline conditions, and habitat connectivity. The proposed mitigation bank is located adjacent to the Dave Donaldson Black River Wildlife Management Area. The Arkansas Game and Fish Commission has several documented occurrences of the federally endangered Northern Long-eared Bat (*Myotis septentrionalis*) and Indiana Bat (*Myotis sodalis*) throughout the Dave Donaldson Black River Wildlife Management Area. The entire proposed mitigation bank is located within the floodplain of the Black River. Currently, the entire property is in rice production. The proposed Black River Mitigation Bank is within the Western Lowlands Holocene Meander Belts Ecoregion (EPA Level IV) within the Mississippi Alluvial Plain Ecoregion (EPA Level III). Soils on the site are mapped (Figure 7) into four soil units by the USDA (*Soil Survey of Randolph County, Arkansas* 1980). Kobel silty clay loam is listed as hydric, on 0 to 3 percent slopes, and is described as a very deep, poorly to very poorly drained, and very slowly permeable soils that formed in clayey alluvium located in level floodplains within the Western Lowlands of the lower Mississippi Valley. Crowley silt loam is listed as hydric, on 1 to 3 precent slopes, and is described as very deep, somewhat poorly drained, very slowly permeable soils that formed in clayey fluviomarine deposits of the Pleistocene age. These nearly level to very gently sloping soils occur on flat coastal plain terraces. Dundee silt loam has 6 percent hydric inclusions, on 0 to 8 percent slopes, and is described as very deep, somewhat poorly drained soils that formed in loamy alluvium. These soils are found on natural levees and low terraces along former channels of the Mississippi River and its tributaries in the Southern Mississippi Valley Alluvium. Amagon silt loam is listed as hydric, on 0 to 3 percent slopes, and is described as very deep, poorly drained, slowly permeable soils that formed in loamy alluvium. These soils are on low terraces in the Lower Mississippi Valley. Native vegetation within the preservation areas consists of water oak (*Quercus nigra*) (FAC), willow oak (*Quercus phellos*) (FACW), red maple (*Acer rubrum*) (FAC), winged elm (*Ulmus alata*) (FACU), slippery elm (*Ulmus rubra*) (FAC), deciduous holly (*Ilex decidua*) (FACW), pecan (*Carya illinoinensis*) (FACU), and sweetgum

(*Liquidambar styraciflua*) (FAC). The existing vegetation within the narrow riparian buffers located on the southern reach of the proposed mitigation bank consist of pin oak (*Quercus palustris*) (FACW), water oak (*Quercus nigra*) (FAC), overcup oak (*Quercus lyrata*) (OBL), swamp privet (*Forestiera acuminata*) (OBL), honey locust (*Gleditsia triacanthos*) (FAC), bald cypress (*Taxodium distichum*) (OBL), swamp chestnut oak (*Quercus michauxii*) (FACW) and green ash (*Fraxinus pennsylvanica*) (FACW). The northern reach of the existing stream channel consist of buttonbush (*Cephalanthus occidentalis*) (OBL), floating primrose (*Ludwiga peploides*) (OBL) and Virgina dayflower (*Commelina virginica*) (FACW). The remainder of the proposed bank is currently under intensive agriculture practices where native vegetation is not present.

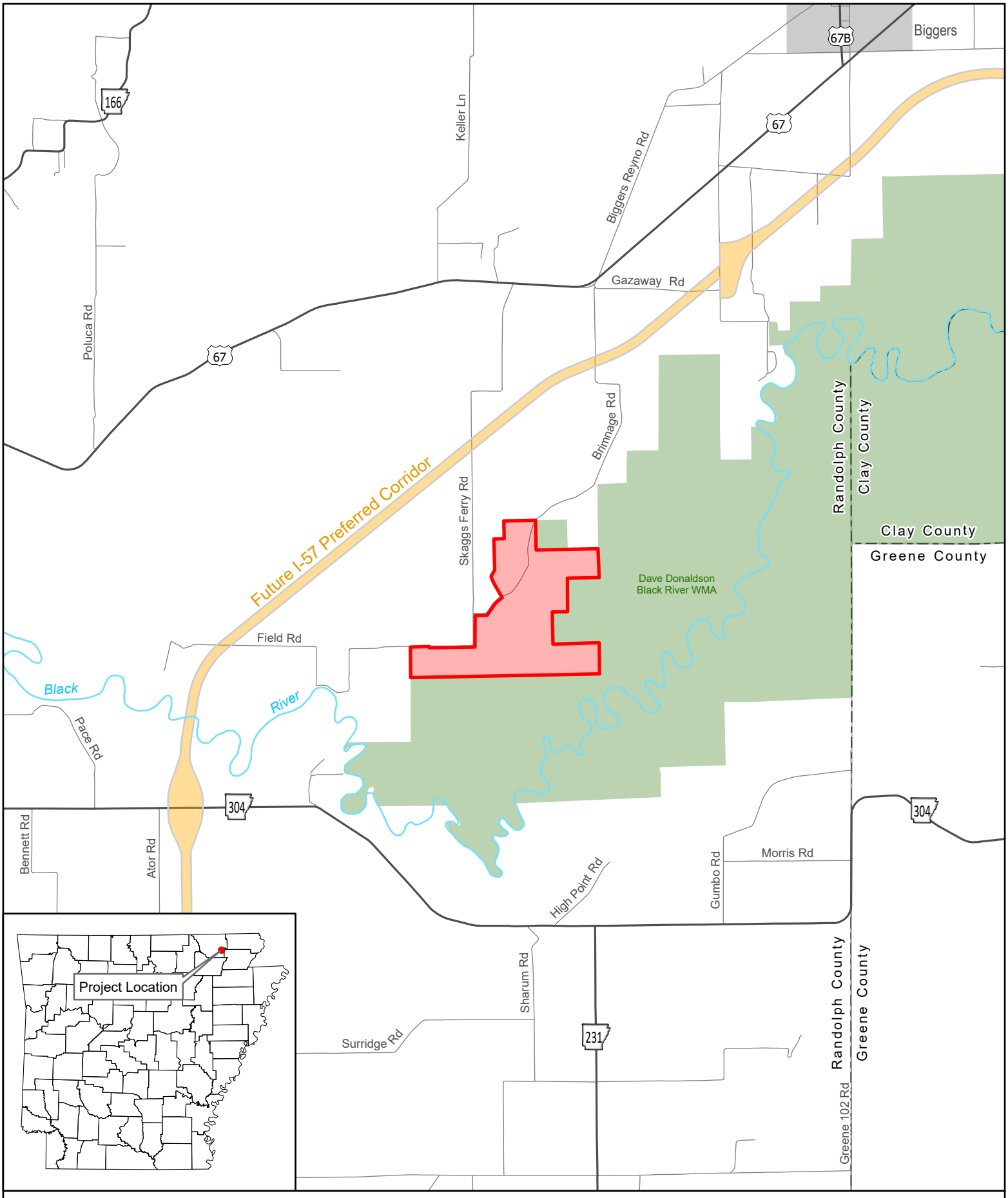
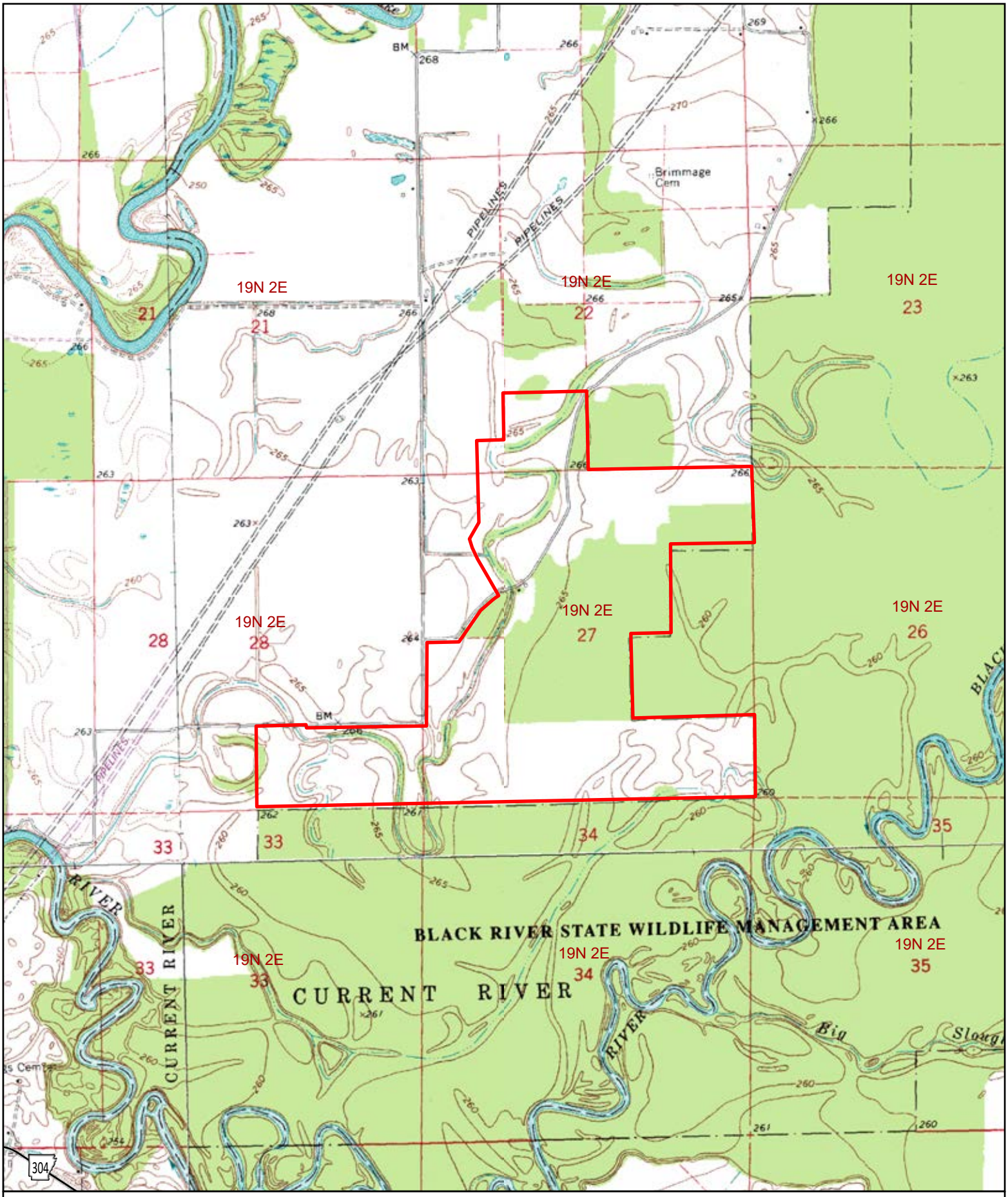


Figure 1
Project Location



N

Scale - 1:24,000

Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

Figure 2
Topographic Map

Project Location

USGS Topographic Map
Reyno 1990

Figure 3
Restoration Plan

Figure 4
Service Areas

Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

N

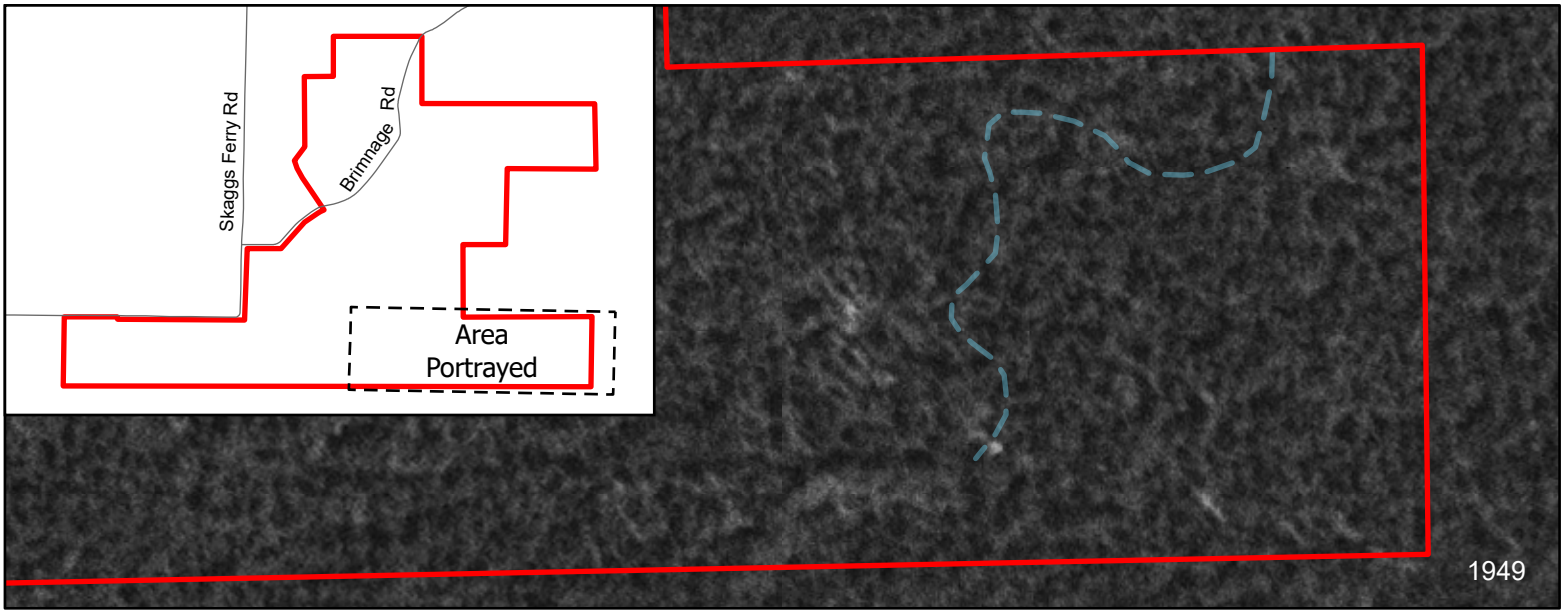
0 500 1,000
Feet

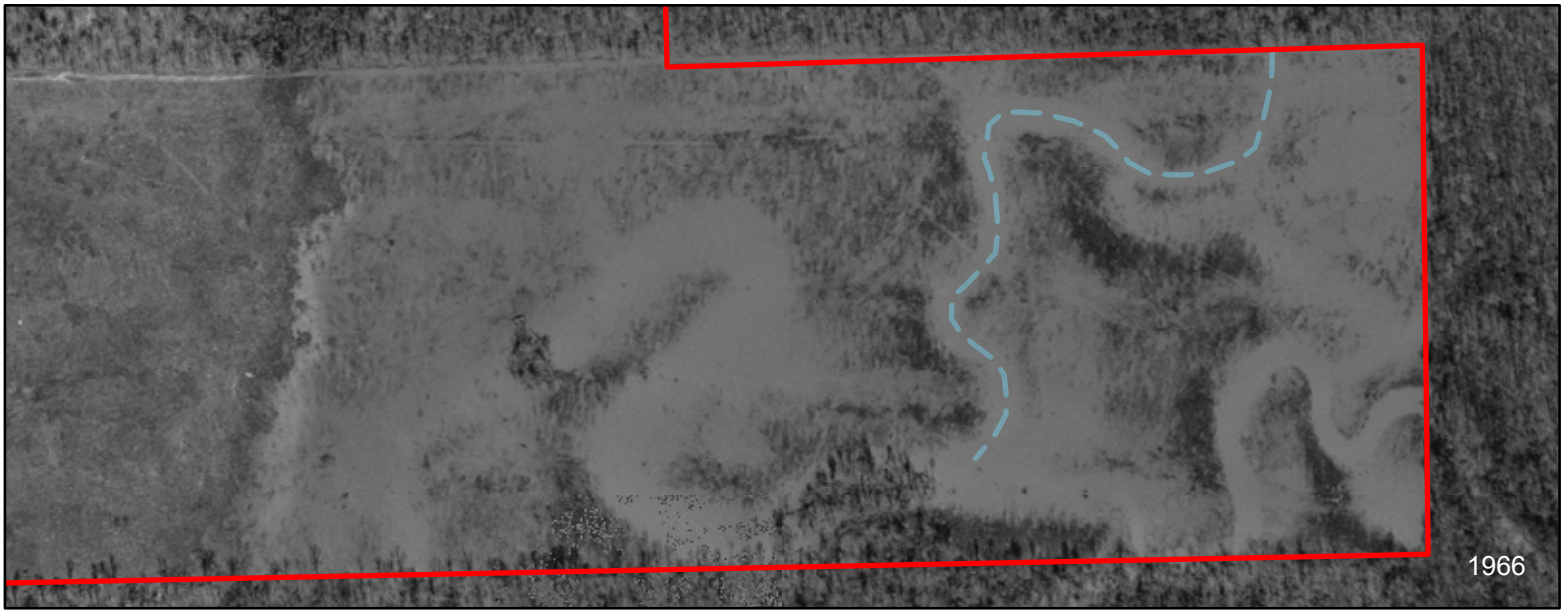
Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

Figure 5
Project Location
on 1966 Historic Aerial Photography

Project Location

Photography: USGS 1966





N

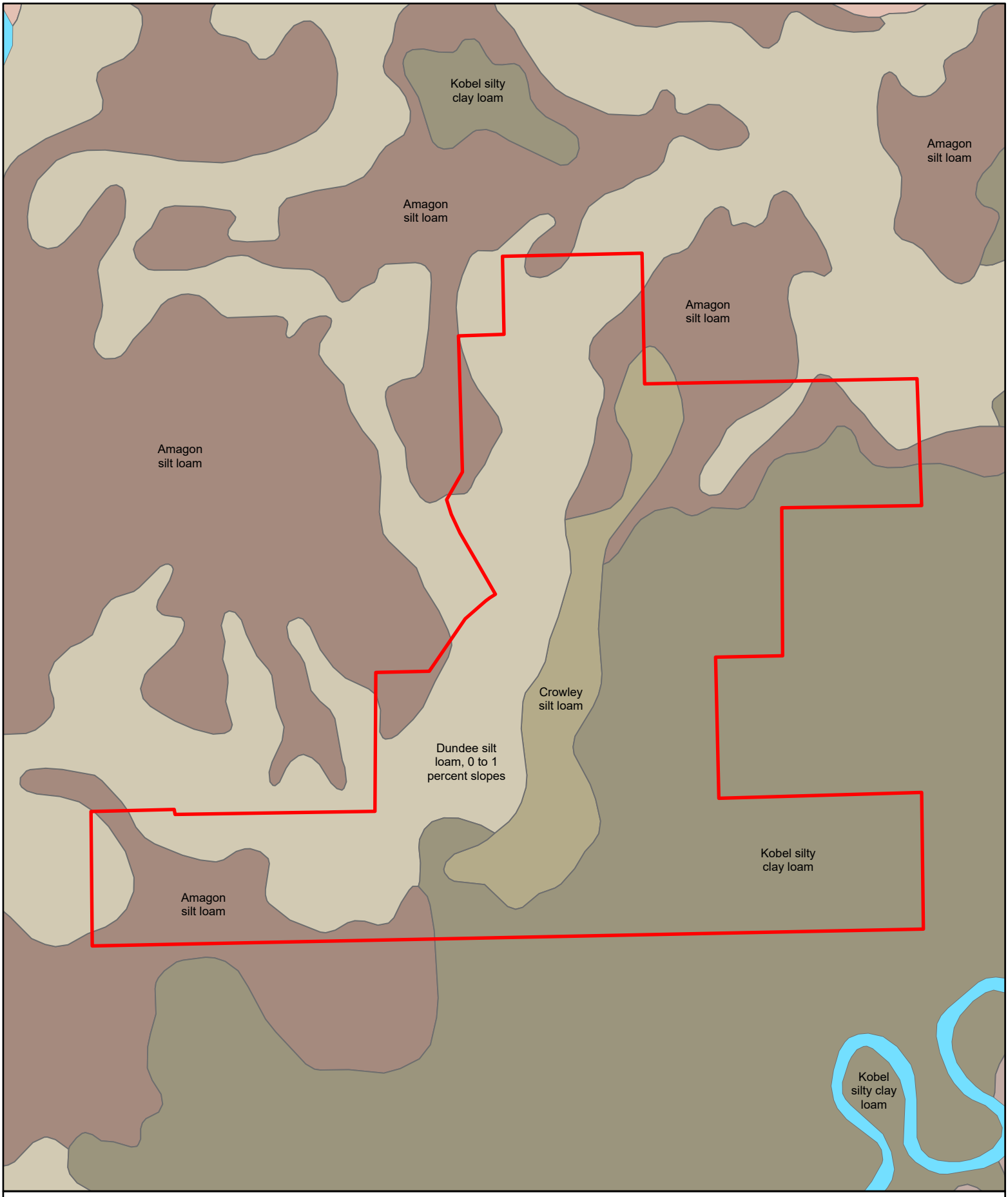
0 250 500

Feet

Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

Figure 6
Proposed Stream Channel Reconstruction

Proposed Channel Reconstruction
Project Location



N

0 600 1,200

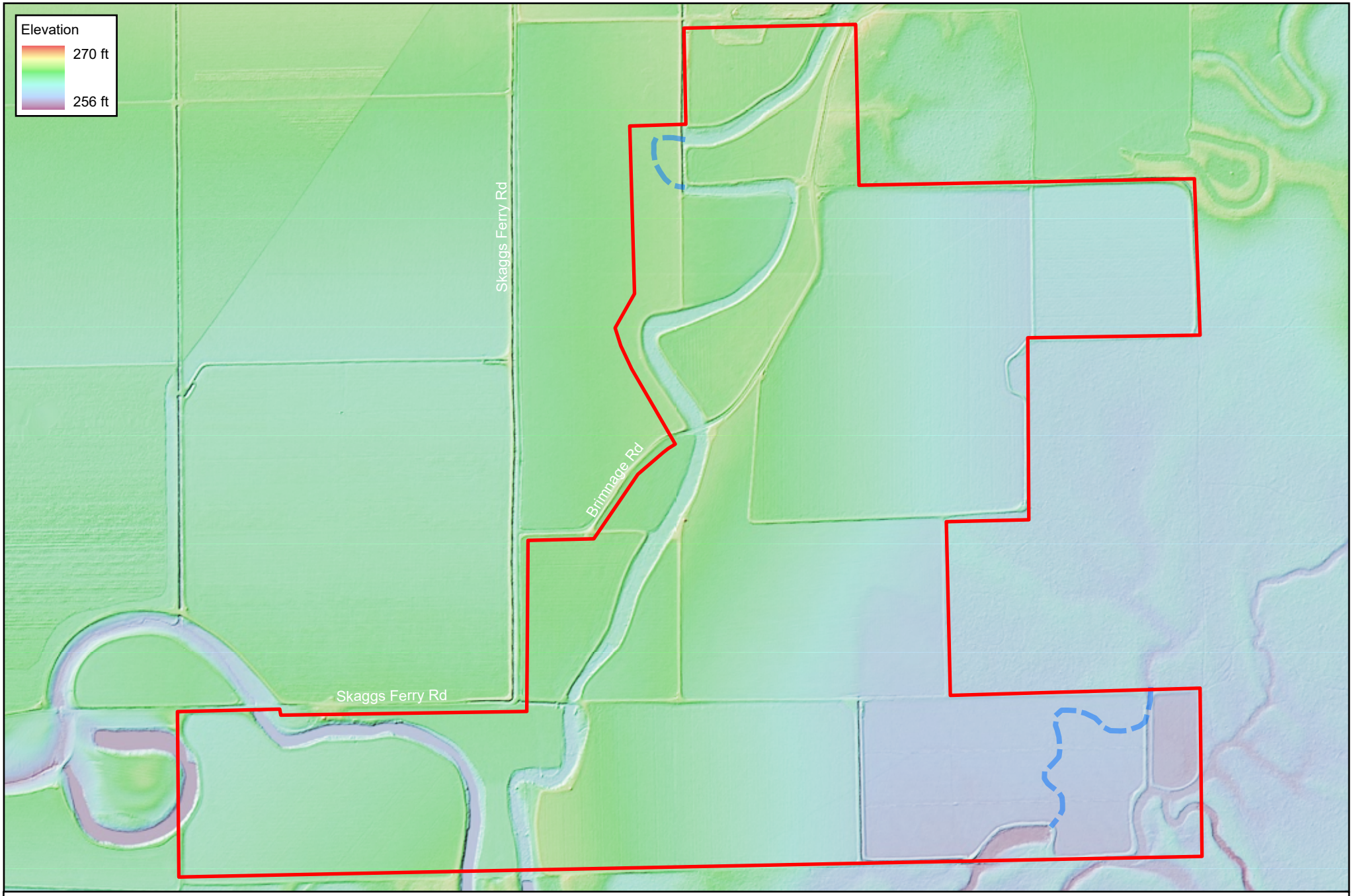
Feet

Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

Figure 7
Soils Map

Project Location

Source: SSURGO, NRCS, USDA



N

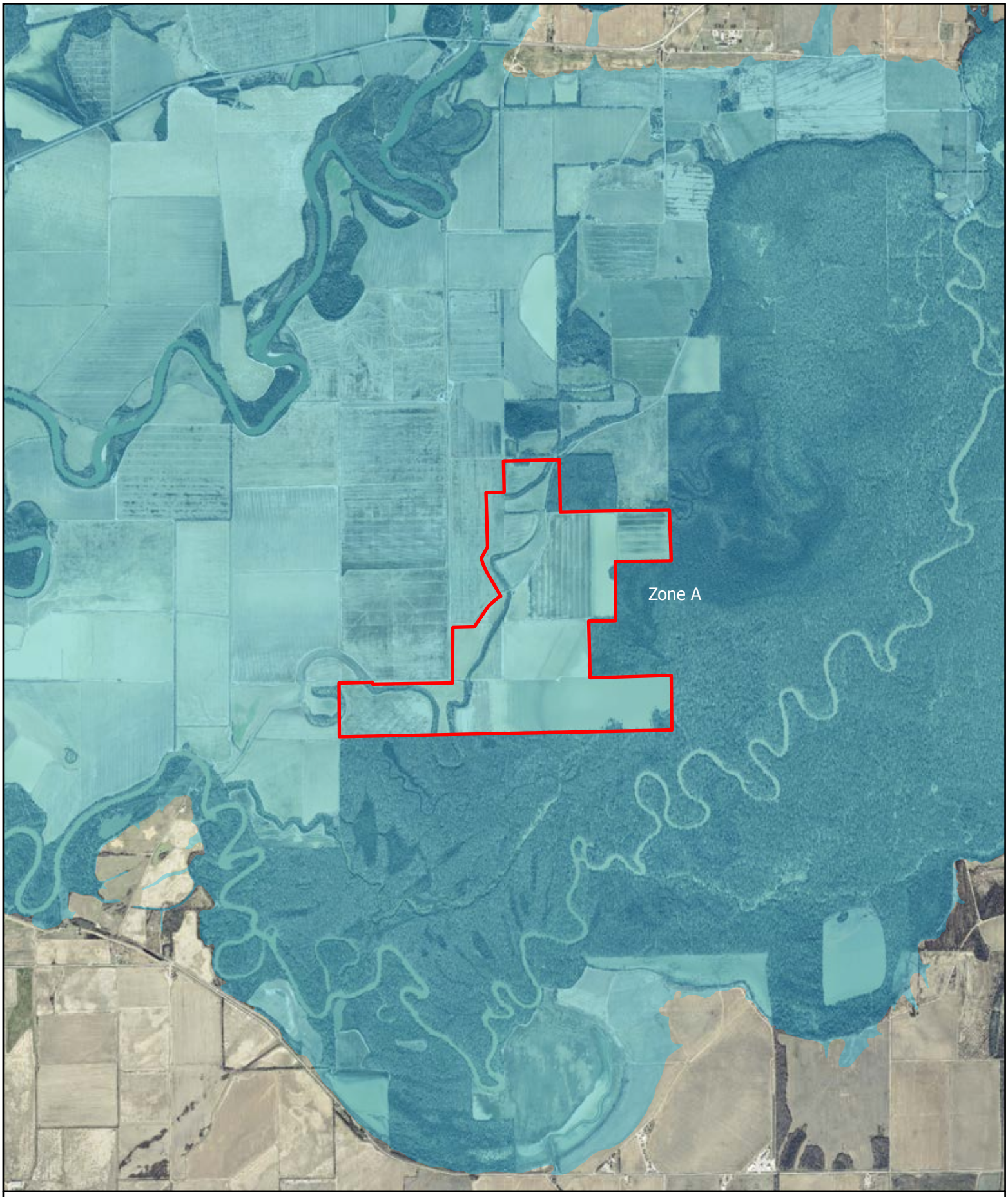
0 500 1,000
Feet

Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

Figure 8
Project Location on
Shaded Relief Digital Elevation Model

Proposed Channel Reconstruction
Project Location

Source: USGS 3D Elevation Program (3DEP)



N

0 1,500 3,000

Feet

Job 100512
ARDOT - Environmental GIS - Strawn
April 29, 2024

Figure 9
Floodplains

Project Location
100-Year Floodplain

Source: FEMA NFHL

Typical view looking toward the east of existing rice fields.

Typical view looking towards the southeast of proposed mitigation bank.

Existing stream located on the northern portion of the mitigation bank looking toward the south.

Existing stream located on the southern portion of the mitigation bank looking toward the south.