



**US Army Corps
of Engineers**

Vicksburg District
4155 Clay Street
Vicksburg, MS 39183-3435
www.mvk.usace.army.mil

Public Notice

APPLICATION NO.:	<u>MVK-2024-143</u>
EVALUATOR:	<u>Mr. Dale Whittington</u>
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DATE:	<u>September 26, 2024</u>
EXPIRATION DATE:	<u>October 26, 2024</u>

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Vicksburg District, is considering a proposal to establish a mitigation bank in Clark County, Arkansas. A prospectus describing the proposed umbrella bank has been received from Streamworks Mitigation Services, LLC. The Mitigation Bank site is located in Sections 11, 12, 13, Township 9 South, Range 20 West, and Section 18, Township 9 South, Range 19 West, Clark County, Arkansas.

Description: This wetland/stream mitigation bank is being proposed by the bank sponsor as a means to meet the requirements for compensatory mitigation for future, and as yet unknown, wetland and stream functional losses that would be permitted by the Corps under the authority of Section 404 of the Clean Water Act.

The Bank Sponsor proposes to develop an umbrella mitigation bank. Phase 1 would encompass approximately 560 acres of land in which restoration, enhancement, and preservation activities are proposed. The Sponsor of the Terre Noire Creek Mitigation Bank (TNCMB) is Streamworks Mitigation Services, LLC (SMS). The goal of SMS would be to conduct bottomland hardwood wetland, instream, riparian buffer, upland buffer, and upland stream buffer restoration, enhancement, and preservation activities on the TNCMB. The restoration and enhancement of wetland and streams would increase wetland function, provide species diversity, and increase the width of a wildlife corridor along the Terre Noire Creek and its major tributaries.

Baseline Conditions / Current Land Use / Proposed Actions: The 560-acre tract of the proposed TNCMB currently contains approximately 164.4 acres of wetlands and 42,102 linear feet of streams. (Figure A.2). The historic land use is primarily silviculture which is why the streams were ditched, straightened, and filled to maximize timber production.

Dominant habitat types associated with the jurisdictional wetlands on the tract consists of early successional hardwoods. Dominant species identified in these habitats include: Ash, Maples, Sweet Gum, and Black Willow.

The property contains the following soil types: Urbo silty clay, Marietta fine sandy loam, and Sardis silt loam, all of which are listed as hydric soils. (Figure A.6)

The Sponsor proposes to conduct bottomland hardwood wetland, instream, riparian buffer, upland buffer, and upland stream buffer activities on the TNCMB.

Service Area: This Mitigation Bank would be established to provide mitigation to compensate for impacts to waters of the United States, including wetlands, within the State of Arkansas. The proposed service area is demarcated by the United States Geologic Survey as hydrologic unit code 08040103, 08040201, and 08040102 within the Ouachita River Basin. Decisions authorizing the use of credits from the Mitigation Bank would be made by the appropriate authority on a case-by-case basis, in accordance with all applicable requirements.

The prospectus, which outlines the conceptual plan for the bank, is available at the following website:

<http://www.mvk.usace.army.mil/offices/od/odf/PubNotice/pnmain.htm>.

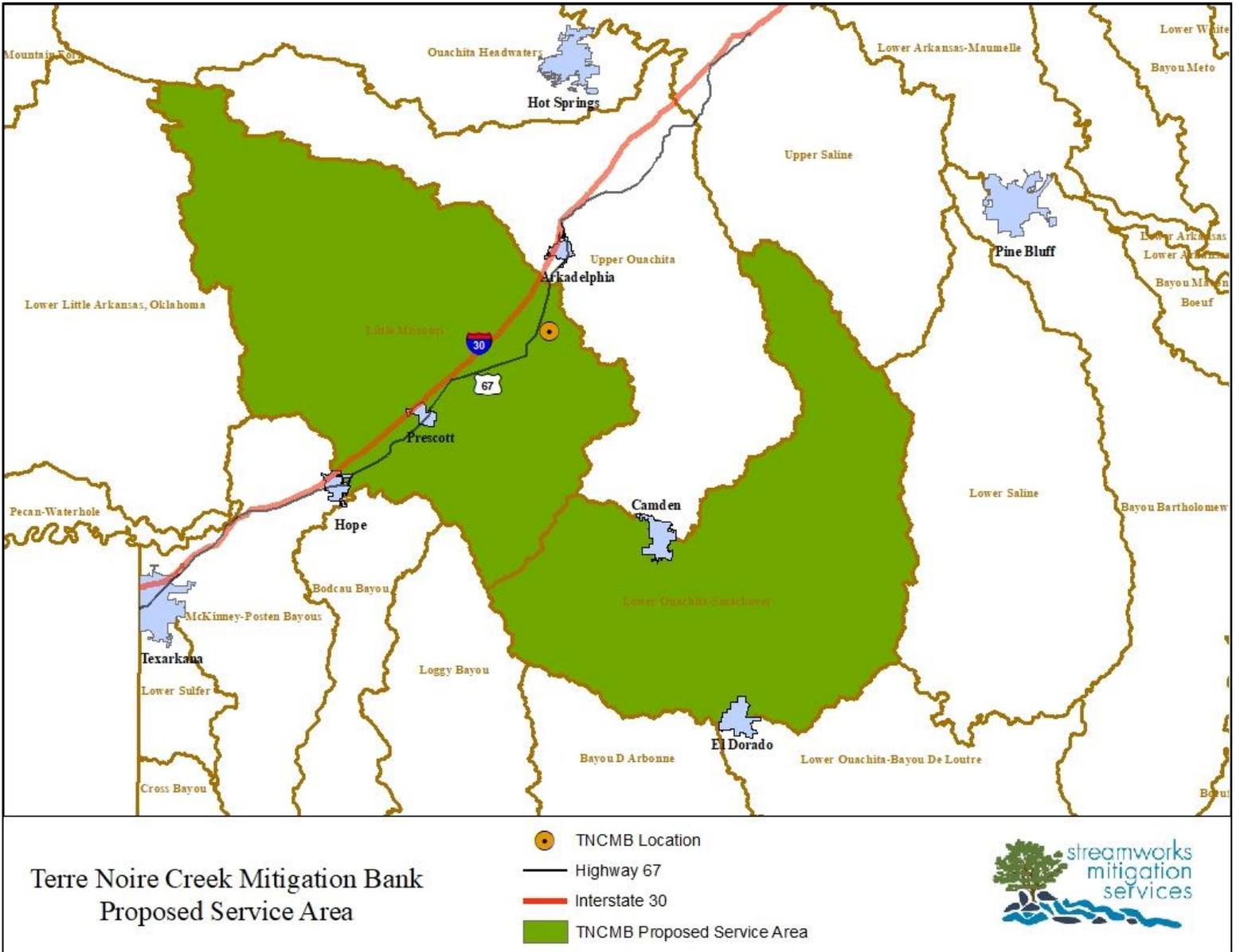
Comments on this proposed mitigation bank may be provided to the Corps at the address below. Comments should be received no later than the expiration date of this public notice.

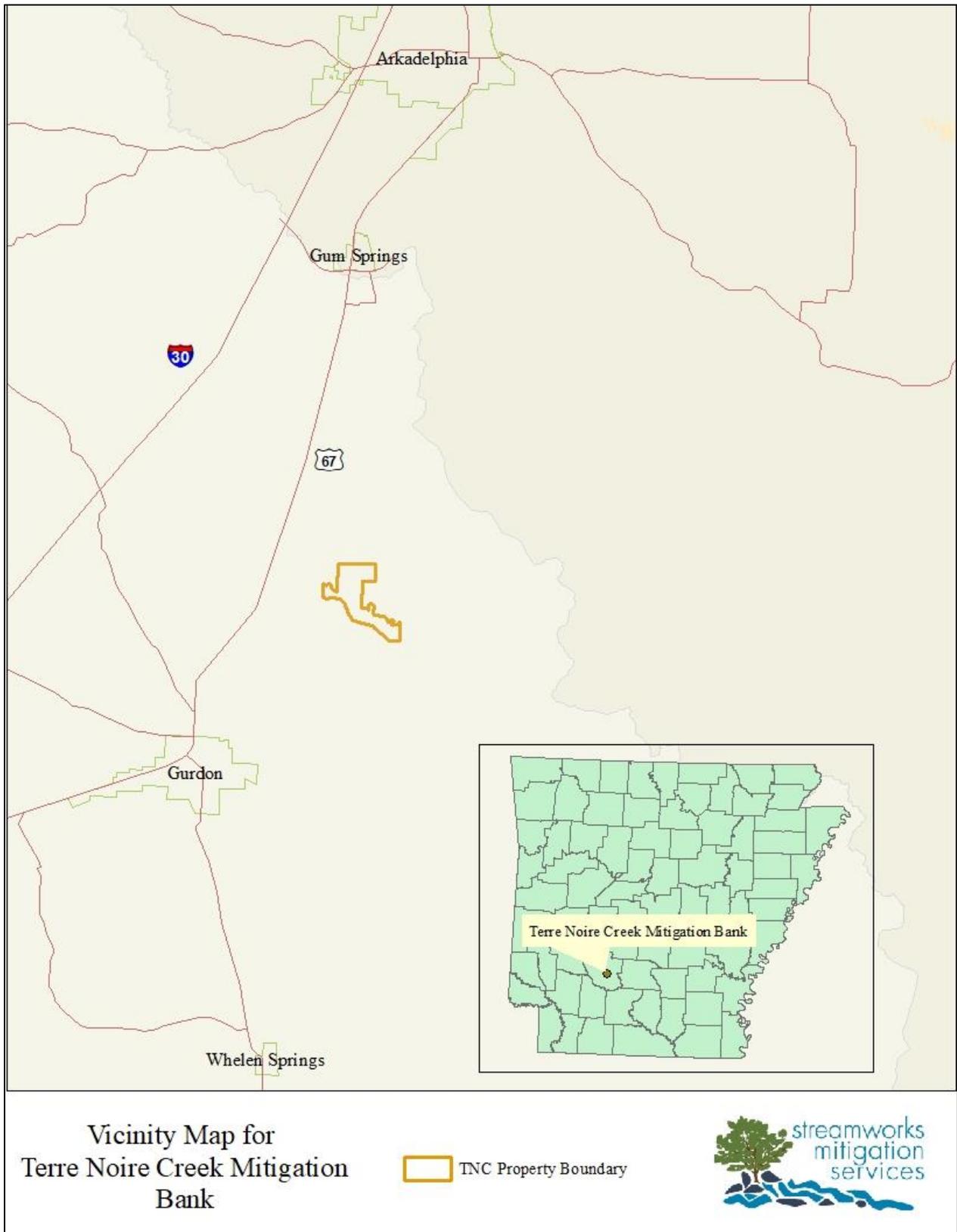
Please provide comments to:

U.S. Army Corps of Engineers
Vicksburg District
Attention: CEMVK-RD
4155 Clay Street
Vicksburg, Mississippi 39183-3485

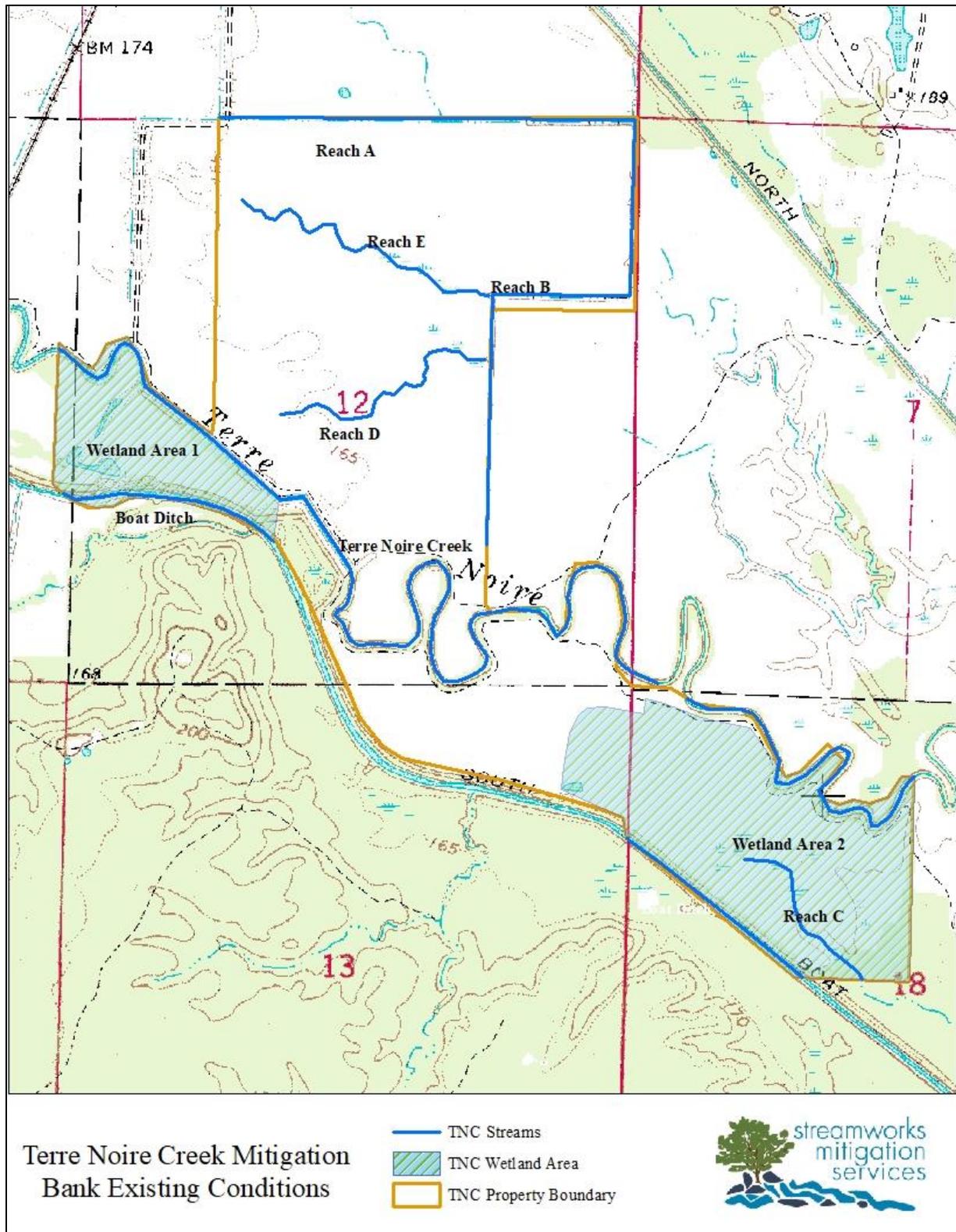
Andy Sanderson
Chief, Louisiana/Arkansas Branch
Regulatory Division

A-4: Primary and secondary service areas for the proposed Terre Noire Creek Mitigation Bank

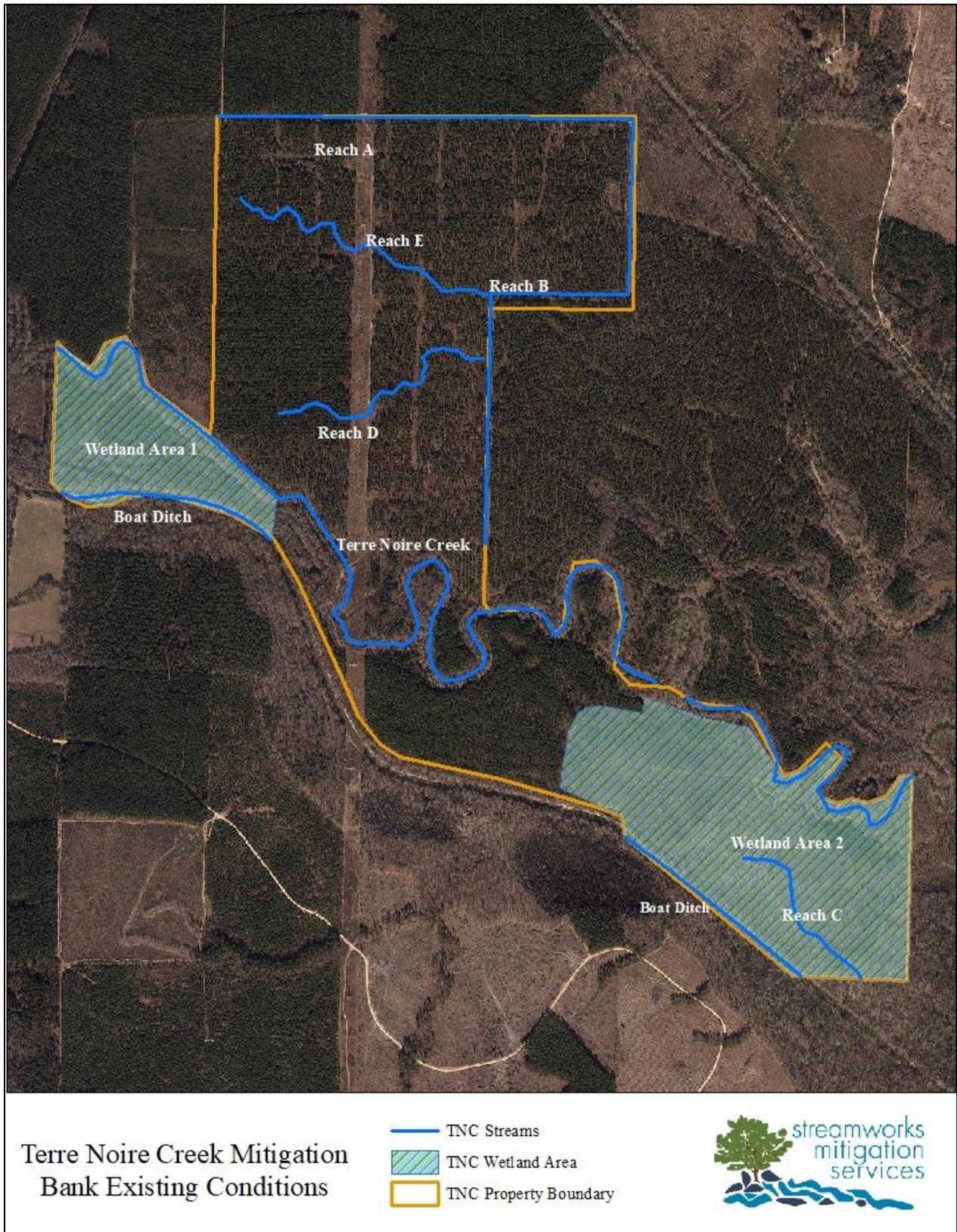




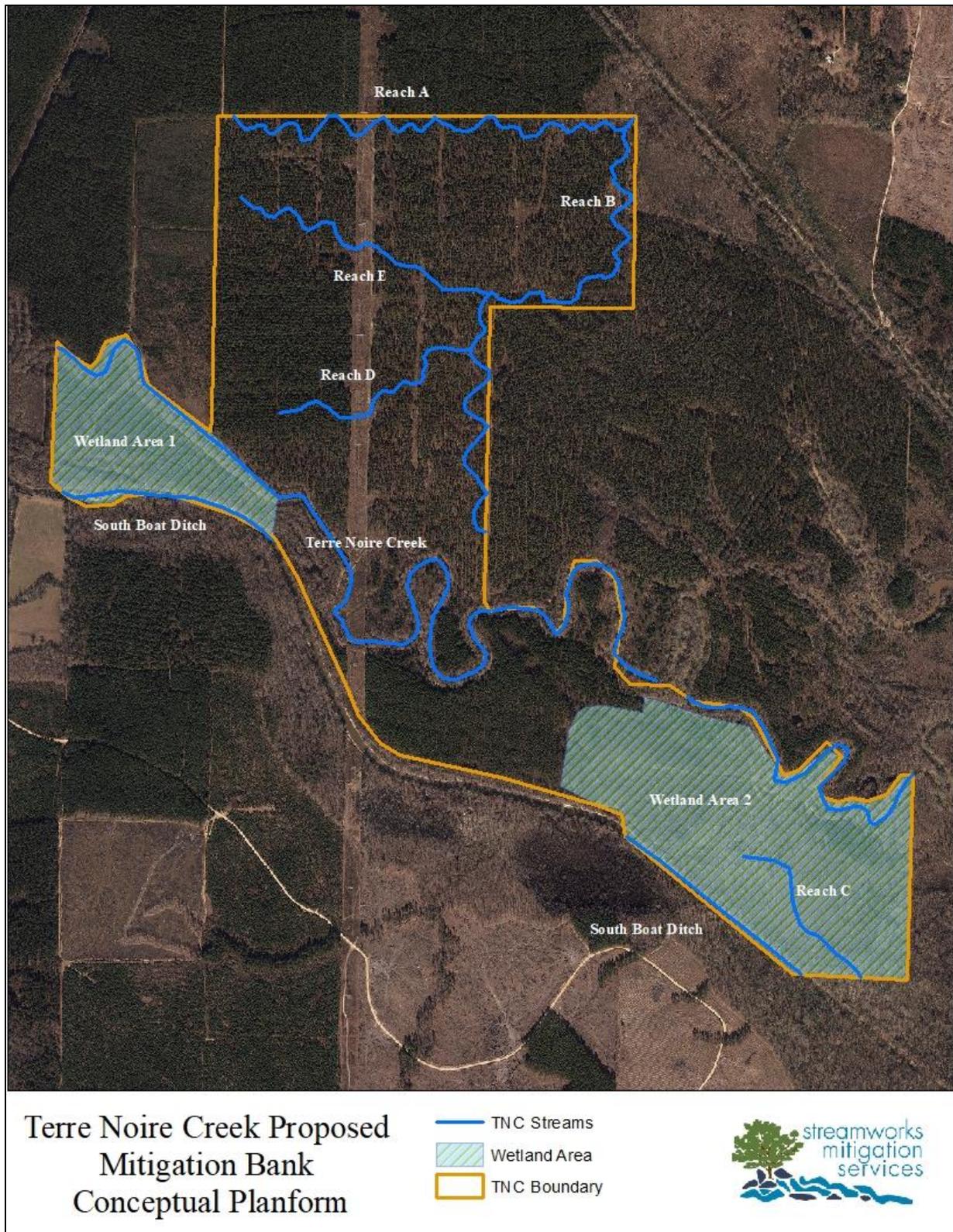
A.1: Vicinity Map for proposed Terre Noire Creek Mitigation Bank



A.3: Topo map of existing conditions of the proposed Terre Noire Creek Mitigation Bank



A.2: Aerial map of existing conditions of the proposed Terre Noire Creek Mitigation Bank



A.5: Aerial map of the conceptual planform of the proposed Terre Noire Creek Mitigation Bank

Introduction

The proposed Terre Noire Creek Mitigation Bank will be a stream and wetland commercial mitigation bank located in the Little Missouri watershed and will be developed to be used as compensatory mitigation for unavoidable impacts authorized under Section 404 of the Clean Water Act. This combined stream and wetland mitigation project is located within ~560 acres in Sections 11, 12, 13, Township 9 South, Range 20 West, and part of Sections 18, Township 9 South, Range 19 West, of Clark County, Arkansas, south of Gum Springs, Arkansas and northeast of Gurdon, Arkansas (Table 1). The project will restore, enhance, or protect ~18,752 linear feet (LF) of Terre Noire Creek, ~4,156 LF of South Boat Ditch and ~17,070 LF of additional tributaries, and ~126.3 acres of wetlands under the guidance of the *Compensatory Mitigation for Losses of Aquatic Resources, Final Rule. Regulation 40CFR Part 230* (USACE & USEPA 2008). Interagency Review Team (IRT) participation will include: the Vicksburg District of the U.S. Army Corps of Engineers (“USACE”, “MVK” or “Chair”), the U.S. Environmental Protection Agency, Region VI (“USEPA”), the U.S. Fish and Wildlife Service Region IV (“USFWS”), the Arkansas Department of Energy and Environment (“E&E”), the **Arkansas Natural Resources Commission (“ANRC”)**, the Arkansas Game and Fish Commission (“AGFC”), and the Arkansas Department of Parks, Heritage, and Tourism (“ADPHT”), as applicable.

Table 1: Summary of background information of the proposed Terre Noire Creek Mitigation Bank

BACKGROUND INFORMATION - PHASE I	
Project Name	Terre Noire Creek Mitigation Bank (“TNCMB”) - Phase I
Project Sponsor	Streamworks Mitigation Services, LLC
Site Location	Sections 11, 12, 13, Township 9 South, Range 20 West, and part of Sections 18, Township 9 South, Range 19 West
County	Clark
8-digit HUC	Little Missouri 08040103
10-digit HUC	Terre Noire 0804010308
12-digit HUC	North Boat Ditch 080401030806, South Boat Ditch 080401030808
Primary Service Area	Little Missouri 08040103 Lower Ouachita Smackover 08040201 Upper Ouachita 08040102
Protection Mechanism	Conservation Easement
Monitoring Frequency	Annually
Size of Project Area	~560 acres; ~ 42,102LF of streams; ~164.4 acres of wetlands
Directions to Site	From Gum Springs travel south on Hwy 67 ~5 miles; cross the North Boat Ditch; turn left through the gate onto a dirt road; stay on the dirt road ~1.7 miles to the northwest corner of the property
Mitigation Objectives	To establish a mitigation bank in association with the granting of USACE permits through restoration and enhancement of ~42,102LF of streams, ~164.4 acres of wetlands, and associated riparian buffers.

1.0 Objective

The project objective is to develop a stream and wetland mitigation bank in the Little Missouri watershed in association with the granting of Department of the Army permits through restoration,

enhancement, and preservation of stream channels, wetlands, and associated buffers within the mitigation acreage. The project goal is to restore the perennial, intermittent, and ephemeral streams and to restore or enhance wetland habitat. The specific design objectives of the project include:

- Restoration or enhancement of channel dimension, pattern, and profile;
- Restoration or enhancement of wetlands;
- Water quality enhancement in the Little Missouri watershed through sediment reduction, nutrient reduction, streambank stability, and erosion control;
- Water quantity improvement through water storage and flood control, improved ground water recharge, and improved and restored hydrologic connections;
- Enhancement of aquatic and terrestrial habitats through improved substrate and instream cover, addition of woody debris, reduction in water temperature due to shading, restoration of terrestrial habitat, increase of spatial extent of natural area, and improved aesthetics.

2.0 Site Selection and Justification

Terre Noire Creek is listed on the 2022 303(d)(Draft) list as impaired due to pH(ADEQ 2022). Terre Noire Creek flows for ~3.55 miles through the middle of the property. Along with the North and South Boat ditches Terre Noire Creek drains ~343 square miles. Terre Noire Creek and South Boat Ditch flow southeast off the property before joining together along with North Boat Ditch. After joining together they continue to flow southeast until they join up with the Little Missouri River and the Ouachita River. Both the Little Missouri River and the Ouachita River are listed on the 2022 303(d)(Draft) list. Protection of the waters that feed into these rivers could help to improve overall water quality over the long term. Restoration enhancement and buffering of the intermediate and ephemeral streams on the site will also help to reduce the overall sediment and nutrients that could make their way down stream into these larger river ways.

The proposed mitigation site has historically been used for silviculture. The streams were ditched, straightened, and filled to maximize timber production.

Multiple plant and animal species of concern potentially utilize the habitat within the proposed mitigation area. Further surveys will be conducted to determine which of these species are utilizing the site (Appendix C).

3.0 Site Protection Instrument

The property is owned by a private third party and the mitigation acreage will be placed in a conservation easement with the Arkansas Land Trust and filed at the courthouse in Clark County. During the mitigation period, the site will be monitored regularly by the Arkansas Land Trust to ensure that the easement restrictions are being followed.

4.0 Baseline Information

The Little Missouri watershed extends through Polk, Montgomery, Howard, Pike, Clark, Hempstead, Nevada, and Ouachita Counties, then flows southeast into the Ouachita River. The Little Missouri watershed is located in the Ouachita Mountain and Coastal Plain Eco-region. Terre Noire Creek is a perennial channel originating in north central Clark County flowing southeast before connecting

with the Ouachita River.

4.1 Soils

Soils are mapped into three primary units (USDA NRCS 2019). The largest unit is composed of Urbo silty clay Loam 0 to 1 percent slopes, ~437 acres. Urbo silty clay loam is a occasionally flooded, somewhat poorly drained soil, classified in hydrologic soil group D, with a parent material of Clayey alluvium. The second largest unit is Marietta fine sandy loam 0 to 1 percent slopes, ~91 acres. Marietta fine sandy loam is a moderately well drained, classified in hydrologic soil group B/D, soil with a parent material of Loamy alluvium. The third soil unit is Sardis silt loam, 0 to 1 percent slope, ~32 acres. Sardis silt loam is a somewhat poorly drained soil, classified in hydrologic soil group C, with a parent material of Loamy alluvium (Appendix A, A.6).

4.2 Ecology

Loblolly Pine (*Pinus taeda*) dominates the majority of the woody vegetation located inside the proposed mitigation area. The wetland areas are comprised of early successional hardwoods, such as Ash, Maples, Sweet Gum, and Black Willow. Very few invasive species, Chinese privet (*Ligustrum sinense*) and Baccharis (*Baccharis halimifolia*) have been found on the site. Establishment of baseline plant community monitoring transects will be scheduled. In addition to the baseline vegetative monitoring, avian point counts, benthic macroinvertebrate, and a bat survey may be conducted to help determine restoration activities and goals, as well as, illustrate ecological lift after restoration activities are implemented.

5.0 Determination of Credits

The method of stream credit determination will be a combination of stream channel restoration, enhancement, preservation, and riparian buffer creation. The Charleston Functional Assessment method (USACE 2010) will be used to determine the amount of stream credits. Wetland credit determination will follow the Charleston Method (USACE 2010). Stream segments that overlay with wetland areas or buffers will not be stacked for mitigation credits.

6.0 Mitigation Work Plan

The overall work plan for the site will focus on the restoration and enhancement of the impacted streams and wetlands. Site preparation activities will include conducting comprehensive topographic and geomorphic surveys of existing stream and wetland conditions. Existing conditions will be evaluated for departure from historical and reference conditions and restored or enhanced to the appropriate dimension, pattern, and profile. If conditions allow, a prescribed burn may be conducted prior to construction. All of the construction will be performed during the dry season. Where it is appropriate, the site will be re-vegetated in native trees, shrubs, grasses, and forbs. Mechanical ripping will be utilized as needed prior to planting to facilitate tree survival rates.

6.1 Streams

- **Terre Noire Creek**

Terre Noire Creek is ~45ft wide flowing west to east across the southern and central portion of the property. Approximately 18,752LF of Terre Noire Creek flows through the property, with approximately 2,605LF having been straight line ditched. Within the ditched segment there is moderate evidence of lateral stress. Within the remaining segments of Terre Noire Creek the channel shows good sinuosity and a moderate width to depth ratio. There is some erosion of the outer banks of the bends especially under the powerline right of way. Exposed streambanks will be stabilized using appropriate methods (Appendix B: Photos 1-4).

- **South Boat Ditch**

Preliminary site surveys found that the South Boat Ditch is a ~50-60ft. wide perennial channel that flows for ~4,156LF west to east along the southern border of the site. The South Boat Ditch was dug between 1919-1922(Deaton 2016). The channel is moderately stable with some signs of bank erosion. The South Boat Ditch will be stabilized with appropriate methods (Appendix B: Photos 5 & 6).

- **Reach A**

Reach A is a perennial channel that flows ~3,874LF from west to east along the northern boundary of the property. This channel has been straightened and ditched to help drain the property for agricultural uses. This channel will be reconstructed to the appropriate dimension, pattern, and profile (Appendix B: Photos 7-9).

- **Reach B**

Reach B is a perennial channel that flows south to north for ~5,345LF along the eastern boundary of the property. This channel has also been straightened and ditched to help drain the property for agricultural uses. This channel will be reconstructed restoring it to appropriate dimension, pattern, and profile (Appendix B: Photo 10 & 11).

- **Reach C**

Reach C is an intermittent channel located in the south east corner of the property and flows from northwest to southeast for ~1,761LF. Small log jams in this area have caused some bank erosion. These log jams will be removed and the banks will be fixed using appropriate methods.

- **Reach D**

Reaches D is an ephemeral channel located within central portion of the proposed mitigation bank. Reach D flows from west to east and is ~2,479LF through the clear-cut portion of the property. (Appendix B: Photo 12). This channel has been impacted through previous logging and agricultural activities. The remaining remnant channel features will be reconnected and logging debris will be removed from areas where it is impacting stream flow.

- **Reach E**

Reach E is an ephemeral channel located within the central portion of the proposed mitigation

bank. Reach D flows from west to east and is ~2,861LF through the clear-cut portion of the property. (Appendix B: Photo 13). This channel has been impacted through previous logging and agricultural activities. The remaining remnant channel features will be reconnected and logging debris will be removed from areas where it is impacting stream flow.

6.2 Wetlands

The wetland areas located within the proposed mitigation bank total ~164.4 acres. The wetland activities will be a combination of restoration and enhancement of existing wetland features. Wetland indicators are present onsite including, but not limited to, the existence of wetland hydrology, true aquatic plants and active crayfish burrows. Only acreage outside of the stream riparian buffer zone will be assessed for wetland mitigation credit potential (Appendix B: Photos 14-19).

6.3 Riparian Buffer

The riparian buffers of the mitigation area will be re-vegetated through hand planting native hardwood and herbaceous species with a density of 304 stems per acre. The under story will be planted with herbaceous mid-story species where the canopy is already established. During the dormant season, stakes such as, Black willow (*Salix nigra*), Eastern Cottonwood (*Populus deltoides*), and Sycamore (*Platanus occidentalis*), will be placed along the streambanks. The wetland acreage planting will consist of the appropriate species.

7.0 Operation and Maintenance Plan

The project will be developed and implemented by Streamworks Mitigation Services, LLC. The site will be maintained and monitored annually by Streamworks with reports submitted to the MVK for review for five years after initial construction or until the project is deemed successful.

8.0 Performance Standards

The overall performance standard and success criteria for stream and wetland compensation is demonstrable ecological lift within the project site. This lift will be measured through biological surveys and reinforced through geomorphic monitoring, vegetative monitoring, and qualitative stability indices. The performance standards will follow guidelines from the Compensatory Mitigation Standard Operating Procedure (USACE 2010) and approved by the IRT and MVK.

9.0 Monitoring Requirements

Monitoring will be conducted by Streamworks Mitigation Services, LLC, for five years or until the MVK determines the project is complete. Permanent cross-sections and longitudinal feature parameters will be established following the guidelines set forth in the Charleston Stream Method (USACE 2010). This data will be collected and analyzed annually to determine if success criteria are being met.

10.0 Long-term Management

An escrow account will be established by Streamworks Mitigation Services, LLC to adequately service long-term management goals. These long-term management activities will be conducted by Streamworks. At a later time, and with approval from the MVK, Streamworks may designate a long-

term steward or an entity to act as steward.

11.0 Adaptive Management

Upon a determination by MVK that performance standards have not been met or the compensatory mitigation project is not on track to meet those standards, the monitoring period may be extended. MVK may also revise monitoring requirements when remediation and/or adaptive management are required. In the event that the success criteria have not been met, remedial action will be taken within 90 days.

12.0 Financial Assurances

Financial assurances will be provided by Streamworks Mitigation Services, LLC.

13.0 Qualifications of the Sponsor

Terre Noire Creek Mitigation Bank will be managed and operated by Streamworks Mitigation Services, LLC. Streamworks manages and operates two commercial mitigation banks, and one single client mitigation bank. Streamworks developed and successfully closed five consolidated mitigation areas (CMA) in the Little Rock Corps District. Streamworks has been in business for fourteen years and has completed multiple stream and wetland restoration projects in the state of Arkansas. Streamworks will provide all technical documents, stream restoration design, wetland/buffer design, construction oversight, and will perform all monitoring requirements.