



**US Army Corps
of Engineers**

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



Public Notice

APPLICATION NO.:	MVK-2012-387
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DATE:	May 12, 2016
EXPIRATION DATE:	June 10, 2016

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Vicksburg District, is considering a proposal to establish the Upper Coldwater Mitigation Bank Phase II (UCMB). A prospectus has been received describing the proposed bank from Ecosource Consulting Group, LLC, the bank Sponsor. The proposed site is located in Sections 26 and 27, Township 2 South, Range 3 West, Marshall County, Mississippi (enclosure 1).

Description: The UCMB is being proposed by the bank Sponsor as a means to meet the requirements for compensatory mitigation for future and as yet unknown stream losses, which may be permitted by the Corps under the authority of Section 404 of the Clean Water Act.

The bank Sponsor proposes to develop a mitigation bank by restoring/enhancing stream functions. The proposed work would increase the stream function, provide species diversity, and increase the width of a wildlife corridor within the Coldwater River Watershed (HUC 08030204).

Baseline Conditions / Current Land Use / Proposed Actions:

The property is currently operating as the Upper Coldwater Mitigation Bank. Efforts are in place to restore wetland areas within the bank. The success of the restoration efforts within the wetlands along the Coldwater River is vital to ensuring a healthy, plentiful, and safe water supply downstream. Areas within the Upper Coldwater Mitigation Bank are part of the wildlife corridor along the Coldwater River that would continue to experience development pressures. The predominant land use around the project is low density residential, silviculture, pasture land, row crops, and residential. These land uses can contribute to increased sediment supply to the watershed and potential for increased pollutants.

The Coldwater Cattle Company is an established cattle operation in the Coldwater River bottom that occupies land adjacent to the proposed property. Residential property borders the northern portion of Tract 1 of the mitigation property. The recent industrial development and associated roadways indicate that more growth and development is to be expected in the future. Development pressures would continue to increase within the area. Reinforcing the need for wildlife habitat and securing water quality. Utilizing the potential resources within the bank property to their full potential is imperative to ensure the integrity of the downstream water supply and its influence on surrounding ecosystems.

The proposed stream mitigation activities would be implemented within the existing bank site located along the Coldwater River north of Holly Springs, Marshall County, Mississippi. The property is divided into two tracts. Tract 1 (162 acres) is located on the western side of Highway 311, and Tract 2 (204 acres) is located on the eastern side of Highway 311 (enclosure 2). Wetland restoration activities have taken place within both tracts as outlined within the current restoration plan for the Upper Coldwater Mitigation Bank.

Tract 1

The proposed tract on the western side of State Route 311 is bordered to the north by River Rhoades Drive and to the south by the Coldwater River. The property contains a portion of the Coldwater River that transects the southern portion of the property in a southeast to northwest direction. Additionally, an old channel of the Coldwater River forms the southern boundary of the property. The channel runs in an east to west direction.

Tract 2

Tract 2 is located east of State Route 311 and south of Isom Chapel Road, with the Coldwater River running throughout the southern portion of the property. At the southern end of this tract, Dawson Creek converges with the Coldwater River. Rookery Creek transects the southeastern portion of the property and is located within and adjacent to an active heron rookery. Additionally, Isom Chapel Creek enters the northern portion of the property beneath Isom Chapel Road and exits beneath State route 311. Some riparian buffer was left along the stream banks; however, much of the buffer has been disturbed and would need to be restored.

Much of the work around the old channel associated with the Coldwater River would be potentially preservation but work around the other tributaries would include restoration or enhancement of a riparian buffer and natural pattern and profile for smaller tributaries where appropriate. More specifically, preservation of the existing buffer around the old channel associated with the Coldwater River would include removal of invasive noxious plants if found. Additionally, in stream restoration would be performed within Isom Chapel Creek along with riparian buffer enhancement. Furthermore, the buffers associated with Dawson's Creek, Rookery Creek, and the Coldwater River would be preserved or enhanced based on the current condition.

Enhancement activities would include employing the hack and squirt chemical application method to existing regeneration of windblown species to prevent invasive species from establishing on the project property. The buffers would be managed to ensure a diversity of species and habitats. A diverse mixture of appropriate bottomland hardwood species would be used to re-establish the buffer areas. The forested wetlands would be planted above the required minimum density trees per acre with a mixture of bottomland hardwood species typical of floodplain flats and stream terraces. Many of the areas that would facilitate enhancement activities have been allowed to be established with shade tolerant/invasive species. The most common undesirable species found within the buffer areas is the box elder (*Acer negundo*). The box elder species has tremendous seed production and distribution capabilities that would not only negatively affect the buffer areas but the adjacent landscape as well.

Restoration activities would be focused within Isom Chapel Creek. Isom Chapel Road forms the northern boundary of the mitigation bank and transects a portion of Isom Chapel Creek. It appears that over years the bridge on Isom Chapel Road has been used as an illegal disposal site. The illegally disposed items include household trash, televisions, home furnishings and other items. Over time, the accumulation of disposed items has formed a barrier that acts as a dyke within the stream. Increased sedimentation is occurring north of the trash barrier and if left unattended the overall depth of the channel would be reduced until the stream is forced to form another route around the barrier. The proposed restoration activities would include the removal of the illegally dumped materials, redefinition of the bank and stream bed within the areas with accumulated sediment and coordination with Marshall County officials to construct a fence along the bridge and road shoulder to eliminate the convenience of using the bridge as an illegal disposal site.

The table below provides a summary of the potential stream mitigation located within the bank property (enclosure 3).

Stream Name	Restoration Type	Linear Feet
Isom Chapel Creek	Restoration/Enhancement	1,532
Rookery Creek	Preservation	1,574
Dawson's Creek	Enhancement/Preservation	865
Coldwater River	Enhancement/Preservation	2,653
Coldwater River	Enhancement/Preservation	5,318
Old Coldwater Channel	Preservation	4,751

The site is located at elevations of 382 feet and 450 feet on upland ridges. Sources of hydrology are groundwater, surface water, and infiltration from upstream portions of the drainage basin. Seeps are found at the base of hills on Tract 2 with clear cold running water feeding into inundated areas. Much of the

two tracts lie in an area known as the Coldwater River bottom which is a large expansive wetland complex running along the Coldwater River from its headwaters (near the project) to near Arkabutla Lake where it has been channelized and loses some of its abutting wetlands. This river is known to get out of its banks regularly and the site is located in wide flat low lands between the bases of hills.

Service Area: This Mitigation Bank would be established to provide mitigation to compensate for impacts to waters of the United States within the Corps of Engineers Vicksburg District. These areas are demarcated by the United States Geologic Survey as hydrologic unit code 08030204, 08030201, and 08030203 (enclosure 4). Decisions authorizing the use of credits from the Mitigation Bank will be made by the appropriate authority on a case by case basis in accordance with all applicable requirements.

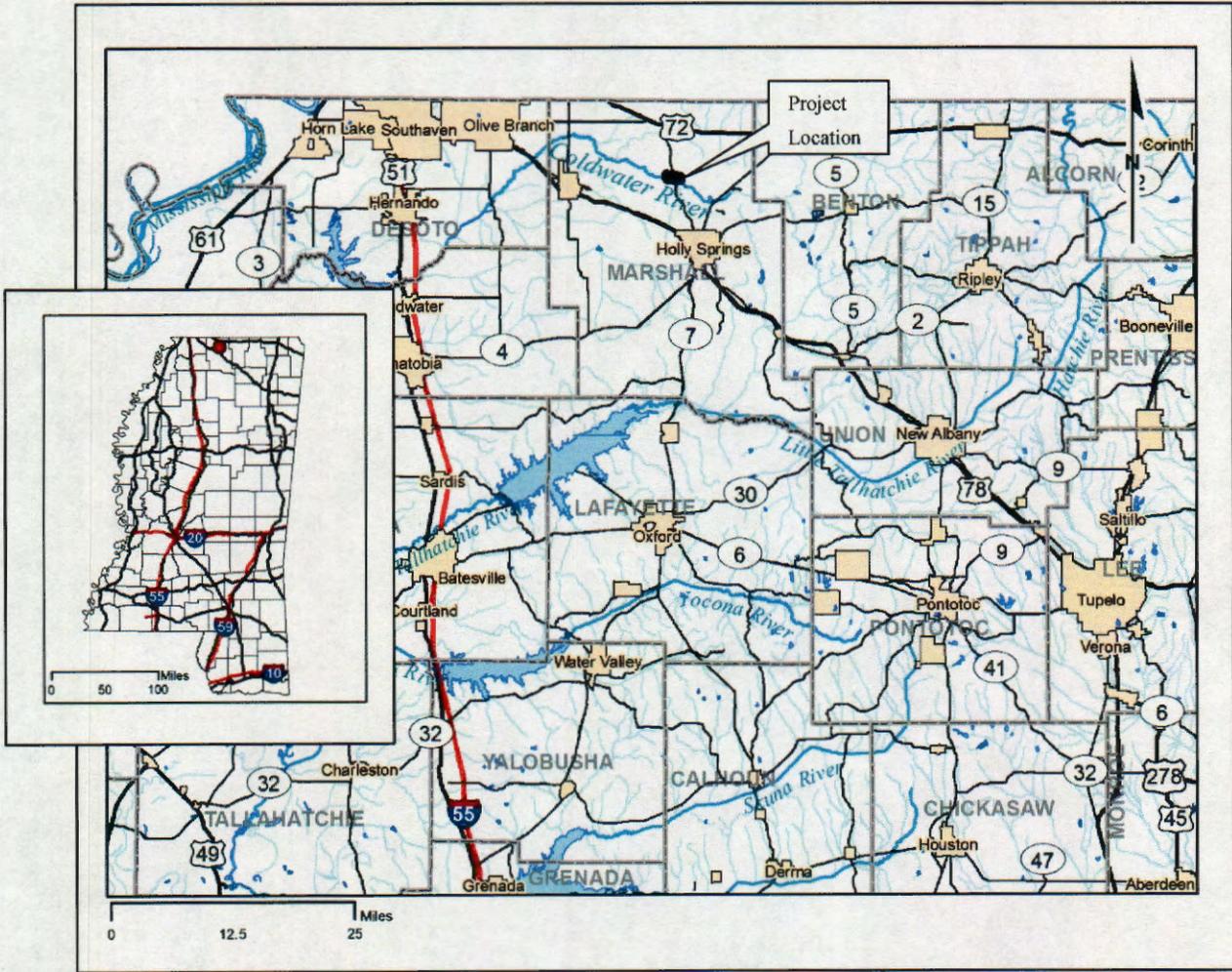
Comments on this proposed mitigation bank may be provided to the Corps at the address below. Comments should be received no later than the expiration date of this public notice. The prospectus, which outlines the conceptual plan for the bank, is available at the following website:

<http://www.mvk.usace.army.mil/Missions/Regulatory/PublicNotices.aspx>

The prospectus, which outlines the conceptual plan for the bank, is available for review at the Vicksburg District, Corps of Engineers at the address given below. Please provide comments to:

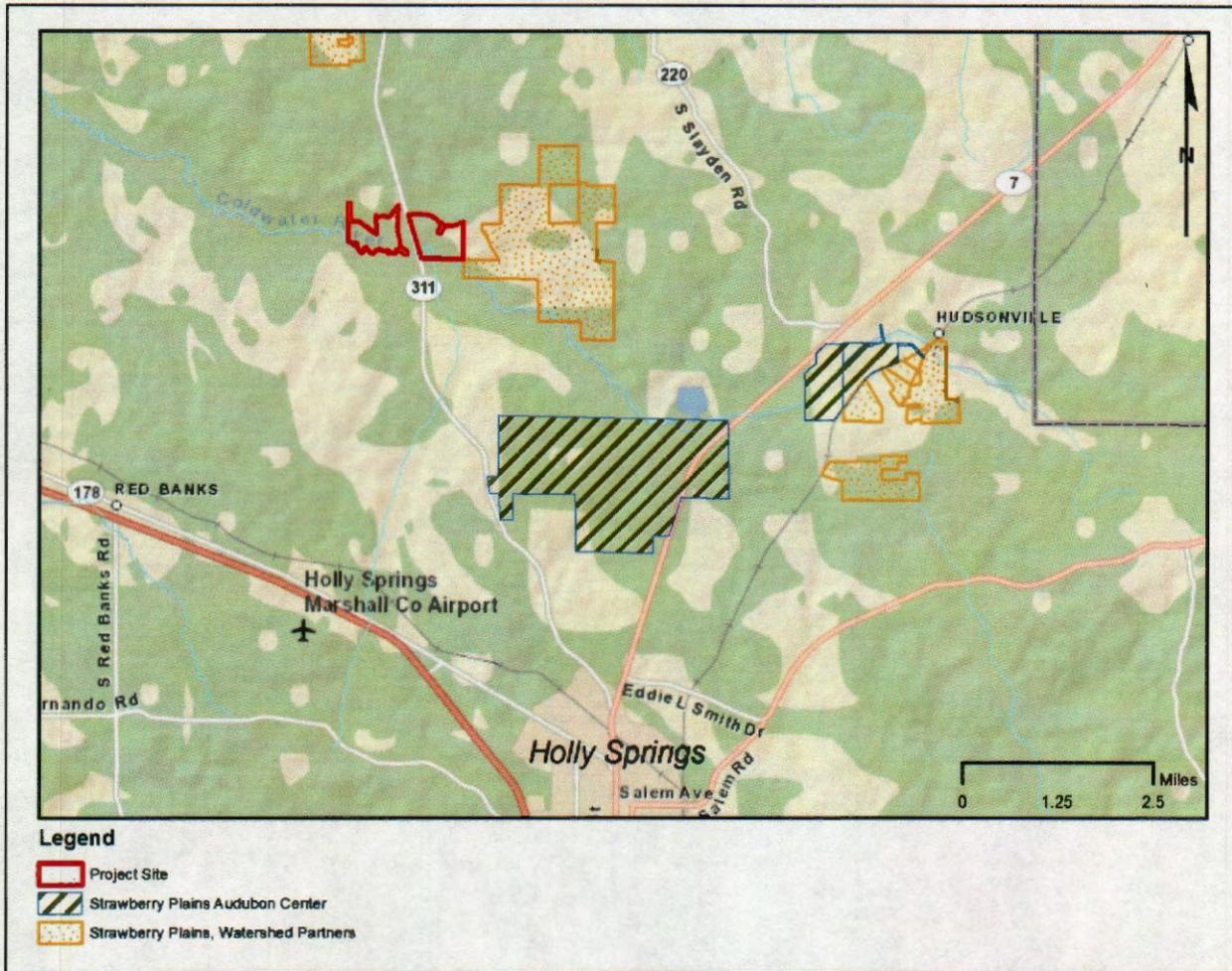
U.S. Army Corps of Engineers
Vicksburg District
ATTN: CEMVK-OD-F
4155 Clay Street
Vicksburg, Mississippi 39183-3485

Thomas A. McCabe
Thomas A. McCabe
Chief, Evaluation Section
Regulatory Branch



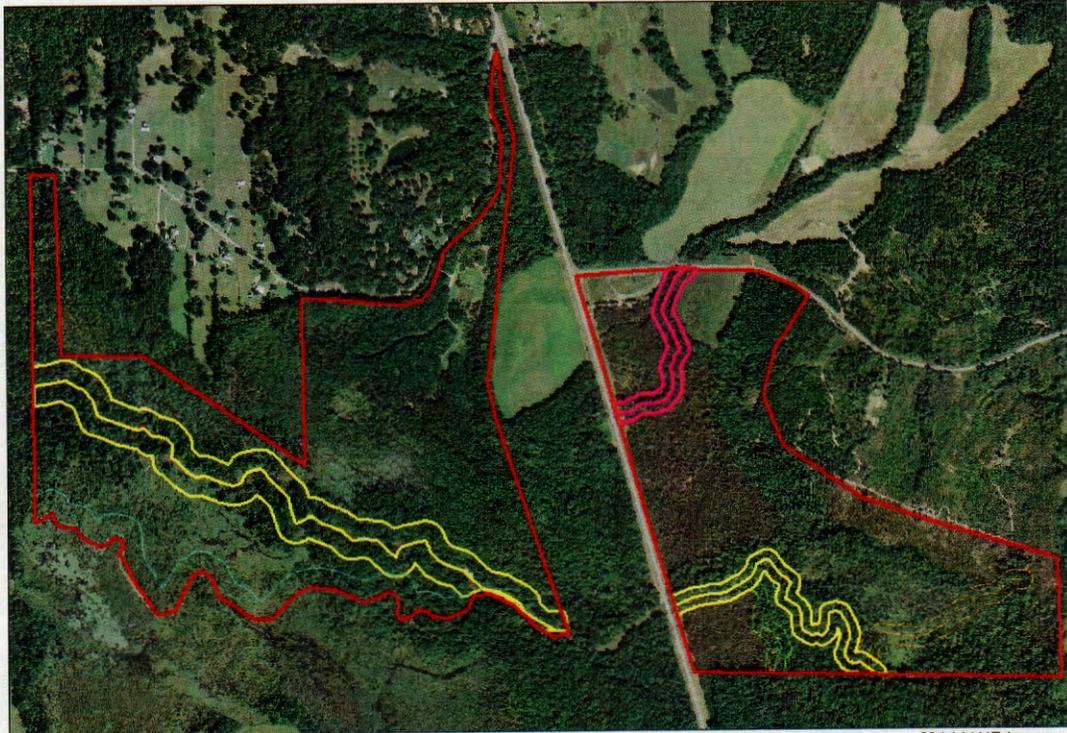
Project Location

Enclosure 1



Location of the UCMB in relation to Audubon properties (base map, ESRI provided Open Street Map)

Enclosure 2



2014 NAIP Imagery



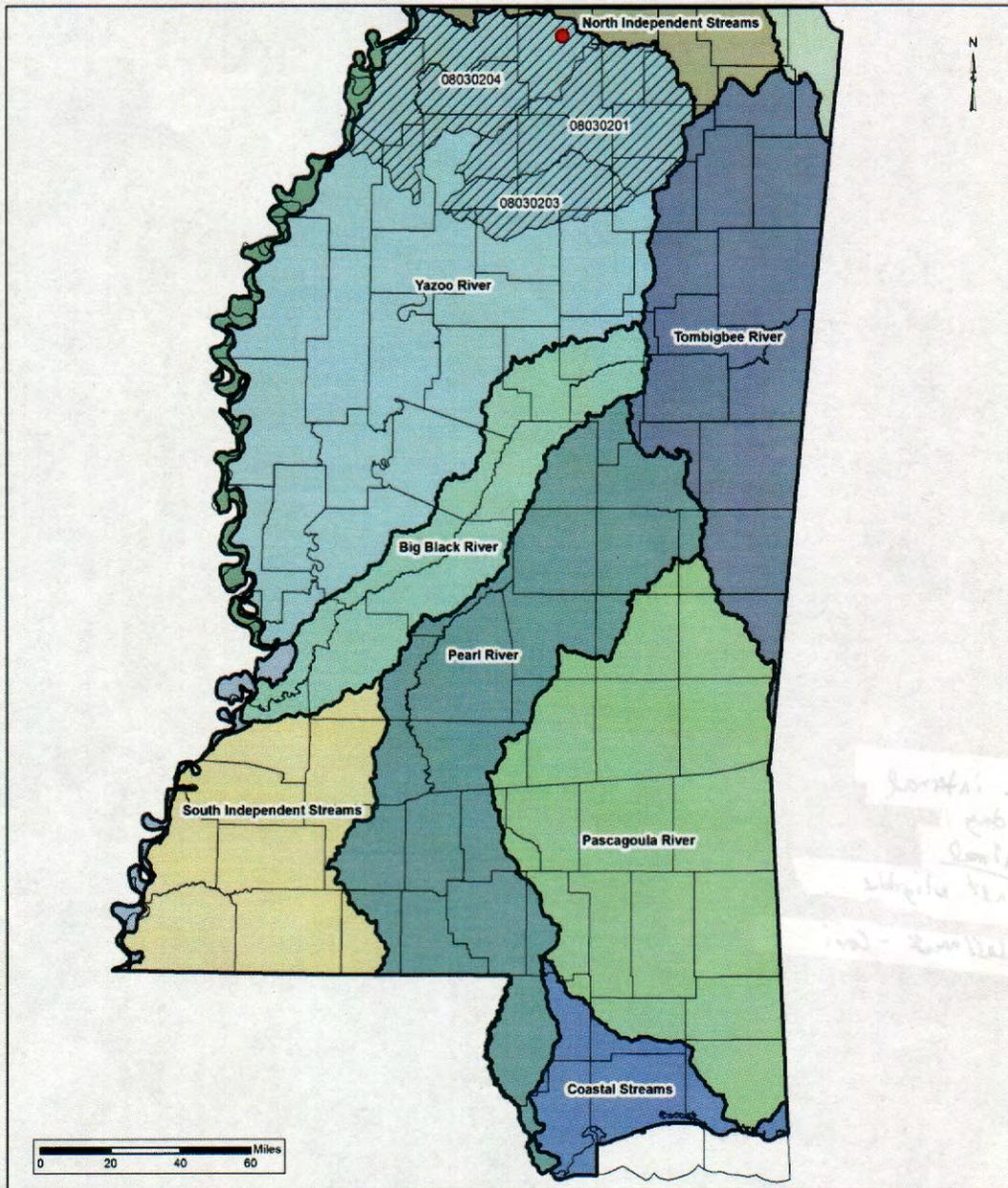
Legend

- Boundary
- Dawson's Creek
- Old Coldwater Channel
- Coldwater River
- Rookery Creek
- Isom Chapel Creek

**Upper Coldwater Mitigation Bank
Phase II - Proposed Stream Mitigation Areas**

POTENTIAL STREAM BUFFER LOCATIONS ON THE PROJECT SITE

Enclosure 3



Legend

- | | | | |
|--------------------------|-------------------------|---------------------------|-------------------------|
| ● Project Location | Major Drainage Basins | North Independent Streams | Tennessee River |
| □ Counties | Big Black River | Pascagoula River | Tombigbee River |
| ▨ Proposed Service Areas | Coastal Streams | Pearl River | Upper Mississippi River |
| | Lower Mississippi River | South Independent Streams | Yazoo River |

Project Service Areas

**Phase II - Stream Mitigation Pre-Prospectus
Upper Coldwater Mitigation Bank**

Marshall County, MS

Upper Coldwater Mitigation, LLC

October 27, 2015

By

ECOSOURCE CONSULTING GROUP, LLC

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I. Phase II Objectives

Ecosource Consulting Group, LLC would like to present the following prospectus for the Phase II portion of the Upper Coldwater Mitigation Bank (UCMB) to the U.S. Army Corps of Engineers (USACE) Vicksburg District. We are requesting guidance and authorization to implement restoration/enhancement and preservation activities associated with the potential stream mitigation credits that are available within the UCMB, to provide compensation for unavoidable impacts to streams and or waters of the U.S. authorized by the Department of the Army permits under Section 404 of the Clean Water Act, Sections 9 and 10 of the Rivers and Harbors Act of 1899, and/or USACE Civil Works projects. Once restoration and protection of the bank has been accomplished, the property will be endowed to the Strawberry Plains Audubon Center (SPAC) part of the National Audubon Society as defined within the existing mitigation banking instrument (MBI) for the bank.

The objectives to be achieved by implementing Phase II within the existing bank are to:

- Restore, enhance and preserve the physical integrity of intermittent and perennial stream corridors.
- To provide compensation for unavoidable impacts to streams and or waters of the U.S. within the associated watershed.

II. Bank Establishment and Operation

The subject property is currently owned by Upper Coldwater Mitigation, LLC (UCM). Ecosource Consulting Group, LLC (ECG) has been retained by UCM to coordinate and monitor all operations for satisfying the success criteria within the existing mitigation bank. All project monitoring and short-term management will be conducted by the Sponsor. A restrictive covenant was placed on the property at the initial approval of the Mitigation Banking Instrument. Once the bank has

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been operational and all credits have been released, the property will be endowed to the SPAC for perpetual management.

III. Site Location and Regional Significance

The proposed stream mitigation activities would be implemented within the existing bank site located along the Coldwater River north of Holly Springs, Mississippi in Marshall County (see Figure 1, Sections 26 and 27- Township 2S-Range3W, Latitude N34.8802, Longitude W-89.4968). The property consists of two tracts: Tract 1, a 160-acre tract to the west of Highway 311, and Tract 2, a 204 acre tract to the east of Highway 311 (see Figure 2). Wetland restoration activities have taken place within both tracts as outlined within the current restoration plan for the bank.

As mentioned within the initial phase of the bank establishment, the landscape position of the bank is a critical component of the project's anticipated success and ecological suitability. Both tracts are located in the wide low gradient Coldwater River bottom, which is a complex mosaic of wetland habitats ranging from bottomland hardwood forests to inundated areas. This mosaic is compatible with the functions and values of wetlands in the headwaters of the Coldwater River. The site contributes to functions in the wetland mosaic such as groundwater recharge, flood storage, and sediment trapping which is evident in unconsolidated sand trapped from upstream erosion. With such rapid development downstream in the watershed, all of these functions are critically important. A network of stream channels carry water through the bank property. The integrity of these channels is a vital part of the success of the wetland restoration efforts currently in place within the bank as well as downstream.

The Strawberry Plains Audubon Center (SPAC) has a focused mission "to conserve natural ecosystems in the Coldwater River Watershed and raise public awareness of the importance of nature". The SPAC is located approximately

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two miles to the south and east of the proposed project (see Figure 2). Part of the SPAC goal is stewardship of the Coldwater River by preserving headwater habitats in rural Marshall County. These headwaters are especially important considering rapidly developing industrial and urban areas around Memphis, Tennessee, and DeSoto and Tate Counties of Mississippi. The existing bank is identified by the SPAC as an important conservation area in the Upper Coldwater River Watershed as it is abutting the Coldwater River. The property is also contiguous to other tracts of land participating in the SPAC's watershed partners program. The proposed mitigation activities are compatible with SPAC's ecological program plans and conservation goals.

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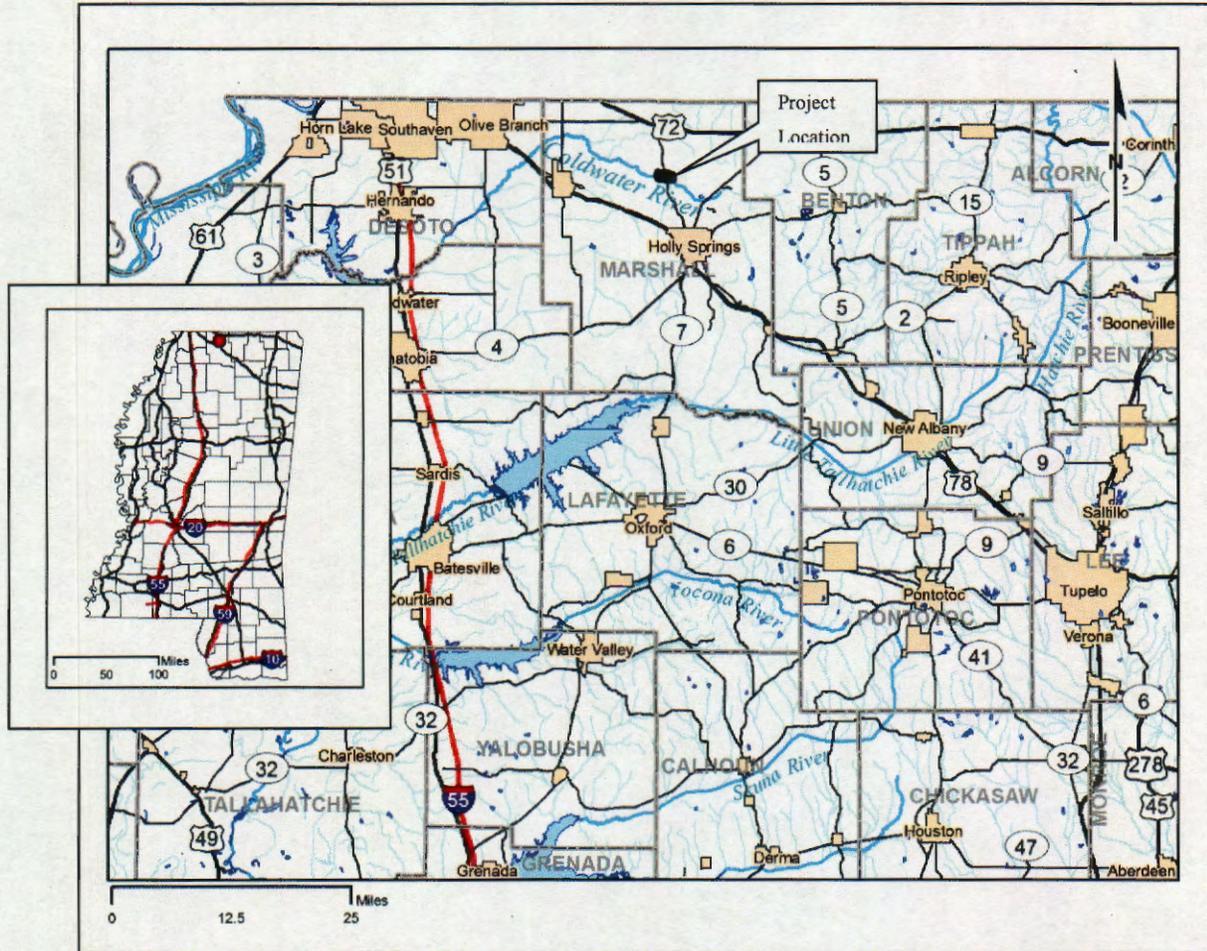


FIGURE 1. Project Location

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The property is ideally situated in central Marshall County, which is adjacent to one of the most rapidly developing areas of Mississippi. It is anticipated that the areas and its surrounding areas will continue to experience growth. Due to the current and anticipated development, the need to preserve, conserve, and restore wetlands and other waters along the Coldwater River is critical and adds to the conservation significance of these headwater areas. Securing a large quantity of wetlands and other waters is important to the physical, chemical, and biological functions of the watershed. Preservation, enhancement, and restoration of the waters within the site will contribute significantly to the ecological sustainability of the watershed by protecting the unique and diverse headwater areas.

A. Background and Current Site Conditions

The property is divided into two tracts. Tract 1 (162 acres) is located on the western side of Highway 311, and Tract 2 (204 acres) is located on the eastern side of Highway 311. The property has been approved by the Interagency Review Team (IRT) as a suitable compensatory mitigation bank. The bank will be entering into its second year of wetland restoration efforts within the property.

Tract 1

The proposed tract on the western side of State Route 311 is bordered to the north by River Rhoades Drive and to the south by the Coldwater River. The property contains a portion of the Coldwater River that transects the southern portion of the property in a southeast to northwest direction. Additionally, an old channel of the Coldwater River forms the southern boundary of the property. The channel runs in an east to west direction.

Tract 2

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Tract 2 is located east of State Route 311 and south of Isom Chapel Road, with the Coldwater River running throughout the southern portion of the property. At the southern end of this tract, Dawson Creek converges with the Coldwater River. Rookery Creek transects the southeastern portion of the property and is located within and adjacent to an active heron rookery. Additionally, Isom Chapel Creek enters the northern portion of the property beneath Isom Chapel Road and exits beneath State route 311. Some riparian buffer was left along stream banks; however, much of the buffer has been disturbed and will need to be restored.

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B. Project Area

The subject property is currently operating as the Upper Coldwater Mitigation Bank. Efforts are in place to restore wetland areas within the bank. The success of the restoration efforts within the wetlands along the Coldwater River is vital to ensuring a healthy, plentiful, and safe water supply downstream. Areas within in the Upper Coldwater Mitigation Bank are part of the wildlife corridor along the Coldwater River that will continue to experience development pressures. The predominant land use around the project is low density residential, silviculture, pasture land, row crops, and residential. These land uses can contribute to increased sediment supply to the watershed and potential for increased pollutants. The Coldwater Cattle Company is an established cattle operation in the Coldwater River bottom that occupies land adjacent to the proposed property. Residential property borders the northern portion of Tract 1 of the mitigation property. The recent industrial development and associated roadways indicate that more growth and development is to expected in the future. Development pressures will continue to increase within the area. Reinforcing the need for wildlife habitat and securing water quality. Utilizing the potential resources within the bank property to their full potential is imperative to ensure the integrity of the downstream water supply and its influence on surrounding ecosystems.

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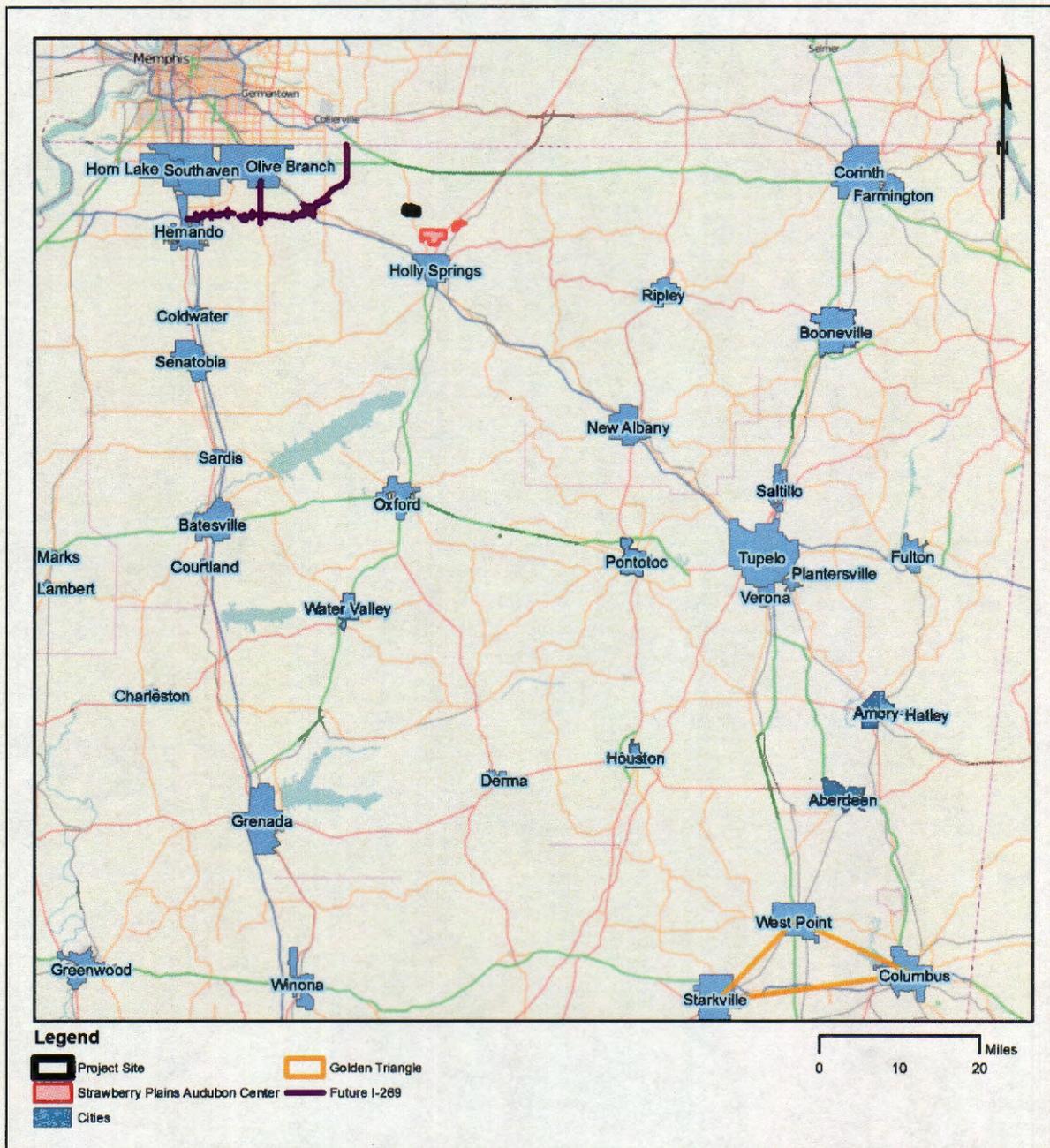


FIGURE 3. Project site in relation to areas experiencing growth, such as Olive Branch, Southaven, Tupelo, the Golden Triangle, Oxford, and Memphis.

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C. Hydrology

The IRT is familiar with the hydrology of the bank property. As previously defined the property is located within the Coldwater River Watershed (HUC 08030204) which is the northeastern most reach of the Yazoo Watershed (HUC 080302). The site is located at elevations of 382 feet and 450 feet on upland ridges. Sources of hydrology are groundwater, surface water, and infiltration from upstream portions of the drainage basin. Seeps are found at the base of hills on Tract 2 with clear cold running water feeding into inundated areas. Much of the two tracts lie in an area known as the Coldwater River bottom which is a large expansive wetland complex running along the Coldwater River from its headwaters (near the project) to near Arkabutla Lake where it has been channelized and loses some of its abutting wetlands. This river is known to get out of its banks regularly and the site is located in wide flat low lands between the bases of hills.

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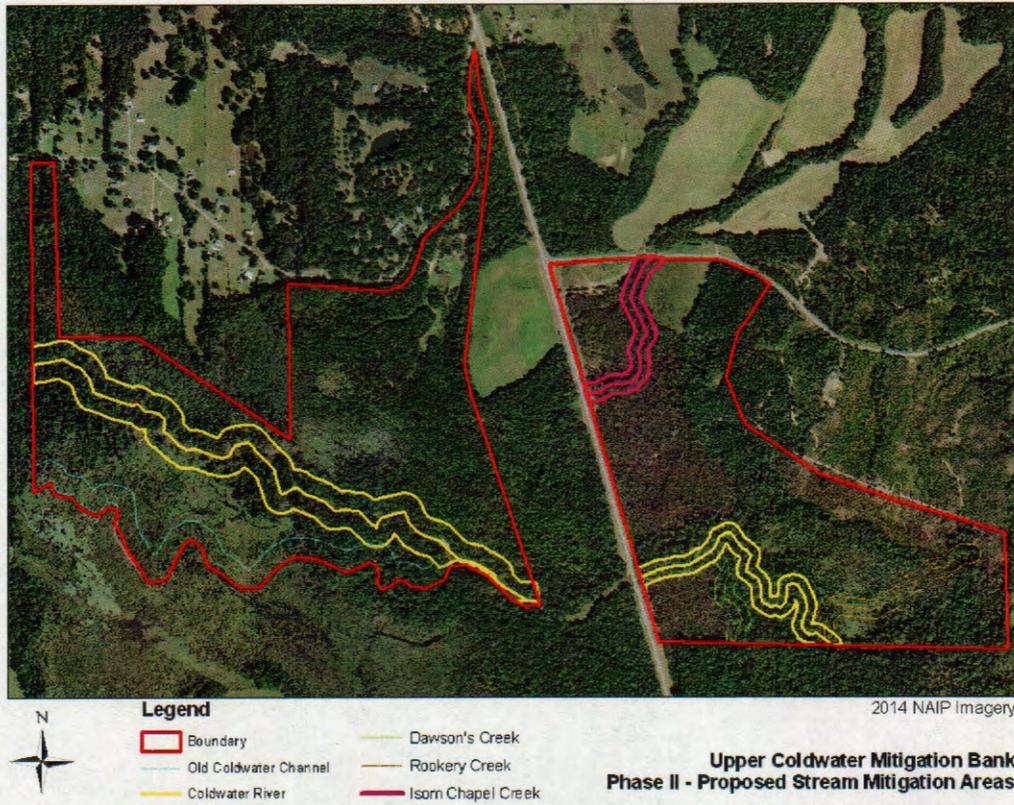


FIGURE 4. POTENTIAL STREAM BUFFER LOCATIONS ON THE PROJECT SITE

IV. Mitigation Activities and Conceptual Restoration Plan

A. General Need and Technical Feasibility

North Mississippi between Desoto counties and Tupelo are experiencing growth, which results in impacts to jurisdictional waters of the U.S. The unavoidable impacts to other waters of the US will require in-kind mitigation. We propose to offer stream mitigation credits to offset unavoidable impacts to these waters. Furthermore mitigation from stream mitigation banks is not readily available in this region of Mississippi. We would like to offer stream mitigation credits to offset impacts to other waters of the US.

The site is located along the Coldwater River bottom which includes the Coldwater River, and portions of smaller tributaries. Several of these tributaries have been impacted by previous silvicultural, cattle and residential activities within and adjacent to the site.

B. Stream Restoration/ Enhancement

There are several tributaries located within the property. The streams located within Tract 1 of the Bank include a portion of the Coldwater River along with an old channel associated with the Coldwater River. The streams located within Tract 2 of the Bank consist of Isom Chapel Creek, Rookery Creek, Dawson's Creek and a portion of the Coldwater River.

Much of the work around the old channel associated with the Coldwater River will be preservation but work around other tributaries will include restoration or enhancement of a riparian buffer and natural pattern and profile for smaller tributaries where appropriate. More specifically, preservation of the existing buffer around the old channel associated with the Coldwater River would include removal of invasive noxious plants if found. Additionally, in stream restoration

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would be performed within Isom Chapel Creek along with riparian buffer enhancement. Further, the buffers associated with Dawson's Creek, Rookery Creek, and the Coldwater River would be preserved or enhanced based on the current condition.

Enhancement activities would include employing the hack and squirt chemical application method to existing regeneration of windblown species to prevent invasive species from establishing on the project property. The buffers will be managed to ensure a diversity of species and habitats. A diverse mixture of appropriate bottomland hardwood species will be used to re-establish the buffer areas. The forested wetlands will be planted above the required minimum density trees per acre with a mixture of bottomland hardwood species typical of floodplain flats and stream terraces. Many of the areas that would facilitate enhancement activities have been allowed to be established with shade tolerant/invasive species. The most common undesirable specie found within the buffer areas is the box elder (*Acer negundo*). The box elder species has tremendous seed production and distribution capabilities that would not only negatively affect the buffer areas but the adjacent landscape as well.

Restoration activities would be focused within Isom Chapel Creek. Isom Chapel Road forms the northern boundary of the mitigation bank and transects a portion of Isom Chapel Creek. It appears that over years the bridge on Isom Chapel Road has been used as an illegal disposal site. The illegally disposed items include household trash, televisions, home furnishings and other items. Over time the accumulation of disposed items has formed a barrier that acts a dyke within the stream. Increased sedimentation is occurring north of the trash barrier and if left unattended the overall depth of the channel will be reduced until the stream is forced to form another route around the barrier. The proposed restoration activities would include the removal of the illegally dumped materials, redefinition of the bank and stream bed within the areas with accumulated

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sediment and coordination with Marshall County officials to construct a fence along the bridge and road shoulder to eliminate the convenience of using the bridge as an illegal disposal site.

We feel that implementing these proposed activities will provide added enhancement to the existing mitigation bank. The increasing accountability measures that are required for unavoidable impacts to the waters of the U.S. make the enhancement activities proposed within UCMB practical and justified. Any detailed information for the streams within this proposal can be provide as requested by the USACE or IRT. The table below provides a summary of the possible stream mitigation potential located within the bank property.

Table 1. Potential Stream Mitigation Summary

Stream Name (as identified in Figure 4)	Restoration Type	Linear Feet
Isom Chapel Creek	Restoration/Enhancement	1,532
Rookery Creek	Preservation	1,574
Dawson's Creek	Enhancement/Preservation	865
Coldwater River	Enhancement/Preservation	2,653
Coldwater River	Enhancement/Preservation	5,318
Old Coldwater Channel	Preservation	4,751

C. Monitoring Plan

In conjunction with the existing monitoring plan established for the bank with the MBI, additional semi-annual surveys and treatments of nuisance/exotic species and undesirable, competing undergrowth will be performed by means of mechanical and/or chemical control. Inspection of all in stream structures will be made at each annual monitoring event and to repair/stabilize as necessary.

In the event of non-compliance with the initial success criteria replanting of target tree species and continued monitoring will be performed until permitted success criteria is met. Areas planned with greater initial amounts of desirable species

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may be planted with a lower density of trees per acre in order to achieve the target density.

D. Stream Success Criteria

The analysis of the stream from the top of the bank to the ordinary high water mark shall indicate a significant amount of natural protection to prevent stream bank erosion that could jeopardize the stability of the stream bank or the stream reach. The following measurements will be used to aid in making this determination each monitoring year:

1. Where stream bank plantings were undertaken: The numbers of live stakes, planted, or volunteer woody species providing bank stabilization from the top of bank to edge of riparian buffer shall be at least 15 living stems per 1/10th acre sample plot by the end of the first growing season following planting and maintained and monitored years 1, 3, and 5.
2. Visual assessments will be provided in the yearly monitoring reports.
3. The Modified Pfankuch Stream Reach Inventory and Channel Stability Evaluation method would be employed to evaluate progress each monitoring year, beginning with Year 2.
4. Biotic data observed during each site assessment will be reported for each year of monitoring.
5. Basic physicochemical data will be collected during each of the monitoring years for comparison to an established reference site.

E. Monitoring, Reporting, and Maintenance Plan

Upper Coldwater Mitigation, LLC will perform all necessary work to ensure compliance with success criteria established for the UCMB. Additional monitoring plots for stream activities would be established. Monitoring reports

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would be provided to the U.S. Corps of Engineers Vicksburg District as previously established for the UCMB. Meaning, no later than the end of the year on Years 2, 3, 5, 8, and 10 after each growing season. If success criteria are not met, the Sponsor will take measures to meet specific success criteria. Annual surveys will be conducted between April 15th and November 15th once the site has been planted. These surveys will determine living seedlings; survival will be performed at established plots. Surveys will be done to determine if overall survival rate is acceptable. The Sponsor will provide a written report to the U.S. Army Corps of Engineers Vicksburg District following the growing season on Years 2, 3, 4, 5, 8, and 10. The report will include the requirements established within the original MBI document for the bank as well as additional requirements for the stream restoration/enhancement :

1. Description of the site condition and regular maintenance activities.
2. Appropriate site maps showing locations of sampling plots, photographs, etc.
3. Data recording the hydrologic indicators at sampling plots (hydroperiod, extend and depth of inundation, groundwater, precipitation, other hydrologic indicators)
4. Results of vegetation surveys: visual estimates of percent cover and percent cover within each layer of vegetation, indices of species diversity, estimates of percent cover of exotic species within each layer of vegetation, composition of plant community (wetland indicator status), calculations of survival of planted trees, estimates of natural revegetation, and estimates of plant vigor (reproduction).
5. Results of wildlife usage on the site (amphibians, reptiles, mammals, birds, and macroinvertebrates, etc.)
6. Discussion of observed planted tree mortality of less than 50 percent.
7. Plan view of the constructed/restored wetlands, streams, and adjacent buffers with location of all permanent sampling stations, monitoring wells, in-stream and stream bank structures, and all permanent cross-sections and profiles;
8. Data recording the profiles of in-stream structures, cross-sections, and longitudinal stream profiles taken from permanent locations

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9. Data summaries of geomorphologic data, biological and physiochemical data from streams including pH, temperature and biotic species present

If planted vegetation does not meet success criteria, the Sponsor will take corrective actions to replace dead seedlings with new seedlings of appropriate species. Annual monitoring will continue in accordance with the restoration plan. The Sponsor will not be responsible for replacement of seedlings or trees when mortality is due to an act of God or other force majeure event that occurs after the short-term criteria are met.

Annual monitoring and treatment of noxious/invasive plants will be performed by mechanical or chemical control to control competing undergrowth. In the event of noncompliance with less than 50 percent survival of planted species, areas will be replanted and monitored until permitted success criteria are met.

V. Functional Evaluation of Ecological Benefit

We propose to conduct IRT approved assessments to quantify the expected ecological lift that will be provided by mitigation activities proposed. The assessment will be performed according to any specific guidance issued by the Vicksburg District. The assessments would be meshed with the current assessments required for the wetland restoration efforts within the bank property.

VI. Proposed Service Area

The bank is located within the Coldwater River Watershed (HUC 08030204). This includes Marshall, Desoto, Tate, and Tunica Counties, and portions of Quitman County.

We like propose that the area continue to include the Coldwater River Watershed (HUC 08030204), the Little Tallahatchie River Watershed above Sardis Lake

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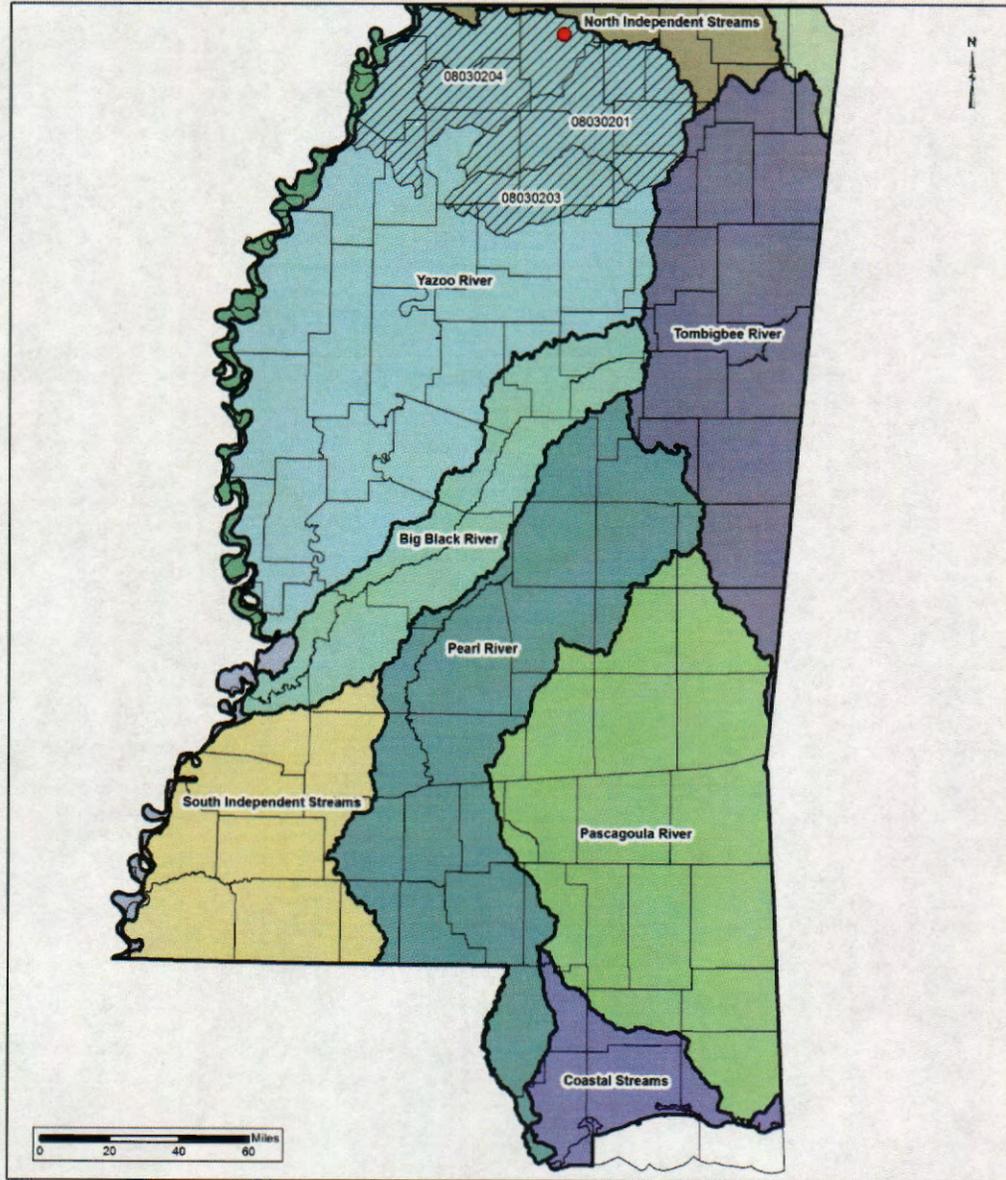
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(HUC 08030201), and Yocona River Watershed above Enid Lake (HUC 08030203) as primary service areas. This larger service area would include Marshall, DeSoto, Tunica, Tate, Benton, Tippah, Union, Lafayette, Panola, Pontotoc, Yalobusha, Calhoun, Panola, Quitman, and Coahoma Counties. Numerous service areas are proposed to offset impacts in the headwaters of the Upper Yazoo River in the North Central Hills physiographic region.

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Legend

- | | | | | | |
|------------------|----------|------------------------|-------------------------|---------------------------|-------------------------|
| Project Location | Counties | Proposed Service Areas | Major Drainage Basins | North Independent Streams | Tennessee River |
| | | | Big Black River | Pascagoula River | Tombigbee River |
| | | | Coastal Streams | Pearl River | Upper Mississippi River |
| | | | Lower Mississippi River | South Independent Streams | Yazoo River |

FIGURE 5. Project Service Areas

VII. Proposed Ownership Arrangements and Long-Term Management Strategy

A. Property Ownership

Upper Coldwater Mitigation, LLC currently owns the property.

B. Short-Term Management

Short-term bank management and oversight will be conducted by the Sponsor, Upper Coldwater Mitigation, LLC. The responsibilities of the Sponsor include establishing a restoration plan, conducting restoration activities, conducting scheduled monitoring, providing monitoring reports to Interagency Review Team, and ensuring that the final approved Mitigation Banking Instrument is followed.

C. Long-Term Management

The landowner, Upper Coldwater Mitigation, LLC, will be the initial designated Long-Term Steward charged with long-term management and maintenance responsibility once the permitted long-term success criteria are attained. The Long-Term Steward may be the recipient of the Long-Term Management Fund for use in addressing catastrophic events or land management requirements once all monitoring is complete. After all credits are sold and the Bank has reached closure status, it is the intent of Upper Coldwater Mitigation, LLC to transfer title and Long-Term Stewardship responsibility and management funds to the National Audubon Society or to a qualified Land Trust or 501(c)3 conservation organization. Long-term management of the resource will be conducted by the National Audubon Society. The property will be deeded to the National Audubon Society with a perpetual endowment.

There is a conservation easement on the property associated with the establishment of the UCMB. There are no additional current liens, encumbrances, or easements on any portion of the property. All approved

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amendments within the proposed Phase II portion of the mitigation bank will be recorded with the current conservation easement for the UCMB. Recordings and restrictions of the conservation easement are subject to the following standard USACE restrictions and standard conditions:

1. The following uses shall be prohibited by the restrictive covenant.
 - a. Placing, filling, storing, or dumping of refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste, or other such items on the Property.
 - b. Mechanized land clearing or deposition of soil, shell, rock, or other fill in the Property without prior written authorization from the USACE or as outlined in the Mitigation Banking Instrument.
 - c. Cutting, removal, or destruction of vegetation on the property except in accordance with Landowner's timber management plan and/or in accordance with any permits authorized by USACE at the time the cutting is proposed. Timber harvests/thinning will only be approved if the USACE determines that such activities are needed to maintain or enhance the ecological value of the site.
 - d. Grazing of cattle or other livestock on the property.
 - e. Commercial, industrial, agricultural, or residential uses of the Property or partitioning by fencing without prior approval from USACE.
 - f. Dredging, draining, ditching, damming, or in any way altering the hydrology of the Property except as required or permitted by the banking instrument.
 - g. All other activities with the USACE determines to be inconsistent with the establishment, maintenance, and protection of wetlands and streams within the Mitigation Bank and that may or may not be subject to USACE regulatory authority.
2. We propose the following uses be allowed by the restrictive covenant:
 - a. Monitoring of vegetation, soils, and water;
 - b. Hunting and fishing, and non-consumptive recreational uses such as hiking and bird watching;
 - c. Ecological education;
 - d. Exploration and production of minerals;
 - e. Provision of rights-of-ways;
 - f. Timber harvesting or thinning for management purposes;
 - g. Compliance with Federal regulations or appropriate court orders

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3. Long-Term Steward
 - a. The landowner will be designated as the Long-Term Steward charged with long-term management and maintenance responsibility once the permitted long-term success criteria are met. The Long-Term Steward may be the recipient of the Long-Term Management Fund for use in addressing catastrophic events or land management requirements once all monitoring is completed.
4. Conservation easement holder
 - a. The holder may be the recipient of the Long-Term Management Fund and/or the Escrow Account Funds outlined below for use in implementing a corrective action or adaptive management plan in the event that the LLC or the Long-Term Steward is unable or unwilling to come into compliance within a reasonable time or receiving written notice that the UCMB is not in compliance with the mitigation plan as approved by the USACE.

D. Financial Assurances

Upper Coldwater Mitigation, LLC has established financial assurance accounts to ensure that mitigation activities will be fulfilled. Evidence of these financial and has been provided to the IRT chair during the initial approval of the bank. The assurances have been maintained and remain sufficiently funded. If additional financial assurances are required written notification from the USACE is requested. The property will be deeded to the Strawberry Plains Audubon Society along with the total of the long-term management fund. The SPAC will be responsible for the perpetual maintenance as it relates to SPAC stewardship goals.

E. Contingency Measures

Contingency measures are currently in place for the bank. In the event of a catastrophic event, as determined by the USACE, which affects the long-term

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viability of the mitigation bank, the USACE can ensure that the appropriate corrections occur by direction of Upper Coldwater Mitigation, LLC, the designated Long-Term Steward, or the designated Third Party to implement corrections. The corrections implemented will be funded by a release of either escrow funds or funds from the long-term management fund. Any unspent funds remain in the long-term management fund, if not utilized to repair UCMB from a catastrophic event, for long-term management of the site. This Long-Term Management Fund will be transferred to the designed Long-Term Steward, landowner, or other appropriate third party for use in addressing any future catastrophic events or long-term management requirements once all monitoring is completed and all credits have been released for sale. We understand that if the USACE believes that Upper Coldwater Mitigation, LLC or the Long-Term Steward is not being prudent in complying with the terms and intent of the mitigation plan presented herein for the UCMB or with the permit, the USACE will provide written notice to Upper Coldwater Mitigation, LLC, or the Long-Term Steward, which includes a detailed description of the basis for any presumed non-compliance.

In the event that Upper Coldwater Mitigation, LLC, or the Long-Term Steward, is found to be in non-compliance by the USACE, the responsible party will institute a USACE-approved adaptive management plan and submit a written corrective action plan to the USACE for review and approval within forty-five (45) days of receiving written notice of non-compliance. The corrective action plan will, at a minimum, identify the cause of the non-compliance, the remedial measures necessary, and a time line for implementing remedial measures to bring the UCMB into compliance. To the extent practicable, the USACE will approve or disapprove the corrective action plan within forty-five (45) days of receipt, provided that sufficient information and acceptable measures are contained within the plan.

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In the event that Upper Coldwater Mitigation, LLC is placed in non-compliance and either does not provide the adaptive management plan within the time frame specified above or does not implement the features of the corrective action plan within the time frames specified above, all or a portion of the funds in the escrow account will be released to a third party designed by the USACE at the time of default to effect necessary corrections or acquire equivalent ecological value elsewhere.