

**Ducks Unlimited, Inc.**  
**Mississippi Delta In-Lieu Fee Program Instrument**

This In-Lieu-Fee Program Instrument (hereinafter, Instrument), regarding the establishment, use, operation, and maintenance of the Ducks Unlimited, Inc. Mississippi Delta In-Lieu-Fee Program (hereinafter, MSD-ILFP), is an agreement made and entered into by the U.S. Army Corps of Engineers, Vicksburg District (Corps), and Ducks Unlimited, Inc. (DU). By signature of this agreement, the following agencies have indicated their acceptance: Environmental Protection Agency, U.S. Fish and Wildlife Service, Mississippi Department of Environmental Quality, and the Mississippi Department of Wildlife Fisheries and Parks.

**I. Preamble**

*A. PURPOSE*

The purpose of this Instrument is to establish guidelines, responsibilities, and standards for the establishment, use, operation, and maintenance of the MSD-ILFP. The MSD-ILFP will be used for compensatory mitigation for unavoidable impacts to waters of the United States that result from activities authorized under Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and for impacts from other activities as the Corps District Engineer may authorize, provided that such activities have met all applicable requirements and are authorized by the appropriate authority. The MSD-ILFP may also be used to satisfy other state and local regulatory program requirements, though this Instrument addresses only the Federal aspect of the MSD-ILFP.

This Instrument addresses compensatory mitigation for impacts to wetlands. DU may propose, in a future modification to this Instrument, to expand the MSD-ILFP to include compensatory mitigation for non-wetland jurisdictional waters such as streams and lakes.

*B. GOALS AND OBJECTIVES*

The primary goal of the MSD-ILFP is to provide effective compensatory mitigation for the functions and services of waters of the U.S. lost through authorized impacts throughout the Mississippi Alluvial Valley within the State of Mississippi. The MSD-ILFP will have two program service areas (Figure 1).

Delta Region

Consists of the portion of the Yazoo River Basin USGS Cataloging Unit (080302) within the Mississippi Alluvial Plain Level III Ecoregion within the Vicksburg District.

Batture Lands

Consists of the portion of the Lower Mississippi – Helena and Lower Mississippi – Greenville USGS Cataloging Units (08020100 & 08030100) within the State of Mississippi and the Vicksburg District.

The objectives of the MSD-ILFP are as follows:

- Provide an alternative to permittee-responsible compensatory mitigation that will effectively replace functions and services lost through permitted impacts.
- Create a program that has a level of accountability commensurate with mitigation banks as specified in 33 CFR Part 332.
- Provide projects to meet current and expected demand for credits.
- Achieve ecological success on a watershed basis by siting MSD-ILFP projects using the best available decision support tools, and by integrating MSD-ILFP projects with ongoing conservation activities being undertaken within the region.

*C. APPROVAL*

This Instrument is considered fully executed upon the latter date of signature by DU and Corps.

*D. ESTABLISHMENT AND USE OF CREDITS*

In accordance with the provisions of this Instrument, credits will be available for sale or transfer for use as compensatory mitigation in accordance with all applicable requirements for permits issued under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. For each compensatory mitigation project (hereinafter, ILF project) the District Engineer, based on recommendations of an Interagency Review Team (IRT), will determine the number of credits available based upon the approved design and the resulting habitats achieved, in accordance with the terms and conditions contained herein. Upon satisfaction of the performance standards described in mitigation plans (contained herein as subparts of Exhibit C) credits will be released.

Though this Instrument focuses solely on Federal requirements, DU intends that credits will also be available for use as mitigation for impacts that may be regulated by state and/or local agencies.

*E. DISCLAIMER*

This Instrument does not in any manner affect statutory authorities and responsibilities of the signatory parties.

*F. EXHIBITS*

Exhibit A – Prioritization and Compensation Planning Framework

Exhibit B – Instrument Modification Procedure

Exhibit C – Mitigation Plans

Exhibit D – Statement of Sale of Credit

## **II. Regulatory Authorities**

The establishment, use, operation, and maintenance of the MSD-ILFP will be carried out in accordance with the following authorities:

### **A. *FEDERAL AUTHORITIES***

- Clean Water Act (33 USC 1251 et seq.)
- Rivers and Harbors Act of 1899 Section 9 and 10 (33 USC 403)
- Regulatory Programs of the Corps of Engineers, Final Rule (33 CFR Parts 320-332)
- Endangered Species Act (16 USC 1531 et seq.)
- Fish and Wildlife Coordination Act (16 USC 661 et seq.)
- National Historic Preservation Act, Section 106

### **B. *AUTHORITY OF THE ARMY CORPS OF ENGINEERS***

The District Engineer or designee is the official chair for the IRT and will be responsible for establishing the IRT and managing the IRT process. The District Engineer will make the final decision regarding the amount and type of compensatory mitigation to be required of federal permittees, and determine whether and how use of credits from the MSD-ILFP is appropriate to compensate for unavoidable impacts.

## **III. Program Structure**

### **A. *INSTRUMENT***

Under this Instrument, DU establishes itself as a sponsor of a federally approved in-lieu fee program for the program service area. This Instrument is intentionally broad and sets the framework under which ILF projects will be identified, funded, operated, maintained and managed. The Instrument provides the authorization for the MSD-ILFP to provide credits to be used as compensatory mitigation for DA permits and activities. As ILF projects are identified, DU will submit site-specific mitigation plans to the District Engineer for review and approval as modifications to the Instrument through the process outlined in Exhibit B, which will be incorporated into this Instrument as subparts of Exhibit C.

### **B. *INTERAGENCY REVIEW TEAM***

The District Engineer will establish an IRT for the MSD-ILFP.

The MSD-ILFP IRT will consist of:

- U.S. Army Corps of Engineers, Vicksburg District (Chair)
- U.S. Environmental Protection Agency, Region 4
- U.S. Fish and Wildlife Service, Mississippi Ecological Services Field Office
- Mississippi Department of Environmental Quality
- Mississippi Department of Wildlife, Fisheries and Parks

The IRT will review and provide comments on the Instrument and subsequent modifications. IRT members will also review and provide written comments on mitigation plans, annual monitoring reports and field inspections, credit release requests, and remediation plans. The IRT agencies may also be requested to provide expertise on other related matters, such as assessing the achievement of performance standards, reviewing long term management plans, and recommending corrective actions or adaptive management. Written comments will be submitted within the time limits established by 33 CFR 332.8. Comments received after such deadlines will only be considered at the discretion of the District Engineer to the extent that doing so does not jeopardize the deadlines for actions required of the District Engineer.

The IRT for individual ILF projects may be augmented, at the discretion of the District Engineer, with representatives from additional Tribal, Federal, State, or local agencies. Additional members of the IRT will be specified in each mitigation plan added to this Instrument under Exhibit C. In general, these IRT members' roles will be limited to providing project-specific review and comments to the District Engineer.

The District Engineer serves as the Chair of the IRT, and alone retains final authority for approval of the Instrument and subsequent modifications. The District Engineer will give full consideration to any timely comments and advice of the IRT.

Any of the IRT members may terminate their participation upon written notification to the Corps. Any such termination will not invalidate this Instrument. Participation of the IRT agency seeking termination will end thirty (30) days after written notification.

### *C. MSD-ILFP ACCOUNT*

Upon Corps approval of the MSD-ILFP, DU will create a separate Program Account at a financial institution that is a member of the Federal Deposit Insurance Corporation. The Program Account will collect deposits from the sale of credits, and will be used only for the comprehensive costs associated with site selection, design, acquisition, implementation, monitoring, long term management and protection, and contingency funds of ILF projects, and administrative costs for DU. Administrative costs equal to 15% of each credit sale will be allowed for DU to manage the MSD-ILFP.

All interest and earnings from the Program Account will remain in that account for the purpose of providing compensatory mitigation for impacts to Waters of the U.S. Funds for the operation of the MSD-ILFP may be obtained from other sources and repaid as credits are sold.

Complete budgets for individual ILF projects will be approved as part of mitigation plans. Annual accounting reports will be presented by December 1 for approval by the Corps. Reports will include detailed summaries of Program Account deposits and disbursements for each ILF project made over the previous DU fiscal year (July 1 – June 30) (Section VI). Any deviation in excess of ten percent from the approved budget will require Corps approval before additional funds are disbursed. The Corps may review Program Account records with 14 days written

notice. When so requested, DU shall provide all books, accounts, reports, files, and other records relating to the Program Account.

#### *D. MSD-ILFP CLOSURE*

Upon 30 days written notice to the Corps, DU may request closure of the MSD-ILFP. In the event that the MSD-ILFP is closed, DU is responsible for fulfilling any remaining obligations for credits sold. Funds remaining in the MSD-ILFP Account after these obligations are satisfied shall be used by DU, its heirs, successors or assigns to complete restoration, establishment, enhancement, and/or preservation of aquatic resources within the program service area (Section V-B).

#### *E. ILF PROJECTS*

DU will identify potential ILF projects consistent with the Instrument and submit a mitigation plan, including a project budget, to the Corps along with a written request for an Instrument Modification (Exhibit B). DU will implement the ILF projects upon approval and report annually to the Corps and IRT (Section VI).

### **IV. ILF Project Establishment and Operation**

This section identifies the general framework in which individual ILF projects will be established and operated. Each ILF project will be approved individually, as detailed herein, and the specific requirements for its operation, monitoring, and management will meet the Corps standard operating procedures at the time of its approval.

#### *A. ESTABLISHMENT*

##### Project Site Selection

DU staff will seek ILF projects based on the prioritization and compensation-planning framework outlined in Exhibit A. Sites will be submitted for approval to the IRT and Corps through the Instrument modification process outlined in Exhibit B. DU will, in most instances, ask for preliminary review of a project prospectus in order to identify and address potential issues early.

##### Instrument Modifications

As ILF projects are identified, DU will submit a written request to the Corps to modify the Instrument. This process is outlined in Exhibit B.

##### Permits

Approval of the mitigation plan by the Corps will also serve as DA authorization for the ILF Project. DU will comply with all other applicable federal, state and local laws and regulations required when undertaking the ILF Project.

## Financial Assurances

Notwithstanding any other provision of this Instrument, DU's financial obligation for the MSD-ILFP will be limited to funds in the MSD-ILFP Account. DU will take the following actions to ensure funds are available to meet mitigation requirements for credits sold:

- 1) Funds outlined in approved ILF project budgets will be earmarked, held in the MSD-ILFP Account, and disbursed as work is accomplished to operate and monitor the individual ILF projects.
- 2) Funds outlined in approved ILF project budgets will be earmarked and held in the MSD-ILFP Account to manage the individual ILF project, including contingency and remedial actions. The long-term funding mechanism may be paid to an approved third-party steward as a lump sum.
- 3) If sufficient funds are not available within the MSD-ILFP Account to provide adequate financial assurances as outlined in the approved ILF project budget to the satisfaction of the Corps, DU will provide a financial assurance in a form according to 33 CFR 332.3(n)(2).

Each approved ILF project will have an identified schedule for the release of the financial assurances as the ILF project meets its approved performance standards.

## *B. OPERATION*

### Program Service Area

The MSD-ILFP will have two program service areas (Figure 1).

#### Delta Region

Consists of the portion of the Yazoo River Basin USGS Cataloging Unit (080302) within the Mississippi Alluvial Plain Level III Ecoregion within the Vicksburg District.

#### Batture Lands

Consists of the portion of the Lower Mississippi – Helena and Lower Mississippi – Greenville USGS Cataloging Units (08020100 & 08030100) within the State of Mississippi and the Vicksburg District.

All individual ILF projects will be located within the program service area. However, individual ILF projects may, upon determination by the District Engineer, provide adequate compensation for aquatic resources outside of the two Program Service Areas. The approved ILF Project mitigation plan will specifically identify the geographic region where credits generated in excess of ILF obligations may be used to provide compensatory mitigation if it differs from the Program Service Areas.

## Mitigation Plans

Mitigation plans for each ILF project will be prepared per Exhibit B. Plans shall outline measurable objectives, performance standards, and monitoring requirements. Pre- and post-project implementation wetland delineations and functional assessments will be completed using Corps-approved techniques. Mitigation plans must include a survey, completed by a professional land surveyor, defining the ILF project area

### *C. MONITORING*

DU will monitor the project as specified in the ILF project mitigation plan. The frequency and duration of monitoring, and specific reporting requirements commensurate with the scale and scope of the compensatory mitigation project will also be defined in each mitigation plan. It is anticipated that DU will provide annual monitoring reports for each project to the Corps and IRT until the performance standards have been met.

The monitoring duration may be extended at the Corps' discretion if performance standards have not been met. The District Engineer may also reduce or waive monitoring requirements upon determination that performance standards have been met; however, projects must be monitored for a minimum of 5 years.

DU shall provide for access to the project site by members of the IRT or their agents or designees at reasonable times as necessary to conduct inspections and compliance monitoring with respect to the requirements of this Instrument. Inspecting parties shall not unreasonably disrupt or disturb activities on the property, and will provide written notice within reasonable time prior to the inspection.

### *D. MANAGEMENT*

#### Maintenance Provisions

ILF projects will be designed, to the maximum extent practicable, to be self-sustaining once performance standards have been achieved. DU shall be responsible for maintaining ILF projects, consistent with the appropriate mitigation plan, to ensure their long-term viability as functional aquatic resources. DU shall retain such responsibility unless and until the long-term project responsibility is formally transferred to an approved long-term steward. The long-term management plan to be developed for each ILF project will include a description of anticipated management needs with annual cost estimates and an identified funding mechanism (such as non-wasting endowments, trusts, contractual arrangements with future responsible parties, or other appropriate financial instruments).

#### Contingency Plans/Remedial Actions

If monitoring or other information indicates that an ILF project is not progressing toward meeting its performance standards in a timely manner, DU shall notify the District Engineer as soon as possible. Likewise, if the District Engineer and IRT determine that terms of the MSD-

ILFP Instrument or mitigation plans have not been met, the District Engineer may report, in writing, any findings and recommend corrective measures if needed.

In such instances, the District Engineer, in consultation with DU and IRT, will determine the appropriate measures DU should take to meet the objectives of the mitigation plan. Measures may include, but are not limited to, site modifications, design changes, revisions to maintenance requirements, and/or revised monitoring requirements. DU shall use the contingency fund as necessary to implement adaptive management plans as outlined in mitigation plans, or developed in coordination with the IRT. Performance standards may be revised, upon mutual agreement, to reflect the measures taken, or to reflect changes in management strategies and objectives. If the new standards do not provide ecological benefits that are comparable to the approved ILF project, the Corps may reduce the number of credits available from the project or request DU provide a commensurate amount of additional mitigation.

### ILF Project Closure

At the end of the monitoring period and the approval of the long-term stewardship contract and its funding, or upon sale of the last credit, whichever is later, the Corps shall issue a written “project closure certification” to DU.

Upon individual ILF Project closure unused funds remaining in the MSD-ILFP program account earmarked for the implementation and operation, including contingencies, of that project will be released. The released funds shall be used by DU, its heirs, successors or assigns to complete restoration, establishment, enhancement, and/or preservation of aquatic resources within the program service area (Section V-B).

DU may request that part of or an entire ILF project be closed early, and that the associated credits anticipated be forfeited, if it is determined that the performance standards are unattainable or it is otherwise in DU’s interest. The Corps shall decide whether to grant such requests. In the case that credits were debited or transferred prior to the early closure, DU shall be responsible for fulfilling all related obligations consistent with this Instrument.

### Long-Term Ownership and Protection

DU shall be responsible for ensuring long-term protection of each ILF project through the use of real estate instruments in accordance with 33 CFR 332.7(a). On federally owned property, the District Engineer may allow the use of alternative mechanisms in accordance with 33 CFR 332.7(a). DU will ensure that such protection mechanisms are in place prior to project implementation, as stipulated in each mitigation plan. The draft conservation easement or equivalent protection mechanism shall be submitted to the IRT for review.

Where permanent conservation easements are appropriate they will be held by entities such as Federal, Tribal, other State or local resource agencies, or non-profit conservation organizations. The permanent conservation easement shall assign long-term stewardship roles and responsibility for the project and will, to the extent practicable, prohibit incompatible uses that

might otherwise jeopardize the objectives of the ILF project. Copies of such recorded instruments shall be sent to the Corps and become part of the official project record. Each protection instrument shall contain a provision requiring notification to DU and the District Engineer if any action is taken to void or modify it.

## **V. Credit Accounting**

### **A. ADVANCE CREDITS**

Upon approval of this instrument the MSD-ILFP is permitted to sell or transfer advance credits. Based upon confidential supporting information provided to the Corps fifty (50) advance credits shall be available in the Delta Region program service area; ten (10) advance credits shall be made available in the Batture Lands program service area.

As milestones in an individual ILF project's credit release schedule are reached and credit releases occur, the released credits will first be used to satisfy the mitigation requirements represented by the sold or transferred advance credits. Once an advance credit is fulfilled it is again available for sale or transfer. Released credits in excess of those required to fulfill advance credits are also available for transfer or sale by the MSD-ILFP.

DU shall complete land acquisition and initial physical and biological improvements by the third full growing season after the sale of an advance credit in each program service area. If DU fails to meet these deadlines, the District Engineer must either make a determination that more time is needed to plan and implement an ILF project or, if doing so would not be in the public interest, direct DU to disburse funds from the MSD-ILFP program account to provide alternative compensatory mitigation to fulfill those compensation obligations.

### **B. GENERATION OF CREDITS**

Each approved ILF Project mitigation plan will include the method for determining the credits generated by the individual project.

DU may only generate credits from an ILF project when there is a net benefit to aquatic resources at the site as determined by the difference between pre- and post- site conditions. Credit generation will be determined using the Modified Charleston Method or the functional assessment method as defined in the current Corps standard operating procedures.

Preservation of existing wetlands that support a significant population of rare plant or animal species, or that are a rare wetland type may be proposed to generate credits. Credits may also be proposed for preservation or improvements of riparian areas, buffers and uplands if the resources in these areas are essential to maintain the ecological viability of a water of the U.S. Credits generated for preservation and buffers will be determined on a case-by-case basis through negotiation between DU and the Corps in consultation with the IRT in accordance with 33 CFR 332.3(h) and (i).

### *C. CREDIT RELEASE*

Each approved ILF Project mitigation plan will include a credit release schedule referenced to performance standards.

In general, the credits will become available according to the following schedule:

- 25% of anticipated credits are available upon approval of a mitigation plan and when the long-term protection mechanism is in place.
- 25% of anticipated credits are available upon completion of improvements per the approved mitigation plan and Corps and IRT approval of the as-built report.
- 25% of anticipated credits are released incrementally upon achievement of short term performance standards.
- Remaining generated credits are available upon achievement of long-term performance standards.

### *D. BALANCE OF CREDITS*

The MSD-ILFP will have available for sale or transfer the number of available advance credits for the program, plus any released credits generated by ILF Projects beyond those required to fulfill advanced credit sales or transfers.

### *E. COST OF CREDITS*

The cost of each credit will be determined by DU based on expected costs of restoration, establishment, enhancement, and/or preservation of aquatic resources. Costs will be based on full costs accounting, including all appropriate expenses incurred to plan, identify, acquire, design, implement, monitor, manage and protect ILF projects, including contingencies, and the setup, operation and administration of the MSD-ILFP.

### *F. SALE OF CREDITS*

All activities regulated under Section 10 of the Rivers and Harbors Act, Section 404 of the Clean Water Act, and other activities as the Corps may authorize consistent with this Instrument may be eligible to use the MSD-ILFP as compensatory mitigation for unavoidable impacts. Credits purchased may only be used in conjunction with a Corps permit authorization, resolution of an unauthorized activity, or in conjunction with other actions as the Corps may authorize. Credits

may be sold to fulfill other state or local requirements even when no Corps authorization is required. Deposits for such credits shall be placed in the MSD-ILFP Account.

The District Engineer will make decisions about the most appropriate compensatory mitigation on a case-by-case basis, during evaluation of a DA permit application. This instrument does not guarantee that the Corps will accept the use of MSD-ILFP credits for a specific project, and authority for approving use of the MSD-ILFP for compensatory mitigation lies with the District Engineer.

The responsibility to provide compensatory mitigation remains with the permittee unless and until credits are purchased from the MSD-ILFP. Upon Corps approval of purchase of credits from the MSD-ILFP, the permittee may contact DU to secure the necessary amount and resource type of credits, as outlined in DA permit conditions. Each Section 404 authorization that includes a special condition requiring purchase of credits from the MSD-ILFP will include a requirement that DU certify the transfer of responsibility via written communication to the permittee and the Corps. Certifications will outline the Corps permit number and state the number and resource type of credits that have been sold or transferred to the permittee (Exhibit D). A copy of each certificate will be retained in the administrative and accounting records for the MSD-ILFP Instrument. Debits will be reflected in annual accounting reports as outlined in Section VI.

DU is responsible for fulfilling mitigation requirements for authorized activities that utilize the MSD-ILFP. This responsibility will remain with DU for individual authorizations until the project from which credits were purchased is closed (Section IV-D).

## **VI. Program Reporting**

### **A. MSD-ILFP ANNUAL REPORT**

DU shall submit an annual report by December 1<sup>st</sup> to the District Engineer and IRT for DU's previous fiscal year (July 1<sup>st</sup> thru June 30<sup>th</sup>). The annual report shall contain the following:

#### Program Account Report

1. All income received and interest earned by the program account for the program by service area;
2. A list of all permits for which funds were accepted by the program by service area, including: the permit number, location of impacts, amount of authorized impacts and type, amount of required compensatory mitigation and type, amount paid to the MSD-ILFP, and the date the funds were received; and,
3. An accounting of the expenditures/disbursements for the program by service area.

## Credit Ledger Report

1. The balance of advance credits and released credits by type at the end of the report period for the program by service area;
2. All additions and subtractions of credits; and,
3. Other changes in credit availability.

## ILF Project Reports

The report shall contain the following information for each ILF project that has not been approved for closure:

1. An individual credit ledger for the ILF project, detailing released credits and the permitted impact they were used to provide mitigation for;
2. Beginning and ending balances of the earmarked funds for the ILF project for operation, monitoring and management; and
3. An accounting of expenditures/disbursements for the ILF project.

### *B. MONITORING REPORTS*

Monitoring reports shall be submitted as required in each approved ILF project mitigation plan. Each report shall contain at a minimum the following:

1. Plans, maps, and/or photographs to illustrate site conditions;
2. A narrative summarizing the condition of individual ILF projects;
3. Monitoring results with comparison to performance standards, and;
4. Recommendations for adaptive management at the site.

### *C. TRANSACTION NOTIFICATION*

Section V.F “Sale of Credits” establishes the terms by which responsibility for compensatory mitigation requirements are transferred from the permittee to DU. These terms require submittal of a certification to the Corps by DU (see Exhibit D). DU shall submit the completed certification within 10 days of acceptance of mitigation requirements.

## **VII. Other Provisions**

### *A. DEFAULT*

Should the District Engineer determine that DU is in material default of any provision of this Instrument or an approved mitigation plan, the District Engineer may take appropriate action. Such actions may include, but are not limited to, suspending credit sales, adaptive management, decreasing available credits, directing funds to alternate locations, taking enforcement actions, or terminating the Instrument. The Corps cannot directly accept, retain, or draw upon funds in the MSD-ILFP program account in the event of a default.

*B. FORCE MAJEURE*

DU or a grantee will not be responsible for ILF project failure that is attributed to natural catastrophes such as flood, fire, drought, disease, or regional pest infestation, that the District Engineer determines is beyond the reasonable control of DU or a grantee to prevent or mitigate.

*C. DISPUTE RESOLUTION*

Resolution of disputes concerning the signatories' compliance with this Instrument shall be in accordance with those stated in 33 CFR 332.8. Disputes related to satisfaction of performance standards may be referred to independent review from government agencies or academia that are not part of the IRT. The IRT will evaluate any such input and determine whether the performance standards have been met.

*D. VALIDITY OF THE INSTRUMENT*

This Instrument will become valid on the latter date of the signature of Director of DU and the Corps District Engineer. This Instrument may only be amended or modified with the written approval of the Director of DU and the District Engineer.

*E. NOTICE*

Any notice required or permitted hereunder shall be deemed to have been given either (i) when delivered by hand, or (ii) three (3) days following the date deposited in the United States mail, postage prepaid, by registered or certified mail, return receipt requested, or (iii) sent by Federal Express or similar next day nationwide delivery system, addressed as follows (or addressed in such other manner as the party being notified shall have requested by written notice to the other party):

U.S. Army Corps of Engineers  
Vicksburg District – Regulatory Branch  
4155 Clay St  
Vicksburg, MS 39183

Ducks Unlimited, Inc.  
MS Delta In-Lieu Fee Program  
193 Business Park Dr, Ste E  
Ridgeland, MS 39157

*F. INVALID PROVISIONS*

In the event any one or more of the provisions contained in this Instrument are held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provisions hereof, and this Instrument shall be construed as if such invalid, illegal or unenforceable provision had not been contained herein.

*G. HEADINGS AND CAPTIONS*

Any paragraph heading or captions contained in this Instrument shall be for convenience of reference only and shall not affect the construction or interpretation of any provisions of this Instrument.

*H. BINDING*

This Instrument shall be immediately, automatically, and irrevocably binding upon DU and its successors, assigns and legal representatives upon signing by DU and the Corps even though it may not, at that time or in the future, be executed by the other potential parties to this Instrument, such as the various IRT agencies.

*I. LIABILITY OF REGULATORY AGENCIES*

The Corps administers their regulatory programs to best protect and serve the public's interest in its wetlands and waterways, and not to guarantee the availability of credits to any entity, or ensure the financial success of mitigation banks, specific individuals, or entities. The public should not construe this Instrument as a guarantee in any way that Corps will ensure sale of credits from the MSD-ILFP, or that the regulatory agencies will forgo other mitigation options that may also serve the public interest.

*J. RIGHT TO REFUSE SERVICE*

Corps approval of purchase or transfer of credits from the MSD-ILFP does not signify DU's acceptance or confirmation of DU's offer to sell or transfer. DU reserves the right to refuse to sell or transfer credits from the MSD-ILFP for any reason.

*K. NOTIFICATION OF MODIFICATION*

If any action is taken to void or modify an ILF Project real estate instrument, management plan, or other long-term protection mechanism, DU must notify the Corps in writing.

**VIII. Modifications**

This Instrument may not be modified except by written agreement between DU and the Corps. Instrument modifications, including the addition or expansion of ILF projects and expansion of the MSD-ILFP to include compensatory mitigation for non-wetland waters, will follow the process outlined in Exhibit B. The District Engineer may use a streamlined modification review process for changes reflecting adaptive management of the MSD-ILFP, credit releases, changes in credit releases and credit release schedules, and changes that the District Engineer determines are not significant (Exhibit B).

## **IX. References**

33 CFR 332. Compensatory Mitigation for Losses of Aquatic Resources (FR V. 73 No. 70, April 10, 2008). Department of Defense, Department of the Army, Corps of Engineers. 33 CFR Parts 325 and 332.

Cowardin, L.M. et al. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U. S. Fish and Wildlife Service, Office of Biological Services. Washington, D.C. FWS/OBS-79/31. 131 pp.

## **X. EXECUTION**

IN WITNESS WHEREOF, the parties have executed this in-lieu fee Instrument on the date herein below last written by the District Engineer.

SIGNATURE PAGES PREPARED BY USACE

## **XI. EXHIBIT A: Prioritization and Compensation Planning Framework**

### **A. General**

The MSD-ILF program will contribute to DU's existing programmatic goal of restoring frequently flooded marginal agricultural lands to forested wetlands and ensuring their long term protection. The Lower Mississippi Valley Joint Venture (LMVJV) has set a goal of protecting or restoring 3,700,000 acres of forested wetlands throughout the Mississippi Alluvial Valley. This program will contribute help ensure that actions taken to mitigate for wetland losses contribute to this goal.

### **B. The Mississippi Alluvial Valley**

The Mississippi Alluvial Valley (MAV) extends from southern Illinois, at the confluence of the Ohio and Mississippi Rivers, south to the Gulf of Mexico. The Mississippi River watershed drains over 1,000,000 square miles before it enters the Gulf of Mexico. The MAV consists of 6 drainage sub-basins including the St. Francis, Western Lowlands, Arkansas Lowlands, Yazoo, Boeuf, and Tensas Basins (Saucier 1994). The MAV is mostly a flat, broad alluvial plain with river terraces and levees providing the main elements of relief. In addition, this eco-region provides important habitat for fish and wildlife and includes the largest continuous system of wetlands in North America (Chapman et al. 2004).

The most recent climax plant community in the MAV consisted of approximately 25 million acres of bottomland hardwood forest dominated by hard and soft mast-producing trees including several species of oak (e.g., Nuttall, overcup, willow, water, etc.), hackberry, and green ash. Over 70 species of trees occur in the region. Elevation interacts with hydrology, especially the frequency, duration, and periodicity of flooding, to determine plant community composition and species distribution (Fredrickson 1978, Larson et al. 1981, Reinecke et al. 1989).

The landscape in the MAV has changed dramatically during the last 200 years, with the most rapid change occurring within the last 75 years. Only 5-6 million acres or about 20% of the original forest cover remains, the rest having been cleared and the land converted to agricultural production or other uses. Large scale losses of bottomland hardwood forest were curtailed with the implementation of the "swampbuster" provisions in the 1985 Farm Bill, followed by creation of the Wetland Reserve Program (WRP) in 1991. The WRP, along with other private land conservation programs, and activities by other state and federal agencies have resulted in the restoration of approximately 400,000 to 750,000 acres of bottomland hardwood forest within the MAV. Navigation and flood control projects have reduced the extent of natural flooding across the MAV by altering the ecologically important effects of flood periodicity, duration, and frequency (Reinecke et al. 1989).

### **C. MSD-ILFP Service Area**

The MSD-ILFP will provide effective compensatory mitigation for the functions and services of waters of the U.S. lost through authorized impacts throughout the MAV within the State of Mississippi. The MSD-ILFP will have two program service areas. The first, the "Delta Region"

consists of the portion of the Yazoo River Basin USGS Cataloging Unit (080302) within the Mississippi Alluvial Plain Level III Ecoregion within the Vicksburg District. The second, the “Batture Lands” consists of the portion of the Lower Mississippi – Helena and Lower Mississippi – Greenville USGS Cataloging Units (08020100 & 08030100) within the State of Mississippi and the Vicksburg District. Figure 1 shows the two adjacent service areas.

The MSD-ILFP encompasses approximately 4,654,826 acres, of which 998,665 acres remain in bottomland hardwood forested condition (Ducks Unlimited Forest Cover Change Detection Report, 2002). Hence, assuming the entire service area was once bottomland forest, 3,656,161 acres of forest cover have been lost, and only 21.4% of the service area remains in a forested condition. Importantly, within the MSD-ILFP, an estimated 1,324,837 acres are at or below the 24-month flood frequency elevation (Ducks Unlimited High Frequency Flood Model, 2005). These datasets were overlaid, resulting in 828,980 acres of land which is frequently flooded and cleared within the service area (Figure 2). These will be the lands targeted for restoration through in-lieu fee mitigation funding generated under this proposal.

Large-scale clearing and conversion to agriculture have resulted in multiple conservation issues within the MSD-ILFP, including impacts to water and air quality, habitat for wildlife, riverine fish, mussels and other organisms, and flood storage.

### *1. Water Quality*

Large scale clearing of forest cover and drainage of associated wetlands has resulted in significant non-point source pollution issues across the MAV and within the MSD-ILFP program service area. Nonpoint source pollution is the movement and deposition of sediments, nutrients, organic chemicals, etc., from diffuse sources to points of concentration. Documented sediment loss from agricultural lands within the MSD-ILFP service area range from 2.2-8.0 tons per acre (Dendy 1981, Murphree and Mutchler 1981, Dendy et al., 1984). Specific data for the program service area were not available, but it is reasonable to assume the data for the MAV are representative of the Service area.

Additional research at Mississippi State University found impounding winter precipitation on agricultural fields prevented 30 to 1000 lbs/acre of sediment from entering streams and rivers depending on field treatment (e.g., stubble, disked, etc.), and that many nonpoint source pollutants were retained with sediment (Manley, 1999). Hence, at a minimum, every 100 acres restored in the program service area via reforestation should prevent 1.5 tons topsoil and related nutrients (nitrogen, phosphorous, etc.) from being lost annually to streams and rivers. The improvement in water quality derived from work proposed herein has tangible benefits to people residing in the region, as well as to a host of riverine fish and mussel species as discussed below.

### *2. Air Quality*

Bottomland hardwood forests are among the most effective ecosystems with regard to sequestration of atmospheric carbon dioxide (CO<sub>2</sub>) and its conversion to organic carbon compounds. Terrestrial sequestration of CO<sub>2</sub> is one means to mitigate impacts of climate

change in coming decades. Ducks Unlimited has developed models which indicate that reforested sites can potentially sequester approximately 3.3 to 6.6 tons of CO<sub>2</sub> equivalents annually per acre (USFS Vegetation Simulator Model, Ducks Unlimited unpubl. data).

### 3. Wildlife

Conservation of wildlife habitat from work completed under this proposal will benefit a variety of wildlife species, including resident species (e.g. Louisiana black bear, white-tailed deer, eastern wild turkey), migratory forest breeding birds, migratory waterfowl, and several species of bats that are of regional concern. Benefits to individual species or suites of species are as follows:

#### Louisiana Black Bear

The Louisiana black bear is listed as a threatened species under the Endangered Species Act. Loss of forested wetlands throughout their range caused population declines that have led to its current Federal listing as threatened. Louisiana black bears make extensive use of forested and emergent wetlands and adjacent agricultural lands. The Black Bear Management Handbook for LA, TX and MS has listed among its landscape management objectives “preventing further habitat fragmentation or loss.” Restoration of bottomland hardwood forested wetlands in the program service area clearly will benefit the Louisiana black bear by reducing fragmentation of its preferred habitat. Restoration of forest cover is included in the *Louisiana Black Bear Habitat Management Handbook* and in the USFWS *Technical/Agency Draft Louisiana Black Bear Recovery Plan* (June 1994). Forested wetlands of Issaquena and Warren Counties included in the program service area are *specifically* (Federal Register, 12/2/93) included in the USFWS proposed Critical Habitat designation. However, more recent research by the Mississippi Department of Wildlife and Fisheries indicates that black bears range throughout the program service area in at least Holmes, Humphreys, Issaquena, Sharkey, Washington, and Yazoo Counties of Mississippi. As such, all work completed under this proposal should directly benefit this species.

#### Migratory Forest Breeding Birds

The Partners in Flight North American Landbird Conservation Plan (2004) serves to (1) assess the conservation vulnerability of all species of landbirds in North America; (2) identify species of continental importance; (3) establish continental landbird population objectives, (4) identify landbird monitoring and research needs, and (5) stimulate development of conservation partners to implement needed actions to secure the future of populations of North American landbird species. The plan establishes avifaunal biomes covering all of North America, which are then further divided into Bird Conservation Regions (such as BCR 26 – Mississippi Alluvial Valley) based on physiography. The Lower Mississippi Valley Joint Venture adopted “integrated bird conservation planning” earlier than most, and has worked in cooperation with the Southeastern Partners in Flight to develop the *Partners in Flight Bird Conservation Bird Plan for the Mississippi Alluvial Valley* (Physiographic Area #5; 1999) under the umbrella of the North American Landbird Conservation Plan. The focus of the PIF Conservation Plan for the MAV is to protect

remaining tracts of forested wetland, and to *restore forested wetlands to create blocks of forest that will support source populations of a suite of area-sensitive bottomland hardwood forest bird species.*

Specific goals of this plan include: (1) Maintain *or restore* 3.7 million acres of predominantly mature forested wetlands to support source populations of target species, including securing or restoring 52 forested wetland patches greater than 10,000 acres, 36 patches greater than 20,000 acres, and 13 patches greater than 100,000 acres, and; (2) Provide 2.5 million acres of scrub-shrub or forest edge habitat for target species while not affecting forest core for area sensitive species. The plan seeks to accomplish this by restoring forested habitat.

### Migratory Waterfowl

The Mississippi Alluvial Valley is among the most important wintering areas for waterfowl in North America, and is particularly important to mallards, northern pintails, wood ducks, gadwalls, green-winged teal, and hooded mergansers. Mallards and wood ducks in particular make extensive use of flooded forested wetlands as foraging habitat, pair isolation habitat, and thermal refuge during periods of inclement winter weather.

**Mallards** winter in large numbers in the project area. The MAV is the most important wintering area for mallards in North America, providing habitat for at least 1-4 million birds annually. Mallards and other waterfowl species will benefit from increased foraging habitat provided via work proposed herein. Large numbers of mallards are present in the MAV during migration and throughout winter, making extensive use of impounded agricultural lands, moist soil areas, emergent and flooded forested wetlands. They use these habitats for foraging habitat. Also, forested wetlands are particularly important for thermal refuge during periods of cold weather and pair isolation habitat, as over 80% of all mallards are paired prior to arriving in the MAV in fall or winter. The increased foraging habitat base, as well as the thermal refuge and pair isolation habitat provided by activities in this proposal, collectively should contribute to higher average body mass in both species and potentially higher recruitment rates in both species.

**Wood Ducks** are common year-round residents of the MAV. Data from Bellrose and Holms (1994) indicate that Arkansas, Louisiana, and Mississippi have the highest numbers and densities of breeding wood ducks in the MAV. Breeding population estimates based upon data from the mid-1980s were 117,503 in Arkansas, 134,306 in Louisiana, and 81,983 in Mississippi; only 3 states in the Mississippi Flyway had higher breeding population estimates (MN, WI, MI). High densities of breeding and wintering birds occur in palustrine-forested wetlands within the MAV. Restoration of forested wetlands will increase the quantity and quality of brood rearing, molting, and summer/fall roosting habitat. Wood ducks will also benefit from all foraging habitat provided by restoration activities proposed herein, that provide mast and invertebrates favored by this species. Collectively, work proposed herein should incrementally increase survival and recruitment rates for wood ducks through positive effects on body condition, nest success, brood, post-breeding and over-winter survival rates.

## Bat Species of Concern

Bottomland hardwood wetlands in the MAV support at least 7 species of bats, including the **southeastern myotis** and **Rafinesque's big-eared bat**, both of which are listed by the USFWS as "species of special concern." In a 1997-1998 study of bats at Black Swamp Wildlife Management Area in Arkansas, roosts of both southeastern myotis and Rafinesque's big-eared bat were found in live water tupelo trees with a minimum basal diameter of 100 cm (about 3.25 feet). The investigators concluded that managers should protect old growth timber, especially water tupelo, and manage stands to recruit trees into large diameter classes. However, restoration and perpetual protection of frequently flooded bottomland hardwoods in the program service area, combined with restoration of hydrological features such as sloughs and brakes, ultimately will provide additional old growth forested habitat of benefit to populations of bats in the MAV.

## Riverine Fish

The "big river" fish populations are of growing conservation concern. While some negative effects on populations of these fish species are related to flood control, snagging, and construction of navigation infrastructure, others are the result of impaired water quality. Restoration of bottomland hardwood forests will greatly reduce or essentially eliminate nonpoint source sediment runoff from restored lands and have very direct positive benefits to water quality by preventing sediment laden topsoil from entering streams and rivers. Nonpoint source nutrients are retained with this sediment. Restoration of marginal agricultural land to emergent, seasonally flooded wetlands clearly has the potential to benefit regional fish populations through improved water quality throughout project-affected watersheds. Water quality improvements resulting from restoration and enhancement activities will benefit commercially important riverine fish species (e.g., **bigmouth** and **smallmouth buffalo, channel** and **blue catfish**), recreationally important fish species (e.g., **largemouth bass, white crappie**), and rare/declining big river fish species of concern in the project area (e.g., **paddlefish, blue sucker, pallid sturgeon, Gulf sturgeon**).

The USFWS lists at least two species as endangered in Arkansas, Louisiana, and Mississippi. The **pallid sturgeon** historically occupied the Mississippi and Missouri River drainages. The decline of this species is primarily related to modifications of riverine habitats, particularly lock and dam systems and creation and maintenance of navigation channels. However, the Pallid Sturgeon Recovery Plan suggests that pollution may also contribute to the decline of the species, with a specific strategy to (Recovery Outline Section 1.2.7) remediate sources of environmental contaminants. Work proposed herein contributes to this strategy through remediation of nonpoint source contaminants through restoration of frequently flooded bottomland hardwood forests. Research at Mississippi State University found that impounding winter precipitation on agricultural fields prevented 30-1000 lbs/acre of sediment, depending on field treatment (e.g., stubble, disked, etc.), from entering streams and rivers, and that many nonpoint source nutrients are retained with sediment. Hence, at a minimum, every 100 acres reforested herein should prevent the loss annually of 1.5 tons of sediment to streams and rivers in the proposal area.

The **gulf sturgeon** is an anadromous species that was listed in 1991. It is known to use large coastal rivers from approximately Charlotte Harbor, FL, at least as far west as the Mermentau River in Louisiana. It uses freshwater riverine habitats for 8-9 months, and then spends winter months offshore in the Gulf of Mexico. There is a record for this species in the proposal area from Louisiana when a commercial fisherman captured one in 1994 between Mississippi River mile 311 and Red River mile 10. No, specific records exist for the program area, but the species should occur in the Yazoo River basin. The Gulf Sturgeon Recovery Plan cites poor water quality among several factors leading to the decline of this species. Among the recovery actions cited in the recovery plan are: a) Priority 2.2.2 Identify and eliminate potentially harmful point and nonpoint sources of chemical contaminants; b) Priority 2.2.4 Eliminate known and potential impacts to water quality and quantity associated with existing and proposed developments, agricultural uses, and water diversions in management units; and c) Priority 2.3.3 Identify and protect appropriate land or aquatic habitats on an ecosystem approach. Work proposed herein contributes directly to all 3 of these actions in the Gulf Sturgeon Recovery Plan.

### Mussels

The **fat pocketbook (Pearlymussel)** is listed as endangered (NatureServe Explorer, *Arkansas, Louisiana and Mississippi S1 – Critically Imperiled*). Occurrences have been documented in Craighead, Crittenden, Cross, Lee, Mississippi, Phillips, Poinsett, and St. Francis Counties, Arkansas; Tensas Parish, Louisiana; and Issaquena County, **Mississippi**.

Currently, the **fat pocketbook** distribution is restricted to the St. Francis River in Arkansas, but records also exist from Issaquena County, MS (Yazoo-Sunflower Rivers), and Tensas Parish, LA (Tensas River). The decline of this species is related to alterations of river channels for navigation and flood control. However, siltation also is listed as a possible decline of this species, and work proposed herein will contribute to improvements in water quality, especially reductions in sediment loads as previously discussed

The Mississippi Department of Wildlife, Fisheries Natural Heritage Program uses the Heritage ranking system developed by The Nature Conservancy. The 5 species of mussels listed above are ranked *S1 - Critically Imperiled* in Mississippi. The **Mucket, Spike, Sheepnose, and Rabbitsfoot** occur in the Sunflower River drainage in Sunflower County. The **Pyramid Pigtoe** has a slightly broader distribution and is found in Warren, Washington, Sunflower, Sharkey, and Humphreys County. The Sunflower drainage harbors 32 species of mussels, including the 5 S1-Critically Imperiled species listed herein, and has among the highest diversity and abundance of freshwater mussels in North America. Restoration activities included in this proposal and completed in program service area will help protect water quality, thereby benefiting mussels, by reducing non-point source pollution into area waterways as previously discussed.

#### D. Project Identification

As mentioned above, 828,980 acres of frequently flooded, cleared lands exist within the service area. The MSD-ILF program will utilize two decision support systems developed by conservation planners in the MAV. The decision support systems will be used to identify and prioritize ideal restoration sites within the MSD-ILFP service area. The first system utilizes a suite of ecological and conservation datasets to produce a model which assists in determining projects sites that have high probability of successfully replacing lost ecological functions. The second system assists in identifying project sites which will contribute forest habitat to support sustainable populations of wildlife species.

The first model, the Wetland Restoration Suitability Index, was developed by Ducks Unlimited conservation planners in cooperation with the USDA Forest Service and the LMVJV. The model was constructed around the three cornerstones of wetland delineation and taxonomy widely accepted by wetland science professionals: hydrology, soils, and vegetation. The datasets specifically incorporated into the model include hydrogeomorphology (Flood Probability, Areas of Internal Drainage, Stream Buffers), Soils (Soil Moisture Index), and Vegetation (Forest Change). The model provides users with 4 classes of restoration suitability, or more exactly a measure of the relative likelihood of a site being capable of sustaining a functioning wetland (Figure 3). Results are depicted as four suitability classes: High, Medium-High, Medium-Low, and Low. The prioritization and ranking of input variables was determined by Ducks Unlimited conservation planners and designed to give users a more comprehensive view of the ecological parameters that affect the potential capacity of every site in the MAV to sustain wetland ecological functionality. Areas within the MAV already forested, managed for conservation purposes, or containing permanent modifications such as roads or urban areas were excluded from the model. 312,907 acres within the MSD-ILFP service area are prioritized as high to medium-high, which are suitable for wetland restoration.

The second model, the Forest Breeding Bird Decision Support Model, was developed by the LMVJV (Figure 4). It defines relative priorities for reforestation of the entire MAV utilizing the habitat goals discussed above for migratory forest breeding birds. The model recognizes that small isolated forest patches provide relatively few benefits for many bottomland hardwood forest dependent breeding migratory bird species. Their model identifies existing forest cores throughout the MAV, and prioritizes reforestation for sites within close proximity to existing forest cores, which will contribute to locally significant forest cover. The results of this model correlate to several other models for forest dependent wildlife species (LMVJV DFC Report, 2007). 1,073,865 acres within the MSD-ILFP service area are classified as medium-high to high priority for restoration.

We propose to use the combined outputs of both models as specified above. Sites meeting high to medium priority in both models will be our first and highest priority. The combined outputs result in 101,711 acres within the proposed service area (Figure 5). However, when suitable sites are not readily available under the combined model outputs, potential suitable sites will be selected using either the high to medium-high priority sites identified using the DU support model or the high to medium-high priority sites identified using the LMVJV support model.

As new data becomes available and these decision support systems are updated DU will incorporate this into their project identification criteria.

E. Restoration Guidelines

Prior to European settlement the relatively flat MAV landscape was subject to various hydrologic regimes: prolonged extensive ponding occurred during the winter wet season of most years, localized short term ponding due to precipitation events occurred throughout the year, headwater flooding of tributaries due to regional precipitation patterns in most years, backwater flooding of tributaries during flood events on the Mississippi River, and large scale valley wide inundation during major flood events (Klimas et al. 2004).

Within the MAV variations of topography and hydrology occur creating a diverse complex of hydro-geomorphic communities. Throughout these communities the distribution of tree species varies from wetter, lower locations to higher, dryer locations (Table 1). However throughout a specific site wet and dry cycles, and other disturbances such as fires and ice storms typically resulted in diverse species mix throughout the landscape.

The project identification criteria should result in sites that are frequently flooded and will require minimal measures to restore wetland hydrology. Project sites will be evaluated for opportunities to restore additional or enhance existing hydrologic functions. Restoration of original hydrologic conditions may not be possible because of physical constraints. Structural measures to emulate local hydrologic processes may be required. Upon restoration or enhancement of hydrologic function the sites will be further restored by re-establishing bottomland hardwood forest species.

Table 1 – Variation of Tree Species across Hydrologic Gradient (Conner 1994).

	<b>Stream Channel</b>
Levee	River Birch, Black Willow, Cottonwood
	<b>First Bottom</b>
Backswamp	Water Hickory, Overcup Oak
Oxbow	Water Elm, Water Tupelo, Baldcypress
Low Ridge	Overcup Oak, Green Ash, Red Maple
High Ridge	Green Ash, Sweetgum, Willow Oak
	<b>Second Bottom</b>
Flats	Black Gum, White Oak, Hickories
Low Ridge	Water Oak, Cow Oak, Cherrybark Oak
High Ridge	Live Oak, Loblolly Pine

Differences in soil and hydrology, among and within project sites, will require selection of appropriate species to ensure optimal growth and survival. Sites with uniform topography, soils and hydrologic conditions may be planted with only a few compatible species. Sites with varied topography, soils and resulting hydrologic conditions may require a diverse mix of species to ensure success.

Diverse forest stands which provide ideal habitat for multiple species of wildlife is only possible over time with maturation of the forest stand. However, measures can be taken to ensure this desired condition is attained and to facilitate rapid availability of suitable habitat for some priority species.

Diverse forest stands will also be encouraged, by varying stem densities and incorporating intermixed small unplanted areas of up to 2% of the project acreage. To facilitate natural stand development the initial planting rate will be 435 seedlings per acre. On most sites 30%-60% of the planted trees should be hard mast species. The remaining percentage will be composed of light seeded, soft mast and fast growing species that would naturally occur on the site. However if existing forest stands are present within 1/8 mile natural colonization may be relied upon to provide these non-hard mast species (LMVJV DFC Report, 2007).

## **XII. Exhibit B: Instrument Modifications**

As ILF projects are identified, DU will submit a written request to the Corps to modify the Instrument according to the process outlined in this Exhibit (33 CFR 332.8). Other forms of Instrument modifications, including expansion of the MSD-ILFP to include compensatory mitigation for non-wetland waters and expansion of approved ILF projects, will also follow the process outlined herein.

Requests for Instrument modifications will be accompanied by the appropriate supporting documentation as determined by the District Engineer. DU expects that requests for addition of an ILF project will include the following information:

- The river basin and watershed (hydrologic unit code) of the site
- The goals and objectives of the site related to the watershed compensation planning framework
- Proposed service area
- Site conditions and location
- Proposed preliminary concept plan and/or feasibility study (if complete/available)
- How the project meets the project selection criteria outlined in Exhibit A.
- Estimate of proposed acreage/linear footage and type of mitigation
- Proposed protection and long-term management strategy
- Other information as needed

DU may elect to ask for a preliminary review and consultation of a modification request. In this case, the District Engineer will provide copies of the draft request to the IRT and will provide comments back to DU within 30 days.

Within 30 days of receipt of DU's formal request for an instrument modification, the District Engineer will notify DU whether the instrument modification request is complete. Within 30 days of receipt of a complete modification request, the District Engineer will provide public notice of the request that summarizes the project documentation provided by DU, and makes this information available to the public upon request. The comment period will be 30 days, unless otherwise determined and justified by the District Engineer. The District Engineer and IRT members may also provide comments to the sponsor at this time. The Corps will provide copies of all comments to IRT members and DU within 15 days of the close of the public comment period.

DU will prepare a draft amendment and submit it to the District Engineer for a completeness review. The draft amendment will include the following information as the mitigation plan (as required by 33 CFR Part 332.4 (c)):

- Information included in the initial modification request.
- Mitigation plan with a legend and scale
- Estimate of proposed acreage/linear footage and type of mitigation
- Description of existing functions and services and how they will be improved or enhanced through specific mitigation measures
- Project budget

- Determination of credits and the credit release plan
- Maintenance plan
- Performance standards
- Monitoring requirements
- Long-term management plan
- Adaptive management plan
- Other information as needed

The Corps will notify DU within 30 days of receipt of the amendment whether it is complete, or will request additional information. Once any additional information is received and the amendment is complete, the Corps will notify DU. DU will provide copies of the amendment for the Corps to distribute to the IRT for a 30-day comment period. This comment period begins 5 days after the copies of the amendment are distributed. Following the comment period, the District Engineer will discuss any comments with the appropriate agencies and DU to seek to resolve any issues using a consensus based approach, to the extent practicable. Within 90 days of receipt of the complete amendment, the District Engineer must indicate to DU whether the amendment is generally acceptable and what changes, if any, are needed.

DU will submit a final amendment to the District Engineer for approval, with supporting documentation that explains how the final amendment addresses the comments provided by the IRT. DU will also provide copies directly to IRT members. Within 30 days of receipt of the final amendment, the District Engineer will notify the IRT members whether or not he intends to approve the amendment. If no IRT members object by initiating the dispute resolution process within 45 days of receipt of the final amendment (Army Corps of Engineers, 2008), the District Engineer will notify DU of his final decision, and if approved, arrange for signing by the appropriate parties.

#### Streamlined Review Process

The District Engineer may use a streamlined modification review process for changes reflecting adaptive management of the MSD-ILFP, credit releases, changes in credit releases and credit release schedules, and changes that the District Engineer determines are not significant. In this event, the District Engineer will notify the IRT members and DU of this determination and provide them with copies of the proposed modification. IRT members and DU have 30 days to notify the District Engineer if they have concerns with the proposed modification. If IRT members or DU notify the District Engineer of such concerns, the District Engineer will attempt to resolve those concerns. The District Engineer will notify the IRT members and DU of his intent regarding the proposed modification within 60 days of providing the notice to the IRT members. If no IRT member objects, by initiating the dispute resolution process (33 CFR 332.8) within 15 days of receipt of the notification, the District Engineer will notify the sponsor of his final decision and, if approved, arrange for it to be signed by the appropriate parties.

### **XIII. Exhibit C: Mitigation Plans**

As individual ILF projects are proposed and mitigation plans approved by formal Instrument Modifications per Exhibit B they will be incorporated into Exhibit C as subparts beginning with Exhibit C-1 and continuing sequentially.

**XIV. Exhibit D: Statement of Sale of Credit**



SOUTHERN REGIONAL OFFICE  
MS DELTA IN-LIEU FEE PROGRAM  
193 BUSINESS PARK DR, STE E  
RIDGELAND, MS 39157-6026  
601.956.1936

U.S. Army Corps of Engineers  
Vicksburg District – Regulatory Branch  
4155 Clay Street  
Vicksburg, MS 39183

Subject: Statement of Sale for [Number of Credits] Wetland Mitigation Credits  
from the [Project Name] to [Permittee Name]

[Date]

Ducks Unlimited, Inc. has an Agreement with the U.S. Army Corps of Engineers – Vicksburg District to operate an In-Lieu Fee Program.

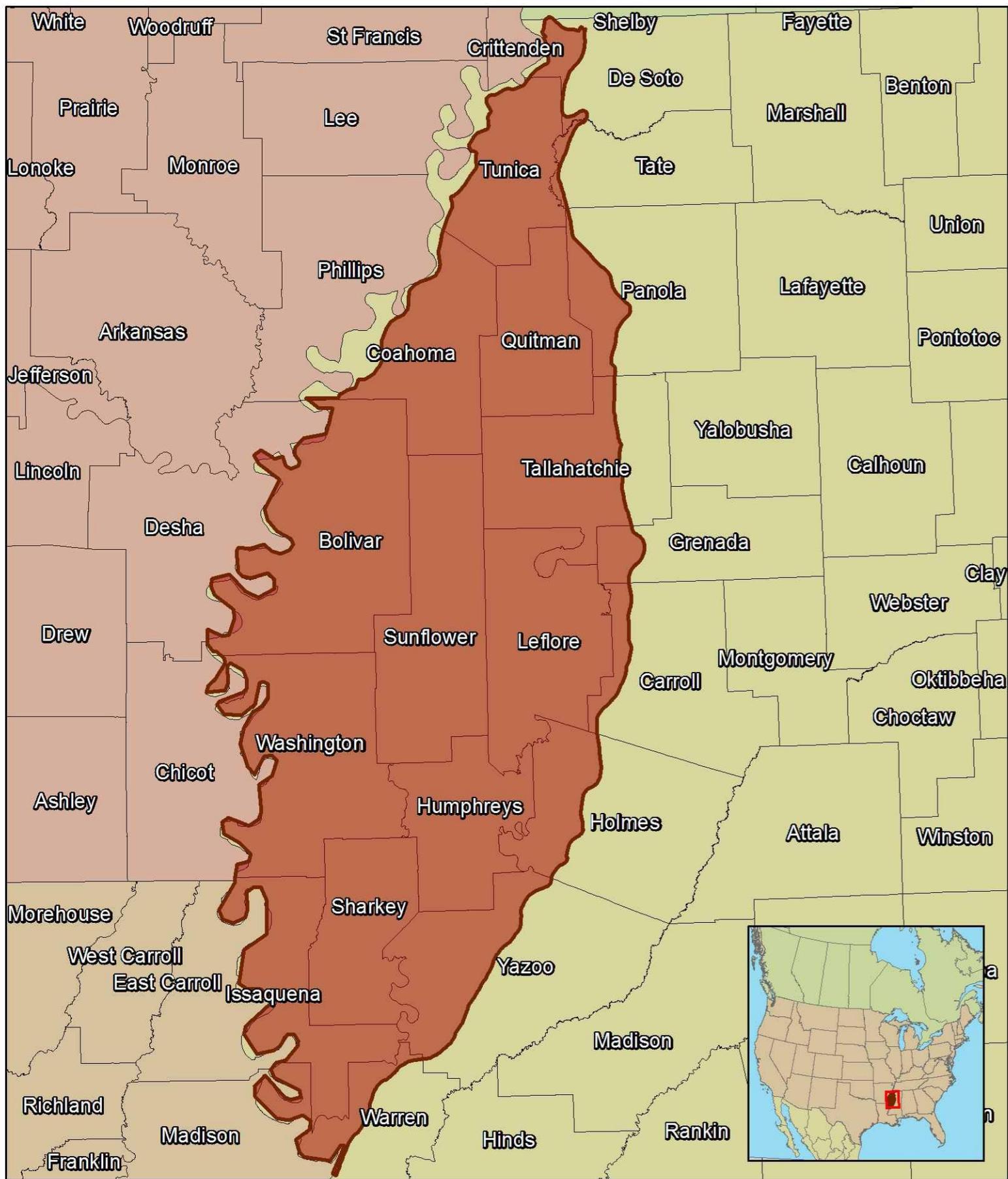
This letter confirms the sale of [Number of Credits] credits of [Resource Type A], and [Number of Credits] credits of [Resource Type B]. These credits are being used as compensatory mitigation for [Number of Acres] acres of impact to [Resource Type A], and [Number of Acres] acres of impact to [Resource Type B] in the [Impact HUC] as authorized by DA permit [DA permit number].

By selling credits to the above permittee, Ducks Unlimited, Inc. is the party responsible for fulfilling the mitigation aspect of the Permit(s) listed above.

# MS Delta – In-Lieu Fee Program

Service Area

Figure 1

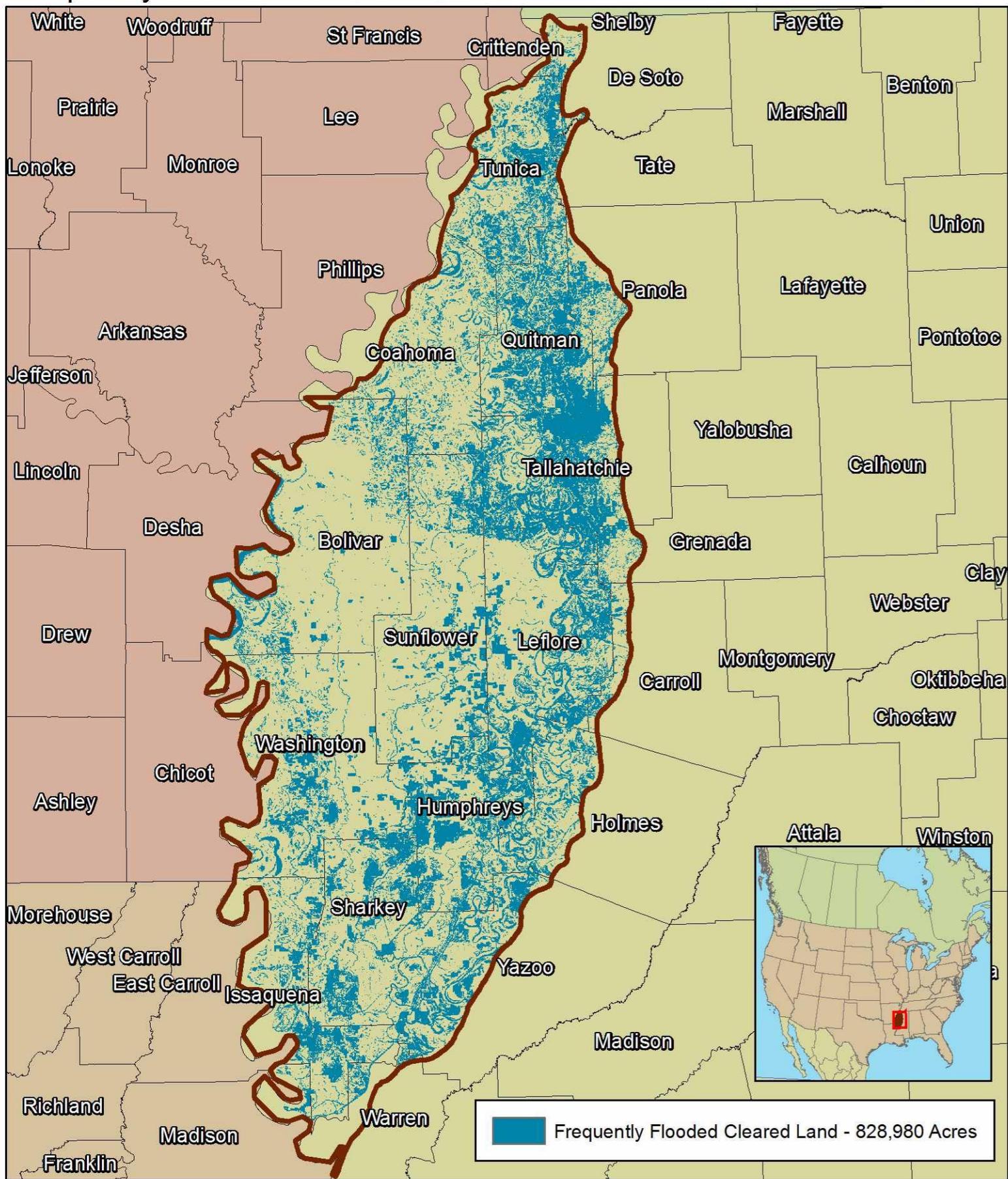


0 12.5 25 50 75 100 Miles

# MS Delta – In-Lieu Fee Program

## Frequently Flooded Cleared Land

## Figure 2

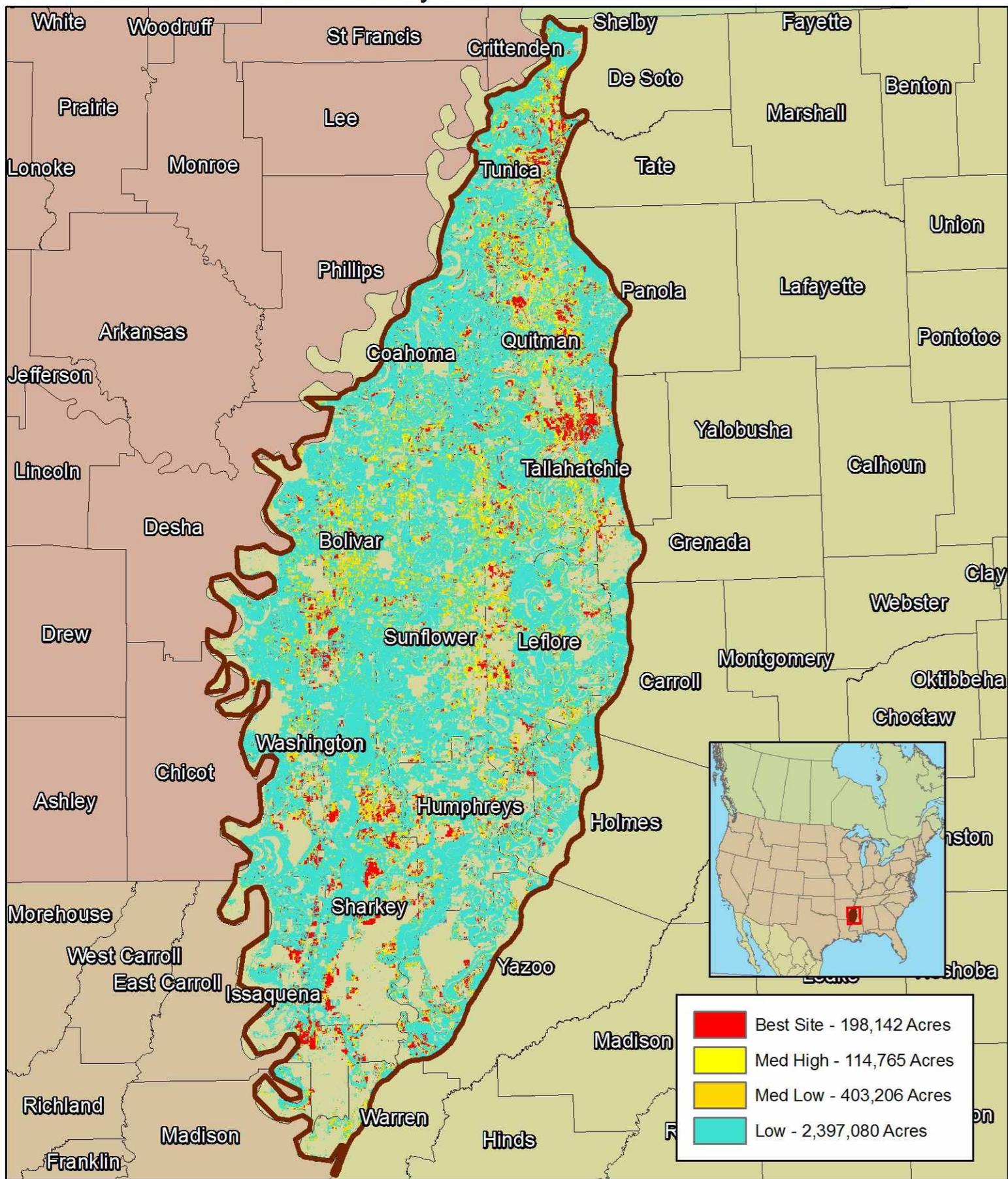


0 15 30 60 90 120 Miles

# MS Delta – In-Lieu Fee Program

## Wetland Restoration Suitability Index

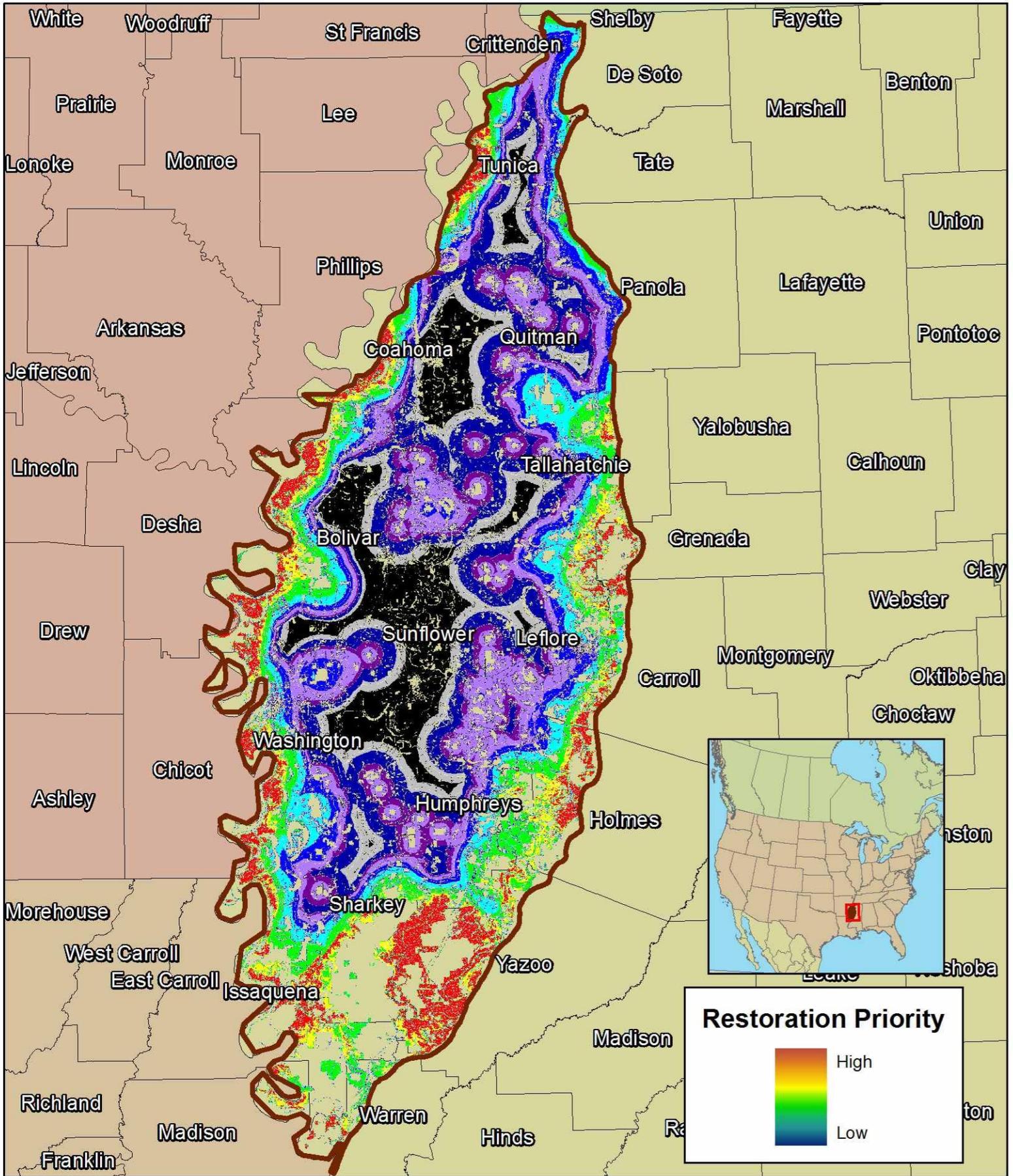
Figure 3



# MS Delta – In-Lieu Fee Program

## LMVJV Forest Breeding Bird Decision Support Model

Figure 4

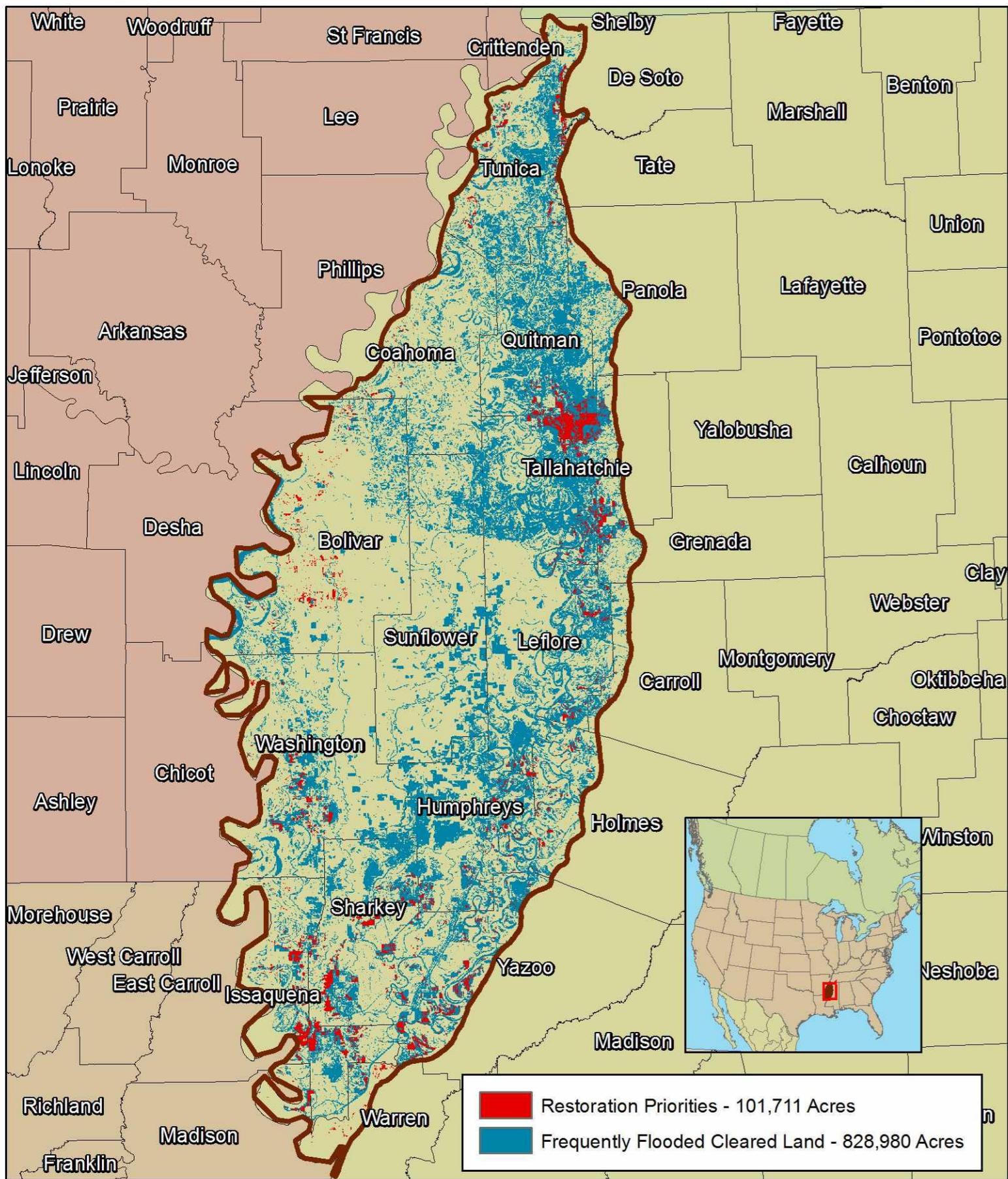


0 15 30 60 90 120 Miles

# MS Delta – In-Lieu Fee Program

## Restoration Priorities

Figure 5



0 15 30 60 90 120 Miles