



LAKE COUNTY FOREST PRESERVES
www.LCFPD.org

Preservation, Restoration, Education and Recreation

DATE: April 3, 2017
MEMO TO: Carol Calabresa, Chair
Planning Committee
FROM: Randall L. Seebach
Director of Planning and Preservation

Agenda Item# 9.9

RECOMMENDATION: Recommend approval of a Resolution approving an Intergovernmental Agreement between the Lake County Forest Preserve District (District) and the Metropolitan Water Reclamation District of Greater Chicago (MWRD) regarding Offsite Mitigation at Captain Daniel Wright Woods Forest Preserve.

STRATEGIC DIRECTION SUPPORTED: Conservation

FINANCIAL DATA: As specified in the attached agreement, MWRD will provide \$400,000.00 to the District which will be used to complete a mitigation project at Captain Daniel Wright Woods Forest Preserve (CDWW). The District will provide staff labor to perform the native seeding and manage the mitigation project.

BACKGROUND: In June 2016, the District Board approved an intergovernmental agreement with MWRD that will allow for the expansion of the existing flood control reservoir at Buffalo Creek Forest Preserve by 184 acre-feet and the construction of additional public access improvements at Buffalo Creek Forest Preserve (including 1.2 miles of new crushed stone trails, 0.5 miles of relocated trails, seven new boardwalks, two scenic overlooks and a 30-car expansion of the existing parking lot), tree planting and restoration of all disturbed areas. As part of their permit review of the proposed reservoir expansion, the United States Army Corps of Engineers (USACE) is requiring MWRD to perform offsite mitigation for unavoidable impacts to certain existing low quality wetlands.

District staff has been in negotiations with MWRD regarding mitigation of those reservoir expansion impacts at CDWW. District staff has prepared a mitigation plan for a portion of CDWW that includes the restoration/reestablishment of 24 acres of former wetlands and the enhancement of 65 acres of existing degraded wetlands. The overall goal of this mitigation/restoration project is to increase the sunlight levels at the ground level in order to improve the health of the herbaceous ground layer and allow for oak/hickory regeneration. Under the attached agreement, MWRD will pay \$400,000.00 to the District, and the District will cause the mitigation work and the necessary follow up maintenance and monitoring to be performed within the 89-acre parcel to achieve compliance with the USACE permit. Any funds left over after achieving compliance will be used for long-term maintenance of the restored area.

In addition, as a condition of the off-site mitigation, the USACE permit will require that the District record a conservation easement, deed restriction, or similar document limiting use of the restored portion of Captain Daniel Wright Woods in a manner consistent with the permit and mitigation work. If this agreement is approved, the first phase of the mitigation work (initial removal of invasive woody plants) will begin in the winter 2017/18.

REVIEW BY OTHERS: Executive Director, Chief Operations Officer, Director of Finance, Corporate Counsel

**LAKE COUNTY FOREST PRESERVE DISTRICT
LAKE COUNTY, ILLINOIS**

**A RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT
WITH THE METROPOLITAN WATER RECLAMATION DISTRICT REGARDING
OFFSITE MITIGATION AT CAPTAIN DANIEL WRIGHT WOODS FOREST
PRESERVE**

WHEREAS, on June 14, 2016, the Lake County Forest Preserve District (the “District”) approved an intergovernmental agreement with the Metropolitan Water Reclamation District of Greater Chicago (the “MWRD”) and the Village of Buffalo Grove pursuant to which the MWRD would (i) expand the capacity of a stormwater reservoir within a portion of certain property owned by the District and commonly known as Buffalo Creek Forest Preserve (“Buffalo Creek”) and (ii) construct certain improvements within Buffalo Creek to enhance the public use of, and restore and preserve the natural features of, Buffalo Creek, including trails, bridges, boardwalks, overlooks, parking areas, grading, landscaping and restored areas ; and

WHEREAS, MWRD’s expansion of the stormwater reservoir will cause impacts to certain existing low quality wetlands located at Buffalo Creek and, as part of the permitting process for construction of the expanded reservoir, the U.S. Army Corps of Engineers (the “USACE”) requires MWRD to accomplish offsite wetland mitigation for such impacts; and

WHEREAS, the District and MWRD have negotiated an intergovernmental agreement in the form attached hereto (the “Mitigation Agreement”) pursuant to which:

- (i) MWRD would apply for the required Section 404 Permit under the United States Clean Water Act (the “Section 404 Permit”) and the District would execute the Section 404 Permit, as the off-site mitigation sponsor,
- (ii) MWRD would mitigate impacts to wetlands at Buffalo Creek, and thereby comply with the Section 404 Permit, by paying the District to complete a restoration project (the “Restoration Project”) at Captain Daniel Wright Woods Forest Preserve (“Wright Woods”),
- (iii) the Restoration Project would be completed pursuant to a mitigation plan approved by USACE and would include the restoration/reestablishment of 24 acres of former wetlands and the enhancement of 65 acres of existing degraded wetlands and the necessary maintenance and monitoring to satisfy the Section 404 Permit,
- (iv) MWRD will pay \$400,000.00 to the District, and the District will use such payment to cause the Restoration Project and the necessary follow up maintenance and monitoring to be performed within Wright Woods to achieve compliance with the Section 404 Permit, and
- (v) to the extent required by the Section 404 Permit, the District will record a restrictive covenant, conservation easement, deed restriction, or similar restriction

limiting use of the restored portion of Wright Woods in a manner consistent with the Section 404 Permit and Restoration Project (a "Restrictive Covenant"); and

WHEREAS, pursuant to Section 10 of Article VII of the Illinois Constitution of 1970, units of local government, such as the District and MWRD may contract or otherwise associate among themselves in any manner not prohibited by law or ordinance; and

WHEREAS, pursuant to the Intergovernmental Cooperation Act, 5 ILCS 220/1 et seq., any power, privilege, function, or authority exercised by a public agency, including the District and MWRD, may be exercised, combined, transferred, and enjoyed jointly with any other public agency to the extent not prohibited by law;

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Lake County Forest Preserve District, Lake County, Illinois THAT:

Section 1. Recitals. The recitals set forth above are incorporated as a part of this Resolution by this reference.

Section 2. Approval of the Mitigation Agreement. The Mitigation Agreement is hereby approved in substantially the form attached hereto. The President and Secretary of the District are authorized to execute and attest to the Agreement in substantially the form attached hereto. The District President and the District Secretary are hereby authorized and directed to execute and attest to the Restrictive Covenant, on behalf of the District, in a form approved by the District's Corporate Counsel. At such time that MWRD delivers a Section 404 Permit to the District that complies with the Mitigation Agreement, the District President (or her designee) is hereby authorized and directed to execute the Section 404 Permit on behalf of the District as an off-site mitigation sponsor.

Section 3. Effective Date. This Resolution shall be in full force and effect from and after its passage and approval in the manner provided by law.

PASSED this _____ day of _____, 2017

AYES:

NAYS:

APPROVED this _____ day of _____, 2017

ATTEST:

Ann B. Maine, President
Lake County Forest Preserve District

Julie A. Gragnani, Secretary
Lake County Forest Preserve District

Exhibit _____

**INTERGOVERNMENTAL AGREEMENT BY AND BETWEEN THE
METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO
AND LAKE COUNTY FOREST PRESERVE DISTRICT FOR CONSTRUCTION OF
OFF-SITE WETLAND MITIGATION AT CAPTAIN DANIEL WRIGHT WOODS
FOREST PRESERVE**

THIS INTERGOVERNMENTAL AGREEMENT (hereinafter the *“Agreement”*), entered into by and between the Metropolitan Water Reclamation District of Greater Chicago, a unit of local government and body corporate and politic existing under the laws of the State of Illinois (hereinafter *“MWRD”*) and Lake County Forest Preserve District, a body politic and corporate (hereinafter *“LCFPD”*), (hereinafter collectively known as the *“Parties”*),

WITNESSETH:

WHEREAS, the MWRD is a body corporate and politic organized and existing under the laws of the State of Illinois, 70 ILCS 2605/1 et seq.; and

WHEREAS, the LCFPD is a body politic and corporate, organized under the Downstate Forest Preserve District Act, 70 ILCS 805/0.001 et seq.; and

WHEREAS, MWRD, LCFPD, and the Village of Buffalo Grove, Illinois (the *“Village”*) have approved (i) on December 20, 1973, an Intergovernmental Agreement for the acquisition of property and the construction, operation and maintenance of a flood retention reservoir known as the Buffalo Creek Reservoir, within LCFPD’s property owned by LCFPD and commonly known as Buffalo Creek Forest Preserve (the *“1973 Intergovernmental Agreement”*); (ii) on December 17, 1984, an amendment to the Original Intergovernmental Agreement dated December 17, 1984 (the *“1984 Amendment to Intergovernmental Agreement”*; the 1973 Intergovernmental Agreement, as amended by the 1984 Amendment to Intergovernmental Agreement is the *“Original Intergovernmental Agreement”*); and (iii) on _____, 2017, an “Intergovernmental Agreement for Design, Construction, Use, Operation, and Maintenance of Stormwater and Recreational Improvements at the Buffalo Creek Forest Preserve (the *“Construction Intergovernmental Agreement”*); and

WHEREAS, pursuant to the Construction Intergovernmental Agreement, MWRD intends to expand the Buffalo Creek Reservoir (the *“Expansion Project”*) and the Expansion Project will fill, discharge into, or cause certain other impacts to wetlands within Buffalo Creek Forest Preserve (the *“Wetland Impacts”*); and

WHEREAS, pursuant to the United States Clean Water Act, it is unlawful to fill, discharge into, or cause certain other impacts to wetlands, unless such impacts are authorized by a permit issued by the United States Army Corps of Engineers (the “*USACE*”), pursuant to Section 404 of the Clean Water Act (a “*Section 404 Permit*”), and the USACE may issue a Section 404 Permit if it determines that the applicant for the permit will adequately mitigate the impacts that will be caused to wetlands; and

WHEREAS, the MWRD and the LCFPD desire to enter into this agreement pursuant to which MWRD would pay \$400,000.00 (the “*Wetland Mitigation Funds*”) to LCFPD that LCFPD would use for a wetland enhancement and restoration project (the “*Mitigation Project*”) on a portion of certain property owned by LCFPD and commonly known as “Captain Daniel Wright Woods Forest Preserve,” which portion is generally depicted on Exhibit A as the “*Mitigation Site*”; and

WHEREAS, the MWRD has filed an application to the USACE for a Section 404 Permit to allow the Wetland Impacts at the Buffalo Creek Forest Preserve (the “*Application*”) so that it may proceed with the Expansion Project for the Buffalo Creek Reservoir; and

WHEREAS, in support of the Application, MWRD has proposed to mitigate the Wetland Impacts at the Buffalo Creek Forest Preserve, in whole, by causing to be performed all work (the “*Mitigation Work*”) necessary to restore and enhance the Mitigation Site in accordance with Section VI of the “Project Mitigation Document” attached hereto and incorporated herein as Exhibit B (the “*Mitigation Plan*”) and the maintenance, monitoring, and management work described in Section VII of the Mitigation Plan (the “*Maintenance Work*”); and

WHEREAS, MWRD represents that wetland bank mitigation is not currently available in the same watershed as the Wetland Impacts, desires that the Mitigation Work be performed to provide mitigation in the same watershed as the Wetland Impacts, and represents that the Mitigation Work is supported by regulatory and non-regulatory agencies; and

WHEREAS, the LCFPD is willing to (i) execute, as an off-site mitigation sponsor, a Section 404 Permit that (a) authorizes the Mitigation Work and Maintenance Work, (b) is effective (or is effective conditioned only on LCFPD’s execution of it as an off-site mitigation sponsor), and (c) is otherwise consistent with this Agreement and acceptable to the LCFPD (an

“Acceptable 404 Permit”) and (ii) accept the Wetland Mitigation Funds from MWRD, so that LCFPD can perform, or cause to be performed, the Mitigation Work and Maintenance Work at the Mitigation Site; and

WHEREAS, as a condition of the Section 404 Permit, LCFPD will be required to record a conservation easement, deed restriction, restrictive covenant or similar document limiting use of the Mitigation Site in a manner consistent with the Acceptable 404 Permit and the Mitigation Project (the *“Restrictive Covenant”*); and

WHEREAS, on January 19, 2017, the MWRD Board of Commissioners authorized the MWRD to enter into this Agreement with the LCFPD; and

WHEREAS, on April 11, 2017, the LCFPD Board of Commissioners authorized the LCFPD to enter into this Agreement with the MWRD; and

WHEREAS, the MWRD and the LCFPD, are public agencies within the meaning of the Illinois Intergovernmental Cooperation Act, 5 ILCS 220/1 *et seq.*; and

WHEREAS, Article VII, Section 10, of the 1970 Constitution of the State of Illinois encourages and provides for units of local government to contract and otherwise associate with other units of local government to exercise, combine or transfer any power or function in any manner not prohibited by law; and

WHEREAS, the MWRD and the LCFPD, have determined it is in the best interests of the Parties, as well as the residents and individuals served by the Parties to enter into this Agreement; and

WHEREAS, pursuant to the Original Intergovernmental Agreement, the MWRD and LCFPD have a history of working cooperatively for their mutual benefit and the benefit of their respective constituents and desire to enter into this Agreement to further cooperate in accordance with their respective rights and responsibilities described herein; and

NOW, THEREFORE, pursuant to the authorities recited above and all applicable authority, in consideration of the matters set forth in this Agreement, the mutual covenants and agreements contained in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, MWRD and LCFPD hereby agree as follows:

ARTICLE 1. INCORPORATION OF RECITALS.

The recitals set forth above are incorporated herein by reference and made a part hereof.

ARTICLE 2. EXECUTION OF ACCEPTABLE 404 PERMIT.

Upon the approval by the USACE of an Acceptable 404 Permit, MWRD shall execute the Acceptable 404 Permit and deliver it to LCFPD. LCFPD shall promptly execute the Acceptable 404 Permit as an off-site mitigation sponsor and return it to MWRD.

ARTICLE 3. PERFORMANCE OF MITIGATION WORK.

- A. **Scope of Work.** After MWRD and LCFPD execute the Acceptable 404 Permit, and after MWRD pays the Wetland Mitigation Funds to LCFPD, as provided in Article 4, LCFPD shall cause the Mitigation Work and Maintenance Work to be completed in accordance with the Mitigation Plan and the Acceptable 404 Permit by either (i) performing the Mitigation Work and Maintenance Work itself through its own forces, (ii) causing the Mitigation Work and Maintenance Work to be performed by a contractor, or (iii) a combination of (i) and (ii). After it completes the Mitigation Work and Maintenance Work, LCFPD shall notify MWRD of such completion. Thereafter, MWRD shall promptly seek from USACE a letter of completion or closure (or its equivalent) stating that the Mitigation and Maintenance Work has been completed in accordance with the Acceptable 404 Permit (a "*Completion Letter*").
- B. **Contracting Requirements.** If the LCFPD engages a contractor to complete the Mitigation Work or the Maintenance Work, or any portion thereof, the LCFPD shall (i) engage such contractor through applicable procurement laws, including the LCFPD's own procurement requirements, (ii) in accordance with such requirements, for any portion of the Mitigation Work or Maintenance Work with a value more than \$25,000, publicly award a contract for the Mitigation Work or Maintenance Work to the lowest responsible bidder, after publicly advertising for, and obtaining, competitive, sealed bids for such work, and (iii) for all Mitigation Work with a value of more than \$50,000, require a payment bond and performance bond, as required by the Public Construction Bond Act.
- C. **Permits.** The parties acknowledge that, to the best of their current knowledge, no federal, state, county, or local permits, consents, or approvals are required for the

Mitigation Work and the Maintenance Work (*“Additional Permit”*), except for the Acceptable 404 Permit. However, if any Additional Permit is required, LCFPD, at its cost, shall obtain the Additional Permits and MWRD will reasonably cooperate with LCFPD in LCFPD’s efforts to obtain such Additional Permits.

D. Mitigation, Maintenance, and Monitoring Requirements.

- (i) LCFPD shall comply with all requirements as set forth in the Mitigation Plan, including but not limited to, the Maintenance Plan (Section VII); Performance Standards, including Vegetation and Hydrology requirements (Section VIII); Monitoring and reporting requirements (Section IX); Long Term Management requirements (Section X); and Adaptive Management performance, if needed (Section XI). LCFPD shall also comply with any additional mitigation, monitoring, management, and maintenance requirements set forth in the Acceptable 404 Permit. If at any time USACE lawfully determines that LCFPD’s performance under the Mitigation Plan or LCFPD’s mitigation, monitoring, management, and maintenance under the Acceptable 404 Permit is deficient, LCFPD shall take all steps necessary to remedy said deficiencies to the satisfaction of the USACE.
- (ii) In the event that LCFPD fails to (i) complete the Mitigation Work by the date required by the Acceptable 404 Permit, (ii) complete the Maintenance Work by the date required by the Acceptable 404 Permit, or (iii) otherwise perform the Mitigation Work or Maintenance Work as required by this Agreement, the MWRD may issue a notice to LCFPD directing such completion or performance and describing such failure in reasonable detail. If, within thirty (30) business days after receipt of such notice, LCFPD does not (i) demonstrate that the Mitigation Work or Maintenance Work has been completed or that it has performed the Mitigation Work or Maintenance Work as required by this Agreement (as the case may be) or (ii) commence or cause to be commenced the work necessary to complete the Mitigation Work, complete the Maintenance Work, or cure such failure (as the case may be), then LCFPD is in default (*“Default”*) and MWRD may serve LCFPD with a notice demanding a refund of all Wetland Mitigation Funds, in which case,

within sixty (60) days after such request, LCFPD shall refund to MWRD all Wetlands Mitigation Funds that have been paid by MWRD to LCFPD.

- E. **Copies of Reports.** LCFPD shall provide to MWRD copies of all Mitigation Plan Annual Reports submitted to USACE, and the Year 5 letter and final report.

ARTICLE 4. PAYMENT.

- A. The MWRD will pay the Wetland Mitigation Funds to LCFPD within thirty (30) days after the following three conditions have been met, (collectively, the “*Mitigation Payment Conditions*”):

- (i) execution of this Agreement;
- (ii) execution of the Acceptable 404 Permit by all necessary parties; and
- (iii) award of the construction contract to perform the work described in the Expansion Project.

- B. LCFPD shall use all of the Wetland Mitigation Funds exclusively for (i) the Mitigation Work, (ii) if Wetland Mitigation Funds remain after the Mitigation Work is complete, for Maintenance Work, and (iii) if Wetland Mitigation Funds remain after the Maintenance Work is complete, for further maintenance of the Mitigation Site. LCFPD assumes the risk that the cost of the Mitigation Work and Maintenance Work may exceed \$400,000 and, in the event of such excess costs, LCFPD shall, despite such excess costs, complete the Mitigation Work and Maintenance Work as required by the Acceptable 404 Permit and MWRD will not be required to pay any such excess costs.

- C. In the event that USACE suspends or revokes the Acceptable 404 Permit due to LCFPD’s failure to comply with all the terms and conditions for LCFPD’s mitigation, monitoring, management, and maintenance under the Acceptable 404 Permit, the MWRD will be entitled to a refund of the entire payment of \$400,000.00.

ARTICLE 5. TERM.

This Agreement will be effective as of the Effective Date, as defined in Article 8, and will terminate (i) if MWRD sends to LCFPD a written notice of termination prior to MWRD tendering an Acceptable 404 Permit to LCFPD, (ii) at LCFPD’s option, if more than 30 days have elapsed after (a) execution of both the Agreement and the Acceptable 404 Permit and (b)

award of the construction contract to perform the work described in the Expansion Project, but MWRD has failed to deliver all Wetland Mitigation Funds to LCFPD, (iii) at either Party's option, if all Mitigation Payment Conditions have not been satisfied on or before June 30, 2018, or (iv) if the USACE issues a Completion Letter and LCFPD sends to MWRD a written notice of termination.

ARTICLE 6. INDEMNIFICATION

- A. **LCFPD Obligations.** LCFPD shall indemnify, defend, and hold harmless MWRD and its president, commissioners, officers, employees, servants, and agents ("***MWRD Indemnified Parties***") from and against any and all claims, actions, causes of action, suits, orders, losses, costs, liabilities, damages, and expenses incurred, including reasonable attorney's fees, costs and disbursements suffered, or sustained at any time after the Effective Date and in perpetuity as a result of, or relating to, injury to or death of persons or loss or damage to property (collectively, the "***Claims***") arising from the negligent act or omission of LCFPD, for which an MWRD Indemnified Party may become or is alleged to be liable (irrespective of whether any such MWRD Indemnified Party is a party to such Claim), except to the extent a Claim arises out of the negligence or fault of the MWRD Indemnified Party.
- B. **MWRD Obligations.** MWRD shall indemnify, defend, and hold harmless LCFPD and its president, commissioners, officers, employees, servants, and agents ("***LCFPD Indemnified Parties***") from and against any and all Claims arising from the negligent act or omission of the MWRD, for which a LCFPD Indemnified Party may become or is alleged to be liable (irrespective of whether any such LCFPD Indemnified Party is a party to such Claim), except to the extent a Claim arises out of the negligence or fault of the LCFPD Indemnified Party.
- C. **No Waiver of Immunity.** A Party's indemnification obligation will not be deemed to waive or limit any immunity or other defense.

ARTICLE 7. REPRESENTATIONS AND WARRANTIES.

- A. **Representations of LCFPD.** LCFPD covenants, represents and warrants, as of the Effective Date and throughout the term of this Agreement, as follows:

- (i) LCFPD has full authority to execute, deliver and perform or cause to be performed this Agreement;
- (ii) LCFPD owns the fee simple interest in the Mitigation Site; and
- (iii) in addition to the Wetland Mitigation Funds, it has financial resources and capabilities necessary to ensure that the Mitigation Work and Maintenance Work will be completed;
- (iv) that the individuals signing this Agreement and all other documents executed on behalf of LCFPD are duly authorized to sign same on behalf of and to bind the LCFPD; and
- (v) the execution and delivery of this Agreement, consummation of the transactions provided for herein, and the fulfillment of the terms hereof will not result in any breach of any of the terms or provisions of or constitute a default under any agreement of the LCFPD or any instrument to which the LCFPD is a party or by which LCFPD is bound or any judgment, decree, or order of any court or governmental body or any applicable law, rule, or regulation.

B. Representations of MWRD. MWRD covenants, represents and warrants, as of the Effective Date and throughout the term of this Agreement, as follows:

- (i) MWRD has full authority to execute, deliver and perform or cause to be performed this Agreement;
- (ii) the individuals signing this Agreement and all other documents executed on behalf of the MWRD are duly authorized to sign same on behalf of and to bind the MWRD; and
- (iii) the execution and delivery of this Agreement, consummation of the transactions provided for herein, and the fulfillment of the terms hereof will not result in any breach of any of the terms or provisions of or constitute a default under any agreement of the MWRD or any instrument to which the MWRD is a party or by which the MWRD is bound or any judgment, decree, or order of any court or governmental body or any applicable law, rule, or regulation.

ARTICLE 8. GENERAL PROVISIONS.

- A. **Compliance with Laws; Governing Law.** In exercising their rights under this Agreement, the Parties shall comply with all applicable federal, state, and local laws. This Agreement shall be governed by, and enforced in accordance with, the internal laws, but not the conflicts of laws rules, of the State of Illinois. The Parties agree that, pursuant to Section 20 of the Downstate Forest Preserve District Act, 70 ILCS 805/20, and LCFPD Ordinance No. 2257 enacted pursuant thereto, to the extent that local regulations (as opposed to USACE or other federal regulations) apply to the Mitigation Work and Maintenance Work, the Mitigation Work and Maintenance Work is subject to the building codes and regulations of the County of Lake, and not that of any municipality.
- B. **Hazardous Materials.** MWRD and LCFPD covenant and agree that: (i) they and their officers, partners, agents, employees and contractors shall comply with any and all federal, state, and local laws, ordinances, codes, rules and regulations that prohibit, restrict or regulate any material defined therein as a hazardous, radioactive, toxic or carcinogenic substance, pollutant, contaminant or material (collectively, "***Hazardous Materials***") in connection with the Captain Daniel Wright Woods Forest Preserve; and (ii) they and their officers, partners, agents, employees and contractors shall not, and shall not permit or otherwise authorize any other person to, handle, bury, store, retain, refine, produce, spill, allow to seep, leak, escape, leach, pump, pour, emit, empty, discharge, inject, dump, transfer, release or otherwise dispose of or deal with Hazardous Materials in, on, under or about the Captain Daniel Wright Woods Forest Preserve. The provisions of this Article shall survive any expiration or earlier termination of this Agreement.
- C. **Nature, Survival and Transfer of Obligations.** This Agreement may be recorded by LCFPD, at no cost to MWRD, against the Mitigation Site. The provisions of this Agreement shall run with and bind the Mitigation Site and shall bind, inure to the benefit of, and be enforceable by LCFPD and MWRD, and any of their respective legal representatives, heirs, grantees, and successors, including any successor governing boards. The LCFPD shall record with the Lake County Recorder of Deeds the Restrictive Covenant in a form approved by the USACE and shall ensure that the Mitigation Site is used in accordance with the Restrictive Covenant, which may include passive recreational uses.

D. Enforcement.

- (i) **Breach.** For any breach of this Agreement, MWRD or LCFPD may, in law or in equity, by suit, action, or any other proceeding, enforce or compel the performance of this Agreement and seek any appropriate remedy, including, without limitation, specific performance, mandamus, or money damages.
- (ii) **Venue.** Venue for any judicial action filed by MWRD or LCFPD related to this Agreement will be in the Circuit Court of Cook County, Illinois.

E. Notice. Any notice or communication required or permitted to be given under this Agreement shall be in writing and shall be delivered: (i) personally, (ii) overnight by a reputable overnight courier, (iii) by certified mail, return receipt requested, and deposited in the U.S. Mail, postage prepaid, or (iv) by electronic mail. Electronic mail notices shall be deemed valid only to the extent that they are (a) actually received by the individual to whom addressed and (b) followed by delivery of actual notice in the manner described in either (i), (ii) or (iii) above within three business days thereafter at the appropriate address set forth below. Unless otherwise expressly provided in this Agreement, notices shall be deemed received upon the earlier of (a) actual receipt; (b) one business day after deposit with an overnight courier as evidenced by a receipt of deposit; or (c) three business days following deposit in the U.S. Mail, as evidenced by a return receipt. By notice complying with the requirements of this Article, each Party shall have the right to change the address or the addressee, or both, for all future notices and communications to such Party, but no notice of a change of addressee or address shall be effective until actually received. Notices and communications to LCFPD shall be addressed to, and delivered at, the following address:

Lake County Forest Preserve District
1899 West Winchester Road
Libertyville, IL 60048
Attention: Executive Director

With a copy to:

Matthew E. Norton, Esq.
Burke, Warren, MacKay & Serritella
330 N. Wabash Avenue, Suite 2100
Chicago, IL 60611-3607

Notices and communications to MWRD shall be addressed to, and delivered at, the following addresses:

Office of the Director of Engineering
Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street
Chicago, IL 60611-3154

With a copy to:

General Counsel
Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street
Chicago, IL 60611-3154

The foregoing shall not be deemed to invalidate any notice actually received.

- F. **Time Is of the Essence.** Time is of the essence in the performance of this Agreement.
- G. **Exhibits.** Exhibits A and B attached to this Agreement are, by this reference, incorporated in and made a part of this Agreement.
- H. **Amendments and Modifications.** This Agreement may not be modified, changed or deleted unless in writing and executed by MWRD and LCFPD. Any amendment to this Agreement must be approved by the Parties' governing Boards.
- I. **Severability.** It is hereby expressed to be the intent of the Parties to this Agreement that should any provision, covenant, agreement, or portion of this Agreement or its application to any person, entity, or property be held invalid by a court of competent jurisdiction, the remaining provisions of this Agreement and the validity, enforceability, and application to any person, entity, or property shall not be impaired thereby, but the remaining provisions shall be interpreted, applied, and enforced so as to achieve, as near as may be, the purpose and intent of this Agreement to the greatest extent permitted by applicable law.
- J. **No Third Party Beneficiary.** This Agreement is entered into solely for the benefit of the Parties, and nothing in this Agreement is intended, either expressly or impliedly, to provide any right or benefit of any kind whatsoever to any person or entity that is not a Party or to acknowledge, establish or impose any legal duty to any third party. Nothing herein shall be construed as an express or implied waiver of any common law or statutory

immunities or privileges of LCFPD or MWRD, or any of their respective officials, officers or employees.

- K. **Effective Date.** This Agreement becomes effective on the Effective Date, which shall be the date upon which the last signature is affixed hereto.
- L. **No Assignment.** No Party may assign any rights or duties under this Agreement without the prior express written consent of the other Parties.
- M. **Entire Agreement.** This Agreement and its respective exhibits, the Original Intergovernmental Agreement, and the Construction Intergovernmental Agreement, contain the entire agreements among the Parties regarding the subject matter hereof. As provided in the Construction Intergovernmental Agreement, in the event of a conflict between the Original Intergovernmental Agreement and the Construction Intergovernmental Agreement, the Construction Intergovernmental Agreement controls. All negotiations between the Parties are merged in this Agreement, and there are no understandings or agreements, verbal or written, other than those incorporated in this Agreement, the Original Intergovernmental Agreement, and the Construction Intergovernmental Agreement.

IN WITNESS WHEREOF, the Metropolitan Water Reclamation District of Greater Chicago and Lake County Forest Preserve District, the Parties hereto, have each caused this Agreement to be executed by their duly authorized officers, duly attested and their seals hereunto affixed on the dates specified below.

LAKE COUNTY FOREST PRESERVE DISTRICT

BY: _____ DATE: _____
Its: President

Attest: By: _____ DATE: _____
Its: Secretary

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Chairman of the Committee on Finance

Executive Director

ATTEST:

Clerk

Date: _____

APPROVED AS TO ENGINEERING, OPERATIONS, AND TECHNICAL MATTERS:

Engineer of Stormwater Management

Date: _____

Assistant Director of Engineering

Date: _____

Director of Engineering

Date: _____

APPROVED AS TO FORM AND LEGALITY:

Head Assistant Attorney

Date: _____

General Counsel

Date: _____

INDEX OF EXHIBITS

- Exhibit A General Depiction of the Mitigation Site
- Exhibit B Mitigation Plan

EXHIBIT A

GENERAL DEPICTION OF MITIGATION SITE

Exhibit A

Legend

-  Forest Preserve Property
-  Existing Multi-Use Path
-  Mitigation Site



Lake County Forest Preserve District
1899 W Winchester Rd
Libertyville, IL 60048
847-367-6840
www.lcfpd.org

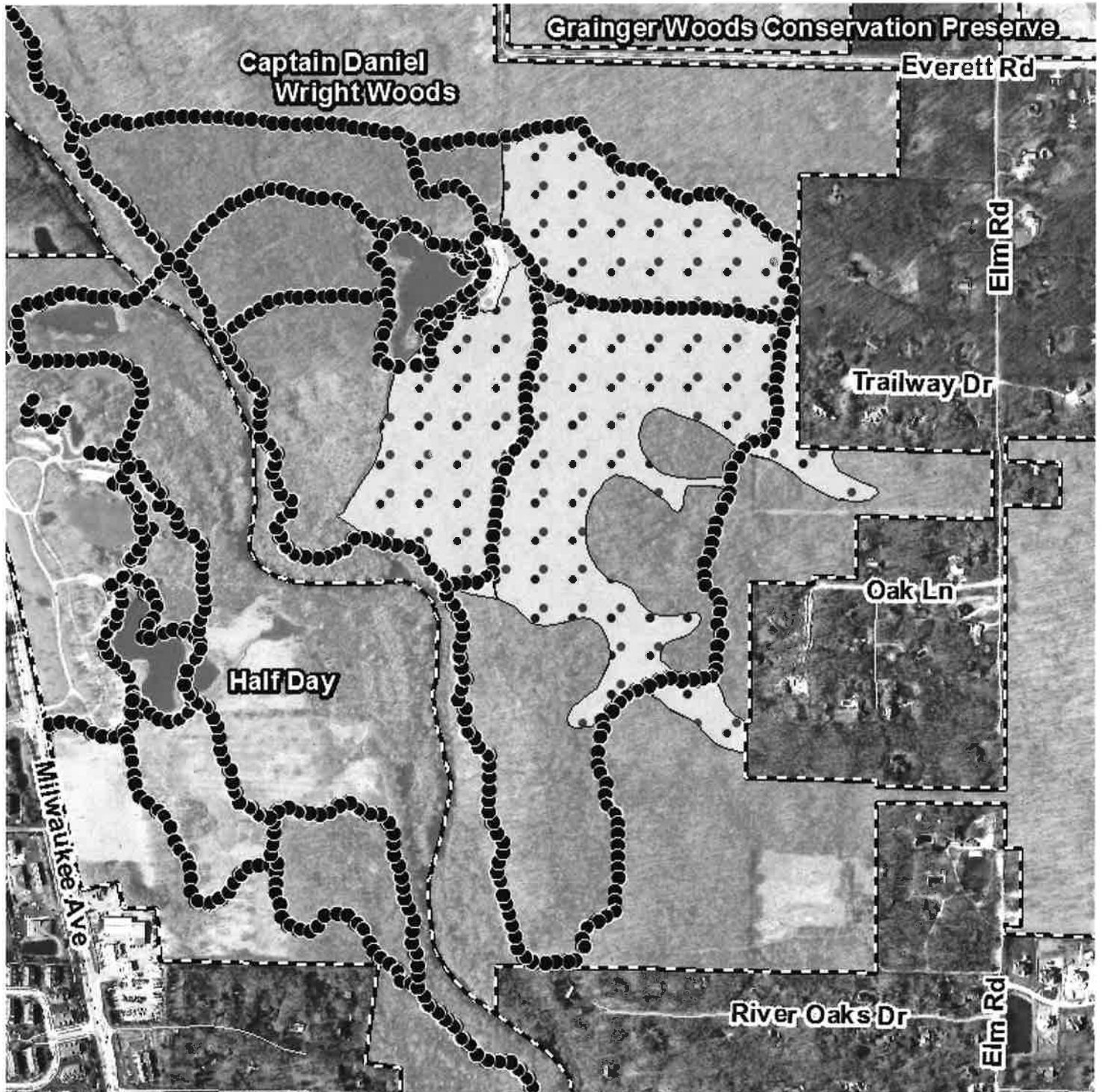
Courtesy Copy Only.
Property boundaries indicated are provided for general location purposes. Wetland and flood limits shown are approximate and should not be used to determine setbacks for structure or as a basis for purchasing property.

Prepared using information from:
Lake County Department of Information & Technology: GIS/Mapping Division
18 North County Street
Waukegan, Illinois 60085-4267
847-377-2373



2015 Aerial Photo

Map Prepared 25 January 2017



**EXHIBIT B
MITIGATION PLAN**



**PROJECT MITIGATION
DOCUMENT**

**CAPTAIN DANIEL WRIGHT WOODS
FOREST PRESERVE**

**USACE LRC-2014-00193
LAKE COUNTY, ILLINOIS**

For Mitigation of Wetland Loss at Buffalo Creek Forest Preserve
Reservoir Expansion Project by
Metropolitan Water Reclamation District of Greater Chicago

PREPARED BY:

**Lake County Forest Preserve District
1899 West Winchester Road
Libertyville, IL 60048**

JUNE 16, 2016

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INTRODUCTION

The Metropolitan Water Reclamation District of Greater Chicago (MWRD) is proposing an expansion of the existing Buffalo Creek Retention Reservoir at Buffalo Creek Forest Preserve in Lake County, Illinois. The project is located north of Lake Cook Road and west of Arlington Heights Road in Section 31, Township 43 North, Range 11 East, and 3rd P.M. The project is further located by the G.P.S. decimal coordinates of Latitude Lat. 42.15714 and Longitude -87.98993. The project requires a Section 404 Individual Permit and compensatory wetland mitigation. This Project Mitigation Document (PMD) pertains to the off-site permittee responsible mitigation to be implemented at the Captain Daniel Wright Woods Forest Preserve in unincorporated Lake County, Illinois (Exhibit 1). The Captain Daniel Wright Woods Forest Preserve property is owned by the Lake County Forest Preserve District (LCFPD). This PMD is required by the Army Corps of Engineers' (USACE) Individual Permit authorization. This document follows the required 12 mitigation plan components that need to be addressed under the federal Mitigation Rule.

I. OBJECTIVES

A. Impact Site – Schaeffer Road and Lake Cook Road

Direct and indirect impacts to the wetlands will result from grading and other development aspects of the project. The purpose of the proposed project is to expand the flood storage capacity of the existing Buffalo Creek Reservoir by approximately 184-acre feet. The permanent impacts to 2.7 acres of wetland/waters on the project site will require compensatory wetland mitigation in the amount of 4.05 acres. Mitigation will be provided off-site by the restoration (reestablishment of former wetland) and enhancement (existing degraded wetland to be enhanced) of wetlands at Captain Daniel Wright Woods Forest Preserve. The plan includes 6 acres of restoration potential mitigation credit and 16.25 acres of enhancement potential mitigation credit.

B. Mitigation Site – Off-site

The entire 89-acre off-site mitigation project site is owned by the LCFPD as shown in Exhibit 1. It is bounded to the east by additional Forest Preserve and single family residences, to the north by additional Forest Preserve, Everett Road and Grainger Woods Forest Preserve, to the west by the Des Plaines River and additional Forest Preserve, and to the south by additional Forest Preserve. The goals and objectives for this permittee responsible mitigation site are to compensate for functional and biological values lost from the project impacts. The goal is to restore the areas of histic soils to historical conditions

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and enhance the hydric soils by improving the native vegetation cover, removing woody invasive and weedy native and non-native plant species, and improve habitat for native species of waterfowl, amphibians, reptiles, and vegetation. Restoration and enhancement of the site is expected to have a positive effect on wildlife and water quality values of the Des Plaines River in Lake County.

Specific project objectives include:

1. Reduce cover and density of aggressive invasive and native woody plant species.
2. Re-establish coverage of native herbaceous vegetation species and limit the establishment of invasive species.
3. Restore hydrological conditions to the histic soils by using native vegetation and invasive species removal to encourage infiltration which increases the hydroperiods of these northern flatwood soils.

The proposed mitigation will enhance 65-acres of existing hydric soil wetlands (northern flatwoods and seasonally flooded waterways) and 24 acres of histic soil wet woodlands buffer, and will expand upon recently completed restoration work that was initiated in the winter of 2015 at the Preserve by the Forest Preserve.

Sustainable Design

Soils in the mitigation area are hydric and histic soils that have had their hydrology altered by the presence of invasive woody vegetation and lack of infiltration due to loss of herbaceous vegetation. The propose restoration and enhancement of the vegetative composition of the wetlands is expected to change as a result of invasive species control, increased herbaceous cover, and long-term maintenance activities, such as prescribed burning and management of woody regrowth will have positive effects upon the hydrology, wetlands and watershed benefits.

Agency Clearance Letters

The Captain Daniel Wright Woods project site will be submitted for state biological clearance through the Illinois Department of Natural Resource's EcoCAT. No ground disturbance, e.g., grading, will be part of this project so a cultural clearance request has not been submitted to the Illinois Historic Preservation Agency.

Watershed Objectives

Regional Permit Program-General Condition 22 (K) states “Where an appropriate watershed plan is available, the applicant shall address in writing how the proposed activity is aligned with the relevant water quality, hydrologic and aquatic resource protection recommendations in the watershed plan”. This project is within the watershed of the Des Plaines River (subwatershed is the lower Des Plaines River), which does not have a watershed plan.

Likely Future Adjacent Land Uses and Compatibility

No future development is anticipated to the east, north, west, or south as these areas are already developed and Forest Preserve and so the proposed wetland mitigation is highly compatible.

II. SITE SELECTION

The off-site permittee responsible mitigation site was identified as a viable site because:

1. The site is already owned by LCFPD;
2. Wetlands on the Forest Preserve property immediately adjacent to the proposed reservoir development will be indirectly impacted;
3. The site is a priority for restoration and enhancement by LCFPD;
4. The site is within the Des Plaines River watershed in Lake County.
5. Regulatory and non-regulatory agencies support the use of this site for permittee responsible mitigation instead of wetland bank mitigation.

Once the five year vegetation management and monitoring activities are completed, the native vegetation will be in a much improved condition to compete with invasive species. However, for the improvements to be self sustaining, occasional long term management activities will be necessary and have been committed to by the Forest Preserve after the five year management and monitoring period.

III. SITE PROTECTION INSTRUMENT

The LCFPD shall ensure that the mitigation shall not be made subject to any future construction and/or fill activities. The only allowable activities on the site will be for the purposes of enhancing or maintaining the mitigation area and passive recreation.

IV. BASELINE INFORMATION

Mapping Resources

The Lake County Lidar topographic data indicates that the northern flatwoods enhancement areas within the proposed project site are at 649 feet to 654 feet in elevation (the DPR is at 645 feet) with the wetland swales traversing the upland areas and ultimately into the DPR (Exhibit 2). The Lake County Wetland Inventory map indicates the presence of a wetland complex on the project site that is identified as Advanced Identification (ADID) wetlands (Exhibit 3). ADID wetlands are considered High Quality Aquatic Resources (HQAR). The NRCS Lake County Soil Survey (Exhibit 5) indicates mapped hydric and histic soils on the project site. The hydric soils are identified as Pella silt loam (153), Peotone silty clay loam (330), and Montgomery silty clay (465). Histic soils include Nappanee silt loam (228A) and Aptakistic and Nappanee silt loams (982A).

Wetland Investigation

Field assessment visits by LCFPD staff occurred during the winter and spring of 2015-2016. No formal wetland delineation has been conducted. However, wetland boundaries (northern flatwoods and wooded wetland swales) have been estimated based on these field visits and available mapping resources (Exhibit 5).

Jurisdictional Determination

The site wetlands have a hydrologic connection to the Des Plaines River, a Waters of the U. S. as regulated by the USACE. A written jurisdictional determination has not been requested from the USACE.

Existing Hydrology

The mitigation site drains west to the Des Plaines River. The hydrology will be enhanced at the mitigation site.

Existing Vegetation

The parcel contains an over story of mixed hardwoods that include various oak (*Quercus*) species, shagbark hickory (*Carya ovata*), black walnut (*Juglans nigra*) and Sugar Maple (*Acre saccharum*). This parcel has been invaded by exotic (non-native) and opportunistic (native invasive) species such as common buckthorn (*Rhamnus cathartica*), green ash (*Fraxinus pennsylvanica*), elm (*Ulmus* spp), and eastern cottonwood (*Populus deltoides*). The understory shrub community is relatively depauperate due to the invasion of exotic species, but contains some native species including, but not limited to, choke cherry (*Prunus virginiana*), wild gooseberry (*Ribes missouriense*) and hawthorns (*Crataegus* spp). Detailed vegetative surveys of herbaceous vegetation have been conducted within the parcel; however, in general, native herbaceous cover is sparse,

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again due to the shade created by exotic and opportunistic woody plants. Table 1 provides a list of species found within the northern flatwoods of Unit B. The flatwoods in units A and C have little native vegetation due to the dense overstory of buckthorn. In 2015 Unit B was cleared of buckthorn and other invasive species. The wooded wetland swales within the project area are for the most part unvegetated with little to no vegetation from the swale into the upland community. The upland woodland buffer areas in units A, B and C are sparsely vegetated. Table 2 provides a list of species observed in the upland buffer areas.

Existing Soils

As presented in the Lake County Soil Survey, the hydric soil in the proposed mitigation is predominately Pella silt loam, over wash (153). The Pella series consists of very deep, poorly drained soils formed in loamy or silty sediments and the underlying stratified loamy glacial sediments on lake plains, outwash plains, and till plains and Montgomery silty clay loam which is poorly drained formed from lacustrine deposits and located on toe slopes and stream terraces. The surrounding soil is Nappanee silt loam 228A which is highly impermeable and is dominated by hydric inclusions.

Existing Wildlife Usage

Wildlife observations at the site are listed in table 3.

Historic and Current Land Use

A review of several historical aerial photographs 1939 to 2014 on Lake County Maps Online website, indicates that the project site has been a forest and subject to little or no row crop tillage. Possible historic land use of the project site was grazing and woodlot. Current land use is open space.

Current Owner

LCFPD is the current property owner.

Watershed Context/Surrounding Land Use

The mitigation site is east of the Des Plaines River. As previously mentioned the adjacent land use is residential and open space.

V. CREDIT DETERMINATION METHODOLOGY

The primary goal of this project is to provide mitigation in the same watershed as the proposed impacts and in close proximity to the impact site for functional replacement of the impacted wetlands. The

enhancement of wetlands and uplands on a Forest Preserve will compensate for at least the 16 -acres of mitigation credit that are required.

Potential Mitigation Credit Generation

Hydric Soil Wetland Enhancement 65-acres x 0.25 = 16.25 acres

Histic Soil Restoration 24 acres x 0.25 = 6 acres

TOTAL POTENTIAL MITIGATION CREDIT 22.25 ACRES

VI. MITIGATION WORK PLAN

Vegetation management for invasive trees and shrubs will consist of girdling, cutting, and burning debris piles in Units A and C followed by herbicide treatments to the cut stumps. Undesirable herbaceous plants in all units will be treated with herbicide. Implementation of this work plan will take place concurrent with the impacts authorized by the Section 404 permit for the grocery store project and will be implemented no later than one year of permitted impact.

Grading and Soil Management

If after the vegetation management there are areas of bare soil susceptible to erosion, appropriate soil erosion and sediment control measures will be implemented and maintained throughout the duration of the project. No grading is proposed.

Water Control

No water control structures are proposed or necessary.

Site Access

Site access will be provided by the LCFPD via existing recreational trails and parking lots

Initial Control of Invasive Species

Initial clearing of exotic and invasive woody species of units A and C (unit B was cleared in 2015) will take place. Invasive and weedy species are prevalent throughout the parcel and will need to be controlled prior to the installation of native plant species to promote the establishment and growth of desirable species.

During the winter, invasive or low quality woody species will be controlled through mechanical removal and chemical treatment. Target species will be cut at the base and treated with an herbicide appropriate for

Mitigation Plan
Captain Daniel Wright Woods Forest Preserve

species and site conditions. Cut material will be stacked and burned on-site. All required local and state permits will be acquired prior to burning activities. All undesirable species will be targeted for removal including common buckthorn, honeysuckle, green ash, elm and cottonwood. Woody resprouts will be controlled early in the first growing season with follow-up foliar applications.

Planting Plan

The proposed communities, northern flatwoods, seasonally wet wooded swales, and dry mesic upland will be seeded in units A, B, and C. These communities are shown on the Mitigation Plan (Exhibit 5) and will be represented by a mosaic of the various vegetation community types. Native seed shall adhere to LCFPD seed/plant provenance specifications to preserve and utilize local genotypes from a specific geographic area with similar geography and climate. Native seed lists are provided in Appendix A.

Native seed material will be hand or mechanically broadcasted in late fall, evenly throughout all communities after woody species control is completed during the winter months.

VII. MAINTENANCE PLAN

Management will be conducted both before and after seed and plant installation activities to help promote the establishment of native species. Both mechanical and chemical weed control methods will be performed according to needs. After native species installation has been completed, spot treatments will be made with appropriate herbicides to effectively control the weeds commonly associated with upland and wetland plant communities.

Target species within the mitigation include, but are not limited to common buckthorn (*Rhamnus* spp.), honeysuckle species (*Lonicera* spp.), teasel (*Dipsacus* spp.), garlic mustard (*Alliaria petiolata*), field thistle (*Cirsium arvense*), common burdock (*Arctium minus*), reed canary grass (*Phalaris arundinacea*), purple loosestrife (*Lythrum salicaria*), cattail (*Typha* spp.), and common reed (*Phragmites australis*). Persons performing herbicide treatments during the execution of this plan will have obtained a current herbicide applicator or operator license and meet the Forest Preserves' experience requirements for weedy or non-native species identification and management. All herbicides will be applied in strict accordance with label restrictions.

SCHEDULE

Table 1 includes a tentative schedule of management activities for the mitigation.

Table 1. Tentative Schedule of Management and Monitoring Activities

Mitigation Plan
 Captain Daniel Wright Woods Forest Preserve

Task	2016											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Woody Clearing											X	X
Herbicide Application												
Task	2017											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Woody Clearing	X	X										
Seed Installation											X	X
Vegetation Monitoring					X	X		X	X			
Invasive Species Control				X	X	X	X	X	X	X		
Adaptive Management As needed				X	X	X	X	X	X	X		
Task	2018											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Vegetation Monitoring					X	X		X	X			
Invasive Species Control				X	X	X	X	X	X	X		
Controlled Burning										X	X	
Task	2019											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Vegetation Monitoring					X	X		X	X			
Invasive Species Control				X	X	X	X	X	X	X		
Controlled Burning										x	x	
Task	2020											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Vegetation Monitoring					X	X		X	X			
Invasive Species Control				X	X	X	X	X	X	X		
Controlled Burning			X	X	X					X	X	
Task	2021											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Vegetation Monitoring					X	X		X	X			
Invasive Species Control				X	X	X	X	X	X	X		

VIII. PERFORMANCE STANDARDS

VEGETATION

The following performance criteria are consistent the USACE Permittee Responsible Compensatory Mitigation Requirements.

1. Species selected for the planting shall be native to the county where the mitigation site is located (ref. Swink and Wilhelm, *Plants of the Chicago Region*, 1994), and shall be appropriate for the hydrologic zone to be planted. A minimum number of native perennial species proposed for establishment shall be present within each plant community to meet certification, as follows:
 - Northern flatwoods and Wet Wooded Swales– minimum of 35 native perennial species
 - Uplands within the 25-acre mitigation site – minimum of 25 native perennial species
3. At least 50% of the required minimum number of species shall occur at a 10% frequency or greater, within each plant community zone or area. Multiple transects within a given plant community may be combined for this frequency analysis.
4. A native mean coefficient of conservatism value (native mean C) of greater than or equal to 3.5 shall be achieved in each separate vegetated plant community (e.g. northern flatwoods, wet wooded swales and upland dry mesic woodland) and as measure over the entire mitigation site area. Native plant species coefficients of conservatism are designated in Swink, Floyd and Gerould Wilhelm, *Plants of the Chicago Region* (Indianapolis: Indiana Academy of Science, 4th edition, 1994).
5. The native floristic quality index value (native FQI) shall be greater than or equal to 20 in each separate vegetated community zone and as measured over the entire mitigation site. The floristic quality assessment method is described in Swink and Wilhelm *Plants of the Chicago Region*. Steps #4 and #5 are evaluated based on the overall plant community inventories as well as transect summaries. If a portion of the site has achieved compliance with the performance standards, the standard shall be maintained in that portion until the final compliance sign off for the mitigation site.
6. No area over the entire mitigation site greater than 1 square meter shall be devoid of vegetation, as measured by aerial coverage, unless specified on approved mitigation plans. This standard does not apply to vernal pools that exist or may develop.
7. None of the three most dominant plant species in any of the wetland community zones may be non-native species or weedy species, including but not limited to *Typha angustifolia*, *Typha X glauca*, *Phragmites australis*, *Lythrum salicaria*, *Salix interior*, or *Phalaris arundinacea*, unless otherwise indicated on

the approved mitigation plan. These species shall not cumulatively comprise more than 5% of the total percent cover (not relative cover) for each community.

8. The native perennial species within each wetland plant community shall represent at least 80% of the total dominance measure. A lower percent native perennial species of the total dominance measure may be acceptable if it is demonstrated with transect data that the remaining dominance percentage is by native annual and biennial wetland plant species and the FQI and mean C standards are exceeded.
9. A vegetation map of the mitigation site based on as-built drawings developed at the completion of implementation shall be submitted. This information shall be descriptive and define the limits of all vegetation areas by community type, based on field observations. The permanent transects shall be shown on this map. Representative photographs of each vegetation area by general community zone shall be submitted to the USACE.

HYDROLOGY

Consistent with the USACE's Wetlands Delineation Manual (1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region-Version 2.0 (2010) , all areas to receive restoration credit as wetland plant communities shall have soils saturated within 12 inches or less of the ground surface for at least 12.5% of the growing season as defined in this Interagency Coordination Agreement (2008). To meet this standard the mitigation site shall demonstrate inundated or saturated soils for 23 consecutive days during the growing season. In addition to this minimum, hydrology data should reflect a hydrologic regime that is appropriate to the native plant community proposed for establishment. Some of the wetlands that exist or may develop are ephemeral wetlands and that typical wetland hydrology may not be achievable. These may be wet before the growing season begins and dry out, but these would support wooded wetland species. The six proposed monitoring well locations are shown on Exhibit 5. Final locations for the monitoring wells will be field-identified.

IX. MONITORING REQUIREMENTS

Monitoring

Vegetation data will be collected using quadrat sampling and meander search methods annually during mid-summer (July/August) to assess overall vegetative site quality. For quadrat sampling, a sufficient number of straight-line sampling transects will be established across all community types to achieve a representative

amount of plant frequency and coverage data. A meander search will be performed to provide a comprehensive species list. Representative photographs will be taken to further illustrate conditions. The results of the meander search will be evaluated using the Chicago Region FQA Calculator version September 29, 2014 (Herman, B., Sliwinski, R. and S. Whitaker. 2013. Chicago Region FQA (Floristic Quality Assessment) Calculator. U. S. Army Corps of Engineers, Chicago, IL).

Mitigation inspections will include ongoing attention to any erosion or sediment problems. The risk of any such problems will lessen as site vegetative cover increases and matures. Repairs will be conducted promptly to prevent small erosion problems from becoming larger problems. Minor grading, supplemental seeding and use of appropriate erosion control blanket will be needed in any areas where erosion persists.

MONITORING REPORT

An annual report describing results of sampling and an evaluation of performance will be submitted by January 31st of the year following each management season. The monitoring report will include the following information:

1. Representative photographs of the mitigation.
2. A summary of management activities performed during the year.
3. Tabular statistics of the vegetation surveys.
4. The discussion will include a review of progress in meeting goals and performance standards, and the adaptive management actions to deal with any shortfalls. If any of the performance standards are not met in any year, a detailed explanation and proposed corrective measures will be provided.

X. LONG TERM MANAGEMENT PLAN

The LCFPD will be responsible for long term management and will annually inspect the mitigation site to identify any needed management activities. Management activities will then be conducted by LCFPD, by contracts they award, or other means.

XI. ADAPTIVE MANAGEMENT PLAN

The LCFPD is responsible for adaptive management of the mitigation site. If necessary, additional seeds/plants will be installed after the first and/or second growing seasons. This supplemental seeding/planting will be intended to assist the plant community in areas with low vegetative density or

diversity and will allow for modifications (add or delete) to be made to the seed list based on community development.

XII. FINANCIAL ASSURANCES

The site is owned by LCPFD and it will be responsible for providing the necessary financial assurances to ensure that the approved mitigation is constructed and that management and monitoring and long term plans are properly funded. The LCPFD will be responsible to implement the long term management and that the site is maintained.




COMPLETION

In addition to the annual reports, a letter will be sent at the end of Year 5 to the USACE as notification that the work described in the management section has been completed. The final report will be included documenting the achievement of the above performance criteria and the success of the project. The letter will request receipt of written confirmation from the USACE indicating that the Plan has been carried out to the USACE's satisfaction.

EXHIBIT 1. PROJECT LOCATION

Legend

Project Area

-  Project Area
-  Nature Preserves
-  Forest Preserve Boundaries

Prepared using information from:
Lake County Department of Information
& Technology: GIS/Mapping Division
18 North County Street
Waukegan, Illinois 60085-4357
847-377-2373



Map Prepared 16 June 2016



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EXHIBIT 2. TOPOGRAPHIC MAP

Legend

-  1-Foot Topo
-  DesPlaines River

Lake County Forest Preserve District
1899 W Winchester Rd
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www.lcfd.org

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Map Prepared 16 June 2016

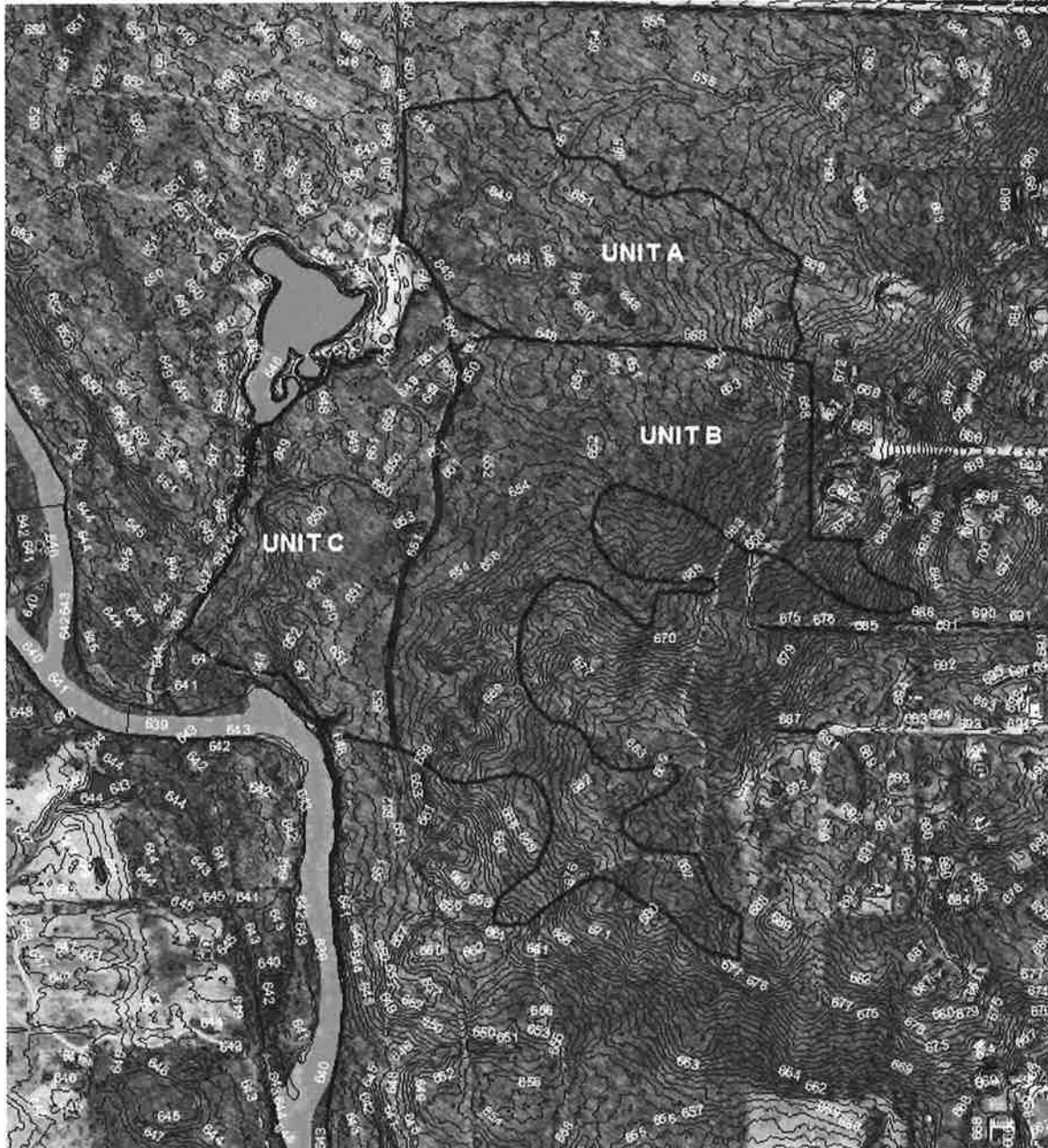


EXHIBIT 3. LAKE COUNTY WETLANDS AND ADID WETLANDS

Legend

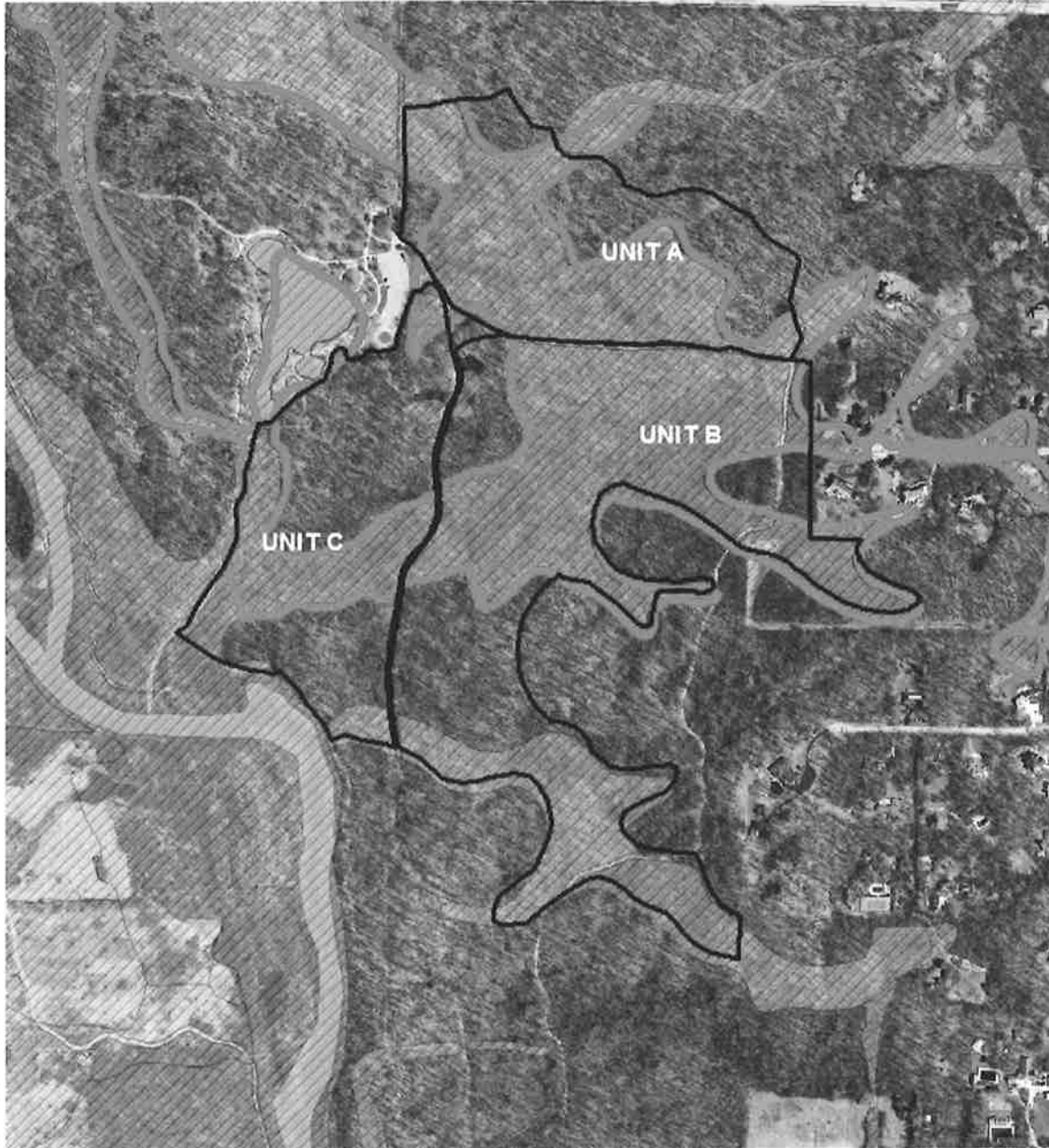
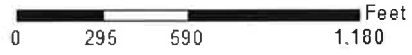
-  Lake County Wetlands
-  ADID Wetlands
-  DesPlaines River

Lake County Forest Preserve District
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EXHIBIT 4. WETLAND SOILS

Legend

-  DesPlaines River
-  Hydric Soils
-  Histic Soils

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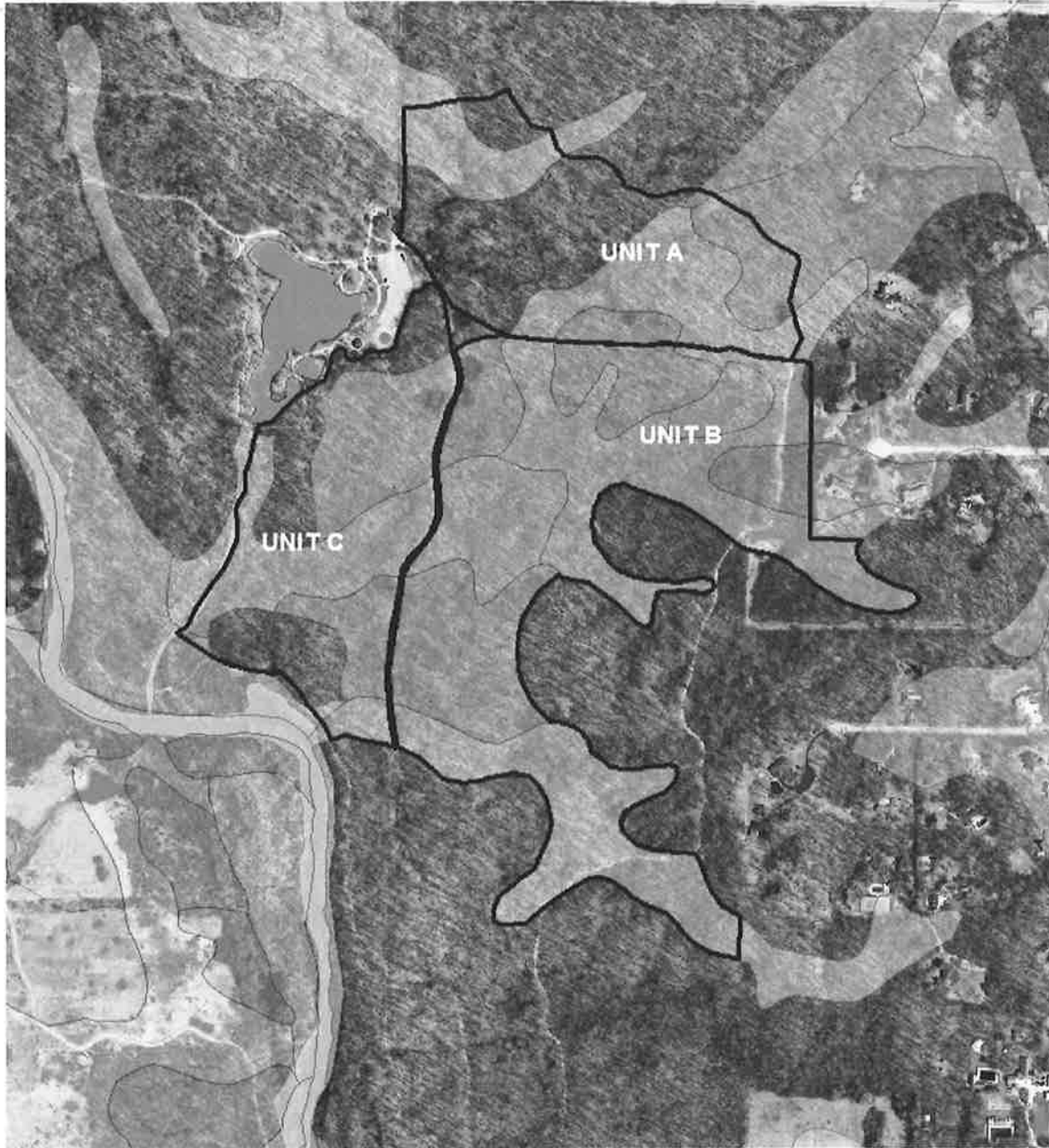
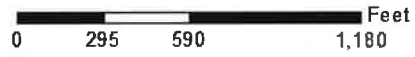




EXHIBIT 5. PROPOSED MITIGATION ENHANCEMENT AREAS BY COMMUNITY TYPE

Legend

Project Area

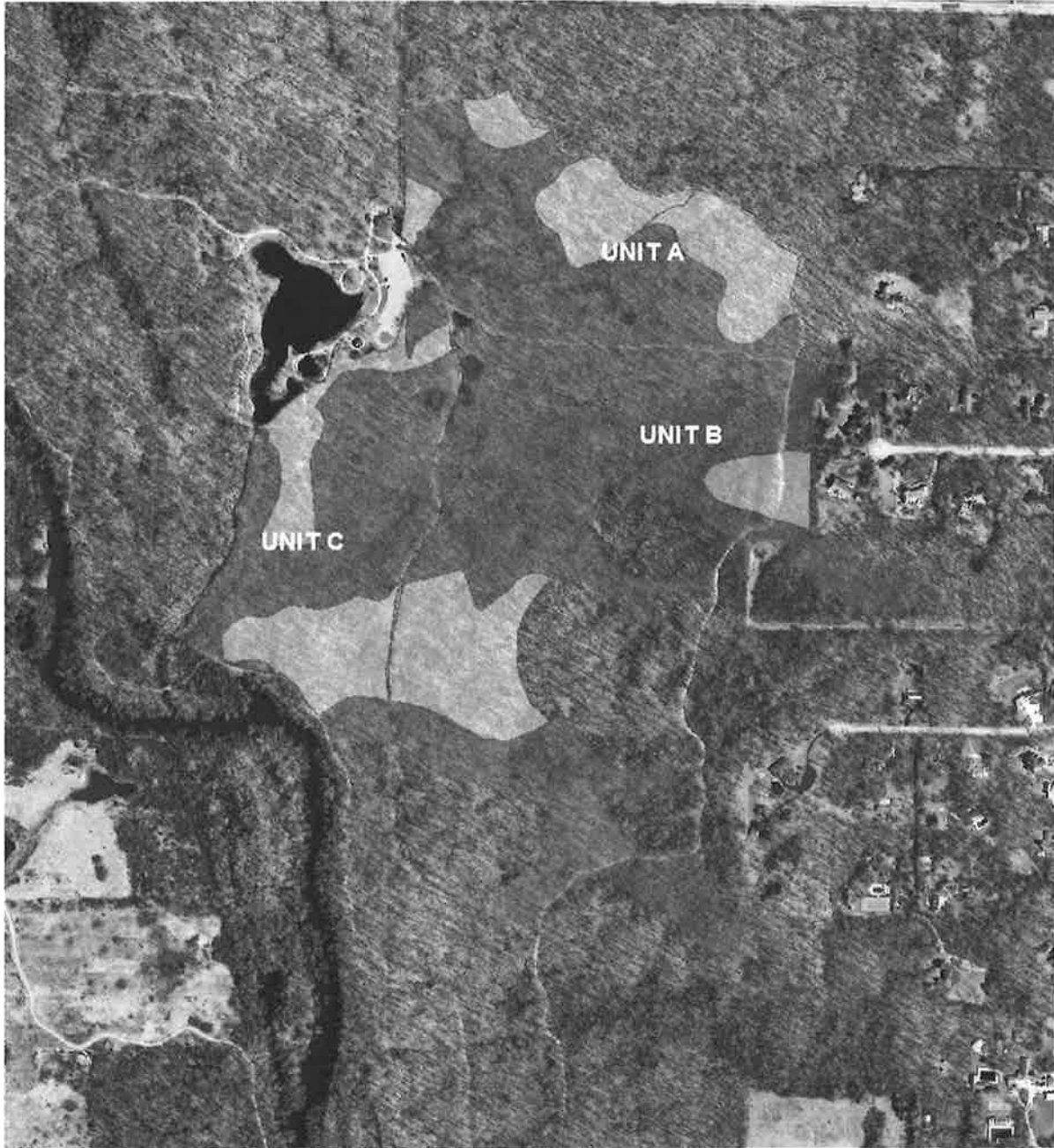
Community Enhancement Areas

-  Northern Flatwoods/ Wooded Wetland Swales
-  Upland Woodland Buffer

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Table 1. Plants Observed in the Northern Flatwoods of Unit B

Plant Species	WETNESS	NAT/ADV	COMMON NAME
<i>Arisaema dracontium</i>	FACW	Native	Green Dragon
<i>Arisaema triphyllum</i>	FACW-	Native	Jack-In-The-Pulpit
<i>Aster lateriflorus</i>	FACW-	Native	Side-flowering Aster
<i>Caltha palustris</i>	OBL	Native	Marsh Marigold
<i>Chelone glabra</i>	OBL	Native	Turtlehead
<i>Cinna arundinacea</i>	FACW	Native	Common Wood Reed
<i>Circaea lutea canadensis</i>	FACU	Native	Enchanter's Nightshade
<i>Cornus obliqua</i>	FACW+	Native	Blue-fruited Dogwood
<i>Carex blanda</i>	FAC	Native	Common Wood Sedge
<i>Carex bromoides</i>	[OBL]	Native	Brome Hummock Sedge
<i>Carex cristatella</i>	FACW+	Native	Crested Oval Sedge
<i>Carex davisii</i>	FAC+	Native	Awmed Graceful Sedge
<i>Carex grayi</i>	FACW+	Native	Common Bur Sedge
<i>Carex haydenii</i>	OBL	Native	Long-scaled Tussock Sedge
<i>Carex projecta</i>	FACW+	Native	Loose-headed Oval Sedge
<i>Carex radiata</i>	[FAC-]	Native	Straight-styled Wood Sedge
<i>Carex stipata</i>	OBL	Native	Common Fox Sedge
<i>Dioscorea villosa</i>	FAC-	Native	Wild Yam
<i>Epilobium coloratum</i>	OBL	Native	Cinnamon Willow Herb
<i>Erigeron strigosus</i>	[UPL]	Native	Daisy Fleabane
<i>Eupatorium maculatum</i>	OBL	Native	Spotted Joe Pye Weed
<i>Fraxinus nigra</i>	FACW+	Native	Black Ash
<i>Fragaria virginiana</i>	FAC-	Native	Wild Strawberry
<i>Galium tinctorium</i>	OBL	Native	Stiff Bedstraw
<i>Geum canadense</i>	FAC	Native	Wood Avens
<i>Glyceria striata</i>	[FACW]	Native	Fowl Manna Grass
<i>Impatiens capensis</i>	FACW	Native	Orange Jewelweed
<i>Juncus tenuis</i>	[FACU+]	Native	Path Rush
<i>Lonicera tatarica</i>	[UPL]	Adventive	Tartarian Honeysuckle
<i>Lysimachia ciliata</i>	FACW	Native	Fringed Loosestrife
<i>Oxalis stricta</i>	UPL	Native	Common Wood Sorrel
<i>Parthenocissus quinquefolia</i>	FAC-	Native	Virginia Creeper
<i>Phalaris arundinacea</i>	FACW+	Adventive	Reed Canary Grass
<i>Pilea pumila</i>	FACW	Native	Clearweed
<i>Polygonum virginianum</i>	FAC	Native	Woodland Knotweed
<i>Polygonum hydropiperoides</i>	OBL	Native	Mild Water Pepper
<i>Potentilla simplex</i>	FACU-	Native	Common Cinquefoil
<i>Quercus bicolor</i>	FACW+	Native	Swamp White Oak
<i>Ranunculus abortivus</i>	FACW-	Native	Small-flowered Buttercup
<i>Ranunculus septentrionalis</i>	FACW+	Native	Swamp Buttercup
<i>Rhamnus cathartica</i>	FACU	Adventive	Common Buckthorn
<i>Rhamnus frangula</i>	FAC+	Adventive	Glossy Buckthorn
<i>Rhus radicans</i>	FAC+	Native	Poison Ivy
<i>Ribes americanum</i>	FACW	Native	Wild Black Currant
<i>Saxifraga pensylvanica</i>	FACW	Native	Swamp Saxifrage
<i>Solidago gigantea</i>	FACW	Native	Late Goldenrod
<i>Sphenopholis intermedia</i>	FAC	Native	Slender Wedge Grass
<i>Stachys palustris homotricha</i>	OBL	Native	Woundwort
<i>Taraxacum officinale</i>	FACU	Adventive	Common Dandelion
<i>Viola sororia</i>	FAC-	Native	Common Blue Violet
<i>Vitis riparia</i>	FACW-	Native	Riverbank Grape
<i>Zizia aurea</i>	FAC+	Native	Golden Alexanders

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Table 2. Plants Observed in the Dry Mesic Uplands

Plant Species	W	WETNESS	NAT/ADV	COMMON NAME
<i>Agrimonia gryposepala</i>	2	FACU+	Native	Tall Agrimony
<i>Alliaria petiolata</i>	0	FAC	Adventive	Garlic Mustard
<i>Allium tricoccum</i>	3	FACU	Native	Wild Leek
<i>Arisaema triphyllum</i>	-2	FACW-	Native	Jack-In-The-Pulpit
<i>Asclepias syriaca</i>	5	UPL	Native	Common Milkweed
<i>Aster lateriflorus</i>	-2	FACW-	Native	Side-flowering Aster
<i>Aster shortii</i>	5	UPL	Native	Short's Aster
<i>Bidens frondosa</i>	-3	FACW	Native	Common Beggar's Ticks
<i>Carya ovata</i>	3	FACU	Native	Shagbark Hickory
<i>Cinna arundinacea</i>	-3	FACW	Native	Common Wood Reed
<i>Circaea lutetiana canadensis</i>	3	FACU	Native	Enchanter's Nightshade
<i>Carex blanda</i>	0	FAC	Native	Common Wood Sedge
<i>Carex cephalophora</i>	3	FACU	Native	Short-headed Bracted Sedge
<i>Carex grayi</i>	-4	FACW+	Native	Common Bur Sedge
<i>Carex grisea</i>	1	[FAC-]	Native	Wood Gray Sedge
<i>Carex hirtifolia</i>	5	UPL	Native	Hairy Wood Sedge
<i>Carex laxiculmis</i>	5	UPL	Native	Weak-stemmed Wood Sedge
<i>Carex normalis</i>	0	[FAC]	Native	Spreading Oval Sedge
<i>Carex pensylvanica</i>	5	UPL	Native	Common Oak Sedge
<i>Carex projecta</i>	-4	FACW+	Native	Loose-headed Oval Sedge
<i>Carex rosea</i>	5	UPL	Native	Curly-styled Wood Sedge
<i>Carex woodii</i>	5	[UPL]	Native	Wood'S Stiff Sedge
<i>Epilobium coloratum</i>	-5	OBL	Native	Cinnamon Willow Herb
<i>Erechtites hieracifolia</i>	3	FACU	Native	Fireweed
<i>Festuca obtusa</i>	2	FACU+	Native	Nodding Fescue
<i>Fraxinus americana</i>	3	FACU	Native	White Ash
<i>Fraxinus nigra</i>	-4	FACW+	Native	Black Ash
<i>Fragaria virginiana</i>	1	FAC-	Native	Wild Strawberry
<i>Galium concinnum</i>	5	[UPL]	Native	Shining Bedstraw
<i>Geranium maculatum</i>	5	[UPL]	Native	Wild Geranium
<i>Geum canadense</i>	0	FAC	Native	Wood Avens
<i>Glyceria striata</i>	-3	[FACW]	Native	Fowl Manna Grass
<i>Hackelia virginiana</i>	1	FAC-	Native	Stickseed
<i>Impatiens capensis</i>	-3	FACW	Native	Orange Jewelweed
<i>Juncus tenuis</i>	2	[FACU+]	Native	Path Rush
<i>Leersia virginica</i>	-3	FACW	Native	White Grass
<i>Lonicera prolifera</i>	5	UPL	Native	Yellow Honeysuckle
<i>Ostrya virginiana</i>	4	FACU-	Native	Hop Hornbeam
<i>Oxalis stricta</i>	5	UPL	Native	Common Wood Sorrel
<i>Parthenocissus quinquefolia</i>	1	FAC-	Native	Virginia Creeper
<i>Pilea pumila</i>	-3	FACW	Native	Clearweed
<i>Polygonum virginianum</i>	0	FAC	Native	Woodland Knotweed
<i>Polygonum hydropiperoides</i>	-5	OBL	Native	Mild Water Pepper
<i>Potentilla simplex</i>	4	FACU-	Native	Common Cinquefoil

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<i>Prunus serotina</i>	3	FACU	Native	Wild Black Cherry
<i>Quercus alba</i>	0	FAC	Native	White Oak
<i>Quercus rubra</i>	3	FACU	Native	Red Oak
<i>Ranunculus septentrionalis</i>	-4	FACW+	Native	Swamp Buttercup
<i>Rhamnus cathartica</i>	3	FACU	Adventive	Common Buckthorn
<i>Rhamnus frangula</i>	-1	FAC+	Adventive	Glossy Buckthorn
<i>Rhus radicans</i>	-1	FAC+	Native	Poison Ivy
<i>Rosa multiflora</i>	3	FACU	Adventive	Multiflora Rose
<i>Rubus occidentalis</i>	5	UPL	Native	Black Raspberry
<i>Smilacina racemosa</i>	3	FACU	Native	Feathery False Solomon's Seal
<i>Solidago altissima</i>	3	FACU	Native	Tall Goldenrod
<i>Solidago ulmifolia</i>	5	UPL	Native	Elm-leaved Goldenrod
<i>Taraxacum officinale</i>	3	FACU	Adventive	Common Dandelion
<i>Torilis japonica</i>	5	UPL	Adventive	Japanese Hedge Parsley
<i>Trillium grandiflorum</i>	5	UPL	Native	Large-flowered Trillium
<i>Ulmus rubra</i>	0	FAC	Native	Slippery Elm
<i>Viola sororia</i>	1	FAC-	Native	Common Blue Violet
<i>Vitis riparia</i>	-2	FACW-	Native	Riverbank Grape

Table 3. Wildlife Species Observed in Wright Woods Forest Preserve

Wildlife Type	Common Name	WildlifeSpecies	LastOfDate
Amphibian			
	American Toad	Anaxyrus americanus	01-Jun-00
	Blue-spotted Salamander	Ambystoma laterale	01-Jun-00
	Boreal Chorus Frog	Pseudacris maculata	03-Apr-01
	Grey Treefrog Complex	Hyla versicolor-chrysohelix	01-Jun-00
	Northern Leopard Frog	Lithobates pipiens	25-Apr-01
	Spring Peeper	Pseudacris crucifer	23-Oct-07
	Wood Frog	Lithobates sylvatica	05-Apr-97
Bird			
	American Crow	Corvus brachyrhynchos	11-Jul-97
	American Goldfinch	Carduelis tristis	11-Jul-97
	American Robin	Turdus migratorius	11-Jul-97
	American Woodcock	Scolopax minor	
	Black-capped Chickadee	Poecile atricapillus	11-Jul-97
	Blue Jay	Cyanocitta cristata	11-Jul-97
	Brown Creeper	Certhia americana	
	Brown-headed Cowbird	Molothrus ater	11-Jul-97
	Cedar Waxwing	Bombycilla cedrorum	11-Jul-97
	Common Grackle	Quiscalus quiscula	11-Jul-97
	Downy Woodpecker	Picoides pubescens	11-Jul-97
	Eastern Wood-Pewee	Contopus virens	11-Jul-97
	Gray Catbird	Dumetella carolinensis	11-Jul-97
	Great Crested Flycatcher	Myiarchus crinitus	11-Jul-97
	Hermit Thrush	Catharus guttatus	

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	House Wren	Troglodytes aedon	
	Indigo Bunting	Passerina cyanea	11-Jul-97
	Killdeer	Charadrius vociferus	11-Jul-97
	Least Flycatcher	Empidonax minimus	11-Jul-97
	Mourning Dove	Zenaida macroura	11-Jul-97
	Northern Cardinal	Cardinalis cardinalis	11-Jul-97
	Northern Flicker	Colaptes auratus	11-Jul-97
	Northern Waterthrush	Seiurus noveboracensis	11-Jul-97
	Ovenbird	Seiurus aurocapillus	11-Jul-97
	Red-bellied Woodpecker	Melanerpes carolinus	11-Jul-97
	Red-eyed Vireo	Vireo olivaceus	11-Jul-97
	Rose-Breasted Grosbeak	Pheucticus ludovicianus	11-Jul-97
	Rufous-sided Towhee, Eastern Towhee	Pipilo erythrophthalmus	11-Jul-97
	White-breasted Nuthatch	Sitta carolinensis	11-Jul-97
	Wood Duck	Aix sponsa	
	Wood Thrush	Hylocichla mustelina	11-Jul-97
Crayfish			
	Digger Crayfish	Fallicambarus fodiens	
Mammal			
	Eastern Cottontail	Sylvilagus floridanus	
	White-tailed Deer	Odocoileus virginianus	
Reptile			
	Brown Snake	Storeria dekayi	01-Jun-00
	Common Garter Snake	Thamnophis sirtalis	01-Jun-00
	Redbelly Snake	Storeria occipitomaculata	01-Jun-00

APPENDIX A

SPECIES LISTS FOR SEED

