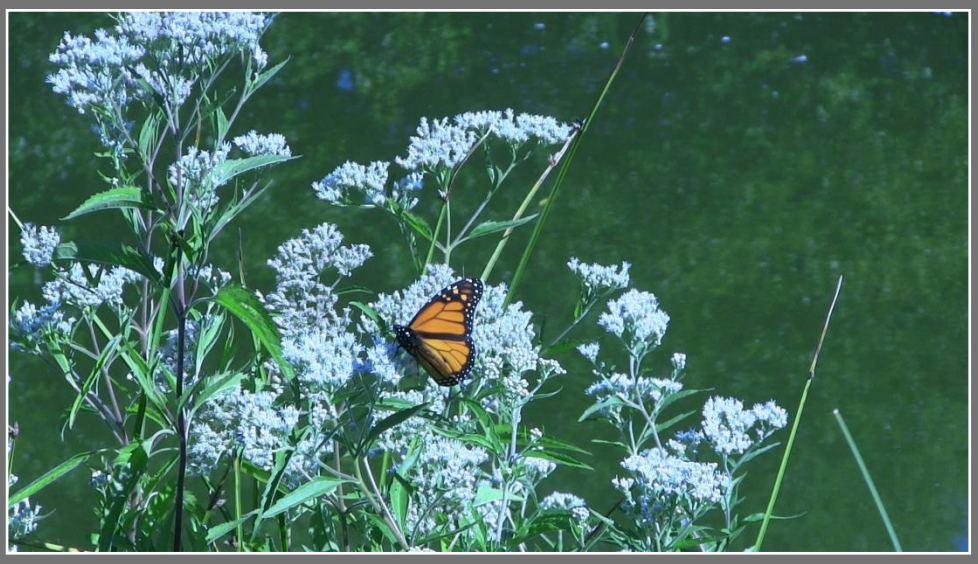
2015

Saganashkee Slough - McMahon Woods 506 Great Lakes Fishery & Ecosystem Restoration Study

Appendix G – Compliance, Permit & Coordination Information



USACE
Chicago District
November 2015

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A1 – SECTION 404(B)(1) EVALUATION

I. Project Description

a. Location

The McMahon Woods is a portion of a greater natural area (+6,000-ac) primarily owned and managed by the Forest Preserves of Cook County located (Figure 1, Main report). The study area is within the historic boundary of the Great Lakes basin and borders the Calumet-Saganashkee (Calumet-Sag) Channel near Palos, Illinois in Cook County. **Figure 2 (main report)** shows arrows indicating that flow would go either way depending on where precipitation would fall. These two areas were key biogeographic areas in terms of re-colonizing the Great Lakes with fishes after the last glaciations eliminated them. Also, during large storms, the Cal-Sag water has the ability to backflow into Lake Michigan and has so in the recent past.

The study area is located adjacent to the important Saganashkee Slough, to the east, and the remnant graminoid fen that located in the center of the McMahon Woods project footprint but is not a part of the project. The total study area is approximately 410-acres of publicly protected lands within the Palos Preserves area of the Forest Preserves of Cook County (**Figure 2, Main report**). About 300-acres of the study area is designated critical habitat for the Great Lakes subpopulation of Federally Endangered Hine's Emerald Dragonfly (*Somatochlora hineana*).

b. General Description

The McMahon Woods study area is diverse, comprised of stream, marsh, fen & rivulet, Oak savanna, and wet mesic woodland. Certain wetland habitats are becoming increasingly rare along with the species that are reliant on them, and in particular fen and rivulet habitat. The spatial extent of native plant communities is still present; however the pressure from anthropogenic sources has led to the deterioration of physical conditions. This degradation in physical habitat structure has caused a marked decline in both species richness and abundance of native animal assemblages, especially the Federally Endangered Hine's Emerald Dragonfly.

c. Authority and Purpose

This study is authorized under Section 506 of the Water Resources Development Act (WRDA) of 2000, Great Lakes Fishery and Ecosystem Restoration. Authority is given to plan, design, and construct projects to restore the fishery, ecosystem, and beneficial uses of the Great Lakes. Projects are justified by ecosystem benefits alone, while considering affects to the human environment including public health, safety, economic benefits, recreational or any combination of these.

Objective 1 – Increase the native conservative species richness of various aquatic communities

The current conditions of the plant communities within McMahon Woods are very few native and conservative plant species (e.g., Coefficient of Conservatism of 5 or greater). This lack of conservative plant species richness and abundance impacts the structure and function of the system. This objective would address the lack of high quality plant species and thus would facilitate a more species rich and healthy ecosystem. The effects of increasing the number of conservative plant species found in the plant communities would reflected in increases in the Mean C measure of floristic quality (FQA). This increase

in floristic quality would persist through the life of the project and is projected to be sustainable in perpetuity.

Objective 2 – Reduce and/or Eradicate Invasive Species

Currently, McMahon Woods' habitats are dominated by weedy and invasive plant species. This condition resulted from alteration of the natural hydrogeomorphic regime, disturbance to native soils, and fire suppression. The domination of plant communities by certain species such as European buckthorn and Cattails have changed the function and structure of these areas and as a result they have a low diversity of conservative species. Thusly, the changes to the native plant community desired are those that will reestablish a species composition dominated by conservative native plant species that will enable diverse resources for a variety of wildlife species. These affects would be sustained over the life of the project and in perpetuity. This objective seeks to reestablish native plant community richness and structure to support critical wetland and riparian habitats. Improvement is predicted via the increase in quantity (acres) and increase in quality (Mean C Value of the FQA) of native plant communities.

Objective 3 – Reduce bare soil areas within the wooded fen and Crooked Creek riparian area

This objective seeks to substantially decrease the events of overflow floodwaters from Crooked Creek, thereby reducing events that precipitate erosion within the Hine's Emerald Dragonfly marsh/rivulet complex and the wet mesic woodland. Invasive shrubs would be removed to allow greater light to penetrate the ground layer and allow the reestablishment of a rich herbaceous plant layer. Reestablishment of the herbaceous layer will address multiple problems. A fully functional herbaceous layer would decrease the amount of bare soil, retain and infiltrate more rainwater and provide increased resources for the pray base of the Hine's Emerald Dragonfly. The effects of reducing bare soil areas would be reflected by the increase the number of conservative plant species that could be supported within the plant communities and as such would reflected in increases in the Mean C measure of floristic quality (FQA). This increase in floristic quality would persist through the life of the project and is projected to be sustainable in perpetuity.

d. Proposed Fill Material

1) General Characteristics

An earthen berm (900-CY) will be created just south of Crooked Creek in McMahon Woods to reduce frequencies of overflows events from Crooked Creek entering the southern portion of McMahon Woods. Glacial rock and cobble (250-CY) will be placed along the eroded banks in the upstream area of rivulets within McMahon Woods in order to reduce the rates of erosion and deposition within the rivulets.

2) Quantity

- Estimated 1150 cubic yards of soil, glacial rock and cobble

3) Source

Soils will be from appropriate clean commercial barrow areas. Soil will be transported for use on the project from an approved offsite source. Glacial rock and cobble will be sourced from certified clean material from a commercial source.

e. Proposed Discharge Site

1) Location

Soil will be discharged into a small earthen berm just south of Crooked Creek in McMahon Woods and rock/cobble material discharged along the sides of the banks of the upper reaches of the rivulets in McMahon Woods. See **Figure 1** (main report) within the study for more detail.

2) Size, Type, and Habitat

900 cubic yards will be used to build the small earthen berm (~0.35-acres) in McMahon Woods in an area of low native plant diversity. Soils will be sourced from an approved clean commercial barrow site. 250 cubic yards of glacial rock and cobble will be around 3 to 6 inches in diameter and placed in the upper reaches of potentially 9 rivulets (>0.01-acres) in McMahon Woods to reinforce eroding slopes.

3) Timing and Duration of Discharge

The creation of the earthen berm and rivulet bank reinforcement would take approximately one month to complete.

f. Placement Method

The precise method of placement will be determined during the next phase of the study, what follows here is a possible method that will be studied during the design phase. Coconut coir logs will be used to contain fine material placed adjacent to earthen berm area. Material placed within the berm area and rivulets will be done during the dry with freezing temperatures and using backhoes and bulldozers with heavy equipment matting if soils not frozen.

II. Factual Determinations

a. Physical Substrate Determinations

1) Substrate Elevation and Slope

Elevation of the substrates is between 575 and 612 NVGD. This is a fairly flat area.

2) Sediment Type

The soil consists of topsoil with fine clay/sand. Glacial cobble and stone will be between 3” and 6” diameter and with rounded edges.

3) Material Movement

There would be no significant movement of fill material after construction of the berm and rivulet bank repair. Placement of soil within McMahon Woods would be contained by coconut coir logs which will form the outer ring of the berm. The berm would be stabilized after completion to prevent soil erosion from occurring after construction is complete via plantings. Berm will be stabilized with erosion control mats and planted with both a fast growing cover crop and native prairie seeds. Glacial rock and cobble will be sized to ensure stability during spring high flow rain events and is assumed to remain in place.

4) Physical Effects on Benthos

The earthen berm would be placed in an area that does not contain a rich array of native plant species. There would be no significant adverse impacts from the placement of the berm. The placement of glacial cobble and rock are in areas that are bare soil and does not currently support plant life. The placement of glacial rock and cobble is not expected to have significant adverse impacts.

5) Other Effects

There would be no other significant substrate impacts.

6) Actions Taken to Minimize Impacts

Special measures would be taken to minimize the temporary impacts on physical substrates associated with the proposed activity since this project is beneficial to the ecosystem. These include soil erosion and sediment control measures including, but not limited to placement of coconut coir logs, silt fencing and biodegradable erosion control fabric. Measures would be taken to minimize soil compaction by conducting activities during dry freezing conditions and with heavy equipment matting if necessary.

b. Water Circulation, Fluctuation, and Salinity Determinations

1) Water

The proposed fill activity would have no significant negative impacts to water chemistry, water clarity, color, odor, taste, dissolved gas levels, nutrients, or increased eutrophication as a result. Improvements in water clarity, color, dissolved oxygen levels, and levels of eutrophication will be noted in the long-term after introducing native aquatic plants and the reduced erosion and deposition in the rivulets.

2) Current Patterns and Circulation

Groundwater discharges seasonally into the rivulets in McMahon Woods. Flowing are generally in a southwest direction, although flows are usually hard to detect since this is a flat and slow moving system. Studies have suggested that by reducing the overflow events from Crook Creek this should improve the water quality, rate of erosion and overall habitat quality of the rivulets.

3) Normal Water Level Fluctuations

The proposed fill activity would have no significant impact on normal water level fluctuations of McMahon Woods. Number of overflow events from Crooked Creek into the southern portion of McMahon Woods in expected to decrease to the betterment of this area.

4) Salinity Gradients

Not applicable to freshwater environments.

5) Actions Taken to Minimize Impacts

Since the change in water levels is a restoration objective, no measures will be taken to minimize the reduction of overflow events from Crooked Creek.

c. Suspended Particulate/Turbidity Determinations

1) Expected Changes in Suspended Particulates and Turbidity in Vicinity of Fill

There would be minor increases in suspended particulates and turbidity levels in the immediate area of the proposed fill activity during construction.

2) Effects on Chemical and Physical Properties of Water Column

There would be negligible effects to light penetration or dissolved oxygen levels during construction. The placement of clean fill will not introduce metal, organic, or pathogens to the project area. Aesthetics will be improved in the long-term after stability of the rivulets are achieved.

3) Effects on Biota

Only beneficial effects on aquatic biota are expected to result from the restoration activities and minor increase in turbidity or suspended particulates associated with the proposed fill and sediment movement activity is most likely less than that of summer thunderstorm event.

4) Actions Taken to Minimize Impacts

Erosion control fabric, silt fencing and native plantings as appropriate would be implemented to minimize the temporary turbidity impacts associated with the proposed activity.

d. Contaminant Determination

The proposed fill material would not introduce any new contaminants into the project site, or release any significant amounts of existing contaminants (if any are present) through bottom disturbance in the construction zone.

e. Aquatic Ecosystem and Organism Determinations

1) Effects on Plankton

No affects to planktonic organisms.

2) Effects on Benthos

Existing benthos directly beneath where materials would be placed would temporarily be covered, but the area contains only generalist species found throughout the remainder of the greater study area and they will be able to quickly disperse to and colonize nearby non-disturbed areas, thus insignificant effects on the macroinvertebrate and invertebrate population. These minor impacts are necessary to create improved conditions for rivulet habitat. There are no significant adverse effects expected.

3) Effects on Nekton

Fish eggs and larvae would not adversely impacted by restoration measursres.

4) Effects on Aquatic Food Web

Beneficial improvements to the food web are expected due to the beneficial effects the overall project will have on the macroinvertebrate richness and abundance.

5) Effects on Aquatic Sites

a) Sanctuaries and Refuges – none present; no significant impact
b) Wetlands – increase in hydrophytic vegetation
c) Mud Flats – none present; no significant impact
d) Vegetated Shallows – none present; no significant impact
e) Coral Reefs – not applicable to freshwater environments
f) Riffle and Pool Complexes – none present; no significant impact

6) Threatened and Endangered Species

The County Distribution of Federally-listed Threatened, Endangered, Proposed and Candidate Species was reviewed for Cook County by the Chicago District. The following federally listed species and their critical habitats are identified by the USFWS as occurring within Cook County:

- Piping plover (*Charadrius melodus*) – Endangered – Wide, open, sandy beaches with very little grass or other vegetation

- Eastern massasauga (*Sistrurus catenatus*) – Candidate – Graminoid dominated plant communities (fens, sedge meadows, peat lands, wet prairies, open woodlands, and shrublands)

- Hine's emerald dragonfly (*Somatochlora hineana*) – Endangered – Spring fed wetlands, wet meadows, and marshes

- Eastern prairie fringed orchid (*Platanthaera leucophaea*) – Threatened – Moderate to high quality wetlands, sedge meadow, marsh, and mesic to wet prairie

- Leafy-prairie clover (*Dalea foliosa*) – Endangered – Prairie remnants on this soil over limestone

- Mead's milkweed (*Asclepias meadii*) – Threatened – Late successional tallgrass prairie, tallgrass prairie converted to hay meadow, and glades or barrens with thin soil

- Prairie bush clover (*Lespedeza leptostachya*) – Threatened – Dry to mesic prairies with gravelly soil

The only Federally endangered species known to inhabit the study area is the Hine's emerald dragonfly (*Somatochlora hineana*).
Occurrences of Illinois State listed endangered and threatened species:

- Queen-of-the-prairie (*Filipendula rubra*) – State Endangered – Full or partial sun, moist black soil prairies, moist sand prairies, moist meadows along rivers in woodland areas, shrubby fens, and wet areas in or around seeps and springs

- White lady's slipper (*Cypripedium candidum*) – State Threatened – Graminoid dominated plant communities (fens, sedge meadows, peat lands, wet prairies, open woodlands, and shrublands)

- Savanna blazing star (*Liatris scariosa nieuwlandii*) – State Threatened – Oak savannas and prairies, rocky glades and savannas with pine trees. Savanna Blazing star is found in high quality habitats

- Black-crowned Night-heron (*Nycticorax nycticorax*) – State Endangered – Found near freshwater ponds, lakes, sluggish streams, swamps, marshes, backwaters and shallow. They utilize a wide variety of upland and lowland tree species and where suitable tree species cannot be found they will often nest in marsh vegetation where their nests are concealed

- Foster's Tern (*Sterna forsteri*) – State Endangered – Larger inland lakes with marsh borders for nesting

While all of these species have been recorded within the project footprint, the Black-crowned Night-heron and Foster's Tern have only been sighted infrequently and not within the last 7 years. The Queen-of-the-prairie, White lady's slipper and Blazing star have small populations within the McMahon Woods area. The White lady's slipper occurs within the graminoid fen outside of the project footprint. The Queen-of-the-prairie and Savanna blazing may occur around the borders of the project footprint near the open areas of the graminoid fen.

Coordination with the USFWS was initiated with a project Scoping Letter dated 01 May 2012. The USACE has concluded in this report that the project is "not likely to adversely affect federal species", which precludes the need for further consultation for this project. It is expected that the USFWS will provide a letter of "No Objection" in response to the public/agency release of the NEPA document.

7) Other Wildlife

No other wildlife would be significantly impacted by the proposed activity.

8) Actions Taken to Minimize Impacts

General construction scheduling and sequencing would minimize impacts to reproducing macroinvertebrates and fishes. Erosion control fabric, silt fencing and native plantings would be implemented to minimize the temporary turbidity impacts associated with the proposed activity.

f. Proposed Discharge Site Determinations

1) Mixing Zone Determination

A mixing zone is not applicable to this project as no violation of applicable water quality standards is expected during construction.

2) Determination of Compliance with Applicable Water Quality Standards

The proposed activity would not cause significant or long-term degradation of water quality within the project site or any associated waterways within or adjacent to McMahon Woods and would comply with all applicable water quality standards. Water quality would ultimately improve in the rivulets via the reduction of overflow events and stabilization of banks.

3) Potential Effects on Human use Characteristics

No significant impacts to municipal and private water supplies, water-related recreation, aesthetics, recreational, or commercial fisheries are expected.

g. Cumulative Effects on the Aquatic Ecosystem

The proposed project would restore aquatic habitat structure and function. There are no significant adverse effects expected.

h. Secondary Effects on the Aquatic Ecosystem

No significant impacts on the McMahon Woods ecosystem are expected as a result of the proposed activity.

III. Findings of Compliance with Restrictions on Discharge

a. No adaptation of the Section 404(b)(1) guidelines was made for this evaluation.

b. No practical alternatives are available that produce fewer adverse aquatic impacts than the proposed plan.

c. The proposed project would comply with applicable water quality standards.

d. The project is in compliance with applicable Toxic Effluent Standards under Section 307 of the Clean Water Act; with the Endangered Species Act of 1973; with the National Historic Preservation Act of 1966; and with the Marine Protection, Research, and Sanctuaries Act of 1972.

e. The proposed fill activity would have no significant adverse impact on human health or welfare, including municipal and private water supplies, recreational and commercial fisheries, plankton, fish, shellfish, or wildlife communities (including community diversity, productivity, and stability), special aquatic sites, or recreational, aesthetic, and economic values.

f. Typical erosion control measures would be taken to minimize construction impacts other than selection of the least environmentally damaging construction alternative.

g. On the basis of the Guidelines, the proposed site for the discharge of fill material is specified as complying with the requirements of these guidelines with the inclusion of appropriate and practical conditions to minimize pollution or adverse impacts to the aquatic ecosystem.

A2 – 404 / 401 Regional Permit 5 Requirements

The following is a checklist of items to be provided to the Illinois EPA for notice of intent of Regional Permit 5 use:

A. Cover Letter

The cover letter for this notification is provided in Section A5.

B. Joint Application Form

The joint application for this notification is provided in Section A5

C. Special Measures

See Section II e) 8) of 404b1 Analysis for special measures.

D. Project Purpose & Need

See Section I c) of 404b1 Analysis for Purpose & Need.

E. Regional Permit Used

The U.S. Army Corps of Engineers, Chicago District Regional Permit (RP)5 Wetland & Stream Restoration and Enhancement permits the restoration, creation and enhancement of wetlands and riparian areas, and the restoration and enhancement of rivers, creeks and streams, and open water areas on any public or private land. Wetland and stream restoration and enhancement activities include the removal of accumulated sediments; installation, removal and maintenance of small water control structures, dikes and berms; installation of current deflectors; enhancement, restoration, or creation of riffle and pool structures; placement of in-stream habitat structures; modifications of the stream bed and/or banks to restore or create stream meanders; backfilling of artificial channels and drainage ditches; removal of existing drainage structures; construction of open water areas; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation; mechanized land-clearing to remove undesirable vegetation; and other related activities. This RP may be used to relocate aquatic habitat types on the project site, provided there are net gains in aquatic resource functions and values.

F. Area of Impact

The area of impacted is less than 1-acre of wet mesic woodland marsh/rivulet. The impact is beneficial since the project provides increase suitability of habitat for the federally endangered Hine's Emerald Dragonfly. The restoration project is planned and designed based on a 50-year period of analysis, however, it is the intention that the restoration features last perpetually.

G. Fill Type & Quantity

See Section I d) for types and quantity of fill material.

H. Project Area Map

See **Figures 01** and **02** in the Feasibility Report

I. Site Coordinates

41° 41’50.46” N and 87° 53’53.75” W

J. Site Documentation

See **Chapeter2 Inventory & Forecasting** of the Feasibility Report for a complete description of current physical, ecological and cultural resources, which includes photos of the site.

K. Wetland Delineation

See **Chapter 2 Inventory & Forecasting** of the Feasibility Report for a complete description of current physical and ecological resources, which describes the plant communities to be restored. The wetlands within the project area meet the criteria for soils, hydrology and hydrophytic plants required. See **Section A6** for Florist Quality Assessment.

L. Farmed Wetlands

There are no farmed wetlands within the project area.

M. Plat of Survey

Property boundaries and real estate are presented in **Appendix E**. All project real estate is owned by the Forest Preserve District of Cook County.

N. Engineering Drawings

Engineering design drawings are presented in **Appendix B** – Civil Design.

O. Schedule

φ 30 Day Public Review Start	Summer 2015
φ 30 Day Public Review Ends	Summer 2015
φ Final FS Report for Approval	Fall 20105
φ Division Approval of FS Report	Fall 2015
φ Design Complete	Summer 2016
φ Open Bids	Fall 2016
φ Contract Award	September 2016
φ Notice to Proceed	Winter 2016
φ Construction Complete	Fall 2021

P. Soil Erosion Sediment Control Plan

Although the affected area of disturbance is less than 1-acre, significant erosion and sediment release is not expected. The SESC plan is part of the plans and specifications, and consists of BMP measures such as silt fencing, and biodegradable erosion control fabric and permanent project features such as native vegetation.

Q. Federally Threatened & Endangered Species

See Section II e) 6) of 404b1 Analysis.

R. State Threatened & Endangered Species

See Section II e) 6) of 404b1 Analysis.

S. Illinois Historic Preservation Agency

Correspondence and clearance with the ILSHPO is provided in Section A4 in a letter dated June 4, 2012.

T. Applicable Watershed Plans

There is no applicable watershed plan associated with project area.

U. After the Fact Permit

NA

V. Mitigation Plan

This is a restoration plan that requires no mitigation since previous lost resources are being recovered.

W. Project Funding Source

This project is federally funded 65% by the USEPA managed GLRI appropriations and 35% by the Forest Preserves of Cook County.

X. Regional Permit 5 Guidelines

Authorization under RP5 is subject to the following requirements which shall be addressed in writing and submitted with the notification:

a. All projects will be processed under Category I.

This project would be processed under Category I.

b. This permit does not authorize activities to relocate or channelize a linear waterway such as a river, stream, creek, etc.

There are no intentions of relocating or channelizing any streams within the project area. See Section I b).

c. This permit cannot be used for the conversion of a stream or creek to another aquatic use, such as the creation of an impoundment for waterfowl habitat.

No alteration of hydraulics and hydrology would result in another type of habitat, but would preserve and restore what is currently there and what was there historically. See Section I b).

d. This permit cannot be used to authorize the conversion of natural wetlands to another aquatic use, such as creation of waterfowl impoundments where a forested wetland previously existed, or the conversion of waterfowl impoundments and wildlife habitat areas.

No part of the project area of the project would be converted to another aquatic use. The project is solely intended for ecological restoration. See Section I b).

e. A management and monitoring plan shall be required for the restoration, creation or enhancement of aquatic resources. Upon the District's approval, the management and monitoring plan may be designed to be site specific, with the duration of the plan determined on a case-by-case basis.

Monitoring is required under the GLFER Authority. The monitoring plan is presented in **Appendix G**.

f. For a project site adjacent to a conservation area, forest preserve holdings, or village, city, municipal or county owned lands, the permittee shall request a letter from the organization responsible for management of the area. The response letter should identify recommended measures to protect the area from impacts that may occur as a result of the development. A copy of the request and any response received from the organization shall be submitted to the District with the notification.

The non-Federal sponsor will be responsible for the maintenance and protection of the restoration project per the legally binding Project Partnership Agreement to be signed after this Feasibility Study is approved and before construction commences. This intent is confirmed by the **Letter of Intent** provided by the Forest Preserves of Cook County.

g. For projects receiving State or Federal grants or funding sources, the permittee shall submit a copy of the document disclosing the expiration date for use of the funds and the expected calendar date for commencement of the project in order to meet funding deadlines.

The expiration date for USEPA managed GLRI funds to be used for this project is September 2016.

A3 – 401 Joint Application Form

A4 – Agency Coordination

NEPA Scoping

FEDERAL AGENCIES

Kenneth Westlake, Chief
Environmental Review Branch
U.S. EPA ME-19J
77 West Jackson
Chicago, IL 60604

STATE AGENCIES (Illinois)

Todd Rettig
Office of Resource Review
Illinois DNR
One Natural Resource Way
Springfield, IL 62702-1271

Robert Schanzle
Illinois DNR – Realty/Planning
One Natural Resource Way
Springfield, IL 62702-1271

Illinois DNR/OWR
36 S. Wabash Ave.
Room 1415
Chicago, IL 60603
ATTN: Dan Injerd

Illinois EPA
Water Pollution Division
1001 N. Grand
Springfield, IL 62794
ATTN: Al Keller

Illinois Hist. Pres. Agency
1 Old State Capitol Plaza
Springfield, IL 62701
ATTN: Anne Haaker

TRIBAL DISTRIBUTION LIST

Kickapoo Tribe of Oklahoma
P.O. Box 70
McCloud, OK 74851

Kickapoo Of Kansas
1107 Goldfinch Rd.
Horton, KS 66434

Kickapoo Tribe of Texas
Box HC 1 9700
Eagle Pass, TX 78853

Miami Nation in Indiana
P.O. Box 41
Peru, IN 46970

Miami Tribe of Oklahoma
P.O. Box 1326
Miami, OK 74355
Attn: George Strack

Citizen Potawatomi Nation
1901 S. Gordon Cooper Dr.
Shawnee, OK 74801

Forest County Potawatomi Exec. Council
P. O. Box 340
Crandon, WI 54520

Nottawaseppi Huron Potawatomi Tribal Office
2221 One-and-a-half Mile Rd.
Fulton, MI 49052

Hannahville Potawatomi Comm., Council
N 14911 Hannahville Road
Wilson, MI 49896-9728

Prairie Band Potawatomi Tribal Council
16281 Q RD
Mayetta, KS 66509

Pokagon Band of Band of Potawatomi Indians
P.O. Box 180
Dowagiac, MI 49047

EXAMPLE SCOPING LETTER:

Planning Branch
Environmental Formulation Section

Kenneth Westlake, Chief
Environmental Review Branch
U.S. EPA ME-19J
77 West Jackson
Chicago, IL 60604

Dear Mr. Westlake:

The Chicago District is preparing a National Environmental Policy Act (NEPA) document on impacts of a planned ecosystem restoration at Saganashkee Slough, Forest Preserve District of Cook County, Illinois. As part of the scoping process the Chicago District would appreciate your comments. A map of the area is attached.

The project will restore the fen and lacustine plant communities in areas of Saganashkee Slough. The project will also include increasing the variety of bottom features within the slough to enhance fish habitat and the removal of anthropogenic material from the associated fen and springs. Invasive non-native plant and fish species will also be removed. The reestablishment of native plant communities, particularly in the Fen areas, will increase critical habitat for the Federally endangered Hines' emerald dragonfly.

I am particularly interested in your comments regarding impacts to aquatic habitat and threatened or endangered species. Please reply within 30 days, marking your reply to the attention of Mr. Peter Bullock, U.S. Army Corps of Engineers, 111 North Canal Street, Suite 600, Chicago, Illinois 60606. Questions may be directed to Mr. Bullock at 312/846-5587, or at peter.y.bullock@usace.army.mil. Your assistance is appreciated.

Sincerely,

Susanne J. Davis, P. E.
Chief of Planning Branch

Enclosure

MFR: Routine scoping letter as required by NEPA.

Bullock PM-PL-E

Fleming PM-PL-E

Buczak PM-PM

Davis PM-PL-E

Bullock, Peter Y LRC

From: John Rodwan [jrodwan@nhbpi.com]
Sent: Monday, May 07, 2012 9:14 AM
To: Bullock, Peter Y LRC
Subject: Saganashkee Slough Restoration

Mr. Bullock:

Thank you for giving the Nottawaseppi Huron Band of the Potawatomi the opportunity to comment on your proposed restoration efforts at the Saganashkee Slough.

On behalf of the Tribe I earnestly support the project and anticipate the benefits to wildlife it will provide.

John Rodwan

Environmental Director

Nottawaseppi Huron Band of the Potawatomi

2221 1 1/2 Mile Road

Fulton, MI 49052

jrodwan@nhbpi.com

(269)729-5151

Illinois Historic Preservation Agency

1 Old State Capitol Plaza • Springfield, Illinois 62701-1512 • www.illinois-history.gov

Cook County PLEASE REFER TO: IHPA LOG #005050412
Palos
NW of SR 83 & I 45
COEC
Ecosystem restoration, Saganashkee Slough

June 4, 2012

Peter Bullock
Department of The Army
U.S. Army Corps of Engineers
Chicago District
111 North Canal Street, Suite 600
Chicago, IL 60606

Dear Mr. Bullock:

Thank you for requesting comments from our office concerning the possible effects of the project referenced above on cultural resources. Our comments are required by Section 106 of the National Historic Preservation Act of 1966 (16 USC 470), as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties".

The project area has not been surveyed and may contain prehistoric/historic archaeological resources. Accordingly, a Phase I archaeological reconnaissance survey to locate, identify, and record all archaeological resources within the project area will be required. This decision is based upon our understanding that there has not been any large scale disturbance of the ground surface (excluding agricultural activities) such as major construction activity within the project area which would have destroyed existing cultural resources prior to your project. If the area has been heavily disturbed prior to your project, please contact our office with the appropriate written and/or photographic evidence.

The area(s) that need(s) to be surveyed include(s) all area(s) that will be developed as a result of the issuance of the federal agency permit(s) or the granting of the federal grants, funds, or loan guarantees that have prompted this review.

Enclosed you will find an attachment briefly describing Phase I surveys and a list of archaeological contracting services. THE IHPA LOG NUMBER OR A COPY OF THIS LETTER SHOULD BE PROVIDED TO THE SELECTED PROFESSIONAL ARCHAEOLOGICAL CONTRACTOR TO ENSURE THAT THE SURVEY RESULTS ARE CONNECTED TO YOUR PROJECT PAPERWORK.

If you have further questions, please contact Joe Phillippe at 217/785-1279.

Sincerely,

Anne E. Haaker

Anne E. Haaker
Deputy State Historic
Preservation Officer

Enclosure

FWS Coordination

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chicago Ecological
Services Field
Office 1250 South
Grove Avenue,
Suite I03
Barrington, Illinois 60010
Phone: (847) 381-2253 Fax: (847) 381-2285

IN REPLY REFER TO:
FWS/AES-CIFO

June 8, 2015

Col. Frederic A. Drummond, District Engineer US Army Corps of Engineers
Chicago District

231 S. LaSalle Street, Suite 1500

Chicago, IL 60604

Attention: Ms. Susanne J. Davis

Re: Fish and Wildlife Coordination Act Report for McMahon Woods Ecosystem Restoration Section 506 Great Lakes Fishery & Ecosystem Restoration, Integrated Feasibility Report and Environmental Assessment

Dear Col. Drummond:

This letter constitutes our Fish and Wildlife Coordination Act Report for McMahon Woods Ecosystem Restoration Section 506 Great Lakes Fishery & Ecosystem Restoration, Integrated Feasibility Report and Environmental Assessment. It has been prepared under the authority of and in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat.401, as amended; 16 U.S.C. 661 *et seq.);* the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 703 *et seq.);* and in accordance with the U.S. Fish and Wildlife Service's Mitigation Policy. This report will constitute the report of the Secretary of Interior as required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA).

This McMahon Woods Ecosystem Restoration Section 506 Great Lakes Fishery & Ecosystem Restoration, was authorized by 42U.S.C. § 1962d-22. GREAT LAKES FISHERY AND ECOSYSTEM RESTORATION (WRDA 2000 as amended). The study authorization directs the United States Army Corps of Engineers (Corps) to identify methods of restoring the fishery,

ecosystem, and beneficial uses of the Great Lakes. Description of the project area and proposed plan components are posted by the Corps at the following URL:

http://(www.lrc.usace.army.mil/Portals/36/docs/projects/GLRI/SaganaskeeSloughMay2013.pdf

The Chicago Ecological Services Field Office of the U.S. Fish and Wildlife Service (USFWS) participated in the early project planning from 2012 through 2014. The USFWS worked with the Corps and other partners in development of baseline field data collection in relation to the current hydrology and hydraulics of the McMahon Woods and Fen Nature Preserve (MWFNP)sedge meadow and rivulets. The USFWS also assisted in the development of the proposed restoration measures to address environmental problems within MWFNP. More recently, we have reviewed the revised plan focusing on the proposed measures to address critical habitat for the federally endangered Hine's emerald dragonfly *(Somatoch/ora hineana,* HED) and migrating bird habitat. We reviewed these sections of the report to identify whether any significant impacts to high quality fish and wildlife habitats and species of conservation concern would be likely to result from implementation of the selected restoration measures, and have incorporated recommendations to conserve and improve those resources into this Report.

It is our understanding that coordination with the Illinois Department of Natural resources is occurring separately; therefore, this report does not represent the opinion of the State on this project. State of Illinois threatened and endangered species may occur in the project area.

FISH AND WILDLIFE RESOURCES AND RECOMMENDATIONS

McMahon Woods and Fen Nature Preserve:

The proposed restoration measures for this area of the project would include removal of invasive shrub and herbaceous plant species through mechanical and chemical means, installation of native plant material, removal of the debris pile located along 104th Avenue, erosion control measures within small forming gullies at headwaters of rivulets, and installation of a larger culvet1 along 107th Street along with a small berm within the saddle area. These activities will help restore the hydrology and structural breeding habitat of the Hine's emerald dragonfly.

Implementation of this project in accordance with the conservation measures below will greatly benefit the conservation of the only population of the HED in Illinois; an essential population to the range wide recovery of this endangered species. Restoration of MWFNP is particularly important to the viability of the HED in Illinois because of the location of the site and because of the potential for it to provide breeding habitat; a limiting factor for the species. Other breeding habitat areas in Illinois are threatened by groundwater impacts; however, the MWFNP and its groundwater contribution area are located within a po1tion of the lower Des Plaines River Valley that is well protected by public land. In addition, MWFNP is one of seven critical habitat units that contains breeding habitat for the species and is the eastern most site in Illinois.

Management and Restoration Activities to be Implemented as Conservation Measures:

We recommend measures that have been developed as part of the Hine's Emerald Dragonfly Habitat Management and Restoration in Illinois, Intra-Service Section 7 Biological Evaluation, Region 3 (USFWS 2014). The management and restoration activities described below have been adapted from traditional methods in order to avoid and minimize impacts to HED and critical habitat primary constituent elements. These actions will be implemented according to current and future Service guidance and technical assistance. The following actions have been considered under this consultation:

- collection of HED larvae that may potentially occupy limited areas prior to restoration. Dragonflies will be held by the USFWS's captive rearing program for later release as adults;
- access by foot or operational vehicles along existing trails and access paths;
- access by operational vehicles on matting in wetland areas;
- access on foot (no vehicles) within a 65 foot (20 meter) buffer of HED larval habitat year round as mapped unless agreed upon by land managers and the Service;
- delivery and staging of heavy equipment in upland areas outside of rapid recharge areas;
- installation and removal of matting in wetland areas;
- crossing HED larval rivulets on foot or with bridge constructed from composite matting;
- crossing wetlands and HED larval rivulets with trucks/tractors on matting in situations where access paths are not available;
- crossing wetlands without HED breeding habitat with low ground pressure vehicles (5 pounds per square inch);
- restoring preserves to native vegetation and implementation of various stormwater BMPs in recharge areas to increase groundwater infiltration;
- removing woody vegetation on foot in uplands and wetlands, using hand equipment such as brush cutters and chainsaws;
- mowing woody vegetation in uplands;
- utilizing brush hogs or similar equipment in upland areas and wetlands not containing larval habitat;
- stockpiling and/or burning piles of cut vegetation in upland areas;
- staging and filling of fuel, herbicides and other chemicals in upland areas that are not up gradient to Hine's emerald dragonfly larval habitat or within rapid recharge areas;
- hand wicking herbicides within a 65 foot buffer of HED larval habitat with aquatic approved herbicides;
- herbicide application by foliar spraying invasive vegetation will only be conducted outside of the 65 foot buffer around Hine's emerald dragonfly larval habitat and with a USFWS aquatic approved herbicide and surfactant;
- hydrological and structural/morphological restoration to rivulets in cooperation with USFWS technical assistance.

Seeds of the federally threatened eastern prairie fringed orchid *(Platanthera leucophaea)* have been planted at McMahon Woods in the past 20 years. We recommend that a survey for this species occur prior to and during construction activities so that a conservation plan can be developed to avoid harm to this species if it is present. Surveys should be performed during its bloom period (typically, the last week of June through the first two weeks in July, more precise dates each year can be coordinated with our office).

SUMMARY OF FINDINGS

We strongly support the removal of invasive plant species and creation of important wetland areas within MWFNP. We encourage the consideration of the above mentioned recommendations. If changes or modifications to the plan occur during design, these should be provided to our office for review and comment.

We support the proposed ecological restoration of MWFNP including the above measures to identify and protect the eastern prairie fringed orchid and the HED. In general, we support the concept of ecological restoration at both sites.

We appreciate the ongoing coordination on this project and look forward to working more closely with you on subsequent phases of project planning. If you have any questions, please contact me (847/381-2253, ext. 11) or my staff contact Mr. Kristopher Lah (847/366-2347).

Sincerely,

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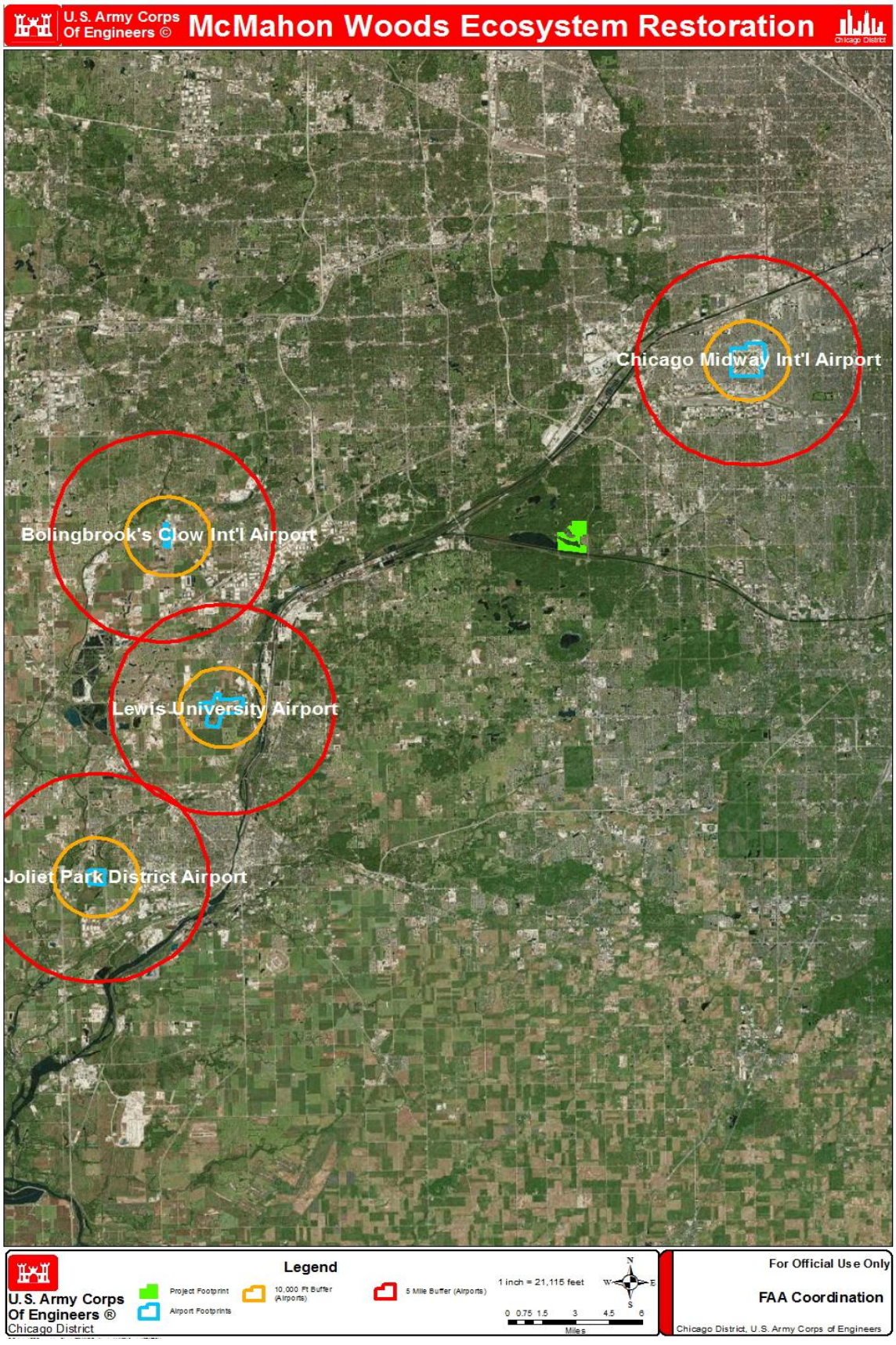
Field Supervisor

FAA Coordination

An assessment of nearby airports was conducted looking for any airports that is within applicable distance of the project site to warrant a wildlife risk assessment. Three airports were in the general vicinty, but not close enough to warrant furthre consideration:

-Brookeridge Air Park (Downers Grove, IL) 6.41 miles away
-Chicago Midway (Chicago, IL) 7.68 miles away
-Tinley Park Helistop (Chicago/Tinley Park, IL) 8.4 miles away

Brookeridge Air Park is a private use only airport. The Tinley Park Helistop is not on the map, because the FAA regulation does not cover helistops.


U.S. Army Corps Of Engineers ©
McMahon Woods Ecosystem Restoration
Chicago District
Chicago Midway Int'l Airport
Bolingbrook's Clow Int'l Airport
Lewis University Airport
Joliet Park District Airport
Legend
Project Footprint
Airport Footprints
10,000 Ft Buffer (Airports)
5 Mile Buffer (Airports)
1 inch = 21,115 feet
0 0.75 1.5 3 4.5 6
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A5 – Planning Information

The following is a summary of the Habitat Benefits Analysis that was completed to capture projected benefits of the proposed restoration measures. Future Without Project (FWOP) is the projected change in the plant communities if nothing was done to restore this area or address the identified problems. Future With Project (FWP) projects changes to the plant communities in response to certain restoration measures. The FWP Invasive removal refers to removal of invasive shrub from each of the communities, such as European buckthorn (*Rhamnus cathartica*). FWP Diverse Native Plants refers to the full restoration of the plant communities. For the marsh this would include removal of invasive shrubs and invasive herbaceous species, plus installation of native plant material and prescription burns. For the Oak savanna this is similar to the marsh in the all invasive species would be removed and native plants installed and prescription burns conducted. The wet mesic woodland includes invasive species removal, native plant installation and prescription burns, plus, repair of hydrologic and geomorphic conditions within the rivulets. These measures include p[placement of a small earthen berm adjacent to Crooked Creek, large culvert under 107th Str. and placement of glacial cobble and stone to reinforce the banks of the rivulets. Benefits are captured by changes in the Mean Coefficient of Conservatism (0-10).

		1	2	3	4	5	47	48	49	50	AVE
FWOP	Marsh	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.40
	Oak Savanna	2.3	2.3	2.3	2.3	2.3	0.8	0.8	0.8	0.8	1.66
	Wet Mesic Woodland	2.5	2.5	2.5	2.5	2.5	1.9	1.9	1.9	1.9	2.15
FWP Invasive Removal	Marsh	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.40
	Oak Savanna	2.4	2.4	2.4	2.5	2.6	2.5	2.5	2.5	2.5	2.47
	Wet Mesic Woodland	2.5	2.5	2.5	2.6	3	3	3	3	3	2.93
FWP Diverse Native Plants	Marsh	1.4	1.4	2.5	3	4	4.2	4.2	4.2	4.2	4.03
	Oak Savanna	2.3	2.3	3	3.5	4	4.6	4.6	4.6	4.6	4.44
	Wet Mesic Woodland	2.5	2.5	3	3.5	4	4.6	4.6	4.6	4.6	4.45