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Discussions Only

Natural Resource Damage Assessment Settlement

RESTORATION PLAN

Fort Wayne Reduction Site
Allen County, Indiana

March 1998

INTRODUCTION

This Restoration Plan is submitted by Waste Management, Inc. and the Participating Generators Group to settle all purported natural resources damages claims arising out of or associated with the Fort Wayne Reduction Site in Allen County, Indiana. Implementation of this plan will be conducted by Waste Management, Inc. and the Participating Generators Group. (See Attachment A for a listing of The Participating Generators Group.)

PROJECT BACKGROUND AND HISTORY OF THE LANDFILL SITE

The 35-acre Fort Wayne Reduction Site is a former municipal landfill and waste disposal facility located east of the City of Fort Wayne, Indiana along the Maumee River. Between 1967 and 1976, wastes were accepted at the facility.

The Site was placed on the National Priorities List (NPL) in 1986. A long term remedial action plan to cleanup the Fort Wayne Reduction Site was finalized in the Record of Decision, signed August 26, 1988. On July 18, 1989, SCA Services of Indiana, Inc., a wholly owned subsidiary of Waste Management, entered into a Consent Decree with USEPA and IDEM to implement the remedy at the Fort Wayne Reduction Site. The remedy was constructed in phases from 1990 through 1994. The remedy consisted of a soil cover over the eastern and western portions of the site, a drum removal and off site waste disposal operation, and the installation of a groundwater collection and treatment facility. Groundwater collection and treatment continues, with the treated groundwater being discharged to the Fort Wayne Sanitary Sewer System. Operation and maintenance activities began following completion of the construction of each phase, and are ongoing. The remedial action for the site was funded by Waste Management and certain Settling Defendants.

The federal and state Trustees[1] subsequently asserted a natural resources damages claim against Waste Management and certain Settling Defendants. The Trustees have entered into a Consent Decree with

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[1]The federal Trustee is the United States Fish and Wildlife Service and the State Trustees are the Indiana Department of Environmental Management and the Indiana Department of Natural Resources.

Waste Management and the Partieipating Generators Group to resolve all natural resources damages elaims arising out of or associated with the Fort Wayne Reduction Site. This Restoration Plan has been developed pursuant to that Consent Decree.

BOTTOMLAND/RIPARIAN HABITAT

The purpose of this Restoration Plan is to permanently retire approximately 82+- aeres of farm land located in the Maumee River floodplain. Approximately 47+- aeres of converted bottomland will be reforested with native hardwood trees and shrubs. This project will provide compensation for alleged injuries to habitat along the Maumee River at the Fort Wayne Reduction Site.

The reforested bottomland/riparian habitat will provide a number of environmental benefits, including wildlife habitat and local improvement in water quality. The project will convert agricultural land that provides little ecological services into a habitat complex that will provide numerous foraging, resting, and nesting habitat for both resident and migratory wildlife species. The bottomland/riparian project will provide habitat for aquatic wildlife species, such as insects and other arthropods, amphibians, reptiles, and waterfowl. Once implemented, this plan will protect and link approximately 1 mile of riparian habitat along the Maumee River that is subject to frequent and severe flooding.

Sediment removal is probably one of the most recognized benefits associated with riparian areas. The increased plant cover in the riparian area will help reduce the movement of sediment and other suspended solids from surface runoff. Sediment, a nonpoint source pollutant, is one of the major forms of pollution that affects local water quality. The riparian area will help improve water quality by aetng as a buffer to the adjacent stream. The buffering effect reduces the sediment and nutrient load to the adjoining stream, thus improving the habitat for many beneficial aquatie plants, insects, and bottom dwelling fish. Sediment removal will also help provide additional flood control. Large deposits of sediment ean overfill stream channels, greatly increasing the potential for flooding. The riparian area will capture the sediment and help maintain the water carrying capacity of the Maumee River.

The proposed bottomland/riparian reforestation projeet fits within the context of the 1995 Maumee River Basin Flood Control Master Plan. One of the selected components is a Basin-wide program of wetland preservation, restoration, and enhancement to prevent and/or mitigate the effects of a 100-year flood in the Basin's flood hazard areas. This proposed project will contribute significantly to the ongoing conservation efforts in the watershed.

PROJECT SCOPE

1. Project Location

Waste Management, Inc. and the Participating Generators Group will acquire the following properties and restore/reforest them as diseussed below. All acreage figures are approximate and subject to a final survey.

1. Waste Management, Inc. and the Participating Generators Group will aequire and restore/reforest approximately 30+- acres located along the south side of North River Road and in the vieinity of the Fort Wayne Parks Department property. (Map #1, Tract A)

2. Waste Management, Inc. and the Participating Generators Group will acquire approximately 40+- acres located south of North River Road and in the vicinity of the Fort Wayne Parks Department property. A 100' wide riparian corridor totaling approximately 5 acres will be reforested along the Maumee River. (Map #1, Tract B)

3. Waste Management, Inc. and the Participating Generators Group will restore/reforest the Fort Wayne Parks Department 12 acre +-property. (Map #1, Tract C)

2. Current Landuse

All properties are currently being row-cropped in a corn/soybean rotation despite the recurring frequency of damaging floods. An Allen County Soil and Water Conservation District aerial photograph from 1939 indicates that the aforementioned areas have been actively farmed for more than 50 years. Floodway zoning restrictions prevent any future development on these properties. Continued agricultural use is considered to be the highest and best use for these properties.

3. Soils and Project Suitability

The Allen County Soil Survey indicates that the soil association for this project is entirely in the Eel-Martinsville-Genesee association. These soils are described as deep, well drained and moderately well drained soils, typically found on bottomlands and stream terraces. Eel silt loam (Es) and Genesee silt loam (Gh) are the two most predominant soils on these properties. These bottomland soils are typically quite productive despite the threat of serious flooding and streambank erosion. Native vegetation was mostly water tolerant hardwood trees. Reforesting these soils with native water tolerant trees and shrubs is the best management practice for these areas. The likelihood for project success is quite high due to the fact that the original habitat is being restored.

4. Planting Scheme/Species

A 9' x 9' planting scheme for this bottomland hardwood reforestation project has been selected. This spacing will result in the planting of approximately 540 trees per acre. The trees will be planted every nine feet (9') within the rows and nine feet (9') between the rows. This planting scheme is both approved and recommended by government agencies (U.S. Fish and Wildlife Service and Indiana Department of Natural Resources) for establishing native hardwood trees. The 540 trees per acre will provide a diverse planting that allows for both natural mortality and natural regeneration of hardwood seedlings. The planting scheme will encourage the establishment of a diverse natural bottomland hardwood forest.

Native water tolerant trees/shrubs will be used to restore the original habitat. A diverse selection of trees will be used to allow for micro-changes in topography, soils, and drainage patterns. All trees will be obtained from reputable private nurseries and/or state nurseries located within the same geographic area (not more than 200 miles apart) to prevent problems related to geographic adaptability. All nursery material will be free of pests and diseases.

The following list of tree/shrub species has been selected for use with this project. All of the following species are native and naturally occurring in Indiana. These species have been selected for their ability to tolerate wet conditions. Final species selection will depend upon nursery availability.

NURSERY MATERIALS

Pin oak	Cherry Bark oak	Bur oak	Silver maple
Swamp White oak	Green ash	River birch	Red maple
Swamp Chestnut oak	Hackberry	Bald cypress	Red-osier dogwood
Shumard oak	Sycamore	Buttonbush	Silky dogwood
Eastern Cottonwood			

5. Project Maintenance

Project maintenance will consist of annual herbicide applications for the control of competing weeds and grasses. The first year's weed control will be applied at the time of planting. Annual respraying will be completed each Spring following the planting for four additional years. A total of five years of weed control will be provided to insure a successful establishment.

Weed control will be accomplished by applying a 2-3' wide band of herbicide over the top of the planted seedlings. A commercially available forestry product, such as Oust or Princep will be used. All applications will be made according to government approved labeling and usage restrictions.

6. Project Success Criteria

The aforementioned properties are located in the 100-year floodplain of the Maumee River and are subject to frequent and severe flooding. Although native water tolerant trees and shrubs have been selected for this bottomland reforestation project, seedling mortality may occur if prolonged flooding occurs during the growing season. Due to this potential for flooding, a 50% seedling survival rate after five years has been selected for this project. The 50% criteria for successful development of the bottomland/riparian habitat will be based upon actual flooding events as noted in the annual reports. If the reforested areas do not meet the criteria at the end of the five-year period, remedial plantings will be completed to meet the success criteria.

7. Monitoring

The reforested bottomland habitat will be monitored for a period of five years after completion of the initial planting. Monitoring will commence after one complete growing season has passed. Site visits (two to three per year) will be made primarily between May 1 and October 15. Special effort will be taken to visit the site during flood events to document the impact of actual flood events on the project area. The monitoring plan will observe the following guidelines:

1. Three permanently marked transect test plots of approximately 1 acre will be established within the reforested areas. Percent stem survival will be estimated for all species. Data will be recorded for each transect test plot.

2. A minimum of three permanent photographic stations will be set up at key vantage points within the reforested areas to provide visual documentation of development of the areas.

3. Wildlife use will be noted through informal surveys.

8. Annual Report

An annual report based on the results of each year's inspection will be provided to the Trustees by November 30 of each monitoring year. The report will include information on percent stem survival, photographic documentation, and an informal description of wildlife use. A general discussion on the growing season will also be submitted to highlight any environmental factors (flooding/drought) that may have taken place during the monitoring year.

9. National Environmental Policy Act (NEPA) Compliance

Natural resource damage assessment restoration plans that result in a negligible change in the use of the affected areas have been included as categorical exclusions for (NEPA) compliance for actions implemented by the U.S. Fish and Wildlife Service (516 DM 6 Appendix 1.) Additionally, restoration implementation will likely include those types of activities that are also considered categorical exclusions. Therefore, the aforementioned project complies with the requirements of (NEPA).

Impacts on Cultural Resources - for any restoration alternatives considered, the potential for project activities to affect prehistoric and historic resources, Native American human remains and cultural objects will be determined early in project planning. To this end, the procedures in 36 CFR 800 implementing Section 106 of the National Historic Preservation Act, requirements of the Native American Graves Protection and Repatriation Act, and policies and standards specified in the Fish and Wildlife Service Manual 614 FW 1-5 will be achieved.

10. Deed Restriction/Perpetual Protection

A Deed Restriction (Conservation Easement) will be imposed on the entire property. The restriction will prohibit any future alteration of the property which would detract from its intended ecological function. The land use restriction will not, however, restrict the construction and maintenance of walking trails, observation platforms, or similar facilities created for public use. The restriction will be recorded with the Allen County Recorders Office within 45 days following property acquisition.

Upon completion of the five year monitoring period and any remedial plantings, the property will be donated to the Fort Wayne Parks and Recreation Department. The property will be incorporated into the Park Departments existing Rivergreenway Program. Recreational opportunities such as hiking, bird watching, and nature studies will be allowed.

Project Milestones and Schedule

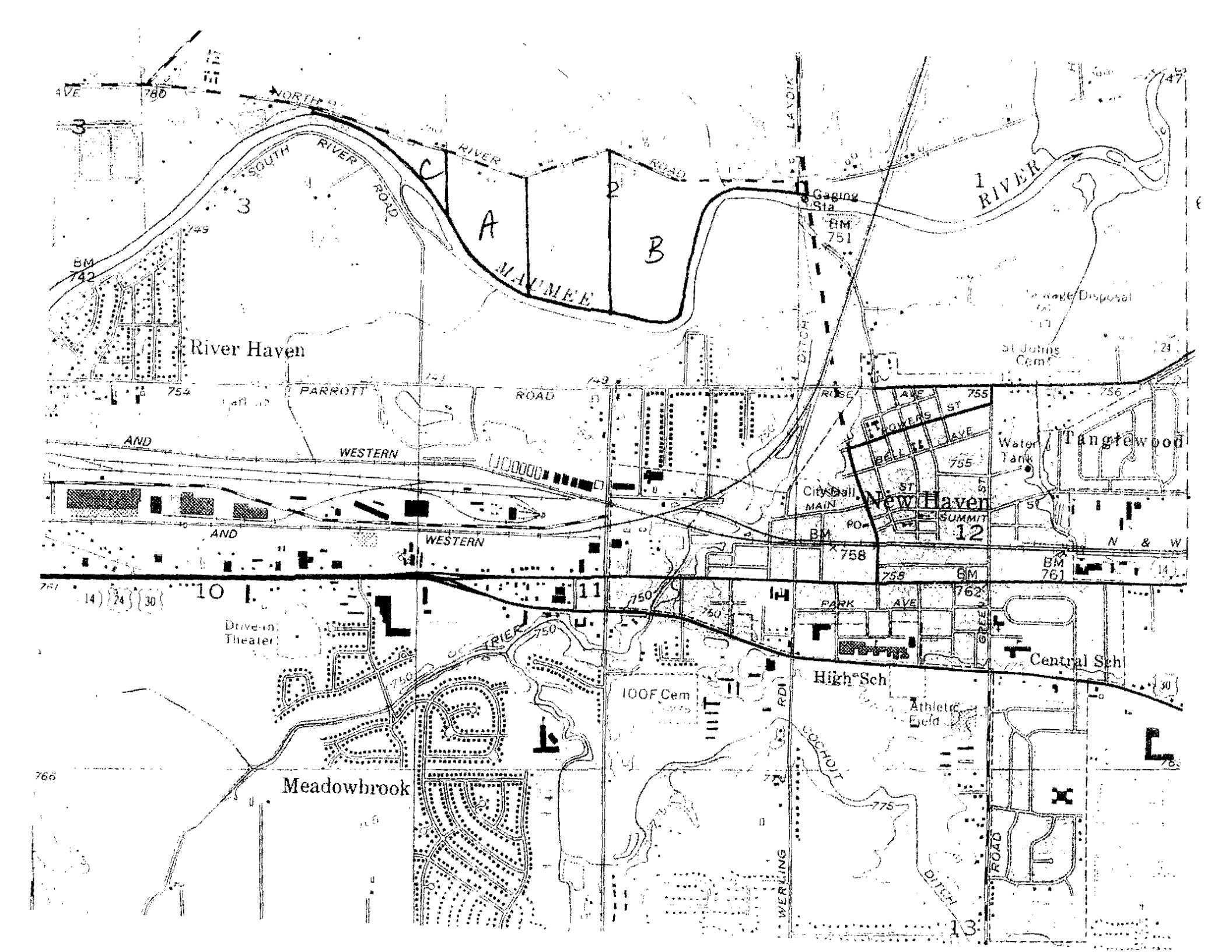
MILESTONE	SCHEDULE
Consent Decree Entry	--------
Property Acquisition	WMI and the Participating Generators will begin negotiations to acquire the properties prior to entry. The date of acquisition will occur no later than 90 days following Consent Decree entry.

MILESTONE	SCHEDULE
Deed Restrictions	Deed restrictions will be placed on the properties no later than 45 days following acquisition.
Reforestation - Initial Planting	Planting will begin during the spring of 1999 assuming the Consent Decree is entered by September 1, 1998. The planting will be delayed until the spring of 2000 if the Consent Decree is entered at a later date.
Project Maintenance (Herbicide Application)	Annually, with the first application occurring at the time of the Initial Planting, and subsequent reapplication occurring during the spring for each of the subsequent four (4) years.
Monitoring	Site visits (two to three per year) will occur during the time period from May 1 through October 15 for a period of five (5) years following completion of the Initial Planting.
Annual Report	An annual report will be provided to the Trustees by November 30 of each year following completion of the Initial Planting for a period of five (5) years.
Project Success Review	In the fall following the fifth year after the Initial Planting, the 50% criteria will be evaluated and, if necessary, remedial plantings will be recommended. Remedial plantings will be completed the following spring.

Attachment A

Participating Generators Group

Aeroquip
Colwell/General
Dana Corporation
General Electric
Indiana Michigan Power Co.
ITT
Joslyn Manufacturing
Keefer Printing
Michelin N.A., Inc.
Navistar International
Phelps Dodge
Phillips Electronics (a/k/a Magnavox)
Potlatch Corporation
Scott Paper
Tokheim Corporation
United Technologies


NORTH
SOUTH RIVER ROAD
RIVER ROAD
MAUMEE
A
B
C
1
2
3
RIVER
Gaging Sta
BM 751
BM 742
River Haven
PARROTT ROAD
AND WESTERN
AND WESTERN
LAVOIX DITCH
Water Tank
Tangrewood
City Hall
MAIN
New Haven
SUMMIT
12
BM 758
BM 761
N & W
PARK AVE
GREEN
Central Sch
High Sch
Athletic Field
Drive-in Theater
OCKTRIER
100F Cem
COCHOUT
WERLING DITCH
ROAD
Meadowbrook
10
11
13
St Johns Cem
Waste Disposal

UNITED STATES FISH & WILDLIFE SERVICE

ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council of Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of implementing the Natural Resource Damage Assessment Settlement Restoration Plan for the Ft. Wayne Reduction Dump Site, Allen County, Indiana:

X is a categorical exclusion as provided by 516 DM 6 Appendix 1. No further documentation will therefore be made.

____ is found not to have significant environmental effects as determined by the attached Environmental Assessment and Finding of No Significant Impact.

____ is found to have significant effects, and therefore further consideration of this action will require a notice of intent to be published in the Federal Register announcing the decision to prepare an EIS.

____ is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

____ is an emergency action within the context of 40 CFR 1506.11. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

Other supporting documents (list):

____ Restoration Plan (attached)

____ Environmental Assessment and FONSI

____ Public comments

David C. Hedell 4-6-98
(1) Initiator Date

[signature] 4-13-98
(2) RHPO Date

Lisa Mandell 4-16-98
(3) REC Date

(4) ARD Date

(5) RD Date

Author: Lisa Mandell at 3MS~FA
Date: 4/6/98 11:24 AM
Priority: Normal
TO: Scott Sobiech at 3MS-BFO
CC: Frank Horvath, John Dobrovolny at 3MS~RW
Subject: NEPA Compliance for Ft. Wayne Reduc Site

I concur with using CX B.11 for this restoration plan. I received your message that John Dobrovolny had been contacted as well, and concurs that historic preservation concerns are covered adequately. I have not yet seen an EAS come through, but I'll keep my eyes peeled.

Lisa

Bloomington ESFO, IN

FWS/ARW-VIM

APR 2 1998

Mr. Larry D. Macklin
State Historic Preservation Officer
Room 274
402 West Washington Street
Indianapolis, Indiana 46204

Dear Mr. Macklin:

The Bloomington Field Office of the U.S. Fish and Wildlife Service is participating with the Indiana Department of Natural Resources and the Indiana Department of Environmental Management in a natural resource damage assessment settlement. The area of consideration is three tracts north of the Maumee River, principally in Section 2, T.30N., R13E., Allen County.

This undertaking derives from a municipal landfill east of Fort Wayne along the Maumee River. It took in wastes from 1967 to 1976. Environmental hazards from the landfill were remedied from 1990 to 1994. The state and federal trustees asserted a natural resources damages claim that resulted in a Restoration Plan. Under the plan Waste Management, Inc., and the Participating Generators Group will acquire and restore habitat on three tracts as shown on the enclosed copy from the USGS 7.5 minute Fort Wayne East quadrangle map.

Tract A is approximately 30 acres that is to be restored and reforested.

Tract B is approximately 40 acres. A 100-foot wide riparian corridor totaling approximately 12 acres is to be reforested.

Tract C is approximately 12 acres that is to be restored and reforested.

The total approximately 82 acres are Maumee River floodplain farm land to be removed from agricultural production. Approximately 47 acres are to be planted in native hardwood trees and shrubs. A variety of native species seedlings is to be planted at 9-foot intervals. Seedlings would be planted within the plowzone; no new ground disturbance is anticipated. After five years of monitoring, the land is to be donated to the Fort Wayne Parks and Recreation Department.

No historic properties would be affected by the undertaking. Allen County contains 39 properties listed on the National Register of Historic Places, but none would be affected by the proposed undertaking. We have no information about existing or potential archeological sites in the area, but the floodplain setting is unlikely to contain significant archeological material within the plowzone. No standing structures would be affected. Consequently, in accordance with 36 Code of Federal Regulations 800.5(b), we will proceed with this undertaking after 15 days of the date of this letter. If you disagree, please telephone John Dobrovolny at 612-713-5439.

Sincerely,

/s/ H. John Dobrovolny

H. John Dobrovolny
Regional Historic Preservation Officer

Enclosure

bcc: Scott Sobiech, Bloomington, IN, ESFO
RHPO