Final Natural Resource Restoration Plan
&
Environmental Assessment
for the
Fields Brook Superfund Site

July 2004

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LEGAL AUTHORITY:	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (as amended), 42 U.S.C. § 9601, *et.seq*. Federal Water Pollution Control Act (Clean Water Act) (as amended), 33 U.S.C. § 1251, *et seq*. Natural Resource Damage Assessment, 43 C.F.R. Part 11 National Environmental Policy Act, 42 U.S.C. §§4321-4347
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DATE:	July 2004

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SECTION 1

Introduction and Summary

This Final Restoration Plan and Environmental Assessment (RP/EA) has been prepared by state and federal natural resource Trustees to address natural resources injured and ecological services lost due to the releases of hazardous substances from the Fields Brook Superfund Site (the "Fields Brook Site" or the "Site") (see Figure 1).

The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, *et.seq*. (CERCLA, more commonly known as the federal "Superfund" law) and the Federal Water Pollution Control Act, 33 U.S.C. § 1251, *et seq*. (CWA, commonly known as the Clean Water Act) authorize States, Indian Tribes, and certain federal agencies that have authority to manage or control natural resources, to act as "trustees" on behalf of the public, to restore, rehabilitate, replace, and/or acquire natural resources equivalent to those injured by hazardous substance releases. The Department of the Interior's Natural Resources Damage Assessment ("NRDA") regulations are set forth at 43 C.F.R Part 11.

The State of Ohio (represented by the Ohio Environmental Protection Agency "Ohio EPA") and the United States Department of the Interior ("DOI") (represented by the United States Fish and Wildlife Service "USFWS") (collectively, represented by the "Trustee Council") have worked together, in a cooperative process, with Trustee Advisors[1] to determine what is necessary to address natural resource injuries caused by past releases of polychlorinated biphenyls (PCBs) and other hazardous substances at the Site.

The State of Ohio and the United States entered into a negotiated settlement with the potentially responsible parties in the amount of $850,000.00 for natural resource damages to the Fields Brook Site[2]. Due to the large size of the Site, the United States

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[1] The Trustee Council Advisors, per the 1988 Fields Brook Memorandum of Understanding, include the United States Department of Justice; the United States Department of the Interior Solicitor's Office; the United States Department of Commerce, represented by the National Oceanic and Atmospheric Administration; the United States Environmental Protection Agency; the United States Coast Guard; Ohio Attorney General; and the Ohio Department of Natural Resources.

[2] Potentially responsible parties include, but are not limited to, Archer Daniels Midland Company; ASHTA Chemicals Inc.; Bee Jay Construction Co., Inc. [formerly known as (f/k/a) Brenkus Excavating, Inc.]; C. H. Heist Corp.; Cabot Corporation; Consolidated Rail Corporation; Detrex Corporation; Elkem Metals Company L.P.; First Energy Corporation.; GenCorp Inc.; Greenleaf Motor Express Inc.; Koski Construction Company, Inc.; Luntz Services Corporation; Mallinckrodt Inc. (f/k/a International Minerals and Chemicals Corp.); Millennium Inorganic Chemicals Inc. (f/k/a SCM Corporation and SCM Chemicals, Inc.); Millennium Petrochemicals Inc.; Motta's Body & Frame Shop, Inc.; Occidental Chemical Corporation; Ohio Power Company; Olin Corporation; Plasticolors, Inc.; Reserve Environmental Services, Inc.; RMI Titanium Company; The Sherwin-Williams Company; Union Carbide Corporation; Viacom International Inc. (f/k/a Paramount Communications, Inc.); the United States General Services Administration (as successor to the Defense Plant Corporation) and the United States Department of Energy (Fields Brook Consent Decrees 1999).

Environmental Protection Agency (U.S. EPA) had divided the Site into three operable units (OUs) designated as the Sediment Operable Unit (SOU), the Source Control Operable Unit (SCOU), and the Floodplain/Wetland Area (FWA) Operable Unit. The Ashtabula River was also identified as an area of concern in the Fields Brook Record(s) of Decision, but is being remediated through a public-private partnership. Although preliminary studies indicate that significant injuries have occurred to natural resources in the Ashtabula River, this RP/EA is directed solely at the identification of restoration projects intended to compensate the public for injuries to natural resources of the Fields Brook Site operable units. The Trustees intend to address injuries to the Ashtabula River natural resources through a separate assessment pursuant to the NRDA regulations.

In summary, the purpose of this Restoration Plan is to present the Trustees Preferred Alternative to accomplish the goal of restoring, rehabilitating, replacing and/or acquiring the equivalent of those natural resources that have been injured at the Fields Brook Site. Public comments on the Initial RP/EA were accepted, as defined in Section 7 of this document. The Trustees will consider the restoration project proposals suggested by the public. This Final RP/EA issued by the Trustees is based on the recommendations of the Trustee Council and considers comments received during the public comment period on the Initial RP/EA.

While some of the restoration activities identified in this Final RP/EA may occur outside the boundaries of the Site, the restoration activities to be selected in accordance with this RP/EA are intended to provide compensation for injuries and services lost at the Site.

SECTION 2

Purpose and Need for Restoration

2.1 The Fields Brook NPL Site – Summary of Release History

The Site is located approximately 55 miles east of Cleveland in the city and county of Ashtabula. The Site is a 5.6 square mile watershed, where from 1940 to the present, up to twenty separate industrial facilities operated.

Five tributary streams are associated with the brook. The eastern portion of the watershed drains Ashtabula Township, and the western portion drains the eastern section of the City of Ashtabula. The 3.5 mile main channel of Fields Brook begins south of U.S. Highway 20, about 1 mile east of State Highway 11. From this point, the stream flows northwesterly, just under U.S. Highway 20 and Cook Road, to north of Middle Road. The stream then flows westerly to its confluence with the Ashtabula River. The industrial zone of Ashtabula is concentrated around the upstream reach of Fields Brook, from Cook Road downstream to State Highway 11. Near its confluence with the

Ashtabula River, 8000 feet upstream of Lake Erie, the brook flows through a residential

area (CH2MHill 1985) (see Figure 1).

Manufacturing activities, ranging from metal fabrication to chemical production, have occurred in this area since the early 1940s. The decades of manufacturing activity and waste management practices at industrial facilities resulted in the discharge or release of a variety of hazardous substances to Fields Brook and its watershed, including the floodplain and wetlands area.

Sediments at the Site were contaminated with PCBs, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), heavy metals, phthalates and low-level radionuclides. VOCs and heavy metals including mercury, lead, zinc, and cadmium have been detected in surface water from Fields Brook and the Detrex tributary. Contaminants detected in fish include VOCs and PCBs. The site posed a potential health risk to individuals who ingested or came into direct contact with contaminated water from Fields Brook. Moreover, studies have found that contaminated fish or sediments may cause adverse health effects.

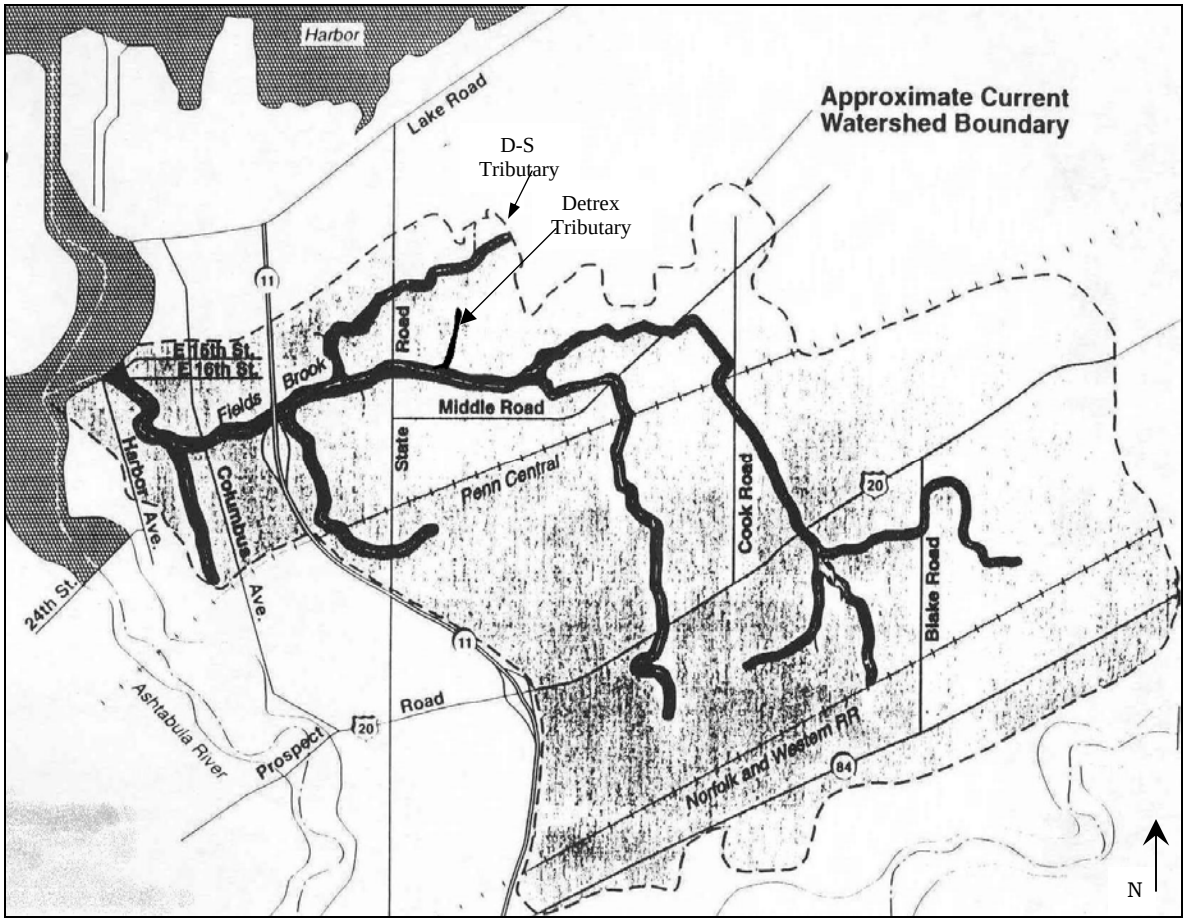

Figure 1: Fields Brook Superfund Area, Ashtabula County, Ohio

Pursuant to Section 105 of CERCLA, the Site was placed on the National Priorities List

(NPL) on September 8, 1983 (See 48 Federal Register 40658). The listing was primarily based on contamination of the sediment in Fields Brook[3].

2.2 Natural Resource Injuries

In addition to human health risks associated with the hazardous substance releases discussed herein, injuries to surface water resources, fishery resources, and avian resources also occurred. An estimated 944 acres of the Floodplain/Wetland Area and the Brook itself were contaminated by hazardous substances.

Toxic contaminants have wide ranging effects on aquatic and terrestrial life. Acute (short term) effects may include the death of birds, fish and other animals, and death or low growth rate in plants. Chronic (long term) effects on aquatic life may include shortened lifespan, reproductive problems, lower fertility, and changes in appearance or behavior. Many hazardous substances, including PCBs and mercury, are categorized as persistent bioaccumulative toxics (PBTs). They do not degrade easily in the environment, accumulate in living things, and magnify as they move up the food chain. General information on potential effects of the hazardous substances detected can be found in the Agency for Toxic Substances and Disease Registry (ATSDR) fact sheets (www.atsdr.cdc.gov) and the U.S. EPA ECOTOX database (www.epa.gov/ecotox).

2.3 Authority and Legal Requirements

This RP/EA has been prepared jointly by Ohio EPA and USFWS. Each of these Agencies is a designated natural resources trustee under Section 107(f) of CERCLA, 42 U.S.C. § 9607(f), Section 311 of the CWA, 33 U.S.C. § 1321, and other applicable law, including Subpart G of the National Contingency Plan (NCP), 40 C.F.R. §§ 300.600-300.615. As a Trustee, each Agency is authorized to act on behalf of the public to assess natural resource injuries and recover damages to natural resources and losses of natural resource services attributed to releases of hazardous substances. The federal Authorized Official ("AO") is the DOI official delegated the authority to act on behalf of the Secretary of the Department of the Interior to conduct a natural resource damage assessment and restoration plan. The AO is the Region 3 Regional Director for the U.S. Fish and Wildlife Service, and represents the interests of the Department, including all affected Bureaus**.** In accordance with 42 U.S.C. § 9607(f)(2)(B), the Director of Ohio EPA has been designated the natural resource trustee by the Governor of Ohio pursuant to Executive Order 2000-20T, dated June 26, 2000.
The purpose of the EA is to consider alternative actions to restore, rehabilitate, replace,

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[3] The 1986 Fields Brook Record of Decision (ROD) estimated that approximately 39,000 cubic yards of brook sediment were contaminated and needed to be removed. As part of remedial action in Fields Brook, approximately 24,500 cubic yards of contaminated sediment was removed from the Sediment Operable Unit (SOU), plus 17,500 cubic yards from the Floodplain/Wetland Area (FWA), for a total of 42,000 cubic yards. In 1999 and 2001, the existing RODs were modified due to the discovery of additional contamination. As a result, it is estimated that there are approximately 30,000 cubic yards of Dense Non-Aqueous Phase Liquid (DNAPL) contaminated soil and sediment in Fields Brook and the floodplain.

and/or acquire the equivalent of any natural resource injuries and service losses caused by the release of PCBs and other hazardous substances into the Fields Brook Site, pursuant to applicable State and Federal laws and regulations. This document also serves as the RP for implementing the selected Alternative as required under NRDA regulations.

The Alternative selected in the RP must be consistent with statutory mandates and regulatory procedures that specify that recovered damages are used to undertake feasible, safe, and cost-effective projects that address injured natural resources, consider actual and anticipated conditions, have a reasonable likelihood of success, and are consistent with applicable laws and policies.

2.4 Overview of Damage Determination

Damages recovered by the Trustees for natural resource injuries or service losses due to hazardous substances releases must be used to restore, replace or acquire natural resources or services equivalent to those injured or lost.

DOI has adopted regulations under CERCLA and the CWA establishing procedures for assessing natural resource damages. The Natural Resource Damage Assessment (NRDA) regulations are codified at 43 C.F.R. Part 11. These regulations recognize that such "damages" are to be based on the cost to restore injured resources.

As defined in the NRDA regulations, injury is an adverse biological, chemical, or physical effect on natural resources, such as death, decreased population, or lost services (*i.e.*, hunting opportunities, ecosystem functions). Damages are the estimated dollar value of the injured resources. The objective of the NRDA process is to compensate the public through environmental restoration for injuries to natural resources that have been caused by releases of hazardous substances into the environment. Under Section 107(f)(1) of CERCLA, damage settlements can only be used to restore, rehabilitate, replace, or acquire the equivalent of trust resources injured, destroyed, or lost as a result of the release of hazardous substances**.**

Accordingly, this RP/EA has been developed to evaluate and, ultimately, select restoration projects designed to compensate the public for damages that occurred to natural resources at the Site. The RP/EA is not intended to completely quantify the extent of restoration needed. Implementation of selected restoration projects will occur over a period of time, dependant upon the project type.

The NRDA regulations provide that restoration plans should consider ten factors when evaluating and selecting projects to restore or replace injured natural resources. The following factors will be used to select an Alternative and to compare projects within an Alternative. (See 43 C.F.R. § 11.82)

1. Technical feasibility
2. The relationship of the expected costs of the alternative to the expected benefits
3. Cost-effectiveness

4. The results of actual or planned response actions
5. The potential for additional injury resulting from the proposed actions
6. The natural recovery period
7. Ability of the resources to recover with or without alternative actions
8. Potential effects of the action on human health and safety
9. Consistency with relevant federal, state, and tribal policies
10. Compliance with applicable federal, state, and tribal laws

As discussed, the selected Alternative must restore, rehabilitate, replace and/or acquire the equivalent of those natural resources injured by the discharge or release of PCBs and other hazardous substances at the Site**.** Because the Site is a complex community of invertebrates, fish, wildlife, plants and humans, the Trustees intend to consider as much of the watershed as possible and address areas of potential improvement for the ecosystem as a whole[4].

Based on the recommendations of the Trustee Council and input from the public, the Authorized Official will select one of the alternatives and will determine, based on the facts and recommendations contained herein, and public comment, whether this EA is adequate to support a Finding of No Significant Impact (FONSI), or whether an Environmental Impact Statement (EIS) will need to be prepared.

SECTION 3

Restoration Alternatives

3.1 Alternative A: No Action

The No Action Alternative, required by the National Environmental Policy Act (NEPA), consists of expected conditions under current programs pursued outside the NRDA process. It is the baseline against which other actions can be compared. If this alternative were implemented, the Trustee Council would not initiate specific actions to restore injured natural resources or compensate the public for ongoing natural resource injuries caused by the release of hazardous substances into the environment. Existing environmental degradation not directly related to hazardous substance releases would continue to occur (land development, shoreline hardening, etc.), and perhaps worsen under Alternative A. The state and federal agencies would continue to manage, conserve and protect Fields Brook as outlined in current programs and regulations and within current budget constraints. The public would not be compensated for injuries to natural resources.

3.2 Alternative B: Natural Resource-Based Restoration Within the Assessment Area (Preferred Action)

Alternative B involves projects that would directly restore injured natural resources and also would provide enhanced ecosystem services as compensation for natural resource injuries

[4] As discussed previously, the restoration projects may be implemented outside the boundaries of the Site, and could include projects in or around the Ashtabula River, the watershed and surrounding ecosystem.

caused by hazardous substances. CERCLA authorizes trustees to replace or acquire natural resources equivalent to those injured by hazardous substance releases, in lieu of or in addition to, direct restoration of the injured resources themselves. Natural resources may also be rehabilitated with actions that increase the ecological integrity or viability of resources.

Projects within this alternative would be implemented in the EA area that includes: (see Figure 2)

1) Fields Brook and its tributaries, adjacent flood plain and ecologically associated uplands;
2) Ashtabula River and watershed including adjacent coastal wetlands/dune swale habitat;
3) Tributaries to the Ashtabula River, including adjacent flood plains and ecologically associated uplands;
4) Supporting ecosystems in the Fields Brook and Ashtabula watershed (i.e. near-shore Lake Erie) within the State of Ohio.

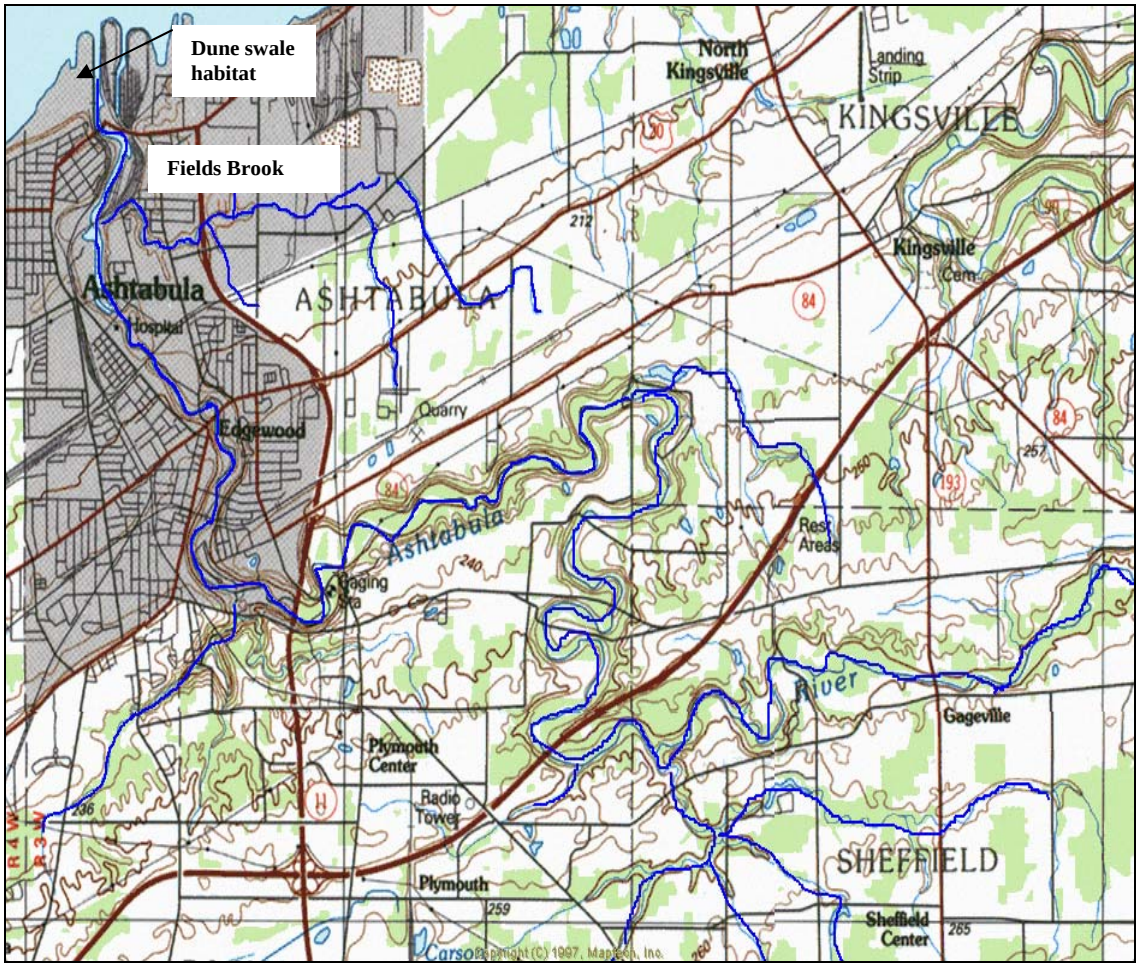

Figure 2: General Restoration Area Alternative B – Preferred Action

Natural resource-based restoration projects include activities or categories such as wetland

reestablishment or preservation, which would provide habitat for fish and wildlife species; aquatic habitat quality improvement projects that would restore and enhance aquatic habitat and public recreational services; and direct resource restoration projects, such as projects designed to improve fish reproduction and recruitment.

The Trustee Council prefers a mix of natural resource restoration projects to provide a broad array of natural resource services throughout the Fields Brook EA area while at the same time enhancing a select group of outdoor recreational activities, for example fishing, that have natural resource benefits to local communities. Thus, a variety of goals are supported. Selecting a mix of restoration projects from the defined categories allows for the recovery of a wider range of injured resources as well as more flexibility for cost-effectiveness and feasibility due to different constraints related to the ecology of the area or ability to find willing participants. Potential benefits of this holistic approach to restoration include creating tracts of continuous valuable habitat or connecting existing habitats. This approach keeps the important linkages between physical, chemical and biological properties of the overall ecosystem.

The Trustee Council anticipates that ecological priorities for all restoration project categories under Alternative B will be influenced primarily by the following key factors:

1) Relationship to injuries (restoration opportunities that address services and values similar to those lost due to the release of hazardous substances are preferred);
2) Quality of restoration opportunities (projects with substantial ecological opportunities are preferred);
3) Ecological function/hydraulic connectivity (areas in proximity to Fields Brook are preferred);
4) Cost and cost-effectiveness (projects with lower cost per restored or replaced services or values are preferred).

Prior to the selection and implementation of any site specific actions, the Trustees will review the specific project proposals to determine if they comply with all applicable requirements: NEPA, Historic Preservation Act, Endangered Species Act, Americans With Disabilities Act, etc.

3.2.1 Wetland and Associated Upland Habitat Preservation, Reestablishment or Enhancement Projects

Restoration of wetlands and ecologically associated uplands would provide increased spawning and nursery habitats, nesting and increased food for a wide variety of fish, birds and other wildlife. Such restoration would provide ecological functions similar to, but not necessarily the same as those injured by hazardous substances.

Wetland and ecologically associated upland reestablishment and enhancement would help replace habitats that have been impaired or destroyed in the Fields Brook EA area. The Trustee Council will focus its efforts on areas where hydraulic alterations or other

modifications have destroyed or impaired former wetlands and/or ecologically associated upland habitats. The Trustee Council's wetland and upland habitat reestablishment and enhancement strategy would include active restoration projects such as creating wetlands (including aquatic vegetation beds), establishing interconnections between surface water and wetlands**,** removal of invasive plant species, and shielding (including using barrier walls) aquatic communities from anthropogenic effects. Low impact techniques such as closing off drainage ditches, disrupting (or not repairing) drain tile systems, and reestablishing wetland plants and other native vegetation in order to reestablish natural characteristics that have been eliminated would also be utilized, as appropriate. The Trustee Council intends to target degraded wetland and upland habitats located in coastal areas, within flood plains, and adjacent to existing valuable natural areas. Wetland and ecologically associated upland reestablishment and enhancement projects that will improve water quality and provide habitat for biological resources, for example fish spawning habitat, are preferred. If a specific restoration project uses alternative techniques or involves more development than described in this section, a site specific NEPA determination would be made.

To preserve wetland and associated uplands, the Trustee Council will focus on acquiring and managing coastal wetlands, wetlands in areas with higher commercial/residential development pressure, and wetlands of high natural quality. Final selection of specific wetlands that would be preserved would include consideration of the ecological value of the wetland habitats, inherent improvement of water quality, ownership/protection opportunities, geographic/ecological diversity, local/regional planning, citizens' concerns and the ability to find willing sellers. Preservation would be obtained through fee title purchase or conservation easements; those obtained in perpetuity will be of higher priority than easements with a fixed duration. Land acquired is usually conveyed to individual state, tribal, federal, or local government agencies, land trusts, or non-governmental conservation organizations following specific procedures and standards for each governmental entity. While the primary purpose of the preservation of land is to protect fish and wildlife habitats, portions of the acquired properties may be available to the public for natural resource based recreational activities such as wildlife viewing, hiking, fishing or hunting.

3.2.2 Fishery Resource Enhancement Projects

The abundance and diversity of fish species that once inhabited the Fields Brook EA area is very different from the fishery currently observed due to anthropogenic impacts including effects of pollutants. In Fields Brook, the data collected prior to remediation under the oversight of U.S. EPA indicated that the fish community was impaired, and did not meet the ecoregional biocriteria for Warmwater Habitat (WWH) headwater streams in Ohio (Ohio EPA 2001). Highly pollution-tolerant species were abundant in certain sampling locations, and comprised almost 85% of the community. The Trustee Council's goals include the achievement of self-sustaining native fish populations and a healthy fish community in the Fields Brook EA area. The Trustee Council will focus on projects that would help to achieve these goals, such as: projects that restore or enhance the diversity and abundance of native predators within the EA area; projects that enhance the abundance and diversity of

native prey fish species; and projects that can effectively control the abundance and

distribution of aquatic nuisance species.

3.2.3 Aquatic and Near-shore Habitat Quality Improvement Projects

Hazardous substances have impaired the water quality and the near-shore aquatic habitat of streams in the Fields Brook EA area. These same resources have been further damaged by encroachment and habitat fragmentation caused by land use changes and development. Specific aquatic habitat quality improvement projects would include protecting, reestablishing or enhancing vital native species spawning and nursery habitat, stream bank corridors with native plant species, and stabilizing stream banks to provide for water quality improvement. Near-shore habitat improvement projects would include the restoration of beach dune habitat, coastal marshes, and wildlife barrier islands.

3.2.4 Natural Resource-Based Public Awareness Projects

This category of projects is intended to promote the improvement in the quality of life for surrounding communities expected to result from the clean up and restoration process. Public awareness projects would take place at parks associated with riverine or coastal habitat recreation, appreciation or education. This would include educational signage, kiosks or other installations that promote fishing and bird watching opportunities and education about the Fields Brook EA area (as well as the history of the area). These projects would facilitate public access to, and thus appreciation of, natural resources.

Parks provide public use and enjoyment functions related to aquatic habitats that are similar to those impaired by the presence of hazardous substances in and around Fields Brook. Rather than supporting public use enhancement projects that do not have ecological benefits, the Trustee Council will support natural resource-based public use enhancement projects that direct high intensity public use activities away from ecologically sensitive areas, thus protecting or preserving the ecological integrity of such areas. While the Trustees support public use enhancement projects, their primary focus is the restoration of natural resources.

3.3 Alternative C: Natural Resource-Based Restoration Within and Beyond the Assessment Area

This alternative includes all the categories of projects outlined in Alternative B, but would restore, rehabilitate, replace, and/or acquire equivalent resources outside as well as within the Fields Brook EA area. The Alternative C area includes the Fields Brook EA area as well as adjacent watersheds that support the ecological balance of aquatic and terrestrial species injured in the Fields Brook and Ashtabula River area: (see Figure 3)

1) Fields Brook and its tributaries, adjacent flood plain and ecologically associated uplands;
2) Ashtabula River and watershed including adjacent coastal wetlands/dune swale habitat;
3) Tributaries to the Ashtabula River, including adjacent flood plains and ecologically associated uplands;

4) Supporting ecosystems within the State of Ohio.

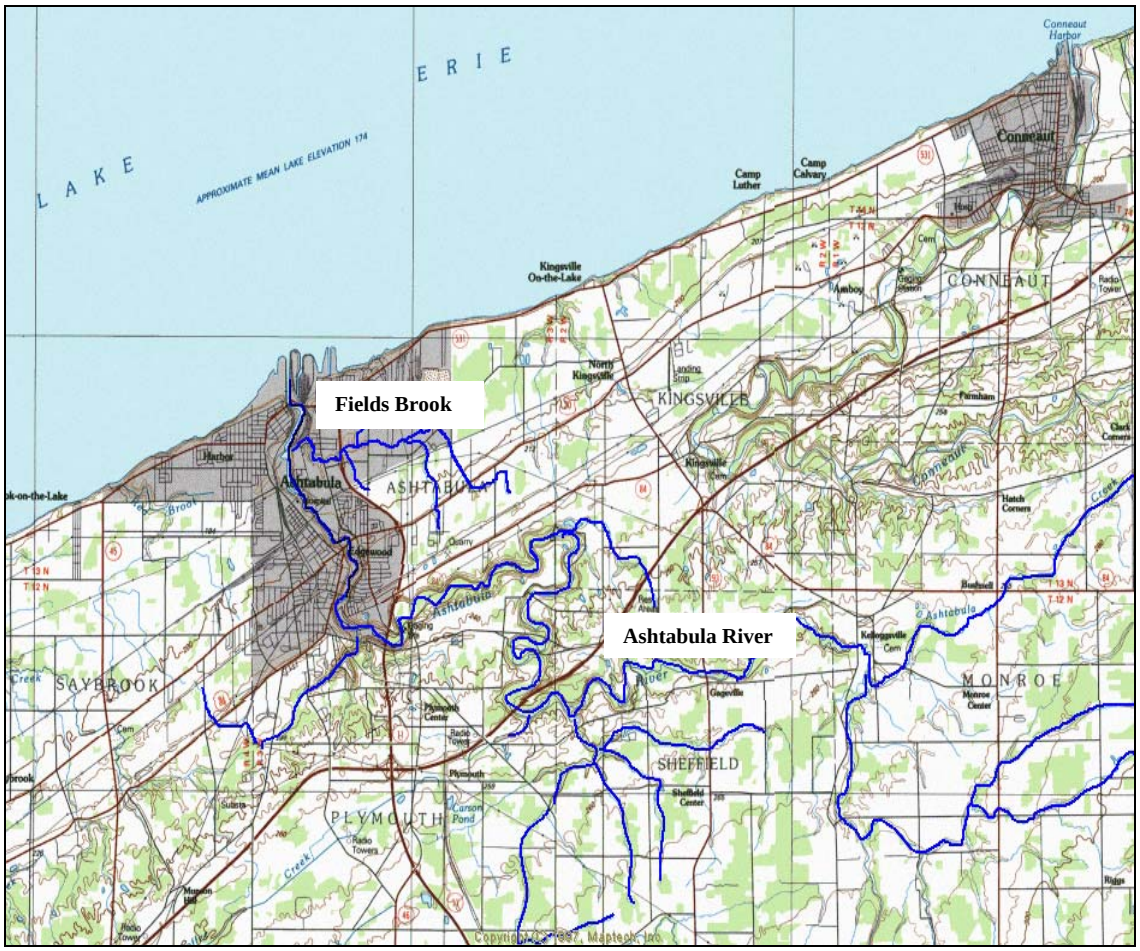

Figure 3: General Restoration Area Alternative C

The Trustee Council recognizes that basic ecological principles must be adhered to so as to achieve maximum benefit from restoration projects. However, projects that serve to restore ecological function to the Fields Brook EA area or those which are hydraulically connected to the Fields Brook EA area are preferred to projects located in upstream or adjacent watersheds. The Trustee Council expects ecological priorities for all restoration project categories under Alternative C will be influenced primarily by the following key factors:

1) Relationship to injuries (restoration opportunities that address services and values similar to those lost due to the release of hazardous substances are preferred);
2) Quality of restoration opportunities (projects with substantial ecological opportunities are preferred);
3) Ecological function/hydraulic connectivity (areas in proximity to the Fields Brook EA area and the restoration area are preferred);
4) Cost and cost-effectiveness (projects with lower cost per restored or replaced services or values are preferred).

Under this Alternative, prior to the selection and implementation of any site specific actions,

the Trustees will review the specific proposals to determine if they comply with all applicable requirements: NEPA, Historic Preservation Act, Endangered Species Act, Americans With Disabilities Act, etc.

3.3.1 Wetland and Associated Upland Habitat Preservation, Reestablishment or Enhancement Projects

The only difference between Alternative B and this category of projects is the geographical extension of the restoration area for wetland and associated upland habitat preservation, reestablishment or enhancement**.**

3.3.2 Fishery Resource Enhancement Projects

The only difference between Alternative B and this category of projects is the geographical extension of the restoration area for fishery resource enhancement projects.

3.3.3 Aquatic Habitat Quality Improvement Projects

The only difference between Alternative B and this category of projects is the geographical extension of the restoration area for aquatic habitat quality improvement projects.

3.3.4 Natural Resource-Based Public Awareness Enhancement Projects

There is no difference between Alternative B and this category of projects. The Trustee Council does not foresee a need to extend the implementation area beyond the Fields Brook EA area.

3.4 Alternatives B and C: Criteria and Priorities for Restoration Project Categories

3.4.1 Technical Feasibility: Projects that use reliable, proven methods are preferred to those that rely on experimental, untested methods. Other factors that can affect project success, such as validity of assumptions inherent to the project approach, will also be considered by the Trustee Council.

3.4.2 Benefit Scope: Restoration projects that provide a broad scope of measurable benefits to a wide area or population are favored over those that are focused on a limited set of benefits to a limited area or population. Natural resource-based restoration projects with a high ratio of expected benefits to expected cost are preferred. This aspect may be assessed relative to other proposed projects that benefit the same resource. Natural resource-based restoration projects should not have disproportionately high costs or low benefits to a localized population. Projects that benefit more than one injured natural resource are expected to be given priority. Wherever possible, natural habitat functions which are self-sustaining and essential to maintain the habitat will be restored, enhanced and/or protected. Projects that provide long-term benefits to the habitat, and which would be established soon after project implementation, will be preferred. If projects provide equal benefits, those with

minimal operation and maintenance activities will be preferred.

3.4.3 Quantifiable benefits: Projects expected to provide quantifiable benefits and likely to achieve success will have a higher priority than projects that do not. Restoration projects should include an evaluation of success and a monitoring component to determine the effectiveness of restoration actions in providing the public with similar services and values to those lost because of the release of hazardous substances into the environment. A timeline outlining the implementation and progression of the restoration project will be used by the Trustee Council to determine completion and success of the project. Overall success of the RP will depend upon success of each restoration project.

3.4.4 Potential Impact: Preference will be given to projects that avoid or minimize additional natural resource injury or environmental degradation. The Trustee Council will require that requisite permits are obtained and applicable regulations are complied with. All projects selected for implementation will be expected to comply with applicable and relevant laws, policies and regulations. To assure that Federally-listed threatened or endangered species will not be adversely affected, or proposed species are not jeopardized, the Trustee Council will require that the guidelines outlined in Appendix A are followed during implementation of NRDA restoration activities.

3.4.5 Other project support: Preference is expected to be given to projects or aspects of Trustee Council projects that are not already being implemented or have insufficient funding under other programs. Although the Trustee Council may use restoration planning efforts completed by other programs, preference is given to projects that would not otherwise be implemented without NRDA restoration funds. Preference will be given by the Trustee Council to projects which have a high degree of local support, especially if there are partial supplemental sources of funding or in-kind services available.

3.4.6 Voluntary land acquisition/easements: Preservation of habitats through acquisition of land or easements will only be from willing sellers or participants. Landowners are under no obligation to sell land to the government agencies associated with the Trustee Council. Neighbors adjacent to land purchased for preservation under this RP will retain all of their current rights to their land. The government agencies are required to pay fair market value for land purchased. Fair market value would be determined through established appraisal procedures.

3.4.7 Tribal Cultural Resources: The preservation or restoration of specific areas or resources that have appreciable cultural value to Indian tribes are important to the Trustee Council. A search of the Native American Consultant Database maintained by the National Park Service identified no Indian tribes with relevant interest in Ashtabula County.

3.5 Preferred Alternative

The Trustee Council has recommended Alternative B as the Preferred Alternative. The larger geographic area associated with Alternative C does not match the funds that are currently available for the restoration of the Fields Brook EA area. In order to concentrate

funds on restoring resources that were impacted by the release of PCBs and other hazardous substances at the Fields Brook Site, Alternative B has been selected as the Preferred Alternative for this Final RP/EA. The final decision on the selected alternative will be made by the state and federal authorized officials based on recommendations from the Trustee Council staff and input from the public.

3.6 Summary of Alternative Actions

Table 1: Comparison of Alternatives A, B & C

Actions	**Alternative A** (No Action)	**Alternative B** (Natural Resource-Based Restoration Within the Assessment Area (Preferred Action))	**Alternative C** (Natural Resource-Based Restoration Within and Beyond the Assessment Area)
Restore, rehabilitate, replace and/or acquire the equivalent of natural resources injured from the release of hazardous substances into the environment and services those resources provide	No	Yes	Yes, same as Alternative B but over a larger geographic area
Rehabilitate wetlands and associated upland habitat	No	Yes	Yes, same as Alternative B but over a larger geographic area
Improve aquatic habitat and near-shore habitat	No	Yes	Yes, same as Alternative B but over a larger geographic area
Provide for enhancement of abundance and diversity of self-sustaining fish populations	No	Yes	Yes, same as Alternative B but over a larger geographic area
Preservation of wetlands and associated upland habitat	No	Yes	Yes, same as Alternative B but over a larger geographic area
Improve outdoor recreational opportunities/enhance public awareness	No	Yes	Yes, same as Alternative B

SECTION 4

Affected Environment

As part of the larger Lake Erie and Great Lakes eco-region, the Fields Brook EA area, including the Ashtabula River, forms a unique and important ecosystem. The terrestrial, wetland, and aquatic habitats of the Fields Brook EA area support a wide diversity of birds, fish, and mammals, including many rare, threatened, and endangered species. The health of the ecosystem and the quality of its habitats are vital to the invertebrates, plants, fish, and wildlife of the area. Public uses and enjoyment of these resources also depend on the health and quality of the Fields Brook EA area.

4.1 Physical Characteristics

The restoration area is located in northeastern Ohio in Ashtabula County, 55 miles east of Cleveland. Fields Brook is a tributary to the Ashtabula River that flows into Lake Erie. Fields Brook ranges from one foot in upstream reaches to more than twelve feet wide at its confluence with the Ashtabula River and is on average one to two foot deep. The bedrock in the area slopes towards Lake Erie and varies in depth from 0-60 feet. The predominant soils in the area are silt and clay. This area is impermeable glacial till. The climate of the restoration area is seasonal and continental, with an average July high air temperature of 82.4 degrees Fahrenheit, and an average January low air temperature of 17.6 degrees Fahrenheit. Annual precipitation is approximately 36.6 inches.

4.2 Biological Environment

4.2.1 Habitat/Vegetation

In the downstream reaches of the Fields Brook floodplain/wetland, habitat consists of forest dominated by maple *(Acer sp.)*, black cherry *(Prunus serotina)*, ash *(Fraxinus sp.)*, and oak *(Quercus sp.)* trees. 'High quality' natural forest (primarily comprised of native species) exists on the east valley wall of the Ashtabula River just south of the mouth of Fields Brook. Non-native species, including garlic mustard *(Allaria petiolata)* and Japanese honeysuckle *(Lonicera japonica)*, exist as the under-story vegetation in the forest south of Fields Brook (around Riverside Marina). In upper reaches, forest cover is lower where shrubs and herbaceous vegetation predominate. Herbaceous wetlands (containing common reed species) dominate large sections of the Fields Brook floodplain, especially in the upper reaches. East of the Ashtabula River mouth (near Walnut Beach) there is an important sand dune system. The sand dunes, dominated by beach grass, have been cited by a Cleveland Museum of Natural History Curator as one of the finest beach grass dunes in Ohio (Ashtabula River Partnership 2001).

4.2.2 Listed, Proposed, and Candidate Species

The Fields Brook Superfund Site falls within range of the Indiana bat, piping plover, and clubshell mussel, Federally-listed endangered species. An endangered species is any

species that is in danger of extinction throughout all or a significant portion of its range. The site is also within range of the bald eagle, a Federally-listed threatened species, and the eastern massasauga, a candidate for Federal listing. A threatened species is likely to become endangered in the foreseeable future. A candidate species is a species for which the Fish and Wildlife Service has sufficient information on their biological status and threats to propose listing them as endangered or threatened under the Endangered Species Act, but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

The Federally-listed species discussed above are potentially present in the restoration area boundaries for both Alternative B & C. The following sections provide additional information on Federally-listed species.

4.2.2.1 Birds

Piping plover *(Charadrius melodus)* habitat includes sand or pebble beaches with sparse vegetation along the shore of Lake Erie. The piping plover was designated as endangered in the Great Lakes watershed in December 1985. The decline in piping plover populations has been linked to natural and human caused factors such as high water levels, eroding beaches, beach front commercial and residential development. Critical habitat for the piping plover was designated in 2001 at Headlands Dune in neighboring Lake County and Sheldon Marsh in north central Ohio's Erie County. Critical habitat is an area that is essential for the conservation of a threatened or endangered species that may require special management and protection.

A bald eagle *(Haliaeetus leucocephalus)* nest has been documented in southern Ashtabula County at Rock Creek. Bald eagles build large stick nests lined with soft materials such as grass, leaves, and Spanish moss. Nests are used for several years by the same pair of eagles, with the birds adding materials each year. The bald eagle was designated as endangered in the lower 48 states in March of 1967 due to declining populations resulting from chemical usage, shooting and persecution of individual birds, and the loss of nesting habitat due to development along the coast and near inland rivers and waterways. After years of protection, decrease in chemical usage in the United States, and education against shooting eagles, there was an increase in eagle populations. The bald eagle was down-listed to threatened in 1995.

4.2.2.2 Mammals

The Indiana bat *(Myotis sodalis)* was designated as endangered throughout its range in March of 1967. Limestone caves are used for winter hibernation. The decline of this species has been attributed mainly to human disruption and commercialization of roosting caves. During the summer months, the bats roost in trees which have exfoliating bark, and dead or live trees with split tree trunks and/or branches, and cavities (that may be used as maternity or male roost areas). Stream corridors, riparian areas, and upland woodlots provide forage sites.

4.2.2.3 Aquatic organisms

The clubshell mussel *(Pleurobema clava)* was designated as endangered throughout its entire range in January of 1993. Impacts to this species include runoff and channelization, domestic and commercial pollution, in-stream sand and gravel mining, impoundment, and zebra/quagga mussel infestation. These mussels occur in small rivers and streams in clean sweep sand and gravel. They have been found to bury themselves in clean, loose sand to a depth of 2-4 inches. The fish host species for the larvae is the striped shiner. This mussel was last observed in southern Ashtabula County, Wayne Township, in the Pymatuning Creek watershed by ODNR in August of 1993.

4.2.2.4 Reptiles

The eastern massasauga *(Sistrurus catenatus)* was elevated to Federal Candidate status in 1999. Destruction and modification of habitat is the main threat to this species. The massasauga is a small to medium sized snake that inhabits various wetland types as well as dry, well-drained sandy uplands. This snake has been previously documented in Ashtabula County (2003 is the latest observation recorded by ODNR in the county).

4.2.2.5 State Listed Species

In addition to Federally-listed endangered and threatened species, the state of Ohio Department of Natural Resources Division of Natural Areas and Preserves maintains a database of rare plants and animals. The following general listing categories are used: (1) endangered, a native species or subspecies threatened with extirpation from the state. This danger may result from one or more causes, such as habitat loss, pollution, predation, interspecific competition or disease; (2) threatened, a species or subspecies whose survival in Ohio is not in immediate jeopardy, but to which a threat exists. Continued or increased stress will result in its becoming endangered; and (3) species of concern, a species or subspecies which might become threatened in Ohio under continued or increased stress, or a species or subspecies for which there is some concern but for which information is insufficient to permit an adequate status evaluation. In Ashtabula County, there are 32 endangered, 34 threatened, and 13 species of special concern. Section 3.2.3 discusses some of these and other Ohio species. The Ohio Natural Heritage Database includes the following state threatened and endangered fish, wildlife, and plants that could be found in the Ashtabula River watershed: barn owl *(Tyto alba)*, burbot *(Lota lota)*, Great Lakes crayfish *(Orconectes propinquus)*, mourning warbler *(Oporornis philadelphia)*, sora *(Porzana carolina)*, spotted turtle *(Clemmys guttata)*, Virginia rail *(Rallus limicola)*, American beach grass (*Ammopbila brviligulata*), sea rocket (*Cakile edentula*), and inland beach pea (*Lathyrus japonicus*).

4.2.3 Other Fish and Wildlife Species

The following section provides a general list of fish and wildlife found in the Fields Brook EA. Additional species may be found, especially within the boundaries of

Alternative C. The Ashtabula River, Ashtabula Harbor, and adjacent Lake Erie contain a variety of habitats and a diverse assemblage of fish and wildlife species, which have been exposed to and/or injured by hazardous substances. The Ashtabula Harbor is located on both the Atlantic and the Mississippi flyways, with over 3 million ducks and geese using this corridor (see Figure 4). Many migratory bird species nest on the outer breakwalls and wetlands near the river. These include, but are not limited to, the osprey *(Pandion haliaetus)*, wood duck *(Aix sponsa)*, Canada goose *(Branta canadensis)*, common merganser *(Mergus merganser)*, great blue heron *(Ardea herodias)*, cliff swallow *(Hirundo pyrrhonta)*, tree swallow *(Tachycineta bicolor)*, Caspian tern *(Sterna caspia)*, Forster's tern *(Sterna forsteri)*, common tern *(Sterna hirundo)*, mallard *(Anas platyrhynchus)*, black duck *(Anas rubripes)*, lesser scaup *(Aythya affinis)*, and kingfisher *(Ceryle alcyon)*. Numerous additional species of migratory neotropical songbirds inhabit the area seasonally. Bobcat *(Lynx rufus)* and black bear *(Ursus americanus)*, both state listed species, were documented in Ashtabula County in 2000. Smaller mammals likely to use the Fields Brook EA area include opossum *(Didelphis virginiana)*, eastern cottontail rabbit *(Sylvilvagus floridanus)*, eastern chipmunk *(Tamias striatus)*, woodchuck *(Marmota monax)*, eastern gray squirrel *(Sciurus gireus)*, red fox *(Vulpes fulva)*, striped skunk *(Mephitis mephitis)*, and raccoon *(Procyon lotor)*.

During favorable water conditions, various lake and stream fish species migrate to and from the lower Ashtabula River. In the spring, spawning migration runs of walleye and smallmouth bass can be expected (U.S. FWS 1987). Fish species in the Ashtabula River and Harbor include, but are not limited to, yellow perch (*Perca flavescens*), white bass (*Morone chrysops*), pumpkinseed (*Lepomis gibbosus*), white crappie (*Pomoxis annularis*), goldfish (*Carassius auratus*), emerald shiner (*Notropis atherinoides*), gizzard shad (*Dorosoma cepedianum*), common carp (*Cyprinus carpio*), brown bullhead (*Ictalurus nebulosus*), alewife (*Alosa pseudoharangus*), smallmouth bass (*Micropterus dolomieui*), rainbow smelt (*Osmerus mordax*), Johnny darter (*Etheostoma nigrum*), walleye (*Stizostedion vitreum*), rainbow trout (*Oncorhynchus mykiss*), spottail shiner (*Notropis hudsonius*), log perch (*Percina caprodes*), freshwater drum (*Aplodinotus grunniens*), lake sturgeon (*Acipenser fulvescens*) white suckers (*Catostomus commersoni*), coho salmon *(Oncorhynchus kisutch)* and Chinook salmon *(Oncorhynchus tschawytscha)*. Rainbow smelt *(Osmerus mordax)*, rainbow trout *(Oncorhynchus mykiss)*, coho salmon *(Oncorhynchus kisutch)* and Chinook salmon *(Oncorhynchus tschawytscha)* are anadromous fish species. Great Lakes populations of lake trout *(Salvelinus namaycush)*, yellow perch *(Perca flavescens)*, lake sturgeon *(Acipenser fulvescens)*, walleye *(Stizostedion vitreum)*, and forage fish are nationally significant fish stocks pursuant to the Great Lakes Fish and Wildlife Restoration Act. Three fish species of Special Concern in Ohio have been listed in the Ashtabula River lacustuary. These are the Great Lakes muskellunge, blacknose shiner, and lake sturgeon. In addition, a variety of reptile and amphibian species are potentially present at Fields Brook, including snapping turtle *(Chelydra serpentine)*, green frog *(Rana clamitans)*, and eastern milk snake *(Lampropeltis triangulum)* (U.S. FWS 2001).

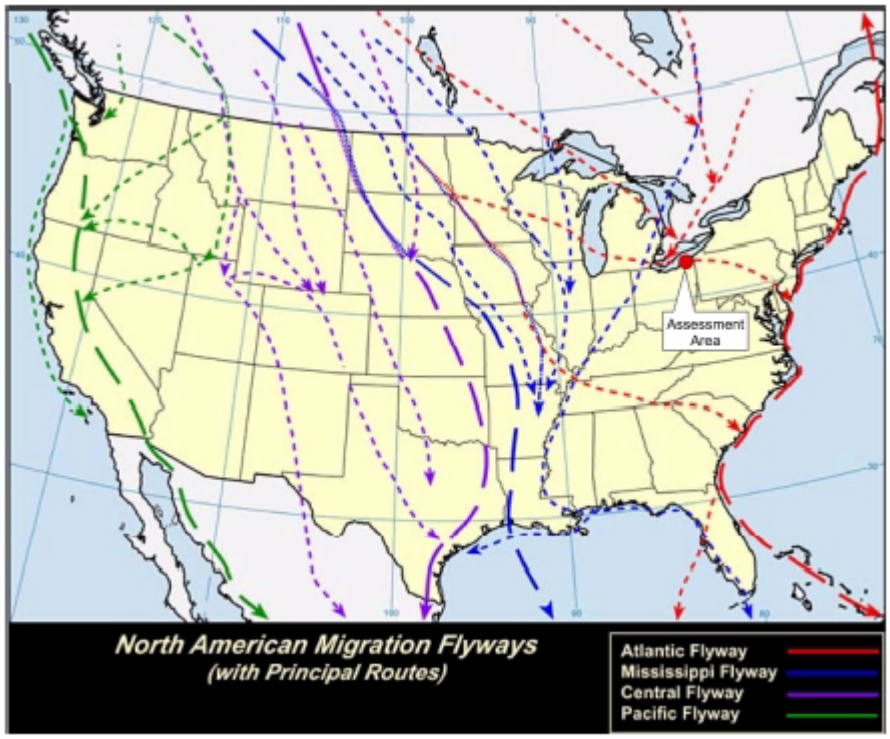

Figure 4: North American Migration Flyways – Atlantic flyway through Ashtabula County, Ohio (map modified from http://birdnature.com//allflyways.html)

4.3 Land Use

The Fields Brook area is comprised of a mix of residential, industrial, and undeveloped land. Approximately 75% of land use in Ashtabula County is agricultural/rural. Less than ten percent was residential in 1980, with the City of Ashtabula the only major urbanized area. Aerial photos comparing overall land use in the Fields Brook and Ashtabula River area between 1938 and 1994 is presented in Appendix B.

4.4 Cultural Resources

Historically, along the banks of the Ashtabula River, there were large conical mounds in which human skeletons were found. The mounds have since been destroyed (Ashtabula River Partnership 2001). As of November 1, 2003, the county of Ashtabula contains 36 properties listed on the National Register of Historic Places, of which nine are in the city of Ashtabula.

4.5 Local Socioeconomic Conditions

According to the U.S. Census Bureau, Ashtabula County and the City of Ashtabula had 102,728 and 20,962 people respectively in 2000. Ashtabula City is the only major urban center in the watershed. There are several parks in the Ashtabula City area. Agriculture and rural areas can be found throughout the remainder of the drainage basin. Ashtabula

Harbor is located at the mouth of the Ashtabula River on the south shore of Lake Erie, and is an important commercial harbor on Lake Erie. Land use in the harbor area includes industrial, commercial, residential, park, public use, and marina. Commodities such as iron ore, coal, other bulk commodities, and general cargo transit the harbor. Approximately 4.0 million tons of ore and 6.0 million tons of coal are transported per year (Ashtabula River Partnership 2001).

SECTION 5

Environmental Consequences

5.1 Alternative A: No Action

5.1.1 Habitat Impacts

Under this alternative, no habitat would be restored, enhanced, or preserved beyond what the Trustees are currently doing within mandates, policies and restricted budgets. Loss of habitat due to development and other sources of environmental degradation not related to hazardous substance releases is expected to continue to occur. The public would not be compensated for injuries to natural resources from the release of hazardous substances into the environment.

5.1.2 Biological Impacts

Fish and wildlife harmed by the release of hazardous substances into the environment would not be restored, rehabilitated, replaced or the equivalent acquired. Populations of fish and wildlife species that rely on wetlands for spawning and nurseries would not increase sufficiently to compensate for past losses.

5.1.3 Listed, Proposed, and Candidate Species

Negative impacts to listed species would not be reduced under this alternative.

5.1.4 Cultural Resources

No cultural resources have been identified.

5.1.5 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 Federal Register 7629 (1994)), directs federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate, any disproportionately high and adverse environmental effects of their programs, policies and activities on minority or low-income populations.

Under the No Action alternative, wildlife viewing and environmental education opportunities would not improve through enhancement projects. While affluent individuals can afford travel and pay for alternatives, low-income individuals are less capable of doing so.

5.1.6 Socioeconomic Impacts

This alternative would not result in any positive indirect impacts on the local economy. This alternative would not result in additional lands that could provide increased recreational opportunities and related economic development in the area.

5.1.7 Cumulative Impacts

If this alternative were implemented, the cumulative impacts would be adverse to the environment. The exclusive reliance on regulations and policies do not necessarily provide for long term preservation of valuable wetland and upland habitats. The upper watershed of the Ashtabula River includes many different habitats, such as floodplains forests, dry upland forests, and hemlock ravines. Numerous palustrine emergent and forested wetland areas are located throughout the Fields Brook EA area, including Ashtabula Township. Deep open water fisheries exist inside and outside the stone breakwaters of Ashtabula Harbor. Birds use the shoreline along Ashtabula Harbor as Lake Erie migration corridor habitat. Impacts to these and other resources within the Fields Brook EA area continue due to historical and on-going development. For example, channelization and vessel activity has severely limited aquatic/fishery shallow areas in Ashtabula. These types of impacts are foreseeable in the future with potential maintenance or expansions of existing structures, or new construction. No fishery resource enhancement projects would be implemented under the No Action alternative, thus further impacting the Lake Erie fishery. The loss and degradation of coastal and riparian wetlands would contribute to the continued instability of the fish community in the Ashtabula River and Lake Erie. The continued loss of habitat could also adversely affect migratory birds that use the area for resting grounds, and nesting area for those species that remain for the nesting season.

5.2 Elements Common to Alternatives B and C

5.2.1 Habitat Impacts

Preserving, restoring or enhancing wetlands and upland habitats impacted by hazardous substances improves the ecological functions of the Fields Brook EA area that are essential for many fish and wildlife species. In addition, wetland restoration and preservation also improves public use and enjoyment of these resources. Benefits of aquatic and near-shore habitat improvements or enhancement would include improved water quality, restored habitat for fish and wildlife species, and increased ecological productivity. Improving the quality of aquatic vegetation and habitat for fish and birds would provide similar, though not the same ecological functions as those injured by

hazardous substances. These and other long-term benefits outweigh any adverse impacts associated with specific habitat restoration or enhancement methods.

Under Alternatives B and C, there would be minimal short-term impacts to habitat due to the needed manipulation of soil to complete wetland and aquatic habitat restoration or enhancement projects. Some permanent impacts could occur in the event of destruction of habitat for trails, boat ramps, or other public use facilities. However, these same projects would also direct and control human impacts on those resources.

5.2.2 Biological Impacts

The restoration alternatives would benefit many different species of fish and wildlife found in the Fields Brook EA area. Preservation, reestablishment and enhancement of wetland, associated upland and aquatic habitats would benefit such species as waterfowl, rails, terns, songbirds, osprey, mink, beaver, and northern pike. Fishery resource enhancement projects would directly benefit species such as the eastern sand darter, big eye chub, and river redhorse, leading to the development of a balanced, healthy fish community. Through the aquatic habitat quality improvement projects there would be an increase in shallow waters and beds of submergent and emergent vegetation providing habitat for migrating waterfowl, feeding areas for shorebirds, waterbirds and many species of fish found in the Fields Brook EA area. There would be minimal negative impacts to biological resources from human disturbance in relation to use of preserved areas and natural resource-based public use projects. The public use projects would also protect and potentially minimize human disturbance to fish and wildlife by controlling human impacts on those resources.

5.2.3 Listed, Proposed, and Candidate Species

Federal and State listed or endangered species would receive further protection and aid in the recovery of the species if either of these alternatives were implemented. Wetland, associated upland and aquatic habitat preservation would most likely benefit bald eagle, eastern massasauga, and Indiana bat. Protective measures (Appendix A) would be taken during implementation of any projects. Adherence to the restrictions should provide for no adverse effects on the listed species.

5.2.3.1 Birds

Bald eagle nesting and prey species could be directly or indirectly reestablished, enhanced, or preserved through the restoration alternatives. Alternatives B and C could include protection or acquisition of habitat needed by the piping plover for nesting.

5.2.3.2 Mammals

The Indiana bat may use stream corridors or uplands restored or acquired under Alternative B or C. State listed species such as the black bear or the bobcat may use lands restored or acquired under Alternatives B or C.

5.2.3.3 Reptiles

Populations of the Federal Candidate species eastern massasauga snake, and the state listed (Threatened) spotted turtle *(Chlemmys guttata)*, have been affected by habitat fragmentation and encroachment throughout their range. These species may benefit from projects involving restoration of habitats such as wetlands and associated uplands.

5.2.3.4 Aquatic organisms

The clubshell mussel and other mussel species (i.e. state threatened black sandshell *(Ligumia recta)*) require clean waterways. Mussel populations may return to surrounding waterways once aquatic and near-shore habitat restoration projects improve overall water quality in the Fields Brook EA area.

5.2.3.5 Plants

Although there are no known Federally-listed plant species, there are many state listed plant species within Ashtabula Township and Ashtabula County. Per the Ohio Department of Natural Resources Natural Heritage database, there are twenty-six state listed endangered and thirty state listed threatened plant species in Ashtabula County. These species include American beach grass (*Ammopbila brviligulata*), deer's tongue arrowhead (*Sagittaria rigida*), inland beach pea (*Lathyrus japonicus*), northern blue-eyed grass (*Sisyrinchium montanum*), Schweinitz' umbrella sedge (*Cyperus schwein-itzii*), and sea rocket (*Cakile edentula)*. Wafer ash (*Ptelea trifoliate*) is a dune shrub found along Lake Erie that is otherwise rarely found east of Cleveland. The giant swallowtail butterfly is often found in association with the wafer ash.

5.2.4 Cultural Resources

Projects covered under this EA such as plugging drainage ditches, breaking tile systems, stabilizing stream banks, acquiring wetlands, and development for public uses or other eventual development on acquired lands have the potential to affect properties meeting the criteria for the Natural Register of Historic Places and other cultural resources. Specific areas for wetland restorations, streambank stabilization, and land acquisition have not been determined. When these project areas have been determined, and prior to making final decisions about these projects, the Field Supervisor, Reynoldsburg Ecological Field Office, will initiate consultation with the Ohio State Historic Preservation Officer and, with the assistance of the FWS Regional Historic Preservation Officer, will complete the Section 106 process as described in 36 Code of Federal Regulations Part 800.

5.2.5 Environmental Justice

Wetland and upland preservation would involve transactions with willing landowners. No minority or low-income populations would be displaced or negatively affected in any way. While the primary purpose of the restoration of this land is for fish and wildlife,

portions of the acquired properties may be used by the public for natural resource based recreational/educational activities such as wildlife viewing. Aquatic habitat improvement would also enhance recreational opportunities in and around Ashtabula River.

5.2.6 Socioeconomic Impacts

The overall quality of life for the surrounding communities would improve with the restoration of the Fields Brook EA area. Protection of wetlands and uplands would provide wildlife viewing, fishing and hunting, and help create positive economic impacts on the local economy. Aquatic habitat improvements or enhancements would provide for more opportunities for public enjoyment of natural resources.

Acquisition procedures of land would involve transactions with willing sellers who would be paid fair market value. There would be little or no impact on the market price or on landowners in the area who choose not to sell. There would be minimum effects on the local economy and tax base because the areas targeted for preservation are currently undeveloped.

5.3 Alternative B: Natural Resource-Based Restoration Within the Assessment Area (Preferred Action)

5.3.1 Elements Common to All Impacts

Other impairments to the ecosystem such as pollution associated with development would continue to affect the assessment area where restoration projects would be implemented. These additional sources of impact may also inhibit the ability of the natural resources to fully recover or may negatively impact other restoration projects undertaken by the Trustee Council.

5.3.2 Cumulative Impacts

To begin restoring the overall ecology of the Fields Brook EA area and achieve maximum benefit from those restoration projects implemented, the complete watershed, including headwaters and subbasins, needs to be addressed. Alternative B implements restoration projects within the entire affected watershed.

Cumulative impacts from habitat restoration or enhancement implemented under Alternative B would positively affect the region as a whole. Despite the existence of laws and regulations designed to minimize wetland and aquatic habitat losses and impacts, threats to wetlands and aquatic habitat from indirect impacts, cumulative small scale impacts, or surrounding land use changes still exist. Partnering with various state and federal programs (EPA’s Section 319 Clean Water Act State Grants, National Coastal Wetlands Conservation Grants, etc) that already contribute to improving the health of the ecosystems and watersheds will aid in restoring more habitats and increasing fish and wildlife populations.

Migratory birds would benefit from this Alternative because there would be more undisturbed areas for spring and fall migration resting and feeding stopovers as well as nesting habitat for other bird species. This Alternative would contribute to the stabilization of fish communities by implementing appropriate fishery resource projects such as restoring fish spawning and nursery habitats.

5.4 Alternative C: Natural Resource-Based Restoration Within and Beyond the Assessment Area

5.4.1 Elements Common to All Impacts

Alternative C includes the extension of the project area of implementation to watersheds adjacent to Fields Brook and Ashtabula River systems and their tributaries. Land acquired in the restoration area would include properties that currently deliver (or can deliver through restoration or enhancement) ecological services that may never be replaced or would take a long time to recover. Restoration or enhancement projects in the restoration area would enhance recovery time and reduce the compensable damages to the public. Under this alternative the ecosystem can be looked at as a whole regarding restoration.

5.4.2 Cumulative Impacts

Alternative C would contribute to the effort of the region from various partnership groups and local planning groups. Restoration, enhancement, habitat acquisition, and fishery resource enhancement projects would positively affect the region as a whole in conjunction with other programs. Alternative C would provide for opportunities to add to and connect the currently protected habitats over a larger geographic area. Alternative C would also establish larger tracts of continuous valuable habitat that would benefit fish and wildlife species in the area.

5.5 Summary of Environmental Consequences for each Alternative

Table 2: Comparison of Alternative A, B & C Environmental Consequences

Attributes	Alternative A (No Action)	Alternative B (Restoration Within the Assessment Area (Preferred Action))	Alternative C (Restoration Within and Beyond Assessment Area)
Wetlands	Expected continued net loss of habitat	Increase of wetland habitat	Provide additional wetland habitat due to extended restoration area (additional protection from development)
Uplands associated with wetlands	Continued net loss of habitat	Increase of upland habitat associated with wetlands	Provide additional upland habitat due to extended restoration area (additional protection from development)
Aquatic and near-shore habitat	Continued degradation and loss of habitat	Increase of aquatic habitat	Provide additional upland habitat due to extended restoration area (additional protection from development)
Fish resources	Populations would remain unbalanced for a greater length of time	Increase diversity of fish community and populations	Provide additional protection
Wildlife resources	Continued harm and decrease of numbers	Increase in populations	Provide additional protection
Listed threatened or endangered species	Negative impacts would continue	Provide further recovery of species in the area	Potential protection of additional species
Cultural resources	N/A	Adverse impacts are possible	Adverse impacts are possible
Surface water	Remain degraded due to sediment and nutrient loading and historic pollution in sediment	Increase in surface water quality	Surface water quality would be improved beyond Alternative B and greatly improved beyond Alternative A
Environmental justice issues	No opportunities for increased quality of life	Increased quality of life in Ashtabula Township/County	Provide increase in quality of life for additional communities
Socioeconomic issues	Local economy would remain the same or decrease due to continued injury without restoration	Local economy could potentially increase due to restoration	Increase likelihood of restoration benefiting local economy due to greater geographic region

Attributes	Alternative A (No Action)	Alternative B (Restoration Within the Assessment Area (Preferred Action))	Alternative C (Restoration Within and Beyond Assessment Area)
Recreational use Environmental education and resource enjoyment	No enhancement or increase of low impact recreational opportunities or environmental education	Increase opportunities for wildlife/bird viewing, fishing as well as enhancement of understanding of the ecosystem	Further enhancement of wildlife/bird viewing and fishing opportunities as well as enhancement of understanding of the ecosystem
Cumulative impacts	Potential decrease in populations of migratory birds, continued degraded fishery and continued loss of wetland and associated upland habitat in the Fields Brook EA area	Increase populations of migratory birds and greater diversity in the fish community; some ecosystem functions are to be restored or compensated	Increase populations of migratory birds and greater diversity of fish community; ecosystem functions are able to be restored

SECTION 6

Consultation and Coordination with the Public and Others

6.1 National Historic Preservation Act Compliance

The U.S. Fish and Wildlife Service's Project Leader for Reynoldsburg Ecological Services will provide the State Historic Preservation Officers with this Restoration Plan and Environmental Assessment as part of the public review and comment process.

6.2 Endangered Species Act Compliance

This Restoration Plan and Environmental Assessment complies with Section 7 of the Endangered Species Act (ESA) of 1973 as amended, 16 U.S.C. § 1531, *et seq.*, and its implementing regulation (50 C.F.R. 402) (Appendix A).

6.3 Public Participation

Public review of the Initial RP/EA was an integral component of the assessment and restoration planning process. Through the public review process, the Trustees were seeking public comment on the actions proposed to restore injured natural resources or replace lost resource services.

The Initial RP/EA was available for review and comment by the public. A public meeting was held April 27, 2004 to present the restoration actions proposed to compensate the public for injuries to those natural resources covered herein.

6.4 Restoration Project Proposal Process

The Trustee Council have established a general and informal project proposal process. The Trustees are soliciting restoration project ideas from the public. Ideas may be submitted to Ohio EPA or the Fish and Wildlife Service by September 2004. If additional information on specific project ideas submitted is required, the Trustees will contact those individuals.

SECTION 7

Public Comment on Initial Restoration Plan & Environmental Assessment

This section presents comments received on the Initial Restoration Plan and Environmental Assessment (EA) and provides the Trustees' responses to the comments.

PRIVATE INDIVIDUAL COMMENTS

Comments on Section 2.1 (of the Environmental Assessment)
The Fields Brook NPL Site – Summary of Release History
The Lower Ashtabula River is listed as an Operable Unit under Fields Brook. This is relevant to establishing prospective Walnut Beach projects under the preferred Action. (private individual)

Response: *The information regarding Ashtabula River has been added to the Restoration Plan (Section 1). The Trustees believe they have acknowledged the relevancy of the Walnut Beach area to Fields Brook restoration, as Walnut Beach's unique dune/swale habitat is already included in the language describing the assessment area within Alternative B, the preferred action.*

The Trustees have provided a summary response to the following comments (Section 2.2 to Section 9), which were provided by the same private individual:

Comments on Section 2.2 Natural Resources Injuries
An Environmental Assessment performed by the U.S. Army Corp of Engineers under the Water Resource Development Act, Section 312(b), Ecological Restoration/Preservation Analysis, has established damage to fish resource within the Ashtabula Harbor. This was established by an observed elevated rate of tumors on Yellow Bullhead.
This is relevant to establishing prospective Walnut Beach projects under Alternative B: Natural Resource Within the Assessment Area (Preferred Action).

Comments on Section 3.2 Alternative B: Natural Resource – Based Restoration Within the Assessment Area (Preferred Action)
An Environmental Assessment performed by the US Army Corp of Engineers under the Water Resource Development Act, Section 312(b), Ecological Restoration/Preservation

Analysis, has established damage to fish resource within the Ashtabula Harbor. This was established by an observed elevated rate of tumors on Yellow Bullhead. Therefore, Walnut Beach restoration projects should be specifically listed under Alternative B, Preferred Action.

The Dune Swale habitat is listed as part of the Assessment Area for Preferred Action (see Figure 2). However, there are no projects involving Walnut Beach listed under Alternative B (Preferred Actions).

The following projects should be specifically listed in Section 3.2 as options for Natural Resource Preferred Action;

Invasive Plant Species Eradication - The habitat behind the breakwall is rapidly becoming overrun by *Phragmities*. This encroachment of an invasive plant species, if left unchecked, will develop into a monoculture drastically impacting this unique and threatened habitat. An ongoing Pilot Study for Walnut Beach Coastal Management demonstrates the cost effectiveness of employed methods to eradicate *Phragmities*.

Avian Habitat – The habitat behind the breakwall include habitat for endangered shore birds and migratory waterfowl.

Comments on Section 3.2.2 Fishery Resource Enhancement Projects
The habitat behind the breakwall includes inlets that are valuable warm water habitat (WWH) for Lake Erie spawning fish. Presently, a large portion of this inlet habitat is isolated from Lake Erie by a beaver dam, limiting the access of spawning fish to this valuable WWH fishery.

A project to control the beaver and remove the dam will improve the accessibility of this WWH fishery for spawning fish from Lake Erie.

Comments on Section 3.2.3 Aquatic and Near Shore Habitat Quality Improvement Projects
The habitat behind the breakwall is rapidly becoming overrun by *Phragmities*. A project to eradicate *Phragmites* will restore habitat that is essential for endangered plant species and improve habitat that is essential for endangered shore birds and migratory waterfowl.

Beaver are destroying all trees along the perimeter of a beaver pond (i.e., inlet habitat). These trees include trees over one foot in diameter, which had previously provided shading that limited the growth of *Phragmites*. Without trees *Phragmites* may completely overrun the remaining vegetation within the habitat surrounding the beaver pond. Eventually the beaver will deplete the trees and starve; however, the *Phragmites* will persist and prevent trees from becoming reestablished. A project to control the beaver will improve the biodiversity for this habitat.

Comments on Sections 4 Affected Environment, and 4.2.1 Habitat/Vegetation
The habitat behind the breakwall is rapidly becoming overrun by *Phragmities*. This

encroachment of an invasive plant species, if left unchecked, will develop into a monoculture drastically impacting this unique and threatened habitat.

Phragmities should be listed as an invasive species.

Comments on Section 4.2.2.5 State Listed Species
The dune swale region of Walnut Beach includes several unique and rare habitats. These include sand dunes and an ephemeral palustrine coastal plain that are two of the rarest and most threatened habitats within the State of Ohio.

The following are Ohio Listed endangered plant species that should be listed;

American Beach Grass (*Ammopbila brviligulata*)

Sea Rocket (*Cakile edentula*)

Inland Beach Pea (*Lathyrus japonicus*)

Response: *The state listed plant species have been added to Section 4.2.2.5. The 2004-2005 Rare Native Ohio Plant status list catalogs American Beach grass and inland beach pea as threatened and inland sea rocket as potentially threatened.*

Comments on Section 4.2.3 Other Fish and Wildlife Species
The habitat behind the breakwall includes inlets that are valuable warm water spawning habitats for Lake Erie fisheries. Presently, a large portion of this inlet habitat is isolated from Lake Erie by a beaver dam, limiting the access of spawning fish to this valuable WWH.

Specifically list the inlet habitat at Walnut Beach as being valuable to WWH fishery.

Comments on Section 4.3 Land Use
The Annual Report, Pilot Study for Walnut Beach Coastal Management, 2003 should be specifically listed as a reference document. This annual report has been provided to each of the Fields Brook NRD Trustees.

Comments on Sections 5 Environmental Consequences, and 5.2.2 Biological Impacts
Habitats at Walnut Beach include sand dunes and the palustrine sand regions behind the breakwall are two of the rarest and most threatened habitats within the State of Ohio. The uniqueness of these habitats should be specifically listed.

Comments on Section 5.2.3.5 Plants
The following are Ohio Listed endangered plant species that should be listed;

American Beach Grass (*Ammopbila brviligulata*)

Sea Rocket (*Cakile edentula*)

Response: *The state listed plant species have been added to Section5.2.3.5.*

Comments on Section 5.2.6 Socioeconomic Impacts
Walnut Beach includes nature areas that are preserved in a natural state, allowing thousands of visitor's access to two of the rarest habitats within the State of Ohio. Walnut Beach offers unique land use by allowing public accessibility to rare and threatened habitats.

Comments on Section 9 References Cited
NOTE: Walnut Beach includes habitats that have been evaluated as part of a 3 year ongoing pilot study intended to establish the feasibility and cost effectiveness of prospective Natural Resource Restoration Projects.
The Annual Report Pilot Study for Walnut Beach Coastal Management, 2003 should be specifically listed.

Response to above comments beginning at Section 2.2 and extending to Section 9:
The information provided on natural resource injuries in the Ashtabula River and Harbor will be considered as part of the separate Natural Resource Damage Assessment being conducted on the Ashtabula River.

The Trustees recognize the possibilities of Walnut Beach and the breakwall area as potential project areas for restoration. However, the Restoration Plan is a planning document that lays out the goals and priorities of the Trustees for NRDA restoration. Specific restoration proposals will be evaluated according to the goals and priorities of the Restoration Plan. Therefore, the Trustees did not include any additional specific information regarding the habitats and organisms associated with Walnut Beach or the breakwall area in the Restoration Plan/EA in order to avoid focusing on specific potential restoration project areas. We appreciate the additional information provided on these unique areas within the watershed, and look forward to reviewing project proposals for these areas.

COMMENTS BY ASHTABULA TOWNSHIP PARK COMMISSION:
The Ashtabula Township Park Commission is in receipt of the Initial Natural Resource Restoration Plan and Environmental Assessment for the Fields Brook Superfund Site. After reviewing and discussing the document, it is our belief that as stewards of the Indian Trails Park, a public park, we can assist in the accomplishments of the goals set forth in the document. Indian Trails lies just south of the entrance of Fields Brook to the Ashtabula River.

As no amount of funds could ever restore Fields Brook back to its natural state, the Ashtabula Township Park Commission commends the NRD Trustees for attempting to restore injured natural resources and to enhance the ecosystem.

We believe Indian Trails Park offers NRD Trustees restoration alternatives discussed in Alternative B. As Indian Trails is the largest publicly owned land in close proximity to the

Fields Brook EA, it could and should be an area ideal to implement the goals. The park The park offers wetlands that can be preserved, reestablished, and enhanced. The park is actively used by local and out of town fishermen. Natural resources public awareness projects could also be accomplished in the Park. Botany challenges are already held in the Park annually, and could be expanded. Bird watching is fast becoming very popular in the area also.

The Park Commission would like to see any funds available kept close to the Fields Brook area and we feel that the community also would support the idea of keeping the funds in the area, and especially in the park. The funds could definitely be used in Indian Trails to improve outdoor recreational opportunities and enhance public awareness. There may be land adjacent to Indian Trails that could be available to acquire to meet some of the goals in regards to wetlands.

We look forward to being able to work with the Trustees to accomplish their goals and also to ask for their assistance in preserving and protecting one of Ashtabula County's most valuable natural resources, Indian Trails Park along the Ashtabula River Gulf.

Response: *The Trustees appreciate the support of the Ashtabula Township Park Association. The Trustees look forward to reviewing more specific project proposals regarding Indian Trails Park. Specific restoration proposals will be evaluated according to the goals and priorities of the Restoration Plan.*

SUMMARY OF COMMENTS FROM APRIL 27, 2004 PUBLIC MEETING:
Several government entities and members of the public provided comments during the public meeting held on April 27, 2004.

- The Ashtabula City Park Board provided specifics on the potential for natural resource restoration in the Walnut Beach area.

- An Ashtabula Township Trustee supported restoration funds being spent in the Gulf area.

- An Ashtabula City Council member queried whether the natural resource restoration funds could be used as matching funds for other grants. Another Council member asked if there were multiple projects, how the different projects would be scored for evaluation.

- The Ashtabula Township Park Commission described the potential for restoration projects in the Indian Trails Park.

- Several private citizens expressed the wish to have natural resource restoration funds spent in Fields Brook, or close to Fields Brook, or Ashtabula gulf area. Questions also focused on selection process of restoration projects and how the restoration money will be spent (match grant funds? multiple small projects, or one big one? can anyone submit a project idea?)

A transcript of the meeting is provided in Appendix C of the Fields Brook Natural Resource Restoration Plan.

Response*:* *The Preferred Alternative in the Initial Restoration Plan states that projects closer to Fields Brook are desirable; however there are limited options due to the presence of industries and private lands. The Trustees welcome any ideas for projects close to Fields Brook itself.*

Although the Trustees have the responsibility of making the final decision on projects, public input is vital in order to implement projects which the public feels compensate them for natural resource injuries. Project ideas can be submitted by anyone. Depending upon the grant, restoration funds may be used as match. The Trustees acknowledge that there are limited funds available, and will work with the public in order to spend the money on projects which not only fulfill the goals and priorities established in the Restoration Plan, but will be acceptable to the community.

SECTION 8

List of Preparers

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SECTION 9

References Cited

1. Ashtabula River Partnership. 2001. Preliminary Final Comprehensive Management Plan.

2. CH2MHill. March 28 1985. Fields Brook Final Remedial Investigation Report.

3. Fields Brook Consent Decree. 1999. *United States v. GenCorp, Inc. et al.*, Case no. 5:89-CV-1866, U.S. District Court, N.D. Ohio, E.D. (2 Consent Decrees) July 7, 1999.

4. Ohio EPA. 2001. Biological and Aquatic Life Use Attainment Study of Fields Brook.

5. U.S. Fish and Wildlife Service. Sept. 1987. Preliminary Natural Resource Survey, Fields Brook Site, Ashtabula County, Ohio.

6. U.S Fish and Wildlife Service. 2001. PreAssessment Screen for the Ashtabula River and Harbor.

Appendix A: USFWS Intra-Service Section 7 Biological Evaluation Form

Intra-Service Section 7 Biological Evaluation Form

Originating Person: Karyn Tremper
Telephone Number: 614-469-6923 ext.13
Date:12/04/03

I. Region: III

II. Service Activity (Program) and Geographic Area or Station Name:

U.S. Fish and Wildlife Service Reynoldsburg Ohio Field Office
NRDA: Fields Brook Environmental Assessment and Restoration Plan

III. List Species (including proposed and) or critical habitat (including proposed) found within action area:

Indiana bat *(Myotis sodalis)*
Clubshell mussel *(Pleurobema clava)*
Piping plover *(Charadrius melodus)*
Bald eagle *(Haliaeetus leucocephalus)*

Candidate species within action area:

Eastern massasauga (*Sistrurus catenatus)*

IV. Describe Location including County, State and TSR (township, section & range):

Ashtabula County (mainly North eastern portion), Ohio. Specific project locations are unknown at this time, therefore, townships, section and range information is not available.
A map which shows the general boundary area of the Proposed Action (Alternative C) is contained in the attached joint restoration plan and environmental assessment.

Species/habitat occurrence:

Potential Indiana bat habitat throughout Ashtabula County.
Clubshell mussel habitat Pymatuing Creek in southern Ashtabula County.
Potential piping plover habitat along Ashtabula County shoreline.
2003 Bald eagle nest record in mid-western Ashtabula County.
Potential eastern massasagua habitat in Harpersfield, Hartsgrove, Morgan Orwell, Rome, and Trumbull Townships.

V. Description of proposed action (attach additional pages as needed):

The proposed action is to restore, rehabilitate, replace, and/or acquire the equivalent of

those natural resources injured by the release of hazardous substances in to the environment as described in the attached joint restoration plan and environmental assessment. The Restoration plan describes general criteria for projects involving wetlands, associated uplands, dune/swale habitat, fish/aquatic habitat, and public education and use facilities.

VI. Description of effects (attach additional pages as needed):
A. Explain the anticipated effects of the action on species and critical habitats listed in item III. Beneficial and adverse effects, as well as actions to avoid or minimize adverse effects, should be identified.

A number of federally-listed threatened or endangered and candidate species would receive further protection of the species if the Proposed Action is implemented. Wetland, associated upland and aquatic habitat preservation would most likely benefit the bald eagle, Indiana bat, piping plover, clubshell mussel and eastern massasauga.

It is believed that projects implemented through the Restoration plan and environmental assessment are not likely to adversely affect federally-listed threatened or endangered species and critical habitat and are not likely to jeopardize candidate species because: 1) there will be coordination with the U.S. Fish and Wildlife Service prior to implementing any on-the-ground work to determine whether threatened, endangered, candidate species or critical habitat occur or potentially occur within the restoration project area; 2) avoidance measures (attached) will be implemented to eliminate any potential adverse effects; and 3) if the restoration plan is changed or the avoidance measures cannot be adhered to for a particular restoration project, the U.S. Fish and Wildlife Service will be coordinated with prior to conducting any further work.

Avoidance of Adverse Effects to Listed Species

To assure that listed species will not be adversely affected, or proposed species are not jeopardized, the Trustees will require the following guidelines to be observed as restoration projects are implemented in the Fields Brook restoration area. The restoration area is defined as Fields Brook and its tributaries, Ashtabula River and its tributaries, the supporting ecosystems, ecologically associated uplands, floodplains, adjacent coastal wetlands/dune swale habitat up to the Ohio border, and watersheds adjacent to the Fields Brook and Ashtabula river systems.

Indiana bat *(Myotis sodalis)* Substantial tree cutting is not anticipated with restoration activities. However, any unavoidable cutting of trees exhibiting suitable bat roosting habitat (snags, cavities, exfoliating bark) will not occur from April 15 to September 15. The Trustees will consider restoration activities subject to U.S. Fish and Wildlife Service guidelines and further Section 7 consultation, including formal consultation on occupied sites.

Piping plover *(Charadrius melodus)* Restoration projects on sites occupied or that contain suitable habitat for this species (flat, open, sandy beaches) will include provisions not to degrade essential habitat. The Trustees will consider restoration activities subject to U.S. Fish and Wildlife Service guidelines and further Section 7 consultation, including formal consultation on

occupied sites.

Clubshell mussel *(Pleurobema clava)* Any in-stream restoration activities in suitable habitat (waterways with sand or gravel substrate with riffles and runs) will occur 500 to 1000 feet upstream, or 50 feet downstream. In addition, while the project is being constructed, silt screens would be utilized to minimize disturbance. The Trustees will consider restoration activities subject to U.S. Fish and Wildlife Service guidelines and further Section 7 consultation, including formal consultation on occupied sites.

Bald eagle *(Haliaeetus leucocephalus)* No disturbance will take place during critical periods a half mile from any known nesting sites. The Trustees will consider restoration activities subject to U.S. Fish and Wildlife Service guidelines and further Section 7 consultation, including formal consultation on occupied sites.

Eastern massasauga (*Sistrurus catenatus)* Although not currently listed (November 2003), the eastern massasauga rattlesnake is a candidate for listing. U.S. Fish and Wildlife policy requires the agency to treat candidates as proposed for listing. In occupied sites, restoration projects must avoid actions that favor vegetational succession from open to closed canopy, modify (e.g. burn, mow, brush hog) or destroy any upland or wetland connections between wetlands (habitat fragmentation), or drain, flood or otherwise modify hydrology permanently or seasonally. Reference the Threats to Massasauga Habitat and Management Strategies section (pages 16-30) of Johnson et al., 2000, The Eastern Massasauga Rattlesnake: A Handbook for Land Managers, U.S. Fish and Wildlife Service, Fort Snelling, MN to avoid actions that contribute to identified threats.

The above discussion of avoiding adverse effects applies to restoration project sites where listed, proposed or candidate species are known to occur or where it is necessary to assume they are present. On these, sites, actions that adhere to the above restrictions should not adversely effect listed species. To comply with Endangered Species Act section 7(a) and to determine whether listed and proposed species may be affected, project specific review must occur. On sites where surveys or other current information provides certainty that federally-listed species are not present, actions that are determined to have no effect on listed species may proceed without additional Section 7 contact with the appropriate U.S. Fish and Wildlife Service Ecological Services field office. Projects on occupied sites that are determined to benefit listed species, that is, not likely to adversely affect species, need field office concurrence. Early coordination with the field office is advisable where any uncertainty exists. Those projects which are proposed will require coordination with the Reynoldsburg Field Office, 6950 Americana Parkway, Suite H, Reynoldsburg Ohio 43068.

The materials reference in this document may be obtained by contacting the U.S. Fish and Wildlife Services Field Office (614-469-6923) in Reynoldsburg, Ohio.

B. Determination (check all that apply) — Response requested

No Effect on species/critical habitat
list species/critical habitat: _____ Concurrence (optional)

Not Likely to Adversely Affect species/critical habitat
list species/critical habitat/candidate species: ___X__ Concurrence
(Indiana bat, clubshell mussel, piping plover, bald eagle eastern massasaugua)

Likely to Adversely Affect species/critical habitat
list species/critical: _____ Formal Consultation

Likely to Jeopardize candidate or proposed species/critical habitat
list species/critical habitat _____ Formal Conference

Not Likely to Jeopardize candidate or proposed species/critical habitat
list species/critical habitat _____ Concurrence

Mary Knapp
Signature Date 12-10-2003
[Supervisor at originating station]

IX. Reviewing Ecological Services Office Evaluation:

A. Concurrence _____ Nonconcurrence _____

Explanation for nonconcurrence:

B. Formal consultation required _____

C. Conference required _____

D. Informal conference required _____

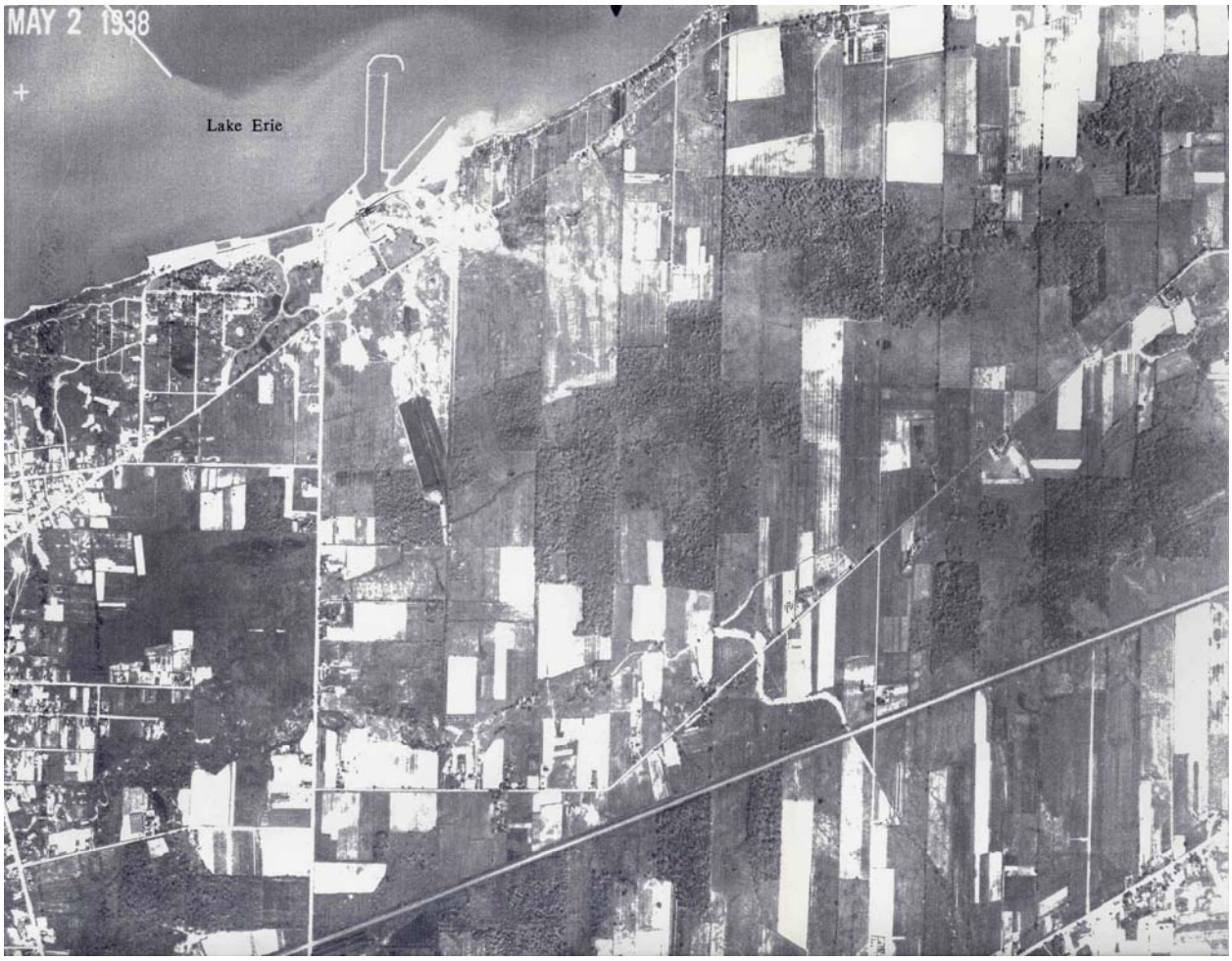
E. Remarks (attach additional pages as needed):

Mary Knapp 12/10/03
Signature Date
[ES Office Supervisor]

O:\TE\S7\FORMS\R3S7intra_cons.frm\4 December 2003

Appendix B: Aerial Photos of Fields Brook/Ashtabula 1938 & 1994

Aerial Photo North East Ashtabula County -
Fields Brook/Ashtabula River 1938
(Woodward-Clyde Consultants)



Aerial Photo North East Ashtabula County –
Fields Brook/Ashtabula River -1994
(www.Terraserver.com)

Appendix C: Transcript of Public Meeting held April 27, 2004

Fields Brook Restoration Plan Community Meeting
Transcript of Questions and Comments

April 27, 2004

This is a transcript of questions and comments presented at the community meeting before the Ohio Environmental Protection Agency, held at the Kent State University, Ashtabula Campus, 3325 W. 13th Street, Ashtabula, Ohio on Tuesday, April 27, 2004, commencing at 7:17 p.m.

PANELISTS
Mike Settles, Ohio EPA Public Interest Center
Regan Williams, Ohio EPA
Sheila Abraham, Ohio EPA
Karyn Tremper, U.S. Fish and Wildlife Service
Dave DeVault, U.S. Fish and Wildlife Service
Mary Knapp, U.S. Fish and Wildlife Service
Bill Kurey, U.S. Fish and Wildlife Service
Jen Lawton, National Oceanic and Atmospheric Admin., U.S. Dept. of Commerce
Kelly Bakayza, Solicitor's Office, U.S. Dept. of Interior

QUESTIONS AND COMMENTS
MR. BEACON: Ken Beacon, Ashtabula City Park Board. This year, we submitted an application for a grant for the eradication and control of *Phragmites estrellas* in the eastern portion of Walnut Beach. The park board is going to be focusing on Walnut Beach, not only the recreational side of it but also the Havmat side this year and that includes the control of the *Phragmites estrellas* in an attempt to revive the somewhat rare and endangered and threatened species that exist in that portion of Walnut Beach, the sea rocket being one; the beach pea being another and there are several other ones, *Aphobia compresa*, which is our -- the state's only cactus, as far as I know. We're very interested in this and we're very glad to see that that was one of the first projects mentioned. Correct me if I am wrong. Our first steps would be to make sure that, for example, our administration, our city council and the park board submit their comments to Sig before May 22nd. And then plans, since we have already submitted a grant application, our entire program has already been laid out. Should we submit that at that time or wait until closer to September or what?

MR. WILLIAMS: Yes. If you have a plan that has already been laid out and you feel it qualifies, based on the criteria there laid out in the restoration plan, they may want to review it for compliance with those criteria. Yes, go ahead and submit that right away. Today, if you want.

MR. BEACON: Thank you, very much, Sig.

MR. WILLIAMS: Can I ask you; who did you submit the grant to? Was that through the Department of Natural Resources?

MR. BEACON: Yes. There was a small grant window that opened up because some buyers had backed-out of some development land and then the small window opened up for so many millions of dollars. And we figured we could be real quick because we are fast and small and unfortunately, we didn't get it.

MR. WILLIAMS: Oh, you didn't get it. Okay.

MR. BEACON: No.

MR. WILLIAMS: All right. Then just repackage it and send it to us.

MR. BEACON: Great. Thank you so much.

MS. ABRAHAM: When you do send us the plans, if it is part of a larger plan that you have for Walnut Beach, we would appreciate it if you could make those links, also. Because we are interested in the natural resource injury restoration part of it, but we would like to see the links to other things. If you would add that in too, so we could evaluate it. Thank you.

MR. SETTLES: Other questions? Sir. If you could, stand up and say your name for the benefit of myself and our court reporter.

MR. BUCCI: Sam Bucci with the Ashtabula Township trustee. I've attended many of the meetings. I'm a charter member of the River Partnership. The concerns I have is that how many of the industries were located in Ashtabula Township? Ashtabula Township has provided the services to these plants over many years. It seems like we are starting at the bottom instead of starting at the top. The Ashtabula River, there was a sign that said, "No Fishing" and certainly, that water has run down to the gulf area. And I'm concerned that we spend some of this money in this gulf area. I think that the people in Ashtabula Township, especially, they have, not only the water, but the air most of the time wasn't the best. And I think that Ashtabula Township, especially with the stigma of the Superfund blocking State Road, also affected Lakeshore Park, affected our township and nobody wants the stigma of a super fund site. Thank God we didn't have it for the river. But I think that along the line we want some of the money spent, since this river was contaminated all the way up through Ashtabula and down through the tannery and that, that some of this money spent in the Ashtabula gulf. Thank you.

MR. WILLIAMS: Actually, that is one of the other areas, we only showed a couple of the ideas that we came up with, but the gulf was another area we had actually talked about. So, if you get that information to us and when we start sorting that will be one of the things we look at.

MR. SETTLES: Please stand and state your name.

MS. MISENER: Jo Misener, Ashtabula city counsel. I was wondering if any of this money could be used as matching money for grants that either the city could apply for this area that's being talked about, like we do have an Ashtabula City Park Board. And Mr. Beacon was talking about a grant that we had applied for and some of the grants you do need matching funds for. And I think this just might be a way to stretch dollars and get more bang for the buck. So, I just was wondering if that is possible to do?

MR. LEWIS: Yes, we would be tickled if we could do that and stretch it also. It depends upon the regulations and the rules for whatever type of grant you are applying for, but, absolutely, yes.

MS. MISENER: What would be the time-line for us to be able to submit something to you? Would it have to be by May 22?

MR. LEWIS: We don't need actual restoration ideas before the end of September. We need them by that point. The May 22nd date is only referring to comments on this plan, itself.

MR. SETTLES: Other questions. Oh, Sheila, I'm sorry.

MS. ABRAHAM: Does everybody understand, the plan is just an umbrella under which you will submit the restoration projects? So the plan deadline, to finalize that, for comments is May 22nd. But restoration projects is up to the end of September. And conceptually, get us all you can, we can sit down and talk to you about it, after that, also.

MR. DEVAULT: One more thought on restoration plans. I'm sure you'll all notice, there isn't a lot of detail in this plan, but the specific restoration plan is that we do come up with, for each one of those, there will be detailed plans that will be released for public review as well. Probably not a public meeting held for each one, but they'll be public noticed and issued for public review and comment. Everything that we do will be transparent and will there will be an opening for additional public input.

MR. SETTLES: Stand up, please.

MR. TURCHETTA: Xavier Turchetta. I guess I have two questions. And I apologize, at first, I haven't seen the plan so I'm asking a question about the plan, that may already may be answered if I would read it. But is there any plan or project for the brook itself? I know we talked about something at Walnut Beach and we talked about something on the eastern shore of the river, but are there any plans or projects for the brook itself?
And the second half of that question is: All these other places, $800,000, I don't think, is going to stretch very far. That's sort of a question/comment thing.

MR. WILLIAMS: No. Yes. (Laughter.) No, if you look at this plan, it is literally an umbrella plan that's required by law. There's nothing specific in terms of any projects there. If people are interested in projects in the brook itself, or within the brook's

floodplain, by all means suggest them. Your final remark about $860,000 isn't going to go very far, you're absolutely right.

MR. DEVAULT: That's why we'd welcome somebody's ability to come up with matching funds, use our funds to match other funds.

MR. TURCHETTA: If it's forty-two acres at 800 K, that's only twenty K an acre. And you're not going to get -- that's not going to go.

MR. WILLIAMS: Yes, we understand that. That's why one of the criteria, is that the project can't cost more than we've got.

MR. SETTLES: Is there any preference that it's going to be paid then to smaller projects, where you can dole out the money to a number of smaller projects instead of one big grab?

MR. WILLIAMS: Well, I don't think we want to make a decision like that until we see what the community wants. There may be a series of small projects. If Walnut Beach could potentially not involve an awful lot of money, but we'll have to see how that works.

MR. SETTLES: If you'd repeat your name again, please.

MR. BEACON: Ken Beacon. In order to allay anyone's concerns, the grant that we were applying for, the total package, including our matching money from the city, was no more $60,000. So, it wasn't a lot of money. But I do have another question. The eastern land acquisition. Can someone pinpoint that, where exactly is that?

MR. WILLIAMS: That's Brockway, south.

MR. BEACON: Okay, thank you.

MR. SETTLES: Yes, sir. State your name, please.

MR. WAYMAN: Mike Wayman, Chairman of the Ashtabula Township Park Commission. The Park Commissioners have already sent to Mr. Williams and Ms. Tremper and I'd like permission to read that, to go on the record. The Ashtabula Township Park Commission is in receipt of the initial Natural Resource Restoration Plan and Environmental Assessment for the Fields Brook Superfund site. After reviewing and discussing the document, it is our belief that as stewards of Indian Trails Park, a public park, we can assist in the accomplishments of the goals set forth in the document. Indian Trails lies just south of the entrance of Fields Brook to the Ashtabula River.
As no amount of funds could ever restore Fields Brook back to its natural state, the Ashtabula Township Park Commission commends the NRD trustees for attempting to restore injured natural resources and to enhance the ecosystem. We believe Indian Trails Park offers NRD trustees restoration alternatives discussed in Alternative B and as Indian Trails is the largest publicly owned land in close proximity to Fields Brook EA it could

and should be an area ideal to implement the goals. The Park offers wetlands that can be preserved, reestablished and enhanced. The park is actively used by local and out-of-town fishermen. Natural resource public awareness projects could also be accomplished in the park. Botany challenges are already held in the park annually and could be expanded. Bird watching is fast becoming very popular in the area also. The Park Commission would like to see any funds available kept close to the Fields Brook area and we feel that the community would also support the idea of keeping the funds in this area and especially in the park. These funds could definitely be used in Indian Trails to improve outdoor recreational opportunities and enhance public awareness. There may be land adjacent to Indian Trails that could be available to acquire to meet some of the goals in regards to the wetlands. We look forward to being able to work with the trustees to accomplish their goals and also to ask for their assistance in preserving and protecting one of Ashtabula County's most valuable natural resources, Indian Trails Park along the Ashtabula River Gulf. Thank you.

MR. SETTLES: Thanks. Any other questions? Yes, Ma'am. Could you stand up, here and state your name?

MS. KONTER: Jacqueline Konter, an interested citizen. You say this is a blanket, this thing that you're talking about, but, obviously, you must have considered certain areas to restore. And I would be interested in what you did consider, rather than leaving it wide open to the people to try to decide.

MR. DEVAULT: Well, the things that we looked at, and again, it came from people that are sitting out here in this room in terms of showing us around. We have looked at the Gulf, the Indian Trails Park. We mentioned Brockway south, as an area we were interested in. We mentioned Walnut Beach, various trail systems have been mentioned. A whole series of things have been suggested to us. And what we're asking, now, is for you guys to kind of give us those ideas and any other ideas that we haven't heard in a format where we can actually sit down and look at the pile and do some sorting and sifting. But we haven't come to any conclusions about what we're going to do and we are trying to keep it open. Does that answer your question? You're looking like it didn't.

MS. KONTER: I guess I figured you probably had some ideas of what you were considering before you came here today.

MR. DEVAULT: Well, yes we have ideas and there are things that I'd personally like to do but I'm going to get on a plane and go back to Minneapolis and you guys are going to be stuck with it. So, we'd much rather –

MS. KONTER: Such as?

MR. DEVAULT: We'd much rather go with things that you guys want.

MS. ABRAHAM: Yes, we had ideas. Dave has outlined some of them. But then, like he said, this is your -- we act for you. You are the public; you need to tell us what you

would like. And as he so correctly said, we only have a little more that $800,000. So, we'd really need to hear the plans that you are interested in, not to vote but for the support behind each of those ideas. And then see what matches that criteria and our funds and then go with what we can do. And as everybody has tried to make the point here, this may be the beginning of the restoration of natural resources in this area. That's what we hope because we're working on another case, the Ashtabula River itself, and who knows, that might come to fruition and we might have more money. But we have to start with what we have right now. Does that help?

MR. WILLIAMS: Another effort was made by the Ashtabula River Partnership a couple of years ago. Brett Kaull is sitting back here; he chaired what was called the restoration sub-committee. And that sub-committee generated a list of twenty plus, I think, potential restoration projects in, on or around the Ashtabula River. That's another source of ideas that we looked at and will consider. The Ashtabula River Partnership obviously is a public body, but it is not necessarily the whole public. That's why we're going, now, with this effort to do the whole public. If there are any additional ideas that we have not considered in the past, please get them to us. We will go back and revisit that list of projects. All the ones that we've talked about tonight are on that list, by the way. And we've been talking about them for a couple of years. We were talking more in the context of the Ashtabula River NRDA, the Fields Brook NRDA at that time, but since they're the same kinds of resources that were injured in Fields Brook, it's entirely appropriate for us to use restoration projects on the Ashtabula River as long as they're not things that would interfere with the dredging project. We can't do a restoration project in an area where there's dredging that's going to occur, at least not until after the dredging. So, things like that have to be considered.

MR. SETTLES: Thanks, Sig. You have a question back here? State your name.

MR. CORBISSERO: My name is Carmen Corbissero. My address is 2943 West 13th Street, Ashtabula, Ohio. I'm here as a concerned citizen not with any organization right now. I grew up on the banks of Fields Brook, 427 E. 16th Street. And I used to swim and fish in that stream. I thought that this was for the restoration of Fields Brook. I would like to see that like it was before. That figure that you had on the board there, the money, would not put it back to the original status that it was in when I was a young man. For the first twenty-four years of my life I lived up on 427 E. 16th Street. I really think, you know -- I'd like to see the northern pike come up there again. They used to come right behind my house, up that stream. We used to play ice hockey under those bridges, East 15th and East 16th streets. There was every kind of fish that you can think of. There was dog fish in there. Have any of you ever heard of a dog fish? Mr. Bucci, I'm not looking for any arguments or anything, but Ashtabula citizens and people that live along Fields Brook took in the pollution from the Ashtabula township and the township took the tax money from these industries. We got the crap and we're still getting it. I'd like to see that stream restored like it was when I was a young man, so our future children and grandchildren can enjoy it like I enjoyed it. Thank you.

MR. SETTLES: Thank you.

MR. BREWER: Rick Brewer. Sig you may have answered the question already. Is there an appeal process if you folks choose a project that is less desirable to the community at large? Is there an appeals process if you choose a project that is going to be in the plan that is less desirable than the community at large really wants? And you indicated, I think, a little while ago that when the final plan comes out there is going to be an additional meeting or additional opportunity for the public to comment. And that might be what that is. If the public at large, the majority disagrees with what you want to do?

MR. DEVAULT: I don't think there's -- there's not a formal appeals process, Rick, but we are going to come back to you once we have winnowed all these ideas down. We're not going to implement something that there isn't support for in the community. First of all, it's going to be gone as soon as we leave, if we do that. It's just not going to happen.

MR. BREWER: The final decision rest with who though?

MR. DEVAULT: With the trustees. It's in counsel with Fish and Wildlife service and Ohio EPA and NOAA is an advisor on that counsel.

MR. SETTLES: Any other questions? Yes, ma'am.

MS. SNYDER: My name is Bambi Snyder. I'm with Ashtabula City Park Board. Maybe you could elaborate a little more on this, HEA and how you actually come to this settlement amount, the dollar amount and who actually accepts it? Does the public have any input? What does the HEA mean?

MR. DEVAULT: The HEA, what it is, is a glorified compound interest program, basically. It only uses units of acres instead of dollars. So, if you injure an acre of land at some point in the past and then interest is accrued on that acre over time until such time as the injury is no longer in affect. So it's literally compound interest, just like your bank account, is the way it works.

MS. SNYDER: I don't know how you would come up with the 800,000. I'm just curious, because this seems to be, when this was first designated as a Superfund site was twenty years ago. So that seems like that it's a long time, twenty years.

MR. DEVAULT: You remember, it was only forty-three acres, Sig?

MR. WILLIAMS: Yes, it was forty-three acres.

MR. DEVAULT: So, forty-three acres compounding interest at a 3 percent rate, roughly. It's based on the federal discount rate. When you were done you had four hundred and something?

MR. WILLIAMS: Four hundred and seventy-five.

MS. ABRAHAM: It's just for injuries to Fields Brook, not Ashtabula River. It's just the brook.

MR. DEVAULT: It's actually a very small footprint, this settlement is for.

MS. SNYDER: And what is that H-E-A; what does that stand for, exactly?

MR. DEVAULT: Habitat Equivalency Analysis. It's just a compound interest deal. Sounds snazzy, though, doesn't it?

MR. SETTLES: Other questions, comments? By the way, I hope everybody did sign in on the sign-up sheet in the back because when we do come back to you, later this summer, I'll send you a notice if I've got your address there so you can come on back and tell us what you think. Any other questions for tonight? Yes, sir. State your name.

MR. LEITERT: Fred Leitert. I'm just trying to get a feel for the timing, in terms of when we might complete the restoration process?

MR. DEVAULT: Good question. I wish I knew the answer. As I say, we're looking for ideas by the end of September with the idea on our end of trying to turn those ideas around, as much as possible, through the winter. Then it's going to be project specific and, you know, we really can't control that. It's going to require willing sellers. It's going to require people that are willing to attach conservation easements to their deeds. So we really can't say when things are going to happen, unfortunately. I wish we could.

MR. SETTLES: Yes, sir. Please stand up and say your name, please.

MR. PAULCHEL: Jim Paulchel, Ashtabula City Council. I have a two-fold question. First of all, with only 862,000 in this pot, there'll certainly be different entities that will be vying for this money. Is there some type of a point structure that you're going to attach to these applications as far as rating them in importance?

MR. DEVAULT: Not, at least, initially. If we could do that if it becomes necessary down the road. If there's a series of projects that seem to have roughly equal support, maybe we will have to come up with some type of a scoring scenario. Unless that's necessary, we don't want to get into it. We don't want to preclude things.

MR. PAULCHEL: Well, I'm interested as to how the evaluation would take place. You know, you have multiple entities. And the other part of the question is: Is anyone from the public sector, I don't mean a governmental agency or that type of entity, but can a private citizen, in fact, make this application for this funding?

MR. DEVAULT: Yes. Anybody. And what we're looking for, now, are ideas. And I think the $860,000 is going to limit the scope of that, obviously. And see what we can get then see how, once we get those ideas in, see if the support all goes in one direction, then

we don't need to score things. If you go into some type of a formal scoring system, at least before you have to, you really limit the options that people have.

MR. PAULCHEL: Well, the reason I asked that was because a lot of the grants that the city of Ashtabula has to make application for, depending on how well you fill these grants out and know the right words to insert into these grants as far as those buzz words are concerned, then you score much higher than anyone else who may not have the right application in the right slot, so to speak.

MR. WILLIAMS: Right. Having participated on both ends of those scenarios, both as an applicant and as a project officer back when I was with US EPA, that's one of the reasons we don't want to do it. We don't want this to come down to your grantsmanship ability. We're looking for ideas.

MR. PAULCHEL: All right, thank you.

MR. SETTLES: Yes, sir.

MR. BREWER: Rick Brewer. Is the full $862,000 plus interest between now and the time that we implement the plans going to go directly towards the project or is some of that money going to be absorbed by overheads from some of you folks?

MR. WILLIAMS: To the extent that we actually have to pay people to do stuff, yes, some of it is going to be absorbed by that. We're doing everything we possibly can to keep that down in recognition of the fact that there's not a lot of money there. So, for example, you're not going to pay me. I'm free, but you get what you pay for! (laughter)

MR. SETTLES: Any other questions for tonight? Okay, we are all going to be around for a little while after the meeting. Again, remember the May 22nd date to get your comments in and then we'll be back in touch with you later this summer, early fall, to come back and discuss projects and get your feedback. Thanks very much for coming out tonight.

MR. DEVAULT: Thanks everybody.

END OF MEETING