

**Final
Natural Resource Restoration Plan
for the Saegertown Superfund Site
Crawford County, Pennsylvania**

Prepared by

U.S. Department of the Interior, Fish and Wildlife Service

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A. Introduction

In October 1996, the Department of the Interior (DOI), as a natural resource trustee, received money for a settlement of a natural resource damage claim with the Responsible Parties (RPs) for the Saegertown Industrial Area National Priorities List Site (Saegertown Site). We sought this settlement because contamination at this site had injured trust resources (migratory birds) under our authority. We are required to use the settlement money to compensate for those losses. The Comprehensive Environmental Compensation and Liability Act (CERCLA), which designates natural resource trustees, requires that before the settlement monies can be used for restoration activities we must develop and adopt a Restoration Plan, and that in doing so, there must be adequate public notice and consideration of all public comment.

We prepared a Draft Natural Resource Restoration Plan (Draft Plan) and published a Notice of Availability of the Draft Plan in the *Federal Register*, and in the *Meadville Tribune*. A copy of the Draft Plan was also available for review during office hours at the Saegertown Area Library in Saegertown, Pennsylvania. The public comment period was open from March 15 to April 15, 2000, and no public comments were received on our Draft Plan. Therefore, there were no substantive changes made to the Draft Plan and we are issuing this Final Plan.

B. Background

The Saegertown Site is located in an industrial park in the Borough of Saegertown, Crawford County, in northwestern Pennsylvania. The site is approximately 100 acres in size and is located in a broad valley formed by the stream terrace of French Creek. In 1980, significant groundwater contamination by trichloroethylene was identified during routine sampling of Saegertown's municipal wells. Subsequent efforts to identify the source(s) of contamination focused on four facilities/properties within the industrial park's boundaries. As a result of an EPA-directed Remedial Investigation study, the 37-acre portion of the site formerly owned and operated by the General American Transportation

Corporation (GATX), and another tract owned by the Lord Corporation, were identified as the primary areas in need of remediation. The Consent Decree and settlement for natural resource damages leading to this restoration plan pertain only to the GATX portion of the site.

From 1951 to 1967, GATX operated a wastewater treatment plant onsite and wash water and solvents used to clean railroad cars were disposed of in a sludge bed, lagoon, and pond on the site. The area of most concern was the GATX pond and its associated wetland area, which totaled approximately 2.3 acres. Sediment sampling in the pond revealed severe contamination by volatile organic compounds (39 ppm); aromatic volatiles such as benzene, toluene, ethyl benzene, styrene, xylenes, and chlorobenzene (230 ppm); and semi-volatile compounds such as phenols, chlorinated benzenes, and PAHs (45,000 ppm). In addition, PCBs were found to occur in the pond sediments/wetland soils at concentrations as high as 830 ppm, along with lead (3410 ppm), and mercury (305 ppm).

Over 32,000 tons of contaminated soils and sludge were removed from the site between summer 1995 and fall 1996. The property was then backfilled with clean material, regraded to the original contours, and reseeded. In October 1997, the former GATX property was deleted from the Saegertown Site and the National Priorities List.

C. Natural Resources and Impacts to those Resources

Over the years, many individuals of a variety of species of migratory birds, a natural resource under the trusteeship of the DOI, used the contaminated pond and surrounding contaminated habitat for nesting and/or feeding. In addition to open water habitat, emergent and scrub-shrub wetland areas and open mud flat areas at the fringe of the pond attracted a variety of birds. Birds known or expected to have used this site and to have been exposed to contamination include red-winged blackbird, killdeer, spotted sandpiper, mourning dove, waterfowl, woodcock, warblers, and many other species that commonly frequent these habitat types.

Injury to migratory birds resulted from exposure to toxic concentrations of site-related contaminants, especially in the pond and adjacent areas that received wastes from the site. Additionally, migratory bird habitat was degraded, which resulted in reduction of the food base, cover, and nesting habitat for migratory birds.

D. Natural Resource Damage Settlement

Although the U.S. Environmental Protection Agency (EPA) mandated a clean-up at the GATX portion of this site, past injuries to migratory birds, habitat loss, and possible future injuries were not considered under their program. As part of a Consent Decree requiring remedial actions at the Saegertown Site, the DOI agreed to a monetary settlement with GATX for natural resource damages. The settlement of \$94,510 was designated for restoration, replacement, or acquisition of the equivalent natural resources injured by the release of contaminants at the site, and included reimbursement for costs related to assessing the damages. This settlement was negotiated in cooperation with the EPA during the summer of 1994. GATX forwarded the \$94,510 to the DOI in

September 1995. Since that time, interest has accrued, and some funds used for restoration planning have debited the account. The current amount available is approximately \$101,000.

E. Proposed Restoration

1. Solicitation of Restoration Projects

In May 1997, we began the restoration planning effort, with a primary focus on identifying potential projects in the French Creek watershed. We made several presentations and requested project ideas from the U.S. Department of Agriculture Natural Resources and Conservation Service, U.S. Army Corps of Engineers, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Pennsylvania Department of Environmental Protection, Pennsylvania Department of Conservation and Natural Resources, Western Pennsylvania Conservancy, Conneaut Lake and French Creek Valley Conservancy, French Creek Project, Cleveland Museum of Natural History, Erie and Crawford County Conservation Districts, and several other County and Township officials. Over the past two years we have discussed potential projects with over 15 land owners, and have visited at least 12 potential project sites.

2. Goals of the Restoration Project

The primary goal for the restoration project is to compensate for natural resources which were lost. Since the settlement resulted from injury to migratory birds and their habitats, the restoration plan is focused on restoring migratory bird habitat. Restoration refers to actions to be taken to restore, rehabilitate, replace, and/or acquire the equivalent resources and the related services lost to the public. It is our policy to consider restoration projects in the following priority order:

1. Restoration of in-kind natural resources at the same location, if cleanup or remediation will be sufficient to prevent future contaminant problems for an on-site restoration;
2. Restoration or replacement of in-kind natural resources in the vicinity of the loss;
3. Acquisition of similar resources in the vicinity of the loss.

Two broad categories of restoration actions are in-kind and out-of-kind restoration. In-kind means that the work focuses on resources comparable to those that were lost. Out-of-kind means that the work focuses on resources different than those that were lost. Out-of-kind restoration projects are given lower priority than in-kind restoration projects. Acquisition entails substituting an injured resource with another resource that provides the same or substantially similar services. We will not select a project that requires acquisition of land for federal management unless we

determine that other restoration options are not possible.

3. Specific Projects Considered

We are required to assess a "reasonable number" of possible restoration projects. A project may consist of a single action or a set of actions which may be undertaken. In our initial review, we identified the following screening criteria as desired characteristics for potential projects: 1) the restored or acquired habitats are similar in type to the habitats impacted (i.e, in-kind restoration); 2) the project is in the same watershed as the impacted habitats; and, 3) the project provides long-term or perpetual benefits to migratory birds and other fish and wildlife resources. We have identified the following specific potential projects:

a. No Action

Federal regulations require us as a natural resource trustee to consider this option. Under the no action alternative, no restoration, rehabilitation, replacement, or acquisition actions would occur. We would rely entirely on natural recovery of the resources from the injuries sustained.

b. Restoration of In-Kind Natural Resources at the Same Location

The Saegertown Site is located within a small industrial park. Surrounding land use is mixed rural, residential, and agricultural. Although the remedy completed on the GATX portion of the site greatly reduced the potential for ecological risk, the Lord Corporation portion of the site is currently under evaluation to develop final remedial measures. Therefore, any on-site habitat restoration projects would have to evaluate the probability of producing actual benefits to migratory birds, while fully considering the potential residual contamination on-site and the potential effects of the construction and remedial activities on the adjacent parcel.

c. Restoration or Replacement of In-Kind Natural Resources in the Vicinity of the Loss

Several potential projects entailing restoration or replacement of in-kind natural resources in the vicinity of the loss were identified. Many of those projects were wetland restoration projects located on private and public lands. Because several of the identified projects failed one or more of the screening criteria established in Section E.3 of this plan, only three projects are considered. One project entails wetlands restoration on private land and the other two are wetlands restoration projects on State Game Lands.

1. Kiser Wetland Restoration Project

The Kiser wetland restoration project entails the creation and restoration of approximately 8 acres of emergent wetlands on private land, currently owned by Mr. John Kiser and located near Meadville, Pennsylvania. The property is an undeveloped area comprised mostly of old fields, scrub-shrub upland habitats, and a few pockets of emergent wetlands surrounded by dense woodlands. The area was previously farmed and utilized for hay but has been idle for at least 10 years. The property is about 4 miles from the Saegertown Site. The project will involve construction of a dike to impound surface runoff. Nearby seed sources in adjacent wetlands as well as plantings of emergent wetland plants will ensure establishment of wetland vegetation. The project will include dike seeding and a sufficient upland buffer to protect the created wetlands and provide cover. The project will restore all of the types of habitats degraded by the Saegertown Site and will be perpetually protected with a conservation easement held by a non-profit organization. Public access will be allowed by permission of the landowner, but limited to ensure that habitat values of the property are maintained.

The estimated total cost of the Kiser Wetland Creation project is \$56,000. This includes project planning, oversight, and administration (\$5,000); design, supplies, construction and monitoring (\$39,000); title search, surveys, purchase of the property conservation easements and associated fees (\$6,000); and the easement holding by non-profit organization (\$6,000).

2. State Game Lands #269 Wetlands Restoration (Project #1)

State Game Lands #269 is located in Crawford County approximately 7 miles from the Saegertown Site. Coordination and consultation with Game Commission staff identified an approximate 35-acre wetland restoration project for consideration. The project would entail the refurbishing of two large dikes that have failed and are in need of repair. The site is located along Lake Road in the southwest section of the Game Lands, immediately downstream of a large impoundment outfall on an unnamed tributary to Cussewago Creek. The former impounded area currently consists of dense shrubs and grasses of mixed composition, some of which are characteristic of wetlands. Although moist soils are present, the overall vegetative community favors upland types and currently provides limited habitat value. The project would include restoring the holding capacity of the dikes, installing a new large-capacity water control structure, and reseeding and planting the affected areas. Restored wetlands would include several acres each of emergent, scrub-shrub, and open water wetlands. An agreement for permanent protection is not included since the project is located within State Game Lands #269.

The estimated total cost of the State Game Lands #269 Wetlands Restoration (Project #1) is \$49,000. This includes project planning, oversight, and administration (\$5,000); and design, supplies, construction, and monitoring (\$44,000).

3. State Game Lands #269 Wetlands Restoration (Project #2)

State Game Lands #269 is located in Crawford County approximately 7 miles from the Saegertown Site. Coordination and consultation with Game Commission staff at this site identified an approximate 10-acre wetland restoration project. The site is located in the northwestern corner of the Game Lands, just north of the confluence of Townhall Road and Cussewago Creek. A dike would be constructed parallel to the road with extensions running perpendicular to the road. The area that would be impounded currently consists of dense shrubs and grasses of mixed composition, some of which are characteristic of wetlands. Although moist soils are present, the overall vegetative community favors upland types and currently provides limited habitat value. In addition to constructing the dikes, the project would also include installing a water control structure and reseeding/planting the affected areas. Restored wetlands would include several acres each of emergent and scrub-shrub habitats, with limited open water habitat. Some palustrine forested wetlands would be formed over time along the fringes of the project, primarily through volunteer species establishing along the adjacent riparian floodplain. An agreement for permanent protection is not included since the project is located within State Game Lands #269.

The estimated total cost of the State Game Lands #269 Wetlands Restoration (Project #2) is \$55,000. This includes project planning, oversight, and administration (\$5,000); and design, supplies, construction, and monitoring (\$50,000).

d. Acquisition of Similar Resources in the Vicinity of the Loss

Since French Creek is one of the most biologically diverse streams in Pennsylvania, and development pressure is constant to increasing in the French Creek watershed, many of the above contacts and members of the general public encouraged us to consider several acquisition projects. The Pennsylvania Game Commission owns several thousand acres of land within the French Creek watershed, administered and managed as part of the State Game Lands system. We coordinated closely with State land managers to identify potential acreage for purchase within the French Creek watershed. The Game Commission agreed to take title to any lands purchased as part of our restoration plan, provided that the properties are adjacent to existing Game Lands. Many other partners representing

various interests identified several acquisition projects. Those projects identified and considered herein are: State Game Lands

#109 Acquisition, State Game Lands #162 Acquisition, French Creek Riparian Corridor Acquisition, Harmonsburg Fen Acquisition, and French Creek Conservation Easement Acquisition.

1. State Game Lands #109 Acquisition

Evaluation of various properties following the selection criteria outlined in Section E.3 of this plan culminated in the identification of several parcels located within the acquisition boundary of Game Lands #109. This Game Lands is located in Erie County, approximately 19 miles from the Saegertown Site. LeBoeuf Creek bisects Game Lands #109, and the surrounding forests, wetlands, and bottomland riparian corridors provide outstanding migratory bird habitat.

Although several parcels of land were identified adjacent to existing State Game Lands, three parcels owned by John Swenson were selected as the best alternative. Discussions with Mr. Swenson indicate a willingness to sell approximately 162 acres contained in three parcels. The three parcels are bordered by Game Commission-owned land to the east and Route 97 to the west, and they are split by a parcel of land formerly owned by Louie Kuhns. The Kuhns property was recently purchased by the Western Pennsylvania Conservancy and contains a restored wetland permanently protected under a conservation easement held by the Natural Resources Conservation Service. The Kuhns property was also surveyed for rare flora by the Cleveland Museum of Natural History, which documented at least six State-listed plant species. The Swenson parcels contain several acres of uplands, a large expanse of forested and emergent wetlands, and bottomland riparian floodplains associated with LeBoeuf Creek. Several habitat restoration projects could be pursued on these parcels, including both upland and wetland habitat enhancement opportunities. Such projects could include planting of warm season native grasses and food plots to provide cover and food for terrestrial wildlife species, construction of small wetland enhancement or restoration projects, and/or providing nesting structures to increase migratory bird productivity.

The actual cost of acquiring approximately 162 acres is wholly dependent upon the final negotiated price. The Game Commission has agreed to provide survey and title work assistance as well as cost share the purchase of the identified parcels. The Western Pennsylvania Conservancy has agreed to facilitate the land transaction, and also donate the former Kuhn's property, thereby providing contiguous public ownership. Protection of the property in

perpetuity will be granted with the development of restrictive covenants formally recorded on the property deeds. Assuming a maximum of \$700 per acre for purchase (\$113,400), the in-kind service donation of the Game Commission and Western Pennsylvania Conservancy valued at approximately \$5,000, and the Western Pennsylvania Conservancy 53-acre donation valued at over \$20,000, the estimated cost of the entire project is approximately \$139,000. Assuming the Department's cost-share portion of the project at approximately \$300 per acre, funds needed from the Saegertown settlement are approximately \$49,000.

2. State Game Lands #162 Acquisition

Evaluation of various properties following the selection criteria outlined in Section E.3 of this plan culminated in the identification of several parcels located within the acquisition boundary of Game Lands #162. This Game Lands is located in Erie County, approximately 24 miles from the Saegertown Site, and is adjacent to the Union City flood control reservoir. Game Lands #162 currently occupies 589 acres in three distinct parcels, and the surrounding forests, wetlands, and bottomland riparian corridors provide outstanding migratory bird breeding habitat, as well as offer excellent stop-over areas for migrating waterfowl in spring and fall.

Although several parcels of land were identified adjacent to existing Game Lands, a parcel owned by Lois and Meredyth Bacon is selected as the best alternative. The Bacon parcel contains approximately 410 acres that are divided by Route 8. The North Branch of French Creek makes up the northwestern border of the Bacon property, and approximately one-half of the property (i.e., west of Route 8) lies within the 1,278-foot maximum flood retention elevation of the Union City flood control reservoir. The cover types found on this portion of property (i.e., within the flood zone) are varied and consist of isolated wetlands, reverting upland fields, some wooded areas, and croplands. Row crops are produced via conventional methods on a portion of this property through a lease agreement with the landowner. The wooded areas are largely confined to the portion of the property adjacent to Route 8, and consist of pole stage mixed hardwoods, pine, aspen, and fire cherry. The other one-half of this parcel (i.e., outside the flood zone easement and to the east of Route 8) also consists of varied cover types including upland old fields and forested areas interspersed with isolated wetlands associated with major drainage ways.

Several habitat restoration projects could be pursued on this parcel, including both upland and wetland habitat enhancement opportunities. Such projects could include planting of warm season native grasses and food plots to provide cover and food for terrestrial

wildlife species, constructing small wetland enhancement or restoration projects, and/or providing nesting structures to increase migratory bird productivity. Small excavations or dikes could be constructed within the flood zone to provide increased hydrology and better survival of wetland vegetation throughout the year. Beneficial wetland vegetation could be planted in restored areas thereby providing additional food and cover. A corn field adjacent to the North Branch of French Creek in the northwestern corner of the property has resulted in some erosion and unstable stream banks. Establishing an adequate buffer and restoring a section of the stream bank would be a valuable restoration project. Significant water quality improvements could be gained with proper land management practices being implemented within the portions of the property contained in the flood zone.

Although negotiations are continuing, the Pennsylvania Game Commission, Western Pennsylvania Conservancy, and the DOI have discussed the purchase of approximately 170 acres of this parcel. The actual cost of acquiring the land is dependent upon the final acreage and negotiated price. The Game Commission has agreed to provide survey and title work assistance as well as cost share the purchase of the identified parcels. The Western Pennsylvania Conservancy has agreed to facilitate the land transaction, thereby donating valuable negotiation and legal assistance. Protection of the property in perpetuity will be granted with the development of an interagency agreement and/or deed restrictions upon project implementation. Assuming a maximum of \$750 per acre for purchase (\$127,500), the in-kind service donation of the Game Commission and Western Pennsylvania Conservancy valued at approximately \$5,000, the estimated cost of the entire project is approximately \$132,500. Assuming an approximate \$300 per acre cost- share needed from the DOI, approximately \$51,000 are needed from the Saegertown settlement.

3. French Creek Riparian Corridor Acquisition

A parcel of forested riparian corridor was identified by the Conneaut Lake and French Creek Valley Conservancy, the French Creek Project, and the French Creek Environmental Advisory Council as an outstanding ecological resource and a critical component of completing a continuous greenway and associated bike trail system. The parcel of land is currently owned by Mr. Edward Marceca and occupies approximately 32 acres bordering approximately one-half mile of French Creek within the city limits of Meadville. The property borders the confluence of Cussewago and French Creeks, and is located approximately 5 miles from the Saegertown Site. Habitat types are varied, including mature bottomland hardwoods in the floodplain, pockets of emergent and forested wetlands, and

potentially developable upland scrub fringes. This parcel serves as an excellent migratory bird corridor between French and Cussewago Creeks, and contains valuable migratory bird habitat. One of the National Audubon Society's Pennsylvania Important Bird Areas is the Cussewago Bottom, which is a 12-mile migratory bird corridor on Cussewago Creek beginning approximately one-half mile north of this site. The subject parcel is currently undeveloped, although a series of trails exist throughout and some habitat is degraded due to the use of motorized vehicles. The French Creek Recreational Trails group is currently securing access on several parcels of land and is in the process of developing a bicycle trail system to extend from Meadville to Conneaut Lake. An abandoned railroad bridge currently owned by the Crawford Township Development Commission spans French Creek at the southern end of the parcel and will be refurbished to facilitate the bike trail crossing. Since this 32-acre parcel would provide access to the abandoned bridge, it is viewed as a critical link in completing the above trail. The French Creek Project, located at nearby Allegheny College, has indicated a desire to utilize a portion the land for educational, public outreach, and scientific teaching purposes. The property, if acquired, will be titled to the Conneaut Lake and French Creek Valley Conservancy. Permanent protection of the property will be granted with the development of an interagency agreement upon project implementation.

The actual cost of the acquisition of this parcel is dependent upon the final negotiated price. The Conneaut Lake and French Creek Valley Conservancy has agreed to provide survey and title work assistance, as well as take title to the land and protect it in perpetuity. The estimated value of this donation of services is \$10,000. Assuming a maximum of \$600 per acre for purchase and the in-kind service donation of the Conservancy, the estimated cost of the project is approximately \$29,000. Therefore, the funds needed from the Saegertown settlement are approximately \$19,000.

4. Harmonsburg Fen Acquisition

A parcel of land including a rare fen (spring-fed wetland) was identified by the Conneaut Lake and French Creek Valley Conservancy as a unique biological resource in northwestern Pennsylvania. The fen is currently owned by Jeet Nath, president of Autoforge, Incorporated, and is located northwest of the intersection of Harmonsburg Road and State Route 18. The fen is approximately nine miles from the Saegertown Site, and drains into Conneaut Lake. The fen has been the subject of several botanical surveys completed by the Cleveland Museum of Natural History and contains at least seven State-listed endangered plants, one State-listed threatened plant, and one State-listed rare plant. The fen also

claims the only Pennsylvania record of the federally listed, threatened Eastern prairie fringed orchid, presumably located there over a century ago. There is also an historic record of the federally listed, threatened bog turtle in the fen. This unique fen is located within an opening of a native white pine and mixed hardwood forest, and is surrounded by forested wetlands, spring seeps, and vernal pools. The fen, surrounding forest, and wetlands are particularly attractive to forest dwelling birds and waterfowl.

Mr. Nath currently owns approximately 44 acres, of which approximately 14 are occupied by his business. The upland areas of the site are virtually all developed as buildings, parking or storage facilities. Therefore, approximately 30 acres, including the fen and surrounding wetlands, would be suitable for purchase. The French Creek Project, located at nearby Allegheny College, has indicated a desire to utilize a portion the land for educational purposes. The Cleveland Museum of Natural History has documented the rare and threatened plants contained in the fen and has a desire to conduct further research in this area, and evaluate potential restoration options for native flora. The Western Pennsylvania Conservancy has surveyed the fen several times in search of rare plant species and the federally listed bog turtle, and has expressed a desire to see this area permanently protected. The property, if acquired, will be titled to one or more of the above partners. Permanent protection will be granted with the development of an interagency agreement upon project implementation.

The actual cost of the acquisition of the fen is dependent upon the final negotiated price. The above partners have collectively agreed to provide survey and title work assistance, as well as take title to the land and protect it in perpetuity. The estimated value of this donation of services is \$10,000. Assuming a maximum of \$600 per acre for purchase and the in-kind service donation of the above partners, the estimated cost of the project is approximately \$28,000. The funds needed from the Saegertown settlement are approximately \$18,000.

5. French Creek Conservation Easement Acquisition

Two parcels of land were identified by the Conneaut Lake and French Creek Valley Conservancy and the French Creek Project as potential conservation easement acquisitions along French Creek, near the town of Sugar creek in Venango County. The two parcels are currently owned under separate deeds by James Holden and the Visiting Nurses Association (VNA), and are located approximately 27 miles from the Saegertown Site. The total acreage available for purchase of conservation easements is approximately 260 acres, of which 150 acres are owned by the VNA, and 110 by Mr. Holden. The

property includes approximately 1 mile of frontage along French Creek, that is comprised of a long, narrow, undeveloped riparian corridor of mature trees. This corridor varies in width and averages approximately 100 feet. The remaining area is approximately 40 percent agricultural and 60 percent mixed uplands. Mr. Holden's land is currently used as a farm, including cropland (corn and winter wheat), pasture, hay fields, and idle lands. The VNA property is a former County-owned farm, and contains several old farm buildings, land leased for corn production, idle lands, and residential-type nursing home and care facilities. If acquired, the Conneaut Lake and French Creek Valley Conservancy has agreed to hold the easement based upon the terms of the negotiated easement language. The land will be open to the public for passive recreation and both landowners have expressed an interest in increasing public access to French Creek.

The total estimated cost of the easement acquisition is dependent upon the final negotiated price. Mr. Holden has been instrumental in the initial dealings with the VNA, and appraisals, surveys, and draft conservation easement language have been completed. The estimated cost associated with these actions is \$4,000. Mr. Holden indicated that he would donate the easement on his land, and it is valued at approximately \$55,000 (110 acres @ \$500/acre). The appraisals for conservation easements on the VNA property range from \$500 to \$2,000. Assuming an average value of \$1,000 per acre for the VNA property, the estimated cost is \$150,000 (150 acres @ \$1,000/acre). The Conneaut Lake and French Creek Valley Conservancy has agreed to provide any final surveys and title work assistance, as well as hold the easement. The estimated value of this donation of services is \$15,000. Based upon the above figures, the estimated cost of the project is \$224,000. The funds needed from the Saegertown settlement are approximately \$150,000, which exceed the \$101,000 that is available.

4. Evaluation and Comparison of Projects

As a natural resource trustee, we are required to evaluate each of the restoration projects based on all relevant considerations, including the following factors: technical feasibility; the relationship of the expected costs of the proposed actions to the expected benefits; cost-effectiveness; the results of any actual or planned response actions; the potential for additional injury resulting from the proposed actions, including long-term and indirect impacts; the natural recovery period of the injured resources; the ability of the resources to recover with or without alternative actions; the potential effects of the action on human health and safety; consistency with relevant federal, State, and tribal policies; and compliance with applicable federal, State, and tribal laws. We must also consider our ability

to secure protection of the restoration site. The following is our evaluation of the specific projects described above:

a. No Action

Because the wetlands and associated habitats at the Saegertown Site have been altered and/or contaminated, and migratory birds have been injured, the no action alternative would not replace the natural resource losses. Furthermore, no environmental benefits would be realized from the settlement with GATX for the Saegertown Site, and we would not fulfill our obligations as a natural resource trustee under CERCLA. For these reasons, this option will not be considered further.

b. Restoration of In-Kind Natural Resources at the Same Location

The Saegertown Site is located within a small industrial park. Surrounding land use is mixed rural, residential, and agricultural. Although the remedy completed on the GATX portion of the site greatly reduced the potential for ecological risk, some level of residual risk to site wildlife may remain. Since the Lord Corporation portion of the site is currently under evaluation to develop final remedial measures, any on-site restoration would be premature and could be compromised by the ongoing construction and remedial activities. Finally, a firm commitment of when the EPA clean-up actions will be completed is uncertain, and we must move forward with this restoration plan to comply with DOI policies. Because of the above reasons, on-site restoration is not feasible and this option will not be given further consideration.

c. Restoration or Replacement of In-Kind Natural Resources in the Vicinity of the Loss

1. Kiser Wetland Restoration Project

The Kiser wetland restoration project would result in the creation and restoration of approximately 8 acres of emergent wetlands and adjacent upland habitat. The restored habitat would fully compensate for the lost services and injuries to migratory birds that resulted from contamination at the Saegertown Site. The project would involve flooding primarily upland, old field cover types, with permanent conversion to wetlands. This would result in some long-term impacts to the existing upland vegetation, and some short-term impacts in the form of decreased vegetative cover may result for a few growing seasons until the created wetland becomes fully functional. Some of the loss of upland habitat would be offset by riparian buffer zone plantings, proper maintenance, and management. In addition to the increased habitat value and use by

migratory birds, other project benefits include permanent protection via easement holding by a non-profit organization and increased public use.

The project is technically feasible, and although no cost-sharing partners have been identified, it is still somewhat cost-effective. Implementation of the project will not result in any significant injuries to fish and wildlife resources or their habitats. The project will not adversely affect endangered species or sensitive areas. The proposed project will have negligible impacts on the human environment as only minor land use change is anticipated, and is consistent with relevant federal and State laws and policies.

2. State Game Lands #269 Wetlands Restoration (Project #1)

The project would include restoring wetland functions and values to approximately 35 acres. Some minor permanent impacts to the surrounding upland vegetation would occur from reinforcing the old dikes and increasing the water level; however, most impacts could be offset by maintenance and management of the upland fringes. Because the restored wetlands would include several acres each of emergent, scrub-shrub, and open water wetlands, all of the lost services and injuries to migratory birds at the Saegertown Site would be fully compensated. Permanent protection is not included; however, since the project would restore wetlands that are located within the State Game Lands boundary, it is unlikely that they would be subjected to future alteration. The Game Commission will monitor the property to prevent vandalism, poaching, unapproved entry, and threats to the plants and animals there. They will also inventory plants and animals to ensure a successful restoration, and monitor public use of the property to ensure that adverse impacts are minimized. Other project benefits include long-term sound management for the benefit of wildlife resources and increased public use.

The project is technically feasible and cost-effective. Overall design would be more costly than the average wetland restoration project, simply because of the large watershed size, water-holding capacity, and necessary engineering costs associated with evaluating the integrity of the old dikes. However, this is somewhat offset because the old dikes are already present and little earth moving activity would be needed to complete this project. Because of the size of the watershed, permitting issues would need to be identified and resolved prior to construction. Implementation of the project will not result in any significant injuries to fish and wildlife resources or their habitats. The project will not adversely affect endangered species or sensitive areas. The proposed project will have negligible impacts on the human environment as only minor land use change is anticipated,

and is consistent with relevant federal and State laws and policies.

3. State Game Lands #269 Wetlands Restoration (Project #2)

The project would include restoring wetland functions and values to approximately 10 acres. Some minor permanent impacts to the surrounding upland vegetation would occur from constructing new dikes and increasing the water level; however, most impacts could be offset by maintenance and management of the upland fringes. Because the restored wetlands would provide excellent migratory bird habitat, including several acres each of emergent, scrub-shrub, and some forested wetlands, all of the lost services and injuries to migratory birds at the Saegertown Site would be fully compensated. Permanent protection is not included; however, since the project would restore wetlands that are located within the State Game Lands boundary, it is unlikely that they would be subjected to future alteration. The Game Commission will monitor the property to prevent vandalism, poaching, unapproved entry, and threats to the plants and animals there. They will also inventory plants and animals to ensure successful restoration, and monitor public use to ensure that adverse impacts are minimized. Other project benefits include long-term management for the benefit of wildlife resources and increased public use.

The project is technically feasible and cost-effective.

Implementation of the project will not result in any significant injuries to fish and wildlife resources or their habitats. The project will not adversely affect endangered species or sensitive areas. The proposed project will have negligible impacts on the human environment as only minor land use change is anticipated, and is consistent with relevant federal and State laws and policies.

d. Acquisition of In-kind Resources in the Vicinity of the Loss

1. State Game Lands #109 Acquisition

The State Game Lands #109 Acquisition would consist of adding 162 acres via acquisition and 53 acres via donation to the Pennsylvania Game Commission. Habitat types are varied and include open field uplands, woodlands, forested and emergent wetlands, and floodplain located along LeBoeuf Creek. The Pennsylvania Game Commission will manage and protect the property as part of their Game Lands system. The purchase would ensure long-term protection of various habitats and provide similar services to those impacted at the Saegertown Site. Migratory bird habitat enhancement projects, if implemented, would provide additional compensation for the lost services and injuries to migratory birds from the Saegertown Site. Project benefits include permanent wetlands protection, potential further habitat restoration opportunities, long-term land

management for the benefit of wildlife resources, and increased public use.

The Game Commission will monitor the property to prevent vandalism, poaching, unapproved entry, and threats to the plants and animals there. They will also inventory plants and animals at the property and monitor public use to ensure that adverse impacts are minimized. The property will be open to the public free of charge. The subject property, as well as the declining number of other undeveloped properties in the area, is threatened by residential development. The project will complement the existing Game Lands by increasing the size by approximately 13 percent, providing contiguous parcel ownership, and creating public access from the adjacent Route 97.

This project is technically feasible. The partnerships involved in the project, including the cost-share with the Game Commission, and the donation of services and land by the Western Pennsylvania Conservancy, make this alternative extremely cost-effective. Implementation of the project will not result in any additional injuries to fish and wildlife resources, and it will compensate for injuries at the Saegertown Site. The project will not adversely affect endangered species or sensitive areas, in fact it will result in permanent protection of at least six State-listed plant species. The proposed project will have negligible impacts on the human environment as no land use change is anticipated, and is consistent with relevant federal and State laws and policies.

2. State Game Lands #162 Acquisition

The State Game Lands #162 acquisition would consist of adding approximately 170 acres into public ownership under the authority of the Pennsylvania Game Commission. Habitat types on this land are varied and include old field uplands, croplands, woodlands, forested and scrub- shrub wetlands, and floodplain located along the North Branch of French Creek. The Pennsylvania Game Commission will manage and protect the property as part of their Game Lands system. The purchase would ensure long-term protection of various habitats and provide similar services to those impacted at the Saegertown Site. Migratory bird habitat enhancement projects, if implemented, would provide additional compensation for the lost services and injuries to migratory birds from the Saegertown Site. Since conventional plowing, tilling, and harvesting of row crops occur within the flood zone and on the wet portions of this parcel, any modifications to minimize this current land use practice will likely result in decreased erosion and siltation in French Creek, leading to overall improvements in water quality. Other project benefits

include permanent wetlands protection, potential further habitat and stream restoration opportunities, long-term land management for the benefit of many wildlife resources, and increased public use.

The Game Commission will monitor the property to prevent vandalism, poaching, unapproved entry, and threats to the plants and animals there. They will also inventory plants and animals at the property and monitor public use to ensure that adverse impacts are minimized. The property will be open to the public free of charge. The project will complement the existing Game Lands by increasing its size by nearly 30 percent, and by providing public access from the adjacent Route 8. The acquisition will also provide access to an isolated portion of the existing Game Lands.

This project is technically feasible. The partnerships involved in the project, including the cost-share with the Game Commission, and the donation of services by the Western Pennsylvania Conservancy, make this alternative very cost-effective. Implementation of the project will not result in any additional injuries to fish and wildlife resources, and it will compensate for injuries at the Saegertown Site. The project will not adversely affect endangered species or sensitive areas. The proposed project will have negligible impacts on the human environment as only minor land use change is anticipated, and it is consistent with relevant federal and State laws and policies.

3. French Creek Riparian Corridor Acquisition

This acquisition project would have included the purchase of 32 acres bordering approximately one-half mile of French Creek within the city limits of Meadville, and provided numerous benefits to migratory birds and other fish and wildlife resources. However, negotiations ceased in late October 1999 when the Department learned from the current landowner that a decision was made not to make the property available for purchase. Therefore, this project is not feasible at this time and this option will not be given further consideration.

4. Harmonsburg Fen Acquisition

This acquisition project would have included the purchase of a unique and fragile alkaline fen and surrounding wetlands providing numerous benefits to migratory birds and other fish and wildlife resources. However, despite the assistance of several outstanding partners, and a few excellent on-site meetings with those partners and the landowner, negotiations ceased in early January 2000 when the landowner decided not to make the subject property available for purchase. Therefore, this project is not feasible at this time and this option will not be given further consideration.

5. French Creek Conservation Easement Acquisition

The easement acquisition of the two identified parcels of land would permanently protect the properties from development and would secure an approximate one-mile riparian corridor along French Creek. Because some of the area is currently used for farming, and there is a desire by the landowners to maintain sustainable agriculture and forestry practices, the details regarding those aspects of the easement language would be crucial in determining the migratory bird benefits of this project. However, assuming the riparian corridor along French Creek would be permanently protected, the easement purchase would ensure long-term protection of this area and provide similar services to those impacted at the Saegertown Site. The subject property, as well as a number of other undeveloped properties along French Creek in the area, is threatened by development. As such, the appraisals for conservation easements that were completed for this project (\$500 to \$2,000 per acre) are generally higher than in the other project areas.

An expansion of the nursing care facilities is planned on the VNA property; however, the area to be developed is not part of the acreage identified in the above project and the expansion would be placed close to the existing facilities. The act of developing adjacent to the easement property may be considered an aesthetic detriment at a minimum, and some level of short-term impact on existing wildlife resources may result. Project benefits include permanent protection via easement holding by The Conneaut Lake and French Creek Valley Conservancy, increased public use, and potentially increased public access to French Creek.

This project is technically feasible. The partnerships involved in the project, including the donation of services by the Conneaut Lake and French Creek Valley Conservancy, and the donation of the conservation easement by Mr. Holden make this alternative cost-effective. The increased land values in this area, as reflected in the average appraised conservation easement value of \$1,000 per acre, somewhat decreases the overall project cost-effectiveness in relation to the other alternatives.

Implementation of the project will not result in any additional injuries to fish and wildlife resources, and it will compensate for injuries at the Saegertown Site. The project will not adversely affect endangered species or sensitive areas, and it will result in permanent protection of approximately one mile of riparian corridor on French Creek. The proposed project will have negligible impacts on the human environment as no proposed land use change is anticipated, and is consistent with relevant federal and State laws and policies.

The cost of this project exceeds what is currently available, and since additional cost-sharing partners were not identified, the project will not be given further consideration.

5. Preferred Project

Based on the evaluation and comparison of projects, we have selected two of the acquisition options as the preferred project. The projects selected are option d.1 (State Game Lands #109 Acquisition) and option d.2 (State Game Lands #162 Acquisition). Implementation of the preferred project will fully compensate for the injuries sustained at the Saegertown Site. Both of these projects include opportunities for additional habitat restoration to benefit migratory birds, and any remaining funds will be used to restore habitat on these parcels as described in this plan. This represents our current proposal for action to make the environment and public "whole" from the loss of natural resources and services due to activities and release of contaminants at the Saegertown Site.

F. Compliance with the National Environmental Policy Act (NEPA)

The U.S. Fish and Wildlife Service Final Revised Procedures for implementing NEPA, published in the *Federal Register* on January 16, 1997, provide a categorical exclusion for natural resource damage assessment restoration plans prepared under CERCLA when only minor or negligible change in the use of the affected areas is planned. Categorical exclusions are classes of actions which do not individually or cumulatively have a significant effect on the human environment.

The projects selected above will result in negligible change in the use of the project area and will not have a significant effect on the human environment. Accordingly, this Restoration Plan qualifies for a categorical exclusion under NEPA. We have prepared an Environmental Action Statement documenting this determination.