

Finding of No Significant Impact for the Final Restoration Plan and Environmental Assessment for the November 26, 2004 M/T *Athos I* Oil Spill on the Delaware River near the Citgo Refinery in Paulsboro, New Jersey

National Marine Fisheries Service

National Oceanic and Atmospheric Administration Administrative Order 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 C.F.R. 1508.27 state that the significance of an action should be analyzed both in terms of 'context' and 'intensity.'

The federal actions selected for restoration of natural resources and services injured as a result of the *Athos I* oil spill are:

- *Freshwater tidal wetlands restoration at John Heinz National Wildlife Refuge (Pa.)* - Restore 7.0 acres of freshwater tidal wetland to benefit 56 acres within John Heinz National Wildlife Refuge to compensate for tributary losses. This project would restore tidal exchange to the proposed site through tidal channels, shallow pools, and scrub/shrub wetland habitat.
- *Create oyster reefs (N.J., Del.)* - Create roughly 78 acres of oyster reef in the Delaware River to compensate for injuries to aquatic resources, diving birds, and gulls. Oyster reefs enhance benthic communities, increase aquatic food for fish and birds, and improve water quality by filtering out sediments and pollutants from the water column.
- *Darby Creek dam removal and habitat restoration (Pa.)* - Remove three dams and a remnant bridge pier from Darby Creek in southeastern Pennsylvania to open up an additional 2.6 miles of habitat to anadromous fish, and restore about 10 acres of riparian habitat along the creek edges. Dam removal and riparian habitat projects would compensate for tributary losses.
- *Habitat restoration at Mad Horse Creek (N.J.)* - Restore 59.6 acres of degraded wetland and create 35 acres of wet meadow and 100 acres of grassland at state-owned property on Mad Horse Creek (N.J.). The proposed wetland restoration would compensate for non-tributary shoreline losses and a portion of the bird loss. The increase in upland vegetation (wet meadow and grassland habitat) would serve as food sources that can reasonably be expected to enhance bird biomass, thereby compensating for a portion of the total bird loss.
- *Shoreline restoration at Lardner's Point (Pa.)* - Restore shoreline through the demolition of existing structures, import of fill material, grading of a 0.9 acre site to restore tidal inundation, and creation of intertidal marsh and wet meadow habitat. This shoreline restoration project would have multiple benefits in the urban part of the river that was heavily impacted by the spill.

- *Blackbird Reserve Wildlife Area Pond and Pasture Enhancement (Del.)* - Excavate two shallow wetland ponds in former agricultural areas, convert 16 acres of agricultural lands to cool-season grass pasture, and establish approximately 24 acres of food plots by modifying existing agricultural practices. Conversion of existing agricultural land to pond and pasture habitat and modification of *existing agricultural practices would provide resting and foraging* areas targeted to migratory geese.
- *Improve recreational opportunities (Pa., N.J., Del.)* - Implement three projects to address the estimated 41,709 river trips that were affected by the spill:
 - Improve the Stow Creek (N.J.) boat ramp;
 - Construct an additional breakwater at Augustine Boat Ramp (Del.) to address ongoing shoaling immediately offshore of the boat ramp; and
 - Enhance the recreational trail on Little Tinicum Island (Pa.).

Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQ's context and intensity criteria, and is specific to the preferred alternatives – Alternative 2: Augustine Boat Ramp, Alternative 3: Blackbird Reserve, Alternative 5: Darby Creek Dam, Alternative 9: John Heinz National Wildlife Refuge, Alternative 10: Lardner's Point Riparian Restoration, Alternative 11: Mad Horse Wetland Restoration, Alternative 13: Oyster Reef Restoration, Alternative 15: Stow Creek Boat Ramp, and Alternative 16: Tinicum Island Recreational Trail – based on the evaluation of those alternatives in the supporting EA. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans (FMPs)?

Response: No, the proposed actions will cause no significant adverse impacts to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Act and identified in Fishery Management Plans (FMPs). The project sponsors determined that the preferred alternatives will create new habitat, enhance existing habitat, or restore recreational services. When developing its conclusions, the Trustees considered the long-term impact of these beneficial projects, as well as temporary impacts to resources during construction. The Delaware Bay, Stow Creek, and Mad Horse Creek have been designated as essential fish habitat (EFH). The NOAA Fisheries Habitat Conservation Division is charged with review of federal projects pursuant to the Magnuson Stevens Act and has determined that the actions present no or minimal threats to essential fish habitat or EFH species. Impacts from activities within Delaware Bay (Augustine Boat Ramp and Oyster Reef Restoration) and Stow Creek (Stow Creek Boat Ramp) are expected to be minimal and further consultation is not necessary. Restoration activities within the estuarine waters at Mad Horse Creek may have

temporary minor impacts on EFH. Temporary impacts may include suspended sediments in the water column; however, these impacts will be minimized through the use of turbidity curtains, erosion mats and the implementation of time-frame construction avoidance windows. .

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: No, the projects will not have a substantial impact on ecosystem function and species biodiversity within the affected areas. Instead the effect of these projects will be beneficial to the productivity and ecosystem functions of their respective areas. Oyster reef restoration, Blackbird Reserve, and Mad Horse Creek projects will improve bird productivity by improving overall habitat conditions. Specifically, oyster reefs will restore subtidal benthic habitat that was lost due to the spill. Mad Horse Creek, Lardner's Point, and John Heinz Wildlife Refuge projects will restore wetlands and associated primary productivity (Primary production is the production of chemical energy in organic compounds by living organisms). Likewise, the Darby Creek project will remove barriers to fish passage and enhance ecosystem functions by restoring riparian corridor habitat. Finally, the Little Tinicum Island trail and habitat enhancement will help to protect native plant species by installing official trails on the island and will assist their productivity by removing non-native plants. In addition, planned recreational projects at the Stow Creek and Augustine boat ramps will not have significant adverse impacts on biodiversity or ecosystem function, as their project work will largely be taking place in areas already impacted by the built environment. Combined, the actions stated above will have a positive effect on ecosystem function by design. The beneficial effects of these actions will not be immediate but will be relied upon the growth of the vegetative species, fish response to dam removal, oyster growth and the diminished growth of non-native vegetation. This can take anywhere from several days after construction is complete to several months.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: No, the projects will not have a substantial adverse impact on public health and safety, though minor, temporary construction disturbance is expected. During construction, earth moving activities will create limited exposure to noise, visual disturbance and dust in any adjacent residential human environments; however, elevated exposure to sediment, dust or debris are not expected. All disturbances resulting from construction (noise, air, street traffic) will be limited to daylight hours and only during a short construction period. Noise and dust will also be limited by disturbance control practices built into the performance of the

contracts. During project construction and implementation, the public will not have access to these areas in order to protect them from any hazards that may arise during the restoration activities.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: No, the projects will not adversely affect any federal or state listed species their critical habitat, marine mammals, or other non-target species. Endangered Species Act (ESA) consultations were completed with each state for the planned projects and their related sites. As a result of these consultations, it was determined that, except for occasional transient individuals, no federal or state listed species are known to exist within the project areas, except at Mad Horse Creek and Blackbird Reserve. The Mad Horse and Blackbird project areas contain nesting and foraging areas for bald eagles, which are state listed as endangered (breeding population) and threatened (non-breeding population) in New Jersey and state listed as endangered in Delaware. An eagle nest was discovered approximately 1 mile away from both the Mad Horse and Blackbird project areas. Through consultations with an eagle expert within the New Jersey Department of Environmental Protection and an eagle expert within the State of Delaware, it was determined that the nesting site will not be affected during construction because of the distance between the construction activities and the location of the nests. After project implementation, the activities planned will enhance the habitat for bald eagles. For example, agricultural fields in the south west portion of the Mad Horse project will be allowed to return to forest.

The bog turtle (*Clemmys muhlenbergii*), federally listed as threatened, may be present within the project area of Blackbird Reserve. Delaware Natural Heritage staff made a site visit in June 2008 and determined that there were no species of concern impacts with the Blackbird Reserve project. The area where construction is occurring is not in the location of the federally listed bog turtle. The Blackbird Reserve encompasses a vast area where sections of the Reserve include the bog turtle. Staff from the Delaware Natural Heritage and Endangered Species Program made a site visit to where construction is going to occur on the Reserve and determined the bog turtle was not in this location.

Additional consultation with the representatives from New Jersey Department of Environmental Protection, the State of Delaware and the USFWS will continue during the design phase of the Mad Horse and Blackbird projects to ensure complete compliance with Section 7 of the Endangered Species Act.

Adverse impacts on other non-targeted species are expected to be temporary and limited to the construction and recovery phase (estimated at 3-5 years for most species). Impacts would be avoided/mitigated by the use of BMPs, including installation of erosion mats, turbidity curtains, and the implementation of time-

frame construction avoidance windows. No construction activities would occur directly adjacent to the river and creeks during potential periods of anadromous fish usage: March 1 through June 30.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: No, there are no significant adverse social or economic impacts interrelated with natural or physical environmental impacts due to the proposed actions. The human environment will largely benefit from the selected restoration projects. For example, the restoration projects include enhanced recreational opportunities, including two proposed boat ramp improvements, and a nature trail enhancement for hikers and other users. These projects will enhance recreational opportunities but will not have significant social or economic impacts on the area.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: No, it has been determined that the projects will have no significant adverse impacts on the quality of the human environment and are not likely to generate controversy. Restoring natural resources to compensate for the release of oil is expected to have a neutral, if not beneficial, impact on the human environment.

All public comments received as a result of the public comment period have been summarized and addressed in Appendix 1 of the Final Restoration Plan. Comments received during the 45-day review period included comments from the general public on specific restoration alternatives. An example of some of the comments received include: One commenter opposed the Augustine Boat Ramp based on the environmental impacts the placement of a jetty could cause to sediment and wave transport downstream. The Delaware Department of Natural Resources and Environmental Control contracted out a modeling study which investigated the simulation of coastal processes in the area with several tidal hydrodynamic models coupled with a sediment transport model, and tidal current and wave data. The stone jetty north of the boat ramp was the best alternative and the one included in the proposed projects and would not cause significant environmental impacts to wave and sediment transport. The purpose of the jetty is to minimize the sediment and waves in the area, making boating safer.

Two commenters questioned the use of active agricultural land in the restoration project at Blackbird Reserve and one commenter also questioned the use of active farmland at Mad Horse Creek. The Blackbird Reserve project is being conducted on a state wildlife area. When this property was purchased, land use restrictions were applied to it through the funding process that required that all existing agricultural practices be discontinued in the near future and all agricultural areas be converted to other habitats. In order to maintain a diversity of habitats on the

parcel, a variance from the original agreement was obtained which allows for a small portion of the property to remain in agricultural practice. Therefore, this restoration project will maintain 23.6 acres of agricultural land and increases habitat heterogeneity on this 535-acre property. Of these 23.6 acres, only 20 percent (4.7 acres) are being left unharvested as a standing crop for migratory geese. The remaining acreage will stay in active use for harvest by the contracted farmer. Therefore, this restoration proposal will yield a net increase in agricultural land not a decrease. The Mad Horse Creek project area was once tidal marsh before it was filled to create farmland. The filling degraded the marsh, allowing an invasion of *Phragmites* and altering the hydrology of the area. The restoration of Mad Horse Creek will restore the area to conditions similar to its original state before manipulation.

The projects are expected to be in compliance with all applicable environmental protection laws, and no violations are likely or expected, so no controversy should ensue from non-compliance. All disturbances resulting from construction (noise, air, street traffic) will be limited to daylight hours and only during a short construction period. Noise and dust will be limited by disturbance control practices built into the performance of the contracts.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: No, the projects cannot be reasonably expected to have a substantial negative impact on historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas. There are no unique or rare resources of any type that will be affected. Many of the sites are degraded and do not present unique or rare conditions for the geographic area. There are no listed or potentially eligible national historic sites, or other significant cultural resources located in the project areas.

Prime farmlands, parkland and wild and scenic rivers do not exist in the project areas, or in the limited area of the projects' impacts.

The proposed actions are assumed to have beneficial effects on these resources by restoring wetland, riparian corridor, benthic habitat, and bird resources because they are specifically designed to improve these habitats and resources.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: No, the proposed actions are unlikely to have uncertain effects or involve unique or unknown risks to the human environment associated with their immediate construction or in the long-term. The likely effects of these types of activities are well known and documented from previous restoration actions of the

same or similar nature. Examples of similar restoration activities may be found throughout New Jersey, Pennsylvania and Delaware.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: No, the proposed action is not expected to result in cumulatively significant impacts. No individually significant or cumulatively significant impacts were identified to occur as a result of implementation of these actions. These projects will help to improve the quality and accessibility of these resources for the public. The actions are mutually exclusive and will not be cumulative in their actions or impacts once completed.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: No, there are no listed or potentially eligible national historic sites, or other significant cultural resources located in the area of the projects. Wetland restoration sites will be surveyed to determine values as archaeological resources and oyster restoration will avoid submerged archaeological resources. Each project will have a consultation initiated with the respective State Historical Preservation Office (SHPO) as a component of state permitting processes.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: No, the actions will not result in the introduction or spread of non-indigenous species. Instead, the projects are intended to reduce the spread of invasive species by enhancing habitat for native vegetation. A significant invasive species in the project areas is *Phragmites australis*. This species cannot tolerate prolonged water inundation; therefore, the projects involve lowering the marsh surface and digging up the root mat to limit further colonization. Root mat of *Phragmites australis* that is removed would be disposed of as a solid waste, and would not be sent to composting facilities or sidecast on site. Herbicide spraying and burning for *Phragmites australis* has occurred at the John Heinz and Mad Horse projects and will continue until construction activities for the proposed restoration project begin. However, if no changes were to be made to the elevation of the marsh surface at the Mad Horse Creek and John Heinz sites, continued spraying and or burning would be necessary to control the invasive plant. So the proposed projects are expected to limit the need for future pesticide applications or time-consuming maintenance. During project construction, appropriate best management practices, such as clearing vegetative material from tires or vehicle tracks, will be practiced for any equipment that is used in removal of *Phragmites australis*.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Response: No, the proposed actions will neither establish a precedent for future actions with significant effects nor will they represent a decision in principle about a future consideration.. Jetty construction, oyster habitat creation, trail enhancement, boat ramp installation, shoreline and tidal and non-tidal wetland restoration and pond and pasture enhancement are established practices within New Jersey, Pennsylvania and Delaware.

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

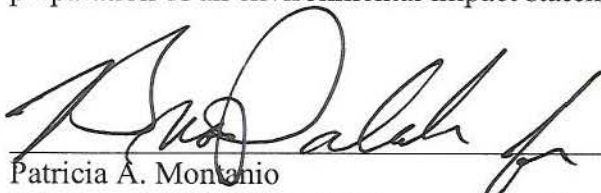
Response: No, the projects have been planned to be in compliance with all applicable environmental protection laws, and no violations are likely or expected. In addition, projects will be implemented in compliance with all permits required by the state and federal regulatory agencies.

14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: No, the proposed actions will not result in a substantial cumulative adverse effect on target species or non-target species. The restoration projects' primary goal is to compensate for injured natural resources or services lost due to the release of oil from the *Athos I*. As such, the net effects are incrementally beneficial.

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting Restoration Plan and Environmental Assessment for the *Athos I* Oil Spill Project, it is hereby determined that the Preferred Alternatives identified for implementation will not significantly impact the quality of the natural or human environment. In addition, all beneficial and adverse impacts of the proposed actions have been addressed to reach the conclusion of no significant adverse impacts. Accordingly, preparation of an environmental impact statement (EIS) for this action is not necessary.



Patricia A. Montonio
Director, Office of Habitat Conservation, NOAA

2/18/09
Date