FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment

DOI-BLM-ES-0030-2012-0018-EA

Wildlife Habitat Restoration and
Enhancement Activities on Wildwood Islands,
Sheboygan River, Sheboygan, Wisconsin

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the proposed invasive species control, wildlife habitat enhancement, bank stabilization and channel modification, and contaminated soil disposal will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

Authorized Officer:

Mark Storzer, Manager
Northeastern States Field Office

7/25/12
Date

Northeastern States Field Office
626 East Wisconsin Ave. Suite 200
Milwaukee, Wisconsin 53202-4617
414-297-4400
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DECISION RECORD

Environmental Assessment
DOI-BLM-ES-0030-2012-0018-EA
Wildlife Habitat Restoration and
Enhancement Activities on Wildwood Islands,
Sheboygan River, Sheboygan, Wisconsin

It is my decision to allow the Proposed Action to be implemented as described in the EA of Wildlife Habitat Restoration and Enhancement Activities on Wildwood Islands, Sheboygan River, Sheboygan, Wisconsin. The EA and FONSI analyzed the selected alternative and found no significant impacts. Implementation of this decision will result in the control of invasive species and the enhancement of the wildlife habitat on a small island complex.

Authorities: The authority for this decision is contained in The Federal Land Policy and Management Act of 1976.

Compliance and Monitoring: The City of Sheboygan, in the spirit of the Memorandum of Understanding with the BLM, will monitor the implementation of the project, which includes three subsequent years of project maintenance. After that period, the BLM, in consultation with the members of the Sheboygan River Area of Concern (AOC) Technical Advisory Committee, will continue to maintain and/or extend the project.

Terms / Conditions / Stipulations: The City of Sheboygan and its selected contractor(s) must comply with statutes and regulations designed to protect water quality, cultural and historic resources, biological diversity, and other resources, including, but not limited to, the Clean Water Act, the Rivers and Harbors Act, the National Historic Preservation Act, and the Endangered Species Act.

PLAN CONFORMANCE AND CONSISTENCY:

The selected alternative is in conformance with the Wisconsin Resource Management Plan (Record of Decision signed on August 29, 1985).

Alternatives Considered: The EA considered two alternatives: the no action alternative and the proposed action, which is the alternative recommended. The no action alternative was not selected because it would not suitably address the purpose and need, which includes thorough control of non-native, invasive species in selected portions of the Sheboygan River AOC.

Rationale for Decision: One of the BLM's priorities is to facilitate the restoration of impaired waterways. The proposed action would enable the BLM to play a key role in delisting the

Sheboygan River AOC and makes the BLM an active participant in the management of Wisconsin's waterways, fisheries, and recreational resources. The methods proposed are widely and successfully used in wildlife habitat enhancement projects and were tailored to local conditions by a coalition of scientists from various disciplines.

Protest/Appeal Language: In accordance with 43 CFR 4.411 and 4.413, any person whose interest is adversely affected by a final decision of the authorized officer may appeal the decision to the Interior Board of Land Appeals. The appeal must be filed within 30 days after the date the proposed decision becomes final or 30 days after receipt of the final decision. In accordance with 43 CFR 4.411 and 4.412, the appeal shall state clearly and concisely the reason(s) why the appellant thinks the final decision of the authorized officer is wrong.

Pursuant to 43 CFR 4.21(b) and 4.413(a), an appellant also may petition for a stay of the final decision pending appeal by filing a petition for stay along with the appeal within 30 days after the date the proposed decision becomes final or 30 days after receipt of the final decision.

The appeal and any petition for stay must be filed at the office of the authorized officer: Authorized Officer, Northeastern States Field Office, 626 E. Wisconsin Ave., Suite 200, Milwaukee, WI 53202-4617. **At this time, the BLM will not accept protests or appeals sent by electronic mail.** Within 15 days of filing the appeal and any petition for stay, the appellant also must serve a copy of the appeal, and any petition for stay, on any person named in the decision and listed at the end of the decision, and on the: Regional Solicitor, Northeast Region, U.S. Department of the Interior, One Gateway Center, Suite 612, Newton, MA 02458.

Pursuant to 43 CFR 4.21(b)(1), a petition for stay, if filed, must show sufficient justification based on the following standards:

(1) The relative harm to the parties if the stay is granted or denied;
(2) The likelihood of the appellant's success on the merits;
(3) The likelihood of immediate and irreparable harm if the stay is not granted; and,
(4) Whether the public interest favors granting the stay.

43 CFR 4.21(b)(2) provides that the appellant requesting a stay bears the burden of proof to demonstrate that a stay should be granted.

Authorized Officer:

Mark Storzer, Manager
Northeastern States Field Office

7/25/12
Date

United States Department of the Interior
Bureau of Land Management
Northeastern States Field Office
LLES003420

Environmental Assessment

NEPA #: DOI-BLM-ES-0030-2012-0018-EA

Wildlife Habitat Restoration and Enhancement Activities on Wildwood Islands, Sheboygan River, Sheboygan, Wisconsin

Date: July 2012

Type of Action: Vegetation Management and Wildlife Habitat Enhancement

Location: 4th Principal Meridian, Sheboygan County, Wisconsin
T. 15 N., R. 23 E., Sec. 27, NENW (County Control Number 117-003)

Project Acreage: 6 acres

Bureau of Land Management
Northeastern States Field Office
626 E. Wisconsin Ave., Suite 200
Milwaukee, WI 53202
414-297-4400 (phone)
414-297-4409 (fax)

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CHAPTER 1 – PURPOSE OF AND NEED FOR ACTION

Purpose of the Proposed Action

The purpose of the proposed action is to restore and enhance wildlife habitat on Wildwood Islands as part of a larger effort to delist the Sheboygan River Area of Concern (AOC).

Need for the Proposed Action

The need for the proposed action is the poor quality of wildlife habitat present on Wildwood Islands and throughout the Sheboygan River AOC. The AOC was originally listed in 1985 with nine of the possible 14 beneficial use impairments (BUIs), including degradation of fish and wildlife populations, and loss of fish and wildlife habitat.

Conformance with BLM Land Use Plan(s)

These actions are in conformance with the Wisconsin RMP[1] (Record of Decision signed August 29, 1985) and fall under the Mitigation section of the RMP, which states, "The plan has been designed to avoid or minimize environmental harm where practicable. Specific mitigation measures in accordance with existing laws, regulations, and other requirements will be designed on a tract-by-tract basis as needed."(p. 2).

Relationship to Statutes, Regulations and Other Plans

Executive Order 13112 – Invasive Species

This policy directs federal agencies to use their authorities to "(i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them." The proposed action is entirely consistent with the directives provided in this EO.

Wisconsin NR 40 – Invasive Species Identification, Classification, and Control Rule

This rule[2] provides criteria for classifying invasive species, lists two groups of invasive species to regulate, and restricts the "transportation, possession, transfer, or introduction" of these species. The rule authorizes the Wisconsin Department of Natural Resources (WDNR) to require landowners to control prohibited species on their land and, under certain circumstances, authorizes the Department to destroy prohibited invasive species at the landowner's expense.

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[1] BLM Milwaukee District Office, *Wisconsin Resource Management Plan*, 1985, available at the Northeastern States Field Office.
[2] Available at http://docs.legis.wisconsin.gov/code/admin_code/nr/40.pdf

Decision(s) To Be Made

The BLM will decide whether to permit the use of heavy equipment for the purpose of removing invasive species and stabilizing banks on the island. The BLM has already decided to conduct invasive species control using various methods, such as using herbicides, prescribed fire, and manual/mechanical methods.

Scoping and Issues

Rationale for not conducting external scoping

The BLM elected not to conduct its own external scoping for two reasons. First, State and Federal water quality regulations provide clear guidance with respect to minimizing impacts to surface waters by a project such as the proposed action. Second, State and Federal agencies have been intimately involved in the development of the proposed action, and the public has been invited, through a public information meeting held in Sheboygan on January 25, 2012, to comment on the entire AOC restoration project, which includes the proposed action.

Issues identified through scoping

1. Will the proposed action result in sediment deposition into the Sheboygan River?
2. Will the products of the proposed action be manageable by the BLM in the long run?

CHAPTER 2 – ALTERNATIVES INCLUDING THE PROPOSED ACTION

Introduction

A 14-mile stretch of the Sheboygan River was designated in 1985 as a Great Lakes Area of Concern (AOC) because of water quality and habitat problems associated with the historical discharge of pollutants into the river and the potential adverse effect the pollutants could have on Lake Michigan.[3] Of the 14 BUI's that are used to characterize Great Lakes AOCs, the Sheboygan River AOC is recognized to have nine:

- Restrictions on fish and wildlife consumption
- Eutrophication or undesirable algae
- Degradation of fish and wildlife populations
- Fish tumors or other deformities
- Bird or animal deformities or reproduction problems
- Degradation of benthos
- Degradation of phytoplankton and zooplankton populations
- Restriction on dredging activities
- Loss of fish and wildlife habitat

The WDNR and a coalition of local, State, and Federal agencies and members of the public have developed an extensive list of projects designed to address these BUIs with the ultimate goal of having the AOC delisted. The projects that are relevant to this EA involve wildlife enhancement activities on BLM islands and on private and Sheboygan County lands, including approximately 1,600 feet of bank stabilization on private lands and more than 180 acres of wetland restoration, creation, and

[3] U.S. EPA, *Sheboygan River Area of Concern*, available at http://www.epa.gov/glnpo/aoc/sheboygan.html.

enhancement. The Wildwood Islands portion of the plan accounts for 1.2 acres of proposed excavated area and up to 5.5 acres of total affected area. The BLM entered into a Memorandum of Understanding (MOU) with the City of Sheboygan on September 15, 2011 to carry out the AOC-related habitat projects. The City has contracted with SEH, Inc., a Green Bay-based firm, to design and implement the projects.

Location

The small cluster of islands locally known as Wildwood Islands is in the Sheboygan River, in the City of Sheboygan, Sheboygan County, Wisconsin (Figure 1).

Figure 1. Sheboygan River AOC and Decision Area.

Proposed Action

The proposed action has four components for the purpose of this EA:

Invasive Species Control Using Herbicides and Low-Intensity Methods

The BLM has analyzed the environmental impact of these activities in the "Environmental Assessment of Invasive Species Control Activities on BLM-Administered Lands in Wisconsin"[4] (Wisconsin Invasive Species EA), which is incorporated here by reference. The Wisconsin Invasive Species EA and its Finding of No Significant Impact and Decision Record are incorporated by reference herein. The BLM decided to use herbicides and other low-intensity methods for controlling invasive species. The methods that would apply to Wildwood Islands include spraying herbaceous plants with herbicides, cutting shrubs and trees and treating the stumps with herbicide, and using prescribed fire to consume brush piles and/or to kill or suppress invasive plants.

Invasive Species Control Using Heavy Equipment

This component differs from the first component in the use of heavy equipment, which disturbs significant amounts of soil by design or as an expected result of its use. The use of heavy equipment is not analyzed in the Wisconsin Invasive Species EA. Heavy equipment would be used to remove large

[4] BLM, *Environmental Assessment of Invasive Species Control Activities on BLM-Administered Lands in Wisconsin*, June 2010, available at the Northeastern States Field Office.

stands of common reed grass (*Phragmites australis*) by scraping to just below the roots, a depth of two to three feet.

Channel and Bank Stabilization

This component would include a combination of minor channel excavation, placement of large woody debris to divert flow into preferred channels, and bank stabilization. The channel modifications would happen in the small channels between the small islands shown in Figure 2, and the bank stabilization would take place on the upstream end of the large island. The purpose of these activities would be to protect the upstream end of the large island from high flows by diverting some of those flows toward the left riverbank.

Figure 2. Aerial photo of Wildwood Islands and surrounding area. The river flows from SW (lower, left) to NE (upper, right).

Contaminated Soil Disposal

The soil excavated from Wildwood Islands will be disposed of in landfills that are licensed to accept PCB-impacted soils, since it has been determined to be too high in polychlorinated biphenols (PCBs) and/or polynuclear aromatic hydrocarbons (PAHs) to be used in surficial applications.

No-Action Alternative

Under the no-action alternative, the BLM would not approve the portions of the plan that include the use of heavy equipment. Since the BLM has already approved the use of herbicides and low-intensity methods on the islands, under the no-action alternative the BLM would still carry out a plan involving low-intensity methods only. This action would leave the islands susceptible to continued bank failure and would possibly make it unfeasible to control the large stands of common reed grass.

CHAPTER 3 – DESCRIPTION OF THE AFFECTED ENVIRONMENT

Introduction

The Decision Area is the BLM island cluster. The Planning Area for most of the resources analyzed includes the entire Sheboygan River AOC, which stretches 14 miles from the dam at Sheboygan Falls to the harbor in Sheboygan.

Table 1: Technical Review.

X	Program	Reviewer	Signature	Date
X	Air Quality	Derek Strohl Natural Resources Specialist		7/10/12
X	Climate Change	Derek Strohl Natural Resources Specialist		7/10/12
X	Cultural/Paleontology	Jarrod Kellogg Archaeologist		7/10/12
X	Environmental Justice	Derek Strohl Natural Resources Specialist		7/10/12
X	Farmlands (Prime & Unique)	Derek Strohl Natural Resources Specialist		7/10/12
X	Fish and Wildlife	Derek Strohl Natural Resources Specialist		7/10/12
X	Floodplains	Derek Strohl Natural Resources Specialist		7/10/12
X	Geology/Mineral Resources/Energy Production	Derek Strohl Natural Resources Specialist		7/10/12
X	Hazardous Wastes	Derek Strohl Natural Resources Specialist		7/10/12
X	Invasive Species/Noxious Weeds	Derek Strohl Natural Resources Specialist		7/10/12
X	Native American Religious Concerns	Jarrod Kellogg Archaeologist		7/10/12
X	Recreation	Derek Strohl Natural Resources Specialist		7/10/12
X	Socioeconomics	Derek Strohl Natural Resources Specialist		7/10/12
X	Soils	Derek Strohl Natural Resources Specialist		7/10/12
X	Threatened, Endangered or Candidate Animal Species/Migratory Birds	Derek Strohl Natural Resources Specialist		7/10/12
X	Vegetation	Derek Strohl Natural Resources Specialist		7/10/12
X	Visual Resources	Derek Strohl Natural Resources Specialist		7/10/12
X	Water Resources/Quality (Drinking, Surface & Ground)	Derek Strohl Natural Resources Specialist		7/10/12
X	Wetlands/Riparian Zones	Derek Strohl Natural Resources Specialist		7/10/12

X	Program	Reviewer	Signature	Date
X	Wild & Scenic Rivers	Derek Strohl Natural Resources Specialist		7/10/12
X	Wilderness	Derek Strohl Natural Resources Specialist		7/10/12

Based on a review of the resources listed above on the Northeastern States Field Office (NSFO) Technical Review Form and in consideration of the Purpose and Need statement prepared for this EA, these resources will be addressed in this EA:

- Air Quality
- Climate Change
- Cultural/Paleontology
- Environmental Justice
- Prime and Unique Farmlands
- Fish and Wildlife
- Floodplains
- Geology/Mineral Resources/Energy Production
- Hazardous Wastes
- Invasive Species/Noxious Weeds
- Native American Religious Concerns
- Recreation
- Socioeconomics
- Soils
- Threatened, Endangered, or Candidate Animal Species/Migratory Birds
- Vegetation
- Visual Resources
- Water Resources/Quality (Drinking/Surface/Ground)
- Wetland/Riparian Zones
- Wild and Scenic Rivers
- Wilderness

Air Quality

Sheboygan County is designated as a nonattainment area for ozone, meaning that its eight-hour average ambient ozone concentration exceeds EPA health standards. While ozone in the Earth's upper atmosphere is beneficial, since it filters the sun's harmful radiation, ground-level ozone is harmful to all living things and especially dangerous to people with respiratory illnesses, such as asthma. Ground-level ozone is created by chemical reactions involving oxides of nitrogen (NO_x) and volatile organic compounds (VOCs), both of which are common products of fossil fuel combustion and industrial processes. Ozone concentrations tend to be the highest on hot, hazy, summer days.

Climate Change

By complying with air quality rules, the project's emissions of greenhouse gases will be kept to a level that does not warrant detailed analysis.

Cultural Resources

Great Lakes Archaeological Research Center (GLARC) conducted a Phase I archaeological investigation of the entire Sheboygan River AOC project area(s), including Wildwood Island, in November 2011. A record search and archival research revealed no previously recorded cultural resources on Wildwood Island. A Class III survey, which included a pedestrian survey and shovel test pits conducted no more than 15 meters apart, of Wildwood Island revealed no cultural resources in the project area. Additional

pedestrian survey and shovel test pits conducted by the Northeastern States Field Office archaeologist in June and July 2012 also revealed no cultural resources within the project area. The project will result in no adverse effect to cultural resources.

Should archaeological remains be discovered after commencement of the project, the Northeastern States Field Office archaeologist will be contacted immediately, all work will cease in and around the discovery area and it will be blocked off from access to prevent additional damage. If human remains are found, both the Sheboygan County coroner and the Northeastern States Field Office archaeologist will be contacted immediately.

Environmental Justice

For purposes of analyzing environmental justice, the Planning Area is the area that could potentially be impacted by noise and fumes from heavy equipment, which includes the area within about 0.1 mile of the island. This area is almost entirely undeveloped and within the river valley. A few businesses, single-family homes, and possibly apartments can be found along Indiana Avenue, to the south of the river valley, and the north side of the river is developed with light industry. The proposed action will result in no environmental impacts being borne disproportionately by low income or minority populations. No detailed analysis is warranted.

Farmlands (Prime & Unique)

There are no farmlands in the Decision Area.

Fish and Wildlife[5]

The Decision Area contains aquatic and terrestrial habitat, and studies of several types of wildlife have been conducted in 2011 and 2012 in an effort to capture baseline data against which to measure the progress in improving habitat and wildlife populations. Since the BUIs refer to wildlife populations, wildlife habitat, and contamination of animals by pollution, the studies varied in their foci on one or more of these aspects of wildlife. Results from several of the baseline studies were presented by the investigators at a meeting of the Technical Advisory Committee on April 4, 2012, in Sheboygan, Wisconsin, and are summarized below.

Fish – The Sheboygan River AOC consists of the Sheboygan River below the dam at Sheboygan Falls, the harbor, and portions of several tributaries. Some of the tributary waters are classified as trout streams, meaning that they have cold water capable of supporting trout and other cold-water species. Fish-shocking and other survey methods were used in 2011. Most of the waters of the AOC rank *excellent*, *good*, or *fair* as warm-water habitat. Most of the trout streams ranked *poor* or *very poor* as trout streams but ranked higher as warm-water habitat. The AOC has 29 native fish species and two nonnative fish species – common carp (*Cyprinus carpio*) and round goby (*Neogobius melanostomus*). Northern pike (*Esox lucius*) are present, and salmon (*Oncorhynchus* spp.) run in the tributaries.

[5] 2011-2012 survey information referenced in this section can be found at http://dnr.wi.gov/org/land/er/nhi/projects/pdfs/SheboyganRiverAOC_RapidEcolAssess_extV2.pdf.

Benthic macroinvertebrates – Studies were conducted using D-frame kick nets in wadeable sites and artificial substrates in non-wadeable sites. An index of biodiversity (IBI) specific to macroinvertebrates was used to rank a total of 19 sites in the AOC. The site closest to and most representative of Wildwood Islands ranked *fair*. Most other sites in the AOC ranked *fair*, with better rankings upstream and *poor* ranking in harbor.

Small mammals – A 1993 WDNR study (Seeley, 1993) revealed traceable levels of PCBs in 37 out of 38 trapped mammals. Mammals were also trapped in 2011 in study sites located above Interstate 43 for the purpose of testing for contaminants. Data on contaminants in the samples collected in 2011 are not yet available, and the samples are being analyzed for PCBs, organochlorine pesticides, metals, and bromated/fluorinated compounds.

Birds – Kingfishers (*Cyrele alcyon*) were monitored in 2011 in the AOC to estimate their population, nesting success, and presence of gross deformities that might be caused by contamination in the crayfish that the birds eat. Four active nests were observed, producing a total of at least 22 eggs and fledging a total of 13 young. None of the birds exhibited gross deformities. One of the monitored nests was in the bluff on the south side of the river, close to Wildwood Islands.

Bird surveys in summer 2011 revealed 70 species in the AOC, including 10 Species of Greatest Conservation Need. Winter bird surveys were conducted in the winter of 2011-2012 in sites throughout the AOC, focusing on areas of open water. Fifty species were observed in total, including 23 in the lower portion of the AOC, which includes the Decision Area. The most common species included mallard, house sparrow, herring gull, goldeneye, and pigeon.

Unionid mussels – Surveys conducted in 2011 by wading and snorkeling revealed live mussels in 13 of the 14 survey sites. The AOC currently supports seven species and has historically supported at least 11 species. Using historical data, it was determined that the sites studied in 2011 have lost an average of 2.64 species in recent history.

Bats – Summer 2011 surveys identified at least five species in the AOC.

Herptiles – Spring/summer 2011 walking and wading surveys identified 11 species, including frogs and toads, snakes, turtles, and a salamander species. The AOC's habitats were suitable for and probably support another five species.

Floodplains

The Decision Area is in a floodplain. The proposed modification to a floodplain is analyzed in detail in the **Wetlands/Riparian Zones** section, and no detailed analysis is warranted specific to floodplains.

Geology/Mineral Resources/Energy

The Decision Area, being in a floodplain and in a city, is off-limits to mineral/energy development, and no detailed analysis is warranted.

Hazardous Wastes

The AOC has high levels of PCBs and PAHs and includes the Camp Marina Superfund Site. Most of the contamination is located in the river sediments, and frequently inundated portions of the floodplain and the islands contain contaminated soils. The most heavily contaminated soils in the Decision Area are in the lowest portions of the islands, which, due to their low elevation, are heavily infested with common reed grass.

Invasive Species

The Decision Area is heavily infested with non-native, invasive species, including, most notably, dame's rocket (*Hesperis matronalis*), garlic mustard (*Alliaria petiolata*), common reed grass (*Phragmites australis*), common buckthorn (*Rhamnus cathartica*), and Eurasian bush honeysuckle species (*Lonicera* spp.).

Native American Religious Concerns

The islands contain no known Native American religious concerns. Because of dense infestations of invasive species, the islands contain no plants used by Native Americans for religious or ceremonial purposes, such as wild rice, and no detailed analysis is warranted.

Recreation

The Decision Area is used by local fishermen, primarily during autumn salmonid migration, and local young people are possibly playing on the large island as it has several beaten footpaths and a crude shelter made of found materials, although it is possible that this island has been used by a homeless person.

There is a walk-in boat access less than one mile upstream of Wildwood Islands and a drive-in boat launch at Kiwanis Park, less than one mile downstream. The river near Wildwood Islands is too shallow for most motorboats during the summer months in typical conditions.

Socioeconomics

The Decision Area is within the City of Sheboygan, Wisconsin's 13th largest city, with 49,793 people. A large portion of the city's economy depends upon recreation and tourism, which are analyzed in detail in **Recreation**, above.

Soils

The soils of the Decision Area include fluvial silt loams and poorly-drained, hydric soils. Soils in the urban portion of the AOC are largely disturbed and contain poor fill materials, while the more rural portions of the AOC contain richer, less disturbed soils. As described in **Hazardous Wastes**, above, soils in the Decision Area contain high concentrations of PCBs, PAHs, and other contaminants.

Threatened, Endangered or Candidate Animal Species/Migratory Birds

The Decision Area harbors no suitable habitat for Federally endangered or threatened species known to occur in Sheboygan County. The proposed action may enhance the quality of the habitat for bald eagles

and colonial waterbirds, some of which are listed as special-concern or threatened in Wisconsin. These impacts are described in the **Fish and Wildlife** section. No further analysis is warranted.

Vegetation

A qualitative assessment of vegetation, looking primarily for suitability as fish cover, was conducted on 18 sites distributed among the Sheboygan River and three tributaries. Overall stream habitat ranked *excellent* to *fair*, with about half of the sites ranking *good*. The roughly ten acres surrounding Wildwood Islands ranked *poor* to *very poor*, with low plant density.

The islands in the Wildwood Islands complex are entirely vegetated with a combination of floodplain forest, shrub carr, and shallow marsh plant communities.

Visual Resources

The Decision Area is within an urban/industrial area. Light industrial facilities on the north side of the river are visible and audible from Wildwood Islands. The proposed action will result in no change to the basic visual character of the river valley. No detailed analysis is warranted.

Water Resources/Quality (Drinking, Surface, and Ground)

The City of Sheboygan gets its drinking water from Lake Michigan. The proposed action will involve no large withdrawals of surface water or groundwater or discharges of chemicals. No detailed analysis is warranted.

Wetlands/Riparian Zones

The Decision Area is entirely within a riparian zone, and most of the islands have wetland hydrology and plant communities. The project will not impact any wetlands or riparian zones in ways that are not already described in the **Vegetation**, **Fish and Wildlife**, and **Invasive Species** sections, and no further analysis is warranted.

Wild and Scenic Rivers

There are no Wild and Scenic Rivers in the Decision Area.

Wilderness

There is no designated Wilderness in the Decision Area.

CHAPTER 4 – ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES

Introduction

This chapter assesses potential consequences associated with direct, indirect, and cumulative effects of the proposed action and alternatives. Resources that are noted to be not present or unaffected in the previous section are not repeated in this section.

Air Quality

The proposed action would produce *de-minimis* amounts (less than 100 tons per year) of air pollutants. Use of heavy equipment would be postponed on days with active ozone advisories affecting the Decision Area. The no-action alternative would have no impact on air quality.

Fish and Wildlife

The proposed action is expected to enhance the quality of habitat, primarily for terrestrial wildlife on a large portion of Wildwood Islands. The most immediate, direct impact to the wildlife habitat would result from removing the tall, dense stands of common reed grass, which will enable those portions of the islands to provide food and cover for a larger diversity of birds, insects, and mammals than the current monoculture provides. The hydrological modifications to the large island and the cluster of small islands would be expected to provide additional breeding habitat and cover for amphibians on the order of a few acres. Lesser enhancements would be expected from the installation of nest boxes and platforms, each of which would be expected to support one nesting pair of the species for which it was designed, and a few bat boxes, which can house hundreds of bats each.

An indirect impact of the proposed action would be the enhancement of the islands for songbirds and insects, resulting from a gradual increase in plant diversity that will occur after invasive plant species have been controlled.

The AOC has been historically severely degraded by industrial and agricultural contamination. Thorough data was not collected at the time of the AOC's designation, but it is likely that contamination levels, including PCBs, pesticides, and silt, have decreased dramatically since the AOC was designated. The passage of the Clean Water Act in 1972, improved soil conservation practices, and other factors have had a well-documented, positive influence in water quality and aquatic habitats in the last few decades.

The cumulative impact of the entire AOC restoration project is expected to be up to approximately 180 acres of terrestrial habitat enhancement, having similar types of results as those on Wildwood Islands, along with in-stream habitat improvements benefiting aquatic species along 14 miles of river.

The no-action alternative would permit Wildwood Islands to continue to degenerate with respect to their capacity to harbor wildlife. Continued dominance by common reed grass in the marshes would perpetuate the poor conditions for birds, mammals, and amphibians.

Hazardous Wastes

The proposed action will include the removal and disposal of 11,000 cubic yards of contaminated soils, which will be disposed of in landfills that are licensed to accept PCB-impacted soils. Excavated contaminated terrestrial soils in the entire AOC project will total 15,000 cubic yards, and 80,000 cubic yards of contaminated river sediments will be dredged. The no-action alternative would leave these contaminated sediments and soils in place, which would permit those contaminants to circulate freely through food chains, leach into the Sheboygan River, and flow into Lake Michigan.

Invasive Species

The proposed project is expected to result in the removal of invasive species from 5.5 acres of Wildwood Islands. The project will include three years of maintenance. The cumulative impact of the entire AOC habitat project will be more than 180 acres of invasive species removal.

One issue identified in the scoping process was the BLM's ability to maintain the reduction in invasive species and the enhanced wildlife habitat. The contractor(s) hired to implement the projects throughout the AOC will be required to maintain established vegetation and prevent reinvasion by invasive species for three subsequent years. After that, the BLM will likely be able to maintain the enhancements done on Wildwood Islands, since these islands are within an hour drive of the NSFO in Milwaukee. The BLM actively manages the vegetation on several islands that have been selected based on several criteria, and the Wildwood Islands project would be a high priority to the BLM because of its role in a larger project with many partners.

The no-action alternative would have a lesser impact on invasive species than the proposed action. The no-action alternative would permit the BLM to continue to use herbicides and non-intensive methods to control invasive species. However, the common reed grass stands are tall, large, and dense enough to be cost-prohibitive to control without the use of heavy equipment, and it is not expected that they would be successfully controlled under the no-action alternative.

Recreation

The project is expected to discourage some types of recreational use while enhancing other types of recreational use. The conversion of brushy areas and tall stands of common reed grass to more open habitats may discourage the use of the island as a place for children to play by removing hiding places. At the same time, the dramatic improvement in habitat for wildlife may raise the island's popularity as a fishing spot and a place for paddlers to stop. The cumulative impact of the entire AOC project is expected to be an enhancement in the recreational potential, and therefore an increase in use, of the entire 14-mile stretch of the Sheboygan River.

The no-action alternative would have a lesser impact on recreational resources than the proposed action, as the no-action alternative would include controlling some invasive species but would leave the large stands of common reed grass uncontrolled, which would not enhance bird watching and other nature-based recreational opportunities to the extent that the proposed action would.

Soils

The proposed action would result in the excavation of 13,000 cubic yards of soil and the placement of 3,000 cubic yards of topsoil in disturbed areas. The entire AOC project is expected to result in the excavation of 26,000 cubic yards of soil and the placement of 11,000 cubic yards of topsoil in disturbed areas. These figures are different from those presented in Hazardous Wastes, above, because they represent both contaminated soils and those that are excavated for the purpose of channel and bank stabilization, as described in Chapter 2.

The no-action alternative would not have the impacts to soils as described above. The modifications to prevent the degradation of the upstream end of the major island would not take place, and the major island would likely continue to be undercut by the river.

CHAPTER 5 – PERSONS, GROUPS, AND AGENCIES CONSULTED

List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Members of the Sheboygan River Area of Concern Technical Advisory Committee	Description of Proposed Action, data for Fish and Wildlife, Soils, Vegetation, Hazardous Wastes sections	Relevant information in said sections

List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Derek Strohl, BLM	Natural Resources Specialist	All sections

Preparer — July 10, 2012 — Date

Planning & Environmental Coordinator — July 20, 2012 — Date

Associate Field Manager, Natural Resources — 25 JULY 12 — Date

CHAPTER 6 - REFERENCES

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