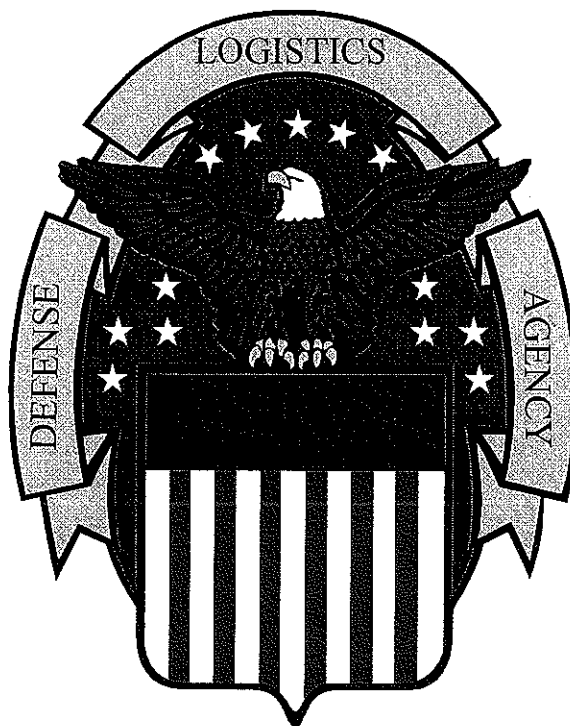


**Natural Resources Assessment**  
**for**  
**DEFENSE LOGISTICS AGENCY/  
DEFENSE NATIONAL STOCKPILE CENTER**  
**New Haven, Indiana**  
*July 1998*



Prepared by: **CASSIUS M. CASH**  
Wildlife Biologist  
USDA Forest Service  
Gifford Pinchot National Forest



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# **Natural Resources Assessment**

**for**

**Defense Logistics Agency/Defense National Stockpile Center,  
New Haven, Indiana**

*July 1998*

## **1.0 INTRODUCTION**

The Defense National Stockpile Center, New Haven, Indiana (DNSC-New Haven), is one of thirteen Defense Logistics Agency (DLA) sites in eleven states for which natural resources assessments were completed during Fiscal Years 1997 and 1998. These assessments were completed to meet the requirements of Department of Defense (DoD) Instruction 4715.3, *Environmental Conservation Program* (May 1996).

This DoD Instruction implements policy, assigns responsibilities, and prescribes procedures for the integrated management of natural and cultural resources under DoD control. Specifically, this instruction requires completion of natural resources assessments and inventories and, where necessary, development and implementation of Integrated Natural Resources Management Plans (INRMPs). These plans set forth actions that integrate continued military land use with long-term protection of land, air, and water resources under DoD control.

## **2.0 OVERVIEW OF DEFENSE NATIONAL STOCKPILE CENTER'S MISSION**

The DNSC's mission is to provide for the acquisition and retention of stocks of materials within the United States and thereby decrease and prevent, wherever possible, a dangerous and costly dependence of the United States upon foreign nations for supplies of materials in times of national emergency.

Storage can occur both in warehouses and in open-air settings. With the end of the Cold War, Congress has directed the DLA to reduce stockpiled materials through sales to private buyers. Most DNSC facilities are currently involved with selling surplus materials. Land requirements for the DNSC's mission are generally limited to the acreage needed for storage and transport of materials.

Trains and trucks are typical modes of transportation for materials off-site, while dump trucks, front-end loaders, and other heavy equipment are used for on-site movement and loading. These facilities are fully dedicated to material storage and delivery. No other military training or testing activities occur on-site. The DNSC sites can be generally characterized as developed and heavily industrialized.

### **3.0 PROJECT GOAL**

The goal of this assessment is to meet DoD requirements for natural resources conservation at DNSC sites. "Measures of Merit" for natural resources, as identified in DoD Instruction 4715.3 (p.5-1), require planning level surveys and an inventory of biological resources, wetland inventory, and preparation of an INRMP where appropriate.

This goal will be accomplished through on-site assessments, information reviews, and interviews with essential DNSC individuals and appropriate federal and state natural resources agencies. The assessment will determine the presence or absence of significant biological resources. In addition, a determination will be made on the need for formal biological inventories and development of an INRMP. Formal inventories of significant natural resources features will be completed where such needs are identified. INRMPs will be completed for those sites requiring management actions, to ensure protection or enhancement of natural resources.

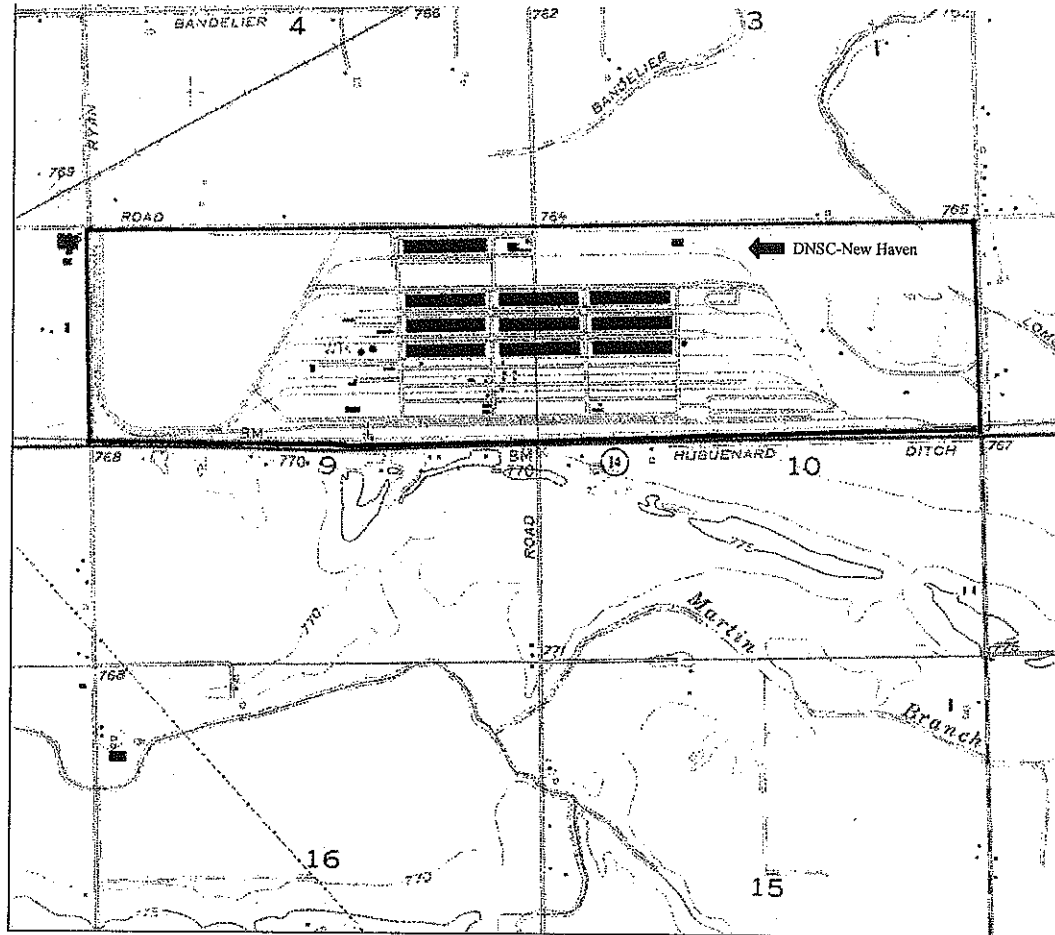
Survey results, compliance issues, and natural resources management recommendations will be documented at the conclusion of this report. These recommendations will include potential compliance issues with environmental laws, such as the Endangered Species Act and the Clean Water Act.

This assessment is not driven by a proposed action under the National Environmental Policy Act. Results from this survey, however, will serve as baseline information for natural resource conditions at the site. This information can be used within Environmental Assessments and Environmental Impact Statements.

### **4.0 SITE DESCRIPTION, HISTORY, and LOCATION**

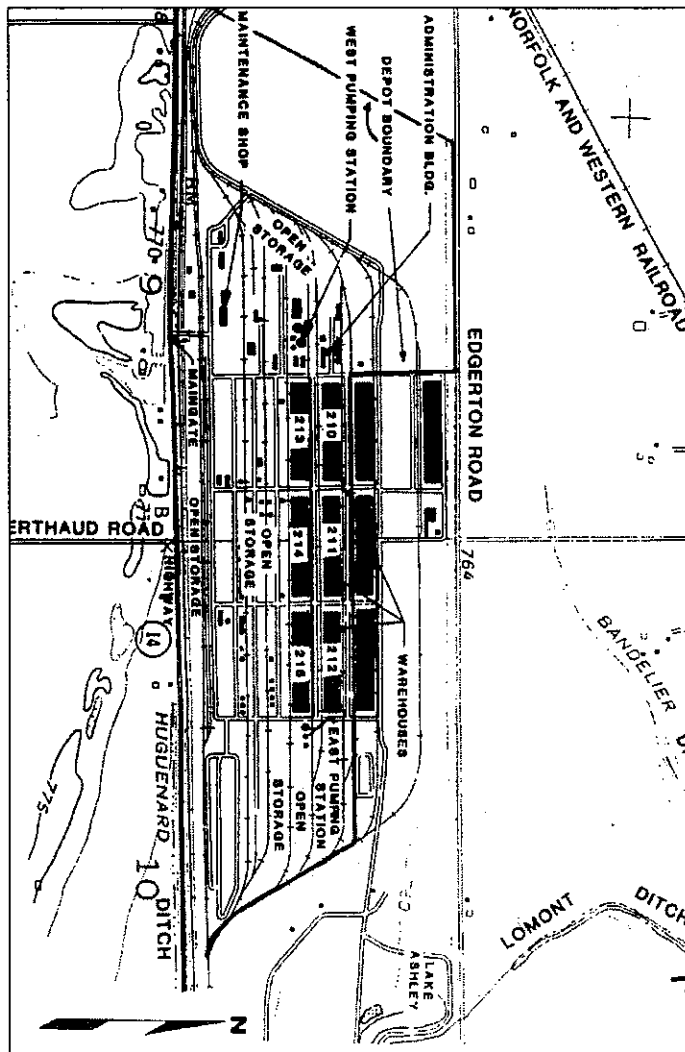
DNSC-New Haven is located in Allen County and is 250 acres in size. The site is located approximately 12 miles east of Fort Wayne, Indiana, on State Route 14. The site is bordered by Norfolk Southern Railroad on the south side, by an industrial park on the north, by Jefferson Township Park on the east, and by privately-owned farmland on the west. The site contains six storage warehouses, two pumping stations, two pump houses, one office building, one guardhouse, one maintenance building, and two reservoirs that are used for fire suppression. (Please refer to Map 1 for the vicinity map and Map 2 for the general site map.)

# Map 1 - Vicinity Map



*Map from United States Geological Survey*

## Map 2 - General Site Map



*Diagram taken from USAEHA Environmental Review*

On April 8, 1942, DNSC-New Haven, then named the Casad Engineer Depot, functioned as a holding and reconsignment point. The site was not completed until almost one year later on March 13, 1943. The site was originally 646 acres; however, the General Services Administration (GSA), the current owner of the land, sold some of the property to private industries and Jefferson County during the mid-1970's.

A six-foot high, chain-link perimeter fence encloses the site. The paved and gravel roads that are along the site's perimeter are used for security patrols and hauling materials off-site. The 62 different types of materials at DNSC-New Haven are stored in a combination of outdoor and indoor stockpiles.

## **5.0 ASSESSMENT METHODS**

A professional wildlife biologist, employed by the USDA Forest Service, conducted an actual site visit in March 1998. Natural resources within and adjacent to the site were examined. Photographs were taken to assist with visual layouts, while the written documentation illustrates the existing condition and any adverse actions that may be caused by site activities.

The methodology of obtaining an overview of DNSC-New Haven's natural resources involved sending a questionnaire to the site, prior to the site visit. Usually, the site manager was responsible for answering the questionnaire. If the site manager was not available, a knowledgeable staff member would be appointed by the manager to answer the questionnaire.

State and federal natural resource agencies were contacted to obtain pertinent information to interpolate into this assessment. Applicable documents were also reviewed, including the Storm Water Pollution Prevention Plan (SWPPP).

Visual aids (e.g., aerial photos and site maps) were obtained primarily from DNSC-New Haven personnel who had current and historical information about the site. The information provided by DNSC-New Haven personnel was used throughout this assessment.

## **6.0 SITE MISSION and DAILY ACTIVITIES**

The site's primary activity involves selling materials to various metal manufacturers. The materials are hauled from the site by semi-trucks and railcars. Daily activities are restricted to the fenced area with the exception of transporting materials off-site.

Public access, hunting, fishing, and recreation are not allowed at the DNSC-New Haven site. It is fenced and secured at all times. There are no commercial forestry, agricultural, or grazing activities at this site.

## **7.0 NATURAL RESOURCES SURVEY FINDINGS**

This section describes the natural resources present on the site. It also describes the presence or absence of significant biological resources that determine the need for a formal biological inventory.

Officials from the DLA allocated approximately 100 acres of land to be restored to tall grass prairie land; the restoration effort was partially successful. The prairie land at the site serves as suitable habitat for certain species of wildlife at DNSC-New Haven. The tall grass prairie area is an unique resource in comparison to the other twelve DLA sites visited during Fiscal Years 1997 and 1998. Additionally, the prairie land is unique to the immediate surrounding landscape since most of the area, within a one-mile radius, is used for commercial, agricultural, and industrial purposes.



A small patch of woodlands, several drainage outfalls, and three separate pond-like areas were determined not to be significant biological resources. However, they do enhance the habitat diversity for use by wildlife, because these resources complement the recently converted prairie land.

There are no significant biological resources at DNSC-New Haven and formal biological inventory is not recommended. However, monitoring of the animal species in the prairie area is recommended. Monitoring would enable DNSC-New Haven staff to recognize changes in the wildlife community and to determine if changes are needed in the management of the restored prairie area.

### **Soil Resource(s)**

The last soil survey of Allen County was completed in 1969. The soil resource at DNSC-New Haven is characterized as being within an *urban land use* class. Construction and industrialization of the site disturbed the original soil profile, resulting in variable soil conditions.

Due to this site's relatively small size, its industrial nature, and the limited ongoing impacts to the soil resource, a new soil inventory is not necessary at this time. This finding is commensurate with US Army guidelines that recommend inventories not be conducted for sites under 2,000 acres (reference 5).

### **Physical Water Resources**

The physical water resources associated with this site are the stormwater outfalls and three small pond-like areas. Additionally, there are two reservoirs used for fire suppression located on the site. Each reservoir holds up to one million gallons of water and are enclosed in concrete tanks. One reservoir is located on the east end and the other is located on the west. Since the reservoirs are enclosed and have no effect on the surrounding environment, they will not be further reviewed in this assessment.

### **Stormwater Drainage and Water Quality**

A team from the US Army Center for Health Promotion and Preventive Medicine (USACHPPM) examined the management practices used to prohibit pollutants from entering the stormwater that flows from various drainage outfalls on the site. The team reported its findings and recommendations in the Stormwater Pollution Prevention Plan (SWPPP). The site manager is required to implement Best Management Practices (BMPs) if the assessment team identifies possibilities of stockpiles having high contamination potentials.

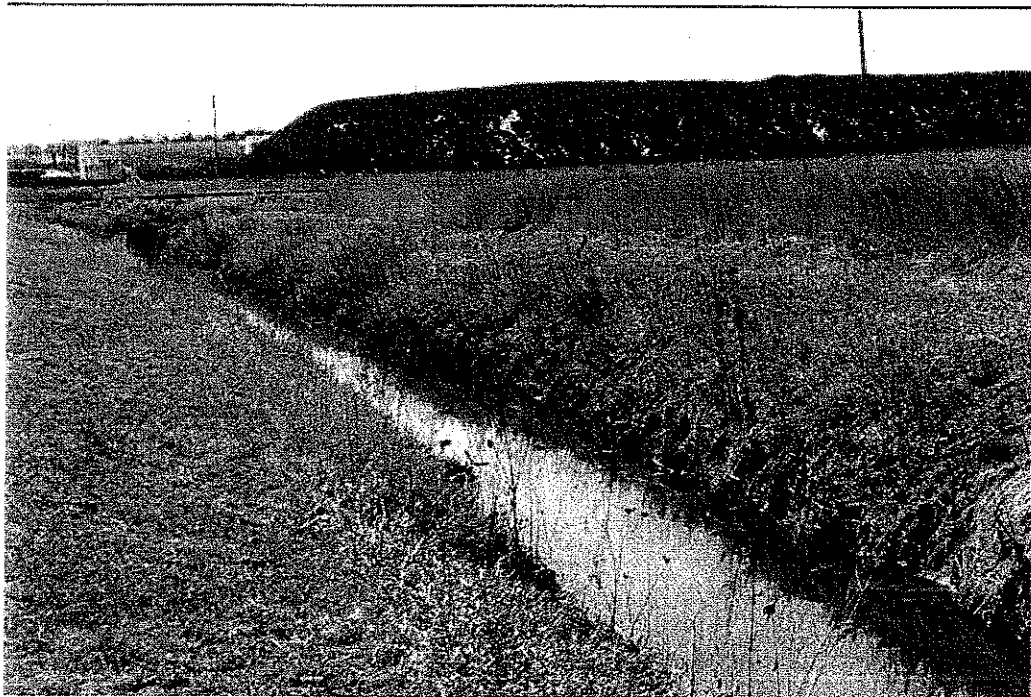
There were two BMPs required for implementation by the site manager. The BMPs involve vegetating or placing riprap at stormwater locations labeled as site one and four in the SWPPP. The vegetation and riprap will assist in reducing the amount of sedimentation and erosion occurring at these sites during the rainy seasons (reference 7). Please refer to the SWPPP for more details.

Depending on the annual rainfall and summer temperatures, the stormwater outfalls can contain water year-round (reference 1). Overall, the outfalls provide an intermittent water source that add habitat diversity to the site. During the site visit, the ditches contained water.

The outfalls not needing management actions have aquatic-associated flora growing along the edges of the outfalls, and aquatic flora and algae growing within the water (Figure 1).

The vegetated outfalls containing water have increased the diversity of wildlife using the ditches including turtles, ducks, muskrats, geese, song birds, and hawks.

Figure 1- Vegetated Stormwater Outfall



With the implementation of the BMPs and annual water quality monitoring, the water quality of all stormwater outfalls are properly managed to reduce contamination of the stormwater. The outfalls provide an intermittent water source that is used opportunistically by several species of amphibians, reptiles, and birds. The outfalls add to the habitat structural diversity of the site, but are not uncommon features in the surrounding landscape. Therefore, a formal biological inventory of the outfalls is not needed.

#### Small Ponds

Three man-made pond-like areas are located near the eastern perimeter of the site and are surrounded by mowed lawn. These ponds were previous stockpile locations. The stockpiles were removed approximately 20 years ago; however, their weight caused the soil to compress forming a depression. These areas were later excavated to form these pond areas. The ponds range from 50 to 60 feet long and 10 to 20 feet wide (reference 1).

Similar to the stormwater outfalls, various common water-loving plants grow in and around the ponds such as cattails. During an especially wet year, water may be present in the ponds year-round. However, the ponds are only an intermittent water source.

The ponds may serve as amphibian breeding grounds in those years when water is present from late winter to early summer. These amphibians provide a temporary food source to opportunistic feeders such as the blue heron, which was observed foraging in one of the ponds during the site visit (Figure 2).

Because the ponds are man-made, small in size, and are an intermittent water source, biological inventory is not needed.

**Figure 2 - Pond-Like Area**



### **Wetlands**

There are no wetland areas present at or adjacent to DNSC-New Haven. Therefore, a wetland inventory is not needed.

### **Animal Species**

Due to the prairie area and intermittent water sources, many common wildlife species such as skunks, blue heron, red fox, ground hogs, ducks, killdeer, kestrels, hawks, snapping turtles, various songbirds, and other wildlife are frequently observed on the site (reference 4).

As the recently converted prairie area matures, the animal community will change with it. As stated in the *Dimension* (p.22), a quarterly-published magazine by the DLA:

"Restoring the prairie will bring back environmental stability to the area by providing animal habitat, stabilizing the soil, cleansing the water, and helping the climate. The restored land will attract new varieties of small animals like rabbits and game birds, but large animals, such as deer, will be kept out by the depot's fence."

Wildlife was frequently observed during the site visit and is observed regularly by DNSC-New Haven personnel--especially in the prairie grass (reference 4). Based on the observations made during the site visit and interviews with DNSC-New Haven personnel, there is suitable habitat for grassland and common wildlife in the restored prairie area.

It is important to note that the wildlife community of the prairie area is probably no different than an unmowed hayfield of the same acreage in the surrounding area. However, the wildlife community may change over time. Therefore, monitoring of the wildlife species composition is recommended for the prairie area, so that changes can be documented and credit can be taken for providing the means for that change. Other recommendations for wildlife habitat improvement and possible management opportunities are discussed in Section 9.0.

Since the restored prairie area contains habitat for only species common to the area and the remainder of the site does not contain suitable wildlife habitat, a formal biological inventory is not warranted.

### **Woodland and Plant Communities**

Several ornamental trees are located throughout the site. These trees were identified by the site manager as being mostly cottonwood (*Populus spp.*) and maples (*Acer spp.*). The ecological properties (i.e., geomorphology, elevation, soil taxa, moisture regimes) of DNSC-New Haven and the surrounding area are within the Lake Erie Sand Plain Ecological Subsection (reference 6). Principle tree species for this subsection include oak species (*Quercus spp.*), hickory species (*Carya spp.*), several species of ash (*Fraxinus spp.*), and red maple (*Acer rubrum*).

A small patch of woodlands is located near the pond-like areas on the eastern side of the site (Figure 3). The small woodland area is approximately 200 feet long and is 100 to 125 feet wide. The trees associated with the woodland area, according to the site manager, are the same species as the ornamental trees previously mentioned. These trees are pioneer species--light seeded species that typically grow on previously disturbed areas and are common to the surrounding area. There are no current or future plans to cut any of the trees (reference 1).

**Figure 3 - Woodlands at the Site**

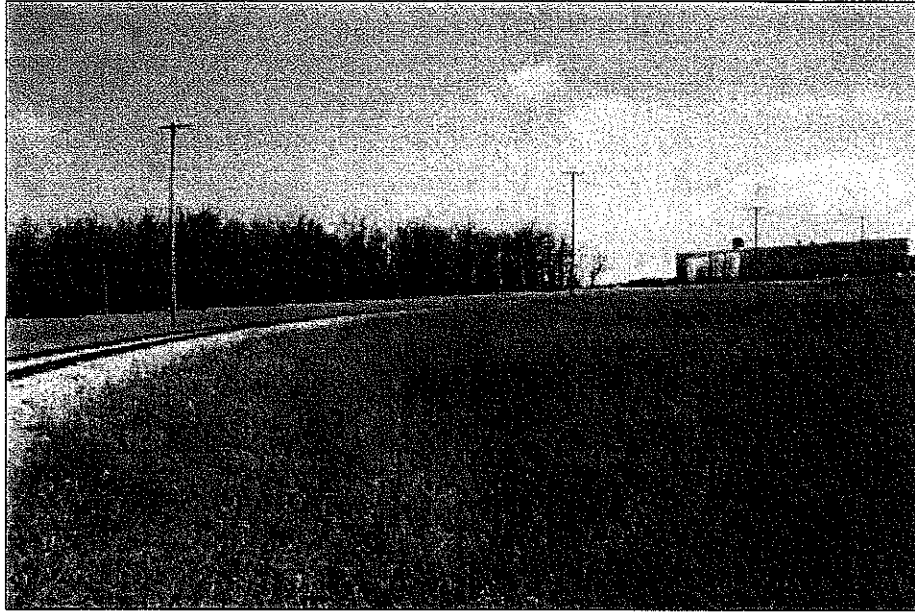


Approximately three years ago, the DLA awarded a contract that involved planting some native wildflowers on the northern side of the main office. The area is approximately 250 feet long and 30 feet wide. The compass plant and the rattlesnake master plant are some of the wildflowers planted in this area (reference 2). Vegetating the area with native wildflowers assists with eliminating noxious weeds and restores native plants at the site.

During the same time the wildflowers were planted, prairie grasses were planted on 100 acres of land at the northwest and southwest sections on the site. Indian grass, bluestem, side oats grama, switch grass, along with 42 forbs were used to establish the prairie areas (reference 2). The northwest portion (approximately 45 acres) successfully germinated while the southwest portion was unsuccessful at germinating (Figures 4 and 5). Reasons for the prairie grass not growing at the southwest section are unknown (reference 1).

No prairie management activities have currently been implemented (reference 1). Rejuvenation treatments of prairie grass seedings after establishment should be limited to fire, grazing, or haying. Prescribed fire is the preferred method. If the area is being managed for optimum wildlife usage, neither grazing nor haying should be implemented on an annual basis (reference 3). Whichever becomes the staff's preferred management practice, DNSC-New Haven staff should consult a natural resources specialist for more details regarding the timing and needed equipment in order to maintain the prairie.

**Figure 4 - Northwest Section**



**Figure 5 - Southwest Section**



Since DNSC-New Haven mostly consists of mowed lawn, gravel, paved areas, and planted prairie grasses and wildflowers, neither a plant species inventory nor a woodland inventory is needed.

**Rare, Threatened, and Endangered (RTE) Species**

Personnel at the Indiana Department of Natural Resources reported that there are no records in their databases of RTE species or significant habitats at or near DNSC-New Haven.

Suitable habitat containing all characteristics needed to support viable populations for RTE species is non-existent at DNSC-New Haven. No RTE species will be impacted by the activities of DNSC-New Haven. Therefore, a formal inventory of RTE species or rare habitats is not needed.

## **8.0 INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN RECOMMENDATION**

No management objectives were identified as needed to improve the compatibility of mission activities of DNSC-New Haven with natural resources. The development of an INRMP to address soil protection, management of water resources and wetlands, wildlife, forested areas, and vegetative resources is not warranted.

Development of a Threatened and Endangered Species Management Plan is not needed. Based on the daily activities and absence of suitable habitat, including any rare wildlife, fish, and plants, consultation (formal nor informal) is not required under Section 7 of the Endangered Species Act.

## **9.0 OTHER MANAGEMENT RECOMMENDATIONS**

No management recommendations are needed at this time. However, the following list of wildlife habitat improvement and management opportunities are presented for the DNSC-New Haven management staff's consideration:

1. Consider establishing a prescribed burning or haying plan with local universities or natural resources agencies or organizations (i.e., Nature Conservancy, US Forest Service) for the recently converted prairie area. This will rid the prairie of overgrowth, provide nutrients to the soil, and help the germination of seeds.
2. Consider erecting nest boxes for cavity nesting species; this would add a currently non-existent habitat feature to the site. Blue bird boxes could be erected near the mowed lawn areas and owl boxes near the converted prairie area. Nest box construction and monitoring could be tied into a school project if interested.
3. Consider reducing the mowing area around the outfalls and the pond-like areas to increase the amount of vegetation, providing cover and perching areas for birds.
4. Consider monitoring (perhaps through the use of graduate students) the plant species and wildlife species composition of the converted prairie area over time. This would enable the staff to determine if changes are needed in their management of the prairie area.

## **10.0 CONCLUSION**

Further planning level surveys and an Integrated Natural Resources Management Plan are not needed for this site. The tall grass prairie area was determined to be a unique resource in comparison to the other twelve DLA sites visited during the 1997 and 1998 fiscal years. The wildlife community of the prairie area is comparable to an unmowed hayfield of the same acreage in the surrounding area. However, monitoring the wildlife community in the restored prairie area is recommended to document changes brought about by the restoration efforts.

In accordance with DoD Instruction 4715.3 (Environmental Conservation Program), this natural resources assessment satisfactorily addresses the "Conservation Measures of Merit" described for planning level surveys and Integrated Natural Resources Management Plans.

The site and its immediate and general land area are suitable for its stated purposes now and for the foreseeable future. If the mission of the site changes beyond the scope of the actions discussed in this assessment (i.e., site expansion or closure), a natural resources specialist should be consulted early in the planning process.

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## **12.0 ACKNOWLEDGMENTS**

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