

# REUSE PLAN

## Newport Chemical Depot



NEWPORT CHEMICAL DEPOT REUSE AUTHORITY  
VERMILLION COUNTY, INDIANA

December 2009



# Table of Contents

ES

Executive Summary .....

ES-1

Project Background .....

ES-1

Public Engagement .....

ES-2

Existing Conditions .....

ES-3

Planning Framework .....

ES-10

Final Reuse Plan .....

ES-12

Plan Implementation Considerations .....

ES-18

Property Transfer Considerations .....

ES-23

1

Project Background .....

1

Property Setting and Description .....

1

The Newport Chemical Depot Reuse Authority .....

3

The Federal Property Screening Process .....

4

State and Local Screening Process .....

5

The Master Planning Process .....

6

2

Public Engagement .....

9

Stakeholder Interviews .....

9

Public Meetings .....

10

Focus Groups and Workshops .....

20

Newport Chemical Depot Reuse Authority Meetings .....

22

Project Website .....

22

3

Existing Conditions .....

25

Economic and Market Analysis .....

25

Community Planning Issues and Influences .....

31

On-Base Conditions and Characteristics .....

37

Buildings and Facilities .....

64

Environmental Conditions .....

70

## **Planning Framework ..... 81** **4**

Development Suitability Analysis ..... 81

Reuse Plan Concepts ..... 85

## **Reuse Plan..... 93** **5**

Vision and Intent..... 93

Land Use Program..... 93

Transportation Framework ..... 108

Environmental Influences ..... 109

## **Plan Implementation Considerations..... 111** **6**

Economic and Development Impacts ..... 111

Transportation and Infrastructure Impacts..... 119

Environmental Considerations..... 120

Environmental Phasing ..... 123

Property Transfer Considerations ..... 124

**Appendix A:** Public Engagement

**Appendix B:** Market / Economic Report

**Appendix C:** Existing Conditions Maps

**Appendix D:** Facility Assessment

**Appendix E:** Environmental Assessment

**Appendix F:** Notices of Interest Received



## List of Exhibits

Exhibit 1-01: Regional Context Map .....	2
Exhibit 1-02: Base Map .....	2
Exhibit 3-01: Vicinity Map .....	32
Exhibit 3-02: Bat Habitat .....	36
Exhibit 3-03: Main Facility .....	38
Exhibit 3-04: Railroad and Wells Area .....	39
Exhibit 3-05: Buildings Detail Map 1 .....	40
Exhibit 3-06: Buildings Detail Map 2 .....	42
Exhibit 3-07: Roadway System .....	44
Exhibit 3-08: Existing Farming Uses .....	45
Exhibit 3-09: Natural Systems .....	46
Exhibit 3-10: Topography .....	47
Exhibit 3-11: Soils .....	48
Exhibit 3-12: Hydrology .....	49
Exhibit 3-13: Water Resources .....	50
Exhibit 3-14: Historical and Cultural Resources .....	51
Exhibit 3-15: Natural Gas .....	55
Exhibit 3-16: Electrical System .....	56
Exhibit 3-17: Domestic Water .....	60
Exhibit 3-18: Fire (Service) Water .....	61
Exhibit 3-19: Sanitary Sewer System .....	62
Exhibit 3-20: Known Environmental Constraints Related to Reuse .....	73
Exhibit 3-21: Potential Environmental Constraints Related to Reuse .....	74
Exhibit 3-22: Existing Land Use Controls .....	76
Exhibit 4-01: Agriculture/Forestry Development Suitability .....	83
Exhibit 4-02: Business/Industrial Development Suitability .....	84
Exhibit 4-03: Reuse Plan Concept "A" .....	88
Exhibit 4-04: Reuse Plan Concept "B" .....	89
Exhibit 4-05: Reuse Plan Concept "C" .....	90
Exhibit 5-01: Final Reuse Plan Map .....	94
Exhibit 5-02: Land Use Program .....	95
Exhibit 5-03: Natural Areas & Open Space Location Map .....	97
Exhibit 5-04: Agriculture and Forestry Location Map .....	99
Exhibit 5-05: Parkland Location Map .....	101
Exhibit 5-06: Business and Technology Location Map .....	103

Exhibit 5-07: Conference and Support Facilities Location Map.....	105
Exhibit 5-08: Highway-Oriented Commercial Location Map.....	107
Exhibit 6-01: Employment Loss .....	112
Exhibit 6-02: Base Spending .....	112
Exhibit 6-03: Construction Impacts - Vermillion County .....	113
Exhibit 6-04: Operations .....	114
Exhibit 6-05: NOI Requests Location Map .....	127

*This study was prepared under contract with the Newport Chemical Depot Reuse Authority (NeCDRA) with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of the NeCDRA and does not necessarily reflect the views of the Office of Economic Adjustment.*



## Executive Summary

### Project Background

After initial recommendations were issued by the Secretary of Defense, the 2005 Base Realignment and Closure (BRAC) Commission prepared a list of recommended base closures for the President on September 8, 2005. On September 15, the President approved a final list, which included Newport Chemical Depot, and transmitted it to Congress. By law, the Depot must close before September 15, 2011, but it could potentially close ahead of schedule in 2010.

The Newport Chemical Depot is a facility of approximately 7,130 acres located in west-central Indiana, in Vermillion County, near the town of Newport. In a regional context, the Depot is about 65 miles west of Indianapolis, and about 140 miles south of Chicago. The Indiana/Illinois state line is only two miles from the western boundary of the base.

### The Newport Chemical Depot Reuse Authority

In preparation for the closure of the Depot, the Newport Chemical Depot Reuse Authority (NeCDRA) was created to oversee and facilitate the creation of a reuse plan. Over the course of 2009, the NeCDRA and its planning team worked with the local community to create a plan and implementation strategy for conversion of the Depot to civilian use.

### The Planning team

To assist with the redevelopment planning for the Newport Chemical Depot, the NeCDRA selected **Matrix Design Group** as the lead planning consultant. Matrix Design Group is a Denver, Colorado-based planning, engineering, and environmental consulting firm with extensive military base realignment and closure planning experience.

## Public Engagement

Understanding and considering community issues related to the reuse of the Newport Chemical Depot was a critical step in the planning process. From the beginning, the Newport Chemical Depot Reuse Authority committed to an open and transparent planning process in which citizen comments and ideas were actively solicited at every stage.

Through a variety of interactive public engagement elements, the planning team listened and learned from citizens, business and property owners, and other stakeholders from throughout west-central Indiana about the variety of issues, ideas, and concerns that affected the reuse planning for the Depot. Public feedback was instrumental in the development of the Newport Chemical Depot Reuse Plan.

Elements of the public engagement program included:

- **Stakeholder Interviews**

Early in the planning process, primarily in February and March, 2009, the planning team conducted one-on-one interviews with a wide variety of stakeholders interested in the Depot's redevelopment.

- **Public Meetings**

Three major general public meetings were conducted during the Newport Chemical Depot reuse planning effort. The first was focused on the introduction of the project, the second on existing conditions and visioning, and the third on the preferred reuse plan. The visioning exercise in Public Meeting #2 involved distributing a survey to participants to gauge attitudes towards different levels and types of development at the Depot.

- **Teen Workshop**

As part of the public outreach effort, the planning team held a special Teen Workshop to engage some of the local youth in Vermillion County in the Newport Chemical Depot reuse planning process and, more importantly, to learn from them their thoughts, ideas, and vision for the Depot site.

- **Focus Groups and Workshops**

Throughout the planning process, several workshops and focus group meetings were held to gather information and/or discuss reuse options relating to specific topics, including land use, infrastructure, economic development, and development.

## Existing Conditions

Newport Chemical Depot, as with most military installations, is surrounded by a broad mix of public-sector and private-sector uses and properties, communities of various sizes and characteristics, and a diverse natural landscape. As a federal property, compliance with local land use, zoning, and other regulations do not generally apply, and as a military property, the built environment on base often takes very unique forms, both horizontally and vertically, to accomplish a specific military mission. To help understand the similarities and differences between on-base and off-base environments, how they affect each other, and to lay the groundwork for the development of the Reuse Plan, a thorough existing conditions assessment was conducted.

## Economic and Market Analysis

Based upon site characteristics, economic base, and broader market and policy trends, Economics Research Associates, retained to analyze market conditions pertaining to the Depot, has identified five redevelopment opportunities in manufacturing, energy production, R&D and institutional uses:

- **Manufacturing**

Manufacturing growth potential at the Depot is likely to be dominated by smaller to mid-size users such as businesses that can capitalize on the region's agricultural base and access to water (e.g. manufacturers of chemicals, biofuels and foods); advanced manufacturing sectors that require proximity to end-users; and manufacturing sectors requiring a skilled labor force that can maximize regional university resources, including manufacturers of chemicals or medical devices.

- **Agriculture**

Agricultural use at the Depot is another land use opportunity that can provide cash flow while functioning as a critical buffer between more intensive industrial uses and the community. Agricultural land leases are already in place at the Depot and their potential for growth is tied to expansion in the regional agricultural base.

- **Energy**

Energy uses at the Depot are an opportunity to both serve future Depot tenants with electricity, while responding to broader nationwide trends and growing demand for alternative energy sources. There are two distinct opportunities for energy and fuel production at the Depot: ethanol or

biodiesel production, and coal gasification. The region's strong agricultural base can provide the raw materials for biofuels production and the Depot is located near other coal gasification and alternative energy production facilities within the Wabash River energy corridor.

- **State Correctional Facility**

The Depot's rural setting makes a correctional facility a logical reuse option. While there is no guarantee the state would choose the Depot for a correctional facility, the state is presently at 100% capacity in terms of prison space, the healthcare and educational resources of the surrounding counties would be regarded as key assets when evaluating the Depot for prison development, and funding increases and bonding capacity for prison expansion is available.

- **Research and Development**

R&D in conjunction with a university or institute is another opportunity for reuse at the Depot. Based upon state-level initiatives in conjunction with program expertise at surrounding universities, biofuels (ethanol and biodiesel) and clean coal technology; agriculture; and advanced automotive technologies are the leading R&D candidates. The Depot is likely to be most marketable for R&D activities that require a significant amount of space or a degree of seclusion or security.

## Community Planning Issues and Influences

### Land Use and Zoning

Vermillion County is primarily agricultural in nature, with farmland dominating its rural landscape. Located several miles from the closest communities, the Depot is surrounded on all sides by agricultural fields or, in a few areas, wooded areas. All properties adjacent to and surrounding the Depot are located in unincorporated Vermillion County and have been zoned by the County as "A" (Agricultural), with the exception of the two County-owned properties, both of which are zoned "B2" (Business).

## Transportation and Utilities

The Depot has good access to Indiana's state highway system and the federal interstate system, located approximately half way between two major east-west Interstate highways, Interstate 70 and Interstate 74. The Depot is also located in proximity to two CSX freight rail lines.

All major trunk utilities (natural gas, electric, telephone, etc.) are provided adjacent to or near the Depot property.

## Natural Resources

The natural environment within and surrounding the Depot supports a variety of ecosystems and habitats that thrive in rivers, deciduous and evergreen wooded areas, open prairie, flatlands, and in areas that interface between croplands and forest. The Depot enjoys abundant water resources, due to the proximity of the Wabash River and the presence of a substantial aquifer located beneath the Depot to the east. The region also enjoys a wide variety of wildlife species, including white-tailed deer, prairie vole, opossum, short-tailed shrew, bog lemming, raccoon, coyote, cottontail rabbit, and bluegill, as well as the endangered Indiana bat. Also of interest is the approximately 461 acres set aside by the Army as a Prairie Restoration Area. The western edge of the Depot was originally covered by tallgrass prairie, representing the extreme eastern extent of a prairie ecosystem that once spanned west to the Rocky Mountains. Finally, six small cemeteries—most consisting of just a few graves—are located on Depot property, usually within or adjacent to wooded areas.

## On-Base Conditions and Characteristics

### Land Use

The Newport Chemical Depot is approximately 7,130 acres in area. In addition to the main facility, the Depot property also includes a 60-acre curved "Railroad Right-of-Way" subarea, as well as the 70-acre arc-shaped "Ranney Wells" subarea along the western bank of the Wabash River.

The following major sub-areas exist on the base:

- **Former VX and Shops Subarea**

The largest concentration of buildings is located in the east central portion of the Depot. This area contains the former VX production facilities which, as of

2009, are in the final stages of demolition. North of the former VX area along Broadway is the Shops area, which contains several smaller buildings that house a variety of maintenance, operations, and support functions. North of Broadway is the Depot's water reservoir and treatment facility, as well as eight concrete storage igloos, among the newer structures at the Depot. The northeastern and southeastern corners of the Depot are dominated by agricultural fields and wooded areas, and just south of the former VX area is the Depot's sewage treatment facility and recycling storage yard.

- **Former RDX Subarea**

The area that once housed numerous structures relating to the production of RDX is located from 11th Street to 15th Street, BB Street to B Street. All former RDX structures have been demolished, however, their foundations and a variety of above and below ground process sewers remain. Surrounding these industrial remnants is a mix of woods and open fields.

- **Headquarters Building / Bookends Subarea**

South of BB Street, just east of 14th Street are the "Bookends"—the nickname for a grouping of 44 large concrete forms. Built decades ago by the Army for blast-protection purposes, these wall-like structures, while never used and without function today, remain a unique feature of the Depot landscape. East of the Bookends is a generally wooded area containing a few warehouse and storage buildings. The final notable structure in this subarea is the Depot's Headquarters building, located south along Cull Avenue just west of 10th Street.

- **Former TNT Subarea**

The area south of AA Street and west of 14th Street to the southwestern corner of the Depot is the area where TNT and associated components were once produced. The largest concentration of these structures is located between West Road and 14th Street, south of Central Road. These structures have been abandoned for several decades and exist in varying states of deterioration. Surrounding these abandoned facilities is a mix of trees and open fields. Farther west, the area is dominated by agricultural fields.

- **Richmond Magazines / Northwest Subarea**

The west central section of the Depot is the location of the former Richmond Magazines. Spread across the terrain in a checkerboard manner, the small earth-mounded bunkers are surrounded by agricultural fields and small wooded areas. The remainder of the Depot to the west, northwest, and



north of the Richmond Magazines is almost entirely undeveloped from an industrial perspective and dominated by agricultural fields, natural drainage corridors, and several large wooded areas.

An overview of the base:

- **Transportation**

Primary roads within the Depot can be generally described as two-lane paved roads. The quality of the pavement ranges from excellent to substantially deteriorated. Secondary roads generally provide access to individual buildings or sites. In many cases, these secondary roads consist of gravel or an unpaved (dirt) condition, and many are barely passable by motor vehicle.

- **Agricultural Resources**

As mentioned previously, the lands surrounding the Depot are heavily developed for agricultural production, given the fertile soils, plentiful rainfall, and good drainage found throughout this part of Indiana.

- **Natural Systems**

As a voluntary effort, the Army set aside approximately 461 acres of land from agricultural development for the purpose of allowing that land to thrive in its original native tallgrass prairie state.

- **Water Resources**

Not only does the area receive sufficient rainfall for dry-land farming, but also the Depot is located near a massive underground aquifer. The need for high-quality fresh water to produce “heavy water” as part of the Manhattan Project during World War II is one of the primary reason for the Depot’s location.

## Utilities

**Natural gas** to the Depot is available for most types of industrial development. New service lines, possibly from the central metering station to areas being developed, may be necessary based on the condition of the steel lines and ability to provide the quantity of gas required by the development. It is anticipated that individual gas meters will need to be provided for new development.

**Electrical power** to the Depot is available for most types of industrial development. New service lines, possibly from main substation to areas being developed, may be necessary based on the type of development. It is recommended that the Depot develop costs

and consider converting the existing DELTA system to a WYE system, which is the current industry standard. It is anticipated that individual electric meters will be required for the development.

**Telecommunications systems** are available at the Depot. It is anticipated that telecommunications requirements will be dependent on the specific developer needs and that modifications or upgrades to the existing telecommunications systems will be required.

The existing **water treatment and distribution system** at the Depot has sufficient capacity to serve the developed areas of the site. The Depot has the potential to supply water to meet the needs of most industries and to potentially serve as a regional water supplier in Vermillion County and the surrounding region. Significant maintenance and repairs are required to bring the system back to a operating level where it can supply 15 to 30 million gallons a day of water.

The existing **wastewater treatment and collection** at the Depot has sufficient capacity to serve the current developed area of the site. Excess capacity of approximately 150,000 gallons exists at the plant. This should be sufficient to treat domestic wastewater from approximately 2,000 additional people at the site. The existing plant was not designed to treat industrial wastewater. An industrial pre-treatment program acceptable to the Indiana Department of Environmental Management (IDEM) will be required to accept industrial wastewater at the plant. Pre-treatment of industrial wastes by the associated industry will be required. Larger industrial process operations will likely need to treat their own water prior to discharge or participate in upgrading the existing plant to meet their needs.

The Depot has a significant amount of undeveloped property that can be used for **stormwater management**. While state, county and local stormwater management requirements will need to be met, it is not expected that stormwater management requirements will limit development of the site.

## Buildings and Facilities

A comprehensive assessment of 28 buildings on the Depot was conducted during the Existing Conditions phase of the project. The buildings assessed include the Depot's headquarters building, several warehouses, the Depot's water reservoir, various storage buildings and garages, maintenance shops, the Depot's fire house and water tower, several administrative office buildings, and various utility and support buildings. For

the more important buildings, a Property Condition Assessment form was completed which details the building's site layout, structure and envelope, architectural and spatial qualities, and mechanical, electrical, and plumbing systems. The facilities assessment allows the NeCDRA and the planning team to understand the reutilization or adaptive reuse potential for the Depot's major structures.

A complete list of buildings assessed can be found in the [Existing Conditions](#) section of this report, and copies of the assessment forms can be found in [Appendix D](#).

### Environmental Conditions

Throughout its history beginning in 1941, the Newport Chemical Depot was used for the production of various chemicals and nerve agents, including the following:

- **Royal Demolitions Explosive** (RDX), 1942-1946
- **Heavy water** for the Manhattan Project, 1943, 1952-1957
- **VX** Nerve Agent, 1958-1968
- **TNT**, 1970-1975

In 1999, through a contract with the US Army, Parsons Infrastructure and Technology was hired to build the Newport Chemical Agent Disposal Facility (NeCDF), destruct chemical weapons, and demolish the NeCDF after demilitarization. Construction of the NeCDF was completed in 2003, and the last container of VX was destroyed in 2008.

The chemical production activities conducted at the Depot have resulted in known and potential contamination of soils, groundwater, surface water, and structures, and numerous landfills and dumps are present at the site. Contaminants at the Depot include explosives, chemical agent components, volatile and semivolatile organic compounds, metals, petroleum hydrocarbons, and asbestos.

## Planning Framework

With the completion of the Existing Conditions assessment phase of the project, which evaluated the current status of a variety of physical, market/economic, and environmental factors at the Depot, the next phase—crafting the Reuse Plan—could begin. To assist in developing the final reuse plan, the planning team completed two interim steps: a Development Suitability Analysis and the creation of several Reuse Plan Concepts.

### Development Suitability Analysis

The development suitability analysis involved the categorization of all land at the Depot into three broad categories: Most Suitable, Moderately Suitable, and Limited Suitability or Not Suitable. Given the importance and preponderance of farming in the region, two separate analyses were performed; one analysis for the suitability of agriculture and forestry, and the other for business and industrial development. The distinction between these two broad land use categories was made in recognition of the fact that agricultural uses could be treated as a separate, equal use to business and industrial development rather than an intermediate “stepping stone” on the path to business or industrial development.

Land at the Depot was evaluated for agricultural suitability based on soils, natural systems, and environmental constraints. To determine suitability for business and industrial development, natural systems and environmental constraints were considered.

### Reuse Plan Concepts

The planning team created three Reuse Plan Concepts from which the final Reuse Plan evolved. The Reuse Plan Concepts were not intended to stand as independent, competing alternative solutions for reuse of the Depot. Instead, they were created to present a variety of plan themes and elements in different combinations, locations, and configurations—intentionally varied across the three concepts—to illuminate multiple reuse opportunities.

Guiding principles employed in the creation of the Reuse Plan Concepts included:

- Conservation of natural and cultural resources
- Continuation of agricultural-related uses
- Long-term market flexibility

- Creation of jobs and economic development for the region
- Conservation of largest blocks of unfragmented forests & drainage corridors
- Connection of separated natural areas with “green corridors”
- Preservation of right-of-way for a Highway 63 / Highway 71 east-west connection
- Agricultural uses concentrated in areas with best soils
- Opportunities for “mega-site” development are created

A detailed description of the Reuse Plan Concepts is provided in [Chapter 4](#).

## Preferred Reuse Plan

The three Reuse Plan Concepts were reviewed and commented on by the NeCDRA, real estate developers, economic development experts, members of the farming and natural resource communities, and the public in general. This feedback, as well as the NeCDRA's guiding principles, public visioning results, and existing conditions, formed the basis for the creation of the Preferred Reuse Plan, which would evolve into the Reuse Plan itself.

## Final Reuse Plan

The Reuse Plan for the Newport Chemical Depot is rooted in two fundamental principles: the continuation and conservation of agricultural and natural resource uses at the Depot, and economic development and the creation of jobs for the region. The Reuse Plan embraces both of these principles to a significant degree.

The Newport Chemical Depot Reuse Plan capitalizes on the Depot's large land mass and natural features, water resources, and proximity to highway and rail transportation networks to position the site as one of the nation's premier locations for large-scale business and technology development, while protecting thousands of acres of natural and agricultural areas at the same time. ***Flexibility is a key component of the Reuse Plan.*** Changes in energy usage and production, technology and industry, transportation and logistics, and a focus on sustainability of the natural and built environments will shape the Depot's redevelopment over the course of the next few decades. The Reuse Plan provides the flexibility to allow the Depot to respond to these changes and maintain its competitive advantage while remaining a good neighbor to local communities.

## Land Use Program

The location and configuration of the various land use districts identified on the Reuse Plan were shaped by several factors, including the Depot's topography and natural systems, sites with environmental conditions, and the Depot's proposed Transportation Framework. Overall, the allocated land uses for the Depot achieve a balanced 50/50 split between uses oriented toward the natural and built environments. Agriculture, Natural Areas & Open Space, and Parkland uses account for roughly one-half of the site's approximate 7,130 acres, with Business & Technology, Highway-Oriented Commercial, and Conference & Support Facilities accounting for the other half.

## Natural Areas & Open Space

Approximately one-third (32%) of the Depot is designated as Natural Areas & Open Space, determined by topography, natural conditions, and environmental conditions. Areas that fall under this land use category include wooded areas, tallgrass prairie, natural drainageways, green connectors linking larger natural areas and open spaces to each other, and the railroad right-of-way and wells area.

## Agriculture & Forestry

Most of the land on and surrounding the Depot has a long history of agricultural production. The rich prairie soil results in some of the most productive farmland in the country due to the Depot's location at the eastern edge of the native tallgrass prairie that once stretched to the Great Plains. Most of the land designated for Agriculture & Forestry is currently being farmed, with the exception of a portion of the land immediately north of the US Coast Guard facility, which contains some wooded areas. While timber harvesting is not as prevalent as row crops in the region, this plan proposes that tree plantations/forestry would be an allowable use in these areas. Tallgrass prairie would also be an allowed use within the Agriculture & Forestry areas.

## Parkland

While over two thousand acres have been allocated on the Reuse Plan map for Natural Areas & Open Space, additional territory has been designated for a more designed landscape setting. Shown in light green on the Reuse Plan map, Parkland uses account for approximately 90 acres, or a little more than 1% of Depot land, and consist of two main elements:

- Bookends Park, which is 40 acres surrounding the monolithic concrete blast-protection structures in the south-central section of the Depot
- Central Parkway Linear Park, which makes up the generous median of the main arterial roadway envisioned to serve the Depot

## Business & Technology

It is primarily through the Business & Technology areas, shown in the gold color on the Reuse Plan map, that the plan will accomplish significant economic development and job creation for the region over the coming years. The Business & Technology areas account for approximately 3,375 acres or about 47% of Depot land.

The activities proposed for the Business & Technology areas are intentionally broad and flexible. Uses envisioned for these areas include offices, office/industrial flex buildings, research and development facilities, manufacturing, warehousing, energy production, educational uses, institutional uses, training facilities, and distribution centers.

An important aspect of the Business & Technology use is the "mega-site" concept. Many users that fall under the categories listed above need sites that have ample acreage. Consequently, the Reuse Plan identifies three mega-sites: one in the northeastern part of

the Depot at approximately 1,220 acres, one in the south-central part at approximately 930 acres, and a 750-acre site located in the northwestern part of the Depot that could accommodate users bringing hundreds or thousands of jobs to the region. Located in the center of these three sites is a 250-acre area that could accommodate a mix of larger or smaller Business & Technology users. For Business & Technology users that do not need such large land areas or that prefer a more visible location, two additional Business & Technology areas, at approximately 105 and 120 acres each, are located along Highway 63. It is envisioned that these two areas would be developed in an office/light industrial park manner.

### **Conference & Support Facilities**

The proposed Conference & Support Facilities area is planned as a gathering place for both future Depot users and the community at large. This approximately 70-acre site, identified on the Reuse Plan map in blue, is located mid-way along Central Parkway near the geographic center of the Depot.

The concept behind this small but important area is to provide a centralized place that would host various functions that are shared or in support to users at the Depot and that promote collaboration among Depot users and the community. The size and nature of these shared/support uses will likely be determined by the manner in which the Business & Technology areas on the Depot develop and the number and type of jobs created.

### **Highway-Oriented Commercial**

Uses envisioned for the Highway-Oriented Commercial area could include a hotel, auto/truck service plaza, restaurants (both sit-down and fast food), and convenience stores. These uses are oriented not only to motorists traveling along Highway 63, but also to future Depot users as well.

### **Transportation Framework**

The transportation framework for the Reuse Plan is anchored around a single east/west arterial roadway that bisects the Depot roughly midway between its northern and southern borders. The roadway will provide not only primary transportation access across the depot, but will feature a gateway aesthetic unifying the property.

The current central entrance along BB Street has been chosen as the axis for the arterial roadway rather than Broadway, despite Broadway's easy access to numerous buildings suitable for reuse. This is due to the more central alignment that BB Street offers for

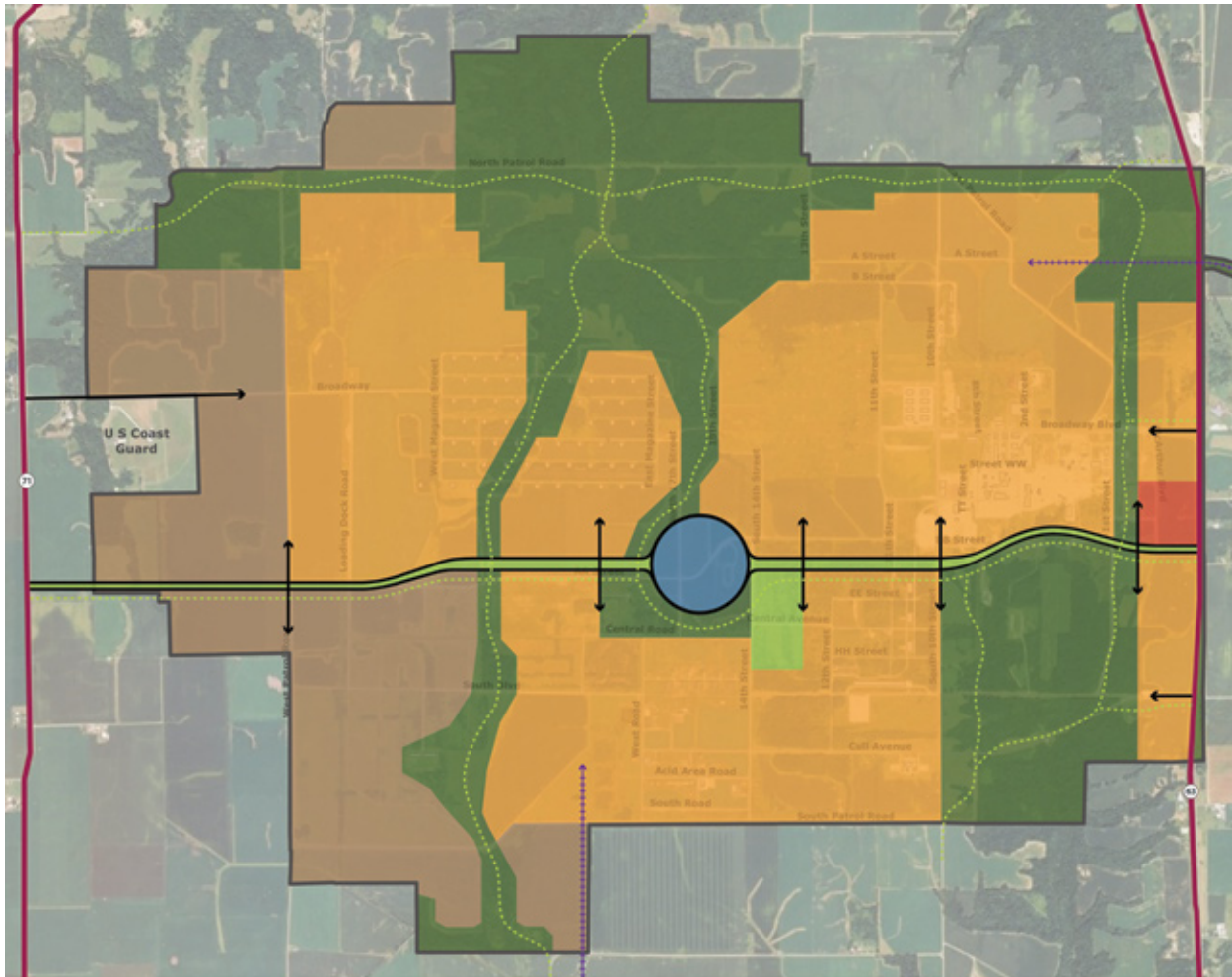


future development along with its more attractive setting along the northern edge of a large natural area. The central portion of the parkway splits into a circular configuration designed to convey a special focus to the Conference & Support Facilities area.

There are no active railroads currently on the Depot property, although two major CSX lines are located nearby, and potential rail access points exist at the northeast and southern borders of the Depot.

## Environmental Considerations

Environmental conditions existing at the Depot influenced the Reuse Plan and implementation strategy in various ways. Potential MEC areas, landfill sites, and other potential areas of contamination have been designated as open space; land use controls that prevented excavation were not included in future redevelopment areas; and, new development areas are limited to like uses, such as maintaining older industrial areas as the same use in order to minimize remediation requirements.



## Railroad / Wells Area



### Legend

- NeCD Boundary
- State Highway
- Central Parkway
- Key Secondary Roadway Access
- Potential Railroad Connection
- Potential Recreational Trail

0 500 1,000 2,000 Feet



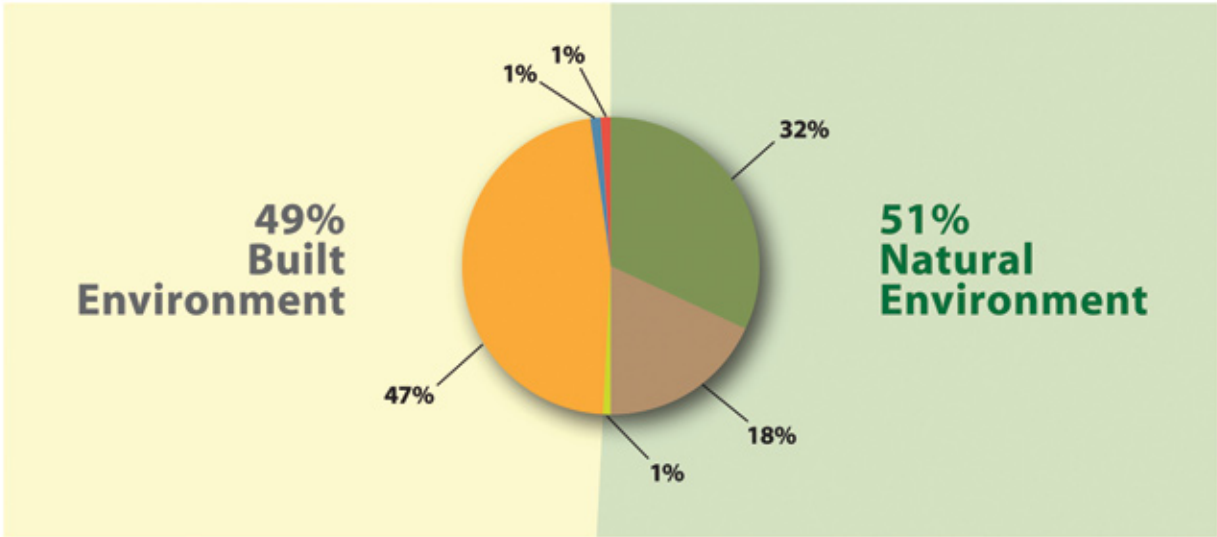
### NEWPORT CHEMICAL DEPOT REUSE MASTER PLAN



**Matrix Design Group**  
Integrated Design Solutions

ECONOMICS RESEARCH ASSOCIATES - CHICAGO, ILLINOIS  
BURNS & MCDONNELL - CHICAGO, ILLINOIS  
GARRITY & HENSELY - BOSTON, MASSACHUSETTS

A BALANCED PERSPECTIVE



LAND USE AREAS		ACRES	% TOTAL
NATURAL ENVIRONMENT	Natural Areas & Open Space	2,305	32%
	Agriculture & Forestry	1,250	18%
	Parkland	90	1%
	SUBTOTAL	3,645	51%
BUILT ENVIRONMENT	Business & Technology	3,375	47%
	Conference & Support Facilities	70	1%
	Highway-Oriented Commercial	40	1%
	SUBTOTAL	3,485	49%
GRAND TOTAL		7,130	100%

## Plan Implementation Considerations

While additional planning work, environmental investigations, market assessments, and engineering studies will be required before the Reuse Plan can be fully implemented, this chapter provides a discussion of some of the issues that the NeCDRA will have to consider in implementing the Reuse Plan as well as some of the impacts of the property transfer and the Plan's implementation.

## Economic and Development Impacts

### Economic Impact

Realignment of the Newport Chemical Depot will have major implications for jobs, wages, purchases and taxes in the local and statewide economy. Currently, jobs supported by base contractors Parsons and Mason & Hanger generate wages that are funneled into the regional economy through spending on goods and services. By mid 2010, however, base remediation will have finished, and the economy will experience the impact from the loss of employment and regional spending. The loss of 690 jobs at the Newport Chemical Depot and transfer out of state in 2009 and 2010 will generate a series of ripple effects in the county and statewide economies. This impact is estimated as follows:

- The direct change in output from this employment shift is estimated at \$61.2 million statewide.
- When business-to-business interactions and household spending are taken into consideration, the value across all industry sectors statewide from this employment loss is estimated at over \$101.6 million.
- In addition to the loss of 690 direct jobs at the Newport Chemical Depot, an additional 110 indirect and 220 induced job loss is also predicted statewide.
- At the county level, the indirect and induced effects resulting from this employment loss is estimated at \$14.5 million, with \$4.7 million in lost wages.

### Redevelopment Impacts

Redevelopment of the Newport Chemical Depot will be critical to replacing lost consumer and business spending associated with Depot operations, while also retaining county employment. The Newport Chemical Depot reuse plan targets a mix of business and technology, agriculture, and highway-oriented commercial uses. Key business

targets include major energy producers, advanced manufacturers, and possibly, a state correctional facility. The impact of redevelopment on Vermillion County been quantified over two phases:

- **Construction:** Major capital investments at the Newport Chemical Depot will support temporary jobs and wages for area workers. Impacts from construction of major uses are reflected in current dollars.
- **Operations:** Business investment at the Newport Chemical Depot will generate new employment opportunities for area workers, as well as generate base income in the form of lease payments. Projected lease revenues have been generated assuming annual gross per square foot lease rates of \$2.00 to \$2.50 for manufacturing and office uses; and \$1.25 to \$1.75 for warehousing uses.

### Implementation

The implementation plan provides the Reuse Authority with a strategic project approach that identifies potential strategies and tools to be considered as development advances at the Newport Chemical Depot. Based upon needs of the regional economy and select advantages of the Newport Chemical Depot, the following objectives have been identified to guide Base redevelopment:

**Generate jobs:** The surrounding area, and Vermillion County in particular, is in need of additional employment. The Newport Chemical Depot is a prime opportunity to attract investment in emerging business sectors to generate high quality jobs, helping to attract new workers to the ten counties. Over the long-term, this will help to favorably position the region for additional economic growth.

**Attract new business investment:** Through a strategic branding, marketing and business outreach strategy, the Newport Chemical Depot has the opportunity to enhance the reputation of West Central Indiana for business investment. Attracting new businesses to the Newport Chemical Depot will ultimately generate spin-off development in the form of supporting businesses and services, and enhance the region for prospective residents.

### Strategies

Redevelopment strategies have been broken into two categories: 1) organizational strategies that address the evolving responsibilities and management of the Reuse Authority, and 2) operational strategies which seek to establish regularity and efficiency in their functioning and decision making. Under each strategy, a series of actions have been identified to implement the particular strategy.

### *Short Term Steps and Considerations*

Key to redevelopment in the short-term will be building the operational capacity necessary to implementing redevelopment, as well as generating developer interest in the site:

- Build economic development capacity
- Promote organizational efficiency

Operational strategies seek to establish regularity and efficiency in the functioning of the Reuse Authority. Three operational strategies have been identified to support redevelopment at the Newport Chemical Depot:

- Establish procedural regularity for making critical business decisions
- Prioritize financial sustainability
- Provide an effective Depot land management and marketing strategy:

### **Longer Term Steps and Considerations**

Important over the long-term will be forging strategic relationships with area brokers and businesses, and taking steps to ensure targeted site investment is accurately reflected in the rent. Recommended key operational and tactical moves are:

- Collaboration with local and regional planning officials and prospective companies and developer(s) to obtain the local approvals necessary to implement redevelopment.
- Partnerships with Midwestern brokers and realtors to ensure maximum visibility of available sites.
- Periodic property revaluation and rent adjustment.

## **Transportation and Infrastructure Impacts**

As a part of future planning efforts, detailed “order of magnitude” estimates will be developed relative to the degree of public sector capital investment that will be necessary for implementation of the 20-year redevelopment plan. The majority of implementation costs relate to rehabilitation of existing facilities and construction of new transportation and utility infrastructure. Primary cost components will include:

- Arterial, collector and local streets
- Water and sewer systems
- Storm drainage
- Electrical transmission and distribution
- Telecommunications

The actual cost for implementation will be determined through additional information acquired during completion of the infrastructure studies, including an infrastructure master plan; water supply and distribution study; rail feasibility study; and other detailed studies that will help determine long-term costs and revenue to implement the Reuse Plan. These costs will include total projections through build out and a contingency allowance.

The time frames necessary for implementation of utility and transportation infrastructure improvements will be dictated to a large extent by the rate at which new businesses occupy the facility; phasing may also be driven by the logistics of transfer of ownership and operations responsibility of any utility systems. The need for capacity-related improvements to the transportation network in the vicinity of the base will be dictated primarily by the rate at which existing facilities are reused, and new facilities are constructed.

Due to the extremely long lead-time associated with major transportation improvements (driven in large part by the funding process), it is essential that any proposed transportation improvements be given a high priority.

While several options remain relative to the logistics associated with future operation of existing utility systems on the base, it is clear that extensive rehabilitation of the existing systems and construction of new system components will be required. While, ideally, the market will allow the reuse of facilities which can receive improved utility service based on limited “up front” capital investment first, it is likely that significant infrastructure improvements will be necessary, particularly in the areas of water and sewer system rehabilitation, streets and roadways, and communications infrastructure. At this stage of the planning effort, it is assumed that the capital investment in utility and transportation infrastructure will be spread over a 20 year period with weighting on the initial five years.



## Environmental Considerations

There are numerous environmental issues that must be considered prior to, and during, implementation of the Plan. Environmentally-impacted sites on the property are at various stages of investigation, remediation, and closure; some potential areas of environmental concern have not been assessed at all. A number of known environmentally-impacted areas have not been adequately remediated to fully implement the Reuse Plan. Environmental investigation and site characterization for known and potential environmentally-impacted sites are critical elements to redevelopment because the nature and extent of contamination must be defined prior to being able to adequately estimate costs for remediation to be protective of human health and the environment for the land uses described in the plan, and to adequately estimate and consider long-term obligations (e.g., long term monitoring or land use controls). The environmental strategy for proceeding with cleanup and redevelopment in accordance with the Reuse Plan should include filling identified data gaps while coordinating further site investigation, remediation, and closure of contaminated sites consistent with the redevelopment schedule and priorities.

## Environmental Phasing

During the development of the Reuse Plan, certain areas have been identified as priorities in the redevelopment phasing for the NeCDRA. The priority areas are the agricultural lands that will likely transfer first, and the large sections of industrial development property. At this planning stage, the following priorities related to environmental investigation and cleanup have been identified, along with the reasoning associated with the priorities:

- Property in the large blocks of land slated for Business & Technology development
- The Chemical Demilitarization Area, where remediation, and investigations continue
- The potential for unexploded ordnance and MEC exists at several sites, including the National Guard Training Area, the Small Arms Range, and the Old Chemical Munitions Open Detonation Area
- The potential for radiological contamination
- Existing utilities
- The Power Plant



Environmental cleanup of the Depot is necessary to support redevelopment. Care has been taken to propose a Reuse Plan that considers “like use” of the property. However, even with “like use” as industrial and agricultural property, environmental issues remain and may impact development opportunities and costs. Discussion of potential issues and data gaps identified herein should occur with the Army and IDEM as soon as possible so that environmental investigation and cleanup as appropriate for implementation of this Reuse Plan can occur in advance of property transfer, and/or appropriate Business Planning and cost estimating can occur to value the property and assess redevelopment costs appropriately.

## Property Transfer Considerations

After the final property disposition strategies have been agreed upon by the NeCDRA and the Army, a parcel by parcel implementation occurs until all the property has been conveyed. As part of this process, the DoD, NeCDRA and the State of Indiana reach consensus on responsibility for completing remaining environmental restoration activities for each parcel, and environmental cleanup or remediation is implemented by either the DoD or the property recipient. If the property recipient accepts responsibility for environmental restoration activities, a covenant deferral request and a Finding of Suitability for Early Transfer (FOSET) is signed by the Governor, and other legal and regulatory documents identifying the responsible party, the terms of the transfer, and scope of work for environmental restoration must be prepared and finalized.

### Public Benefit Conveyances

A Public Benefit Conveyance (PBC) is “the transfer of surplus military property for a specified public purpose at up to a 100 percent discount” (Department of Defense Base Redevelopment and Realignment Manual, 2006). Surplus military property may be conveyed to public agencies and not-for-profit organizations to provide public goods and services. PBC categories include: parks and recreation, historic monuments, airports, health, education, correctional facilities, highways, self-help housing, wildlife conservation and emergency management. For each of these public purposes, there is a sponsoring federal agency with regulations that determine applicant eligibility and need. Through the State and Local Screening process, the NeCDRA reviewed proposed uses to see how well they fit with the overall guiding principles and direction of the Reuse Plan.

### **Notice of Interest (NOI) Applications**

On or before March 23, 2009, four NOIs were received from state, local and non-profit entities:

- Indiana Department of Natural Resources
- Sycamore Trails Resource Conservation and Development Council
- Vermillion County Parks and Recreation Board
- Wabash River Heritage Corridor Commission

All four applicants share a common interest in and commitment to natural resource conservation, education, and compatible recreational activities. Several of the applicants even acknowledged in their NOI requests the commonality of purpose with the other PBC applicants and a desire to work together to accomplish their common goals. Consequently, in the spirit of providing a collaborative foundation for implementing the Reuse Plan, the NeCDRA recommends that none of the four PBC requests be approved and, instead, commits to establish a working relationship with the applicants and other interested parties to protect, manage, and promote the Depot's planned Natural Area & Open Space districts.

### **Homeless Assistance Provisions**

The NeCDRA conducted an outreach process to solicit Notices of Interest from state and local agencies, representatives of the homeless and other persons as provided by the Defense Base Closure and Realignment Act of 1990 (Public Law no. 101-510; the "Act"), as amended.

On January 20, 2009, a Public Outreach Workshop was conducted at 2250 North Main Street, Clinton, Indiana to provide information to state and local government entities, representatives of the homeless, and other eligible persons or entities in the vicinity of the Depot who may have an interest in buildings or property at the Depot for homeless assistance or other public benefit purposes.

No homeless assistance Notices of Interest were received.

# 1 Project Background

After initial recommendations were issued by the Secretary of Defense, the 2005 Base Realignment and Closure (BRAC) Commission prepared a list of recommended base closures for the President on September 8, 2005. On September 15, the President approved a final list, which included Newport Chemical Depot, and transmitted it to Congress. By law, the Depot must close before September 15, 2011, but it could potentially close ahead of schedule in 2010.

The Newport Chemical Depot has been a major regional employer, providing over 500 jobs to area residents and acting as an economic engine for the surrounding towns and population centers.

## Property Setting and Description

The Newport Chemical Depot is an approximately 7,130-acre facility located in west-central Indiana, in Vermillion County, near the town of Newport. Other towns in the vicinity of the base include Clinton, and Dana. **Exhibit 1-01: Regional Context Map** shows the location of the Depot with respect to surrounding towns and interstate highways in the area.

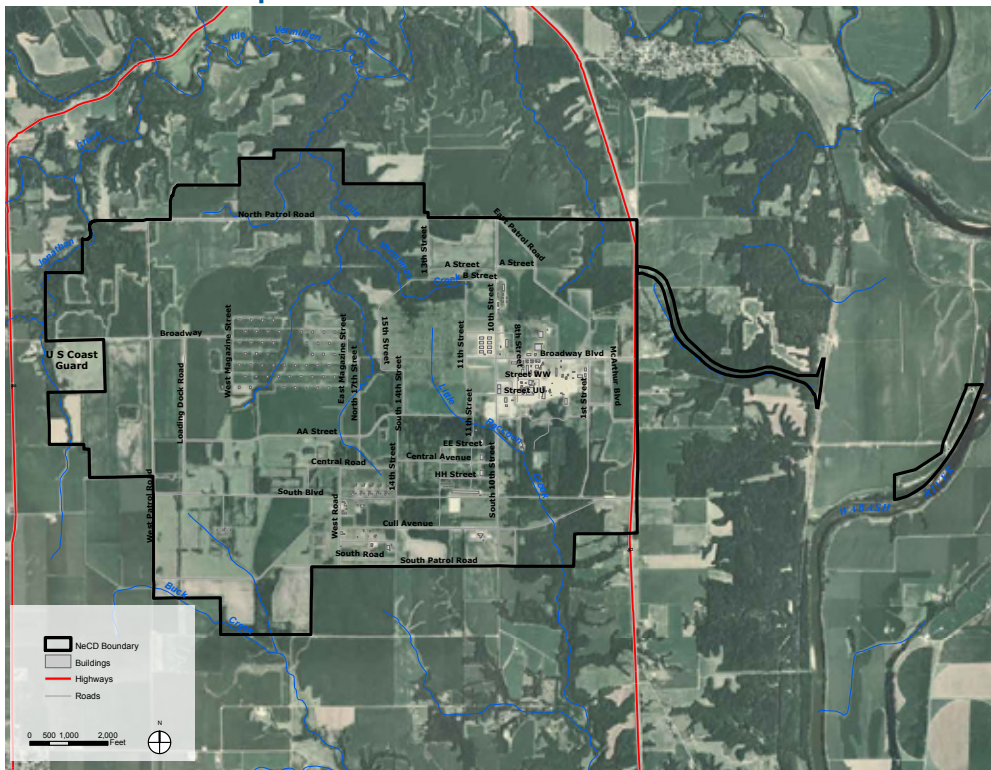
In a regional context, the Depot is about 65 miles west of Indianapolis, and about 140 miles south of Chicago. The Indiana/Illinois state line is only two miles from the western boundary of the base.

Primary access to Newport Chemical Depot is provided by State Highway 63, which runs on a north/south axis near the eastern boundary of the property. **Exhibit 1-02: Base Map** shows an aerial view of the Depot, revealing the internal roadway network as well as the location of prominent structures and facilities on the property.

Exhibit 1-01: Regional Context Map



Exhibit 1-02: Base Map



## The Newport Chemical Depot Reuse Authority

In preparation for the closure of the Newport Chemical Depot, the Newport Chemical Depot Reuse Authority (NeCDRA) was created to oversee and facilitate the creation of a reuse plan for the Depot. Over the course of 2009, the NeCDRA and its planning team worked with the local community to create a plan and implementation strategy for conversion of the Depot to civilian use.

## The Newport Chemical Depot Reuse Authority Board

The NeCDRA Board of Directors, appointed by Vermillion County Commissioners, are listed below:

- Jack Fenoglio (Clinton) - President
- Tom Milligan (Dana) - Vice-President
- Robert Rendaci (Clinton) - Treasurer
- Albert Clark (Cayuga) - Board member
- Arden Kilgore (Cayuga) - Board member

The NeCDRA's Executive Director is William Laubernds, the Property Manager is Yale Yeager, and the Office Manager is Susie Jones.

## The Planning Team

To assist with the redevelopment planning for the Newport Chemical Depot, the NeCDRA selected **Matrix Design Group** as the lead planning consultant. Matrix Design Group is a Denver, Colorado-based planning, engineering, and environmental consulting firm with extensive military base realignment and closure planning experience.

Also on the Matrix Design Group team are three additional firms with specific areas of expertise:

- **Burns & McDonnell** (utilities and infrastructure)
- **Economics Research Associates** (market and economic analysis)
- **Garrity & Knisely** (legal services)

## Newport Chemical Depot Reuse Authority Guiding Principles

The NeCDRA is charged with the responsibility of preparing a reuse plan for the Newport Chemical Depot. Accordingly, the NeCDRA established the following guiding principles to provide a basic framework for evaluating proposed new uses of the Depot:

- Acquire the property at no cost to the NeCDRA or the community
- Develop a reuse plan for primarily industrial and agricultural uses
- Ensure preservation of natural resources
- Maximize local jobs and investment for Vermillion County and the region

## The Federal Property Screening Process

The BRAC process allows for various federal, state, and local agencies and other non-profit organizations to apply for and be considered for property within a closed military installation. There are two levels of screening, the first of which is the “federal to federal” screening, during which other Department of Defense organizations are notified by the Department of the Army (or other applicable Military Department) of the availability of “excess” property. After consideration by these components, other federal departments are then given the opportunity to request portions of the property. The parcels within the installation remaining that are not transferred to these agencies under this first level screening activity are considered “surplus” property.

The second level of screening is conducted by the Local Redevelopment Authority, and considers the surplus property, as defined above. During this process, the LRA provides notice of the availability of surplus property to homeless provider organizations, state and local governments, and potential recipients of public benefit conveyances. The following sections of this report describe this process as it relates to the potential redevelopment of the 7,130-acre Newport Chemical Depot.



## Federal Determination of Surplus Property

During the BRAC federal property screening process, no requests were made by any federal agencies to the Department of the Army for any military property at Newport Chemical Depot. As such, the entire 7,130 acre property was declared surplus in the November 14, 2008 issue of the *Federal Register*. The exact number of acres and boundary lines will be determined by survey.

## State and Local Screening Process

The federal Base Closure Community Redevelopment and Homeless Assistance Act governs the process of how federal defense facilities can be disposed. The Act was designed to accommodate the impacted communities' multiple interests in base reuse, including meeting the national priority to assist homeless individuals and families; for Economic Development Conveyances (EDC) for business growth and expansion; and for Public Benefit Conveyances (PBC) to provide for reuse of land and building assets for a public purpose. The Act provides for a community-based process whereby government and not-for-profit organizations may propose the reuse of surplus military property to provide vital public services such as education, health care, open space or parks, parks and recreation related uses, law enforcement, prisons, transportation terminal facilities, public buildings and facilities; the Act also provides for a community-based process whereby government and not-for-profit organizations serving homeless individuals or families participate in the local reuse planning process. The local redevelopment authority is responsible for developing a reuse plan for Newport Chemical Depot that appropriately balances the needs for economic redevelopment, certain public facilities and amenities, and homeless assistance.

## State and Local Screening Notice of Interest

State and local eligible parties were allowed to prepare requests for surplus property at Newport Chemical Depot once the state and local screening process began with the distribution of an announcement of available surplus property inviting interested parties to submit Notices of Interest (NOIs) to the NeCDRA outlining their proposals for reuse of any portion of that property. The announcement soliciting NOIs was published in the November 28, 2008 issue of the *Clintonian* newspaper and sent to the State of Indiana, local governments, and not-for-profit agencies in the vicinity of the Depot.

The announcement soliciting NOIs also invited interested applicants to an informational workshop held on January 20, 2009, designed to give an overview of the redevelopment planning process, information on land use constraints, and information on the NOI process. Applicants were also invited to a base tour that took place on January 27. Attendance by interested parties at either the workshop or the base tour was not required to submit a NOI proposal, but was encouraged.

The announcement also detailed what was required in each proposal, as well a list of federal agency contacts that applicants could call to discuss the eligibility of their proposals for free or below-market acquisition of federal land through a Public Benefit Conveyance.

Each application submitted by an organization other than a homeless provider was requested to have the following elements:

- A description of eligibility for Public Benefit Conveyance
- Proposed use of the property
- A description of buildings and property necessary for reuse proposal
- Time frame for occupation
- A description of the benefit to the community, including the number of jobs estimated to be generated

Four NOI applications were received by the NeCDRA, as discussed in [Chapter 5](#) of this document.

## The Master Planning Process

After soliciting proposals from national planning consultants, the NeCDRA interviewed and selected Matrix Design Group, Inc. (Matrix) in December, 2008 to help it prepare a reuse plan for the Newport Chemical Depot. Funded through a grant from the Office of Economic Adjustment (OEA), the Department of Defense, the Matrix scope of work developed for the project and approved by the NeCDRA Board was based, in part, on the following NeCDRA study parameters:



- Use a forward-thinking and inclusive approach
- Establish initial community goals and objectives, respecting important community interests and values
- Provide for public outreach and identify the needs of the community
- Implement and maintain a website devoted to the redevelopment of Newport Chemical Depot and the planning process as a means of keeping the public informed and to receive comments
- Conduct a market study, addressing national, regional, and local potential for redevelopment
- Conduct a detailed facility survey of the property to include land area, buildings, infrastructure, utilities, and environmental conditions
- Collate known environmental issues, using existing and such other inventory and other information as may be needed and recommend a base reuse plan that is environmentally acceptable to the Army, regulators, and the community at large
- Prepare a summary analysis map identifying opportunities and constraints associated with redevelopment at the base
- Use broad planning principles to develop a series of alternative reuse plans and property disposition strategies that the NeCDRA would utilize when working with the Army in the future
- Identify when, how and what disposition methods should be used for property transfer from the Army and alternatives for the completion of the environmental cleanup, including “early” transfer under CERCLA and privatization of the environmental cleanup
- Assist the NeCDRA community in the federal and state, local and homeless provider screening process
- Assist the community in reaching consensus around a final base reuse plan
- Develop an implementation strategy to describe how the redevelopment would occur and recommend the next steps for implementation

## Components of the Planning Process

The final NeCDRA-approved Reuse Plan for the redevelopment of the Newport Chemical Depot, as described in [Chapter 5: The Newport Chemical Depot Reuse Plan](#), is based on a planning process that has considered a variety of significant data related to physical characteristics, environmental conditions of the property, market, economic and financial issues, and regulatory considerations; pertinent on-base, as well as off-base issues have been addressed. The Plan is also the product of an extensive public engagement program that has generated local, regional, and statewide public interest, serious comment and review, and active participation at many community levels, as described in [Chapter 2: The Public Engagement Program](#), which follows this section. No one issue has dominated the process, and no one issue is the basis for the Plan. As with all large-scale, complex, and multi-faceted redevelopment projects, the Newport Chemical Depot Reuse Plan reflects the combination of conditions that best positions the property for successful long-term redevelopment, and balances that against community goals and objectives, environmental sustainability, and political / regulatory realities.

The 9-month planning study followed a three-phased process that included:

- **Phase A: Project Scope Refinement and Management**, which focused primarily around the development of a scope of work that reflected budget considerations and planning goals, expectations, and the timeframe for the project.
- **Phase B: Inventory and Assessment Activities**, the period during which physical, market and economic, and facility data was collected and evaluated. This phase also included the public engagement program to solicit ideas from the general public as well as receive feedback on alternative plans developed.
- **Phase C: Conceptual Master Planning**, during which conceptual plan alternatives were formulated, evaluated and compared, and the Base Reuse Plan was finalized.

## 2 Public Engagement

Understanding and considering community issues related to the reuse of the Newport Chemical Depot was a critical step in the planning process. The closure of the Depot—a vital part of the local community for over six decades—will have a profound impact on the region, as will its redevelopment over the coming decades. From the beginning, the Newport Chemical Depot Reuse Authority committed to an open and transparent planning process in which citizen comments and ideas were actively solicited at every stage. Consequently, the project’s Public Engagement Program was organized to meet that commitment. Through the interactive public engagement elements described in this chapter, the planning team listened and learned from citizens, business and property owners, and other stakeholders from throughout west-central Indiana about the variety of issues, ideas, and concerns that affected the reuse planning for the Depot. Public feedback was instrumental in the development of the Newport Chemical Depot Reuse Plan.

### Stakeholder Interviews

Early in the planning process, primarily in February and March, 2009, the planning team conducted one-on-one interviews with a wide variety of stakeholders interested in the Depot’s redevelopment. These individuals came from a variety of backgrounds and interests, including:

- Local residents and property owners
- Local business owners
- Local elected officials
- Local government staff
- Representatives from major employers in the area
- Representatives from regional utility providers
- Representatives from local, regional, and state economic development organizations
- Representatives from local Chamber of Commerce and other civic organizations
- Local school district representatives

The interviews were designed to allow the planning team to gain knowledge about the Depot and the surrounding community from various perspectives and how the closure and reuse of the Depot will impact, or be impacted by, these perspectives. Some of the topics discussed during the interviews included:

- Site characteristics, strengths and weaknesses
- Reuse goals, opportunities and constraints
- Implementation needs, challenges and barriers

The stakeholder interviews also provided important background information that became the framework for discussion during the Focus Groups and Workshops.

## Public Meetings

Three major general public meetings were conducted during the Newport Chemical Depot reuse planning effort:

- Public Meeting #1 – Project Introduction
- Public Meeting #2 – Existing Conditions and Visioning
- Public Meeting #3 – Preferred Reuse Plan

### Public Meeting #1: Project Introduction

The first public meeting was held on February 24, 2009 at North Vermillion High School, with the purpose of introducing the project and the planning process to the public. Approximately 50 people were in attendance. Prior to the formal presentation, the public had the opportunity to familiarize themselves with the Depot's physical layout by viewing several large aerial photos of the Depot posted in the school's auditorium lobby.

The following list summarizes the major elements of the Public Meeting #1 presentation (a copy of the entire presentation is provided in [Appendix A](#)):

- Introduction of the NeCDRA board members
- Introduction of the planning team
- Overview of the project's goals and objectives

- Examples of military sites closed under previous BRAC rounds and their redevelopment progress
- General approach to the Newport Chemical Depot Reuse Planning project
- Description of the project's public engagement program
- Description of the project's major work items and deliverables
- Description of the project's schedule

Following the presentation, the planning team took questions and comments from the public, which covered a broad range of topics related to the Depot's reuse.



The meeting began with a half-hour Open House in the lobby of the school's auditorium, where the public could review 30 large-scale plotted maps reflecting the various Existing Condition factors that were researched and analyzed by the planning team. These maps are discussed in **Chapter 3** and provided in **Appendix C**. Also available for public review during the Open House were copies of the Facilities Assessment document that included descriptions, photos, and diagrams for each of the Depot buildings surveyed. The summary of the Facilities Assessment is presented in **Chapter 3**, and **Appendix D** includes detailed survey forms completed for each major structure. During the Open House, members of the planning team were on hand to explain the various exhibits, answer the public's questions, and receive the public's feedback on the Existing Conditions results. Finally, stationed around the lobby were several large aerial photo maps of the Depot along with colored markers for the public to use to record on the maps any comments, questions, ideas, or concerns they had relating to the Depot's future reuse.







The formal presentation by the planning team covered the following topics:

- Introduction of the NeCDRA board members and the planning team
- Overview of the project's goals and objectives
- Review of the work tasks completed to date and the project's overall schedule
- Description of the Notices of Interest received
- Review of the public engagement activities completed and planned
- A "virtual tour" of the Depot through a combination of maps and on-the-ground photos
- Summary of the Facilities Assessment
- Summary of the Environmental Assessment
- Summary of the Infrastructure/Utilities Assessment
- Review of the planning team's Development Suitability Analysis
- Summary of the Market/Economic Assessment and 26 different potential "market sectors"



Following the presentation, the Visioning Survey was introduced. The Survey was designed to lead the public through a series of questions to reveal what the public's "vision" is for the future reuse of the Depot. The first section of the Visioning Survey was organized around 26 potential market sectors discussed during the Market/Economic Assessment portion of the presentation. The public was asked to respond to each sector as a future use at the Depot, and given the option to answer "Strongly Support," "Mildly Support," "Mildly Oppose," and "Strongly Oppose" for each one. The public was also given space to record what they felt may be some of the positive and negative impacts of each market sector as a potential future use at the Depot. The 26 market sectors presented in the Survey were:

*Agriculture and Forestry:*

- Conventional Crops
- Specialty Crops
- Dairy Farming
- Livestock Farming
- Poultry Farming
- Specialty Livestock
- Tree Plantations/Logging



*Business and Industrial:*

- Food Production
- Explosives Testing and Manufacturing
- Wind Turbine/Blades Manufacturing
- Advanced Manufacturing
- Data Storage Center
- Hazardous Waste Storage
- Chemicals Manufacturing
- Sanitary Landfill
- Tactical Driving Facility

*Energy-Related:*

- Coal-Fired Power Plant
- Nuclear Power Plant
- Coal Gasification Plant
- Biofuels Production
- Alternative Energy Facility

*Institutional:*

- University Research
- Correctional Facility
- Law Enforcement Training
- National Guard Training
- Regional Utility Facilities


**Public Meeting 2:  
Visioning Exercise**

**Newport Chemical Depot  
Reuse Authority**  
Vermillion County, Indiana

**SECTION 1:** Listed below are several **AGRICULTURE AND FORESTRY** uses that may be viable as future activities at the Depot. Please consider each use separately and provide your preferences by answering the following questions.

SECTION 1: AGRICULTURE AND FORESTRY

**Conventional Crops**



Use Description: Planting and harvesting of crops such as corn, soybeans, hay, etc.


How do you feel about this as a future use at the Depot? (check one):

☐ Strongly Support
 ☐ Mildly Support
 ☐ Mildly Oppose
 ☐ Strongly Oppose

What are some of the potentially **positive** impacts of this as a future land use at the Depot?

What are some of the potentially **negative** impacts of this as a future land use at the Depot?

**Specialty Crops**




Use Description: Niche agricultural products such as organic produce, mushrooms, floriculture, etc. grown in fields or inside greenhouses or other facilities.

How do you feel about this as a future use at the Depot? (check one):

☐ Strongly Support
 ☐ Mildly Support
 ☐ Mildly Oppose
 ☐ Strongly Oppose

What are some of the potentially **positive** impacts of this as a future land use at the Depot?

What are some of the potentially **negative** impacts of this as a future land use at the Depot?


MWH Global

• Bureau of Reclamation • Environmental Research Associates • Geology and History

Page 2 of 20

In the second part of the Survey, five questions were asked that focused on broader aspects of reuse of the Depot:

- Prioritization between Agriculture and Forestry, Business and Industrial, Energy-Related, and Institutional land use categories
- Appropriate balance between natural resource conservation and economic development land uses
- Future use of areas with prime farmland soils
- Future use of areas with native prairie grasses
- Future use of areas with unfragmented forests

Answer options were provided that covered the spectrum from one extreme to the other for each, and the public was asked to record their thoughts and comments about these future land use topics.

## Teen Workshop

As part of the public outreach effort, the planning team held a special Teen Workshop to engage some of the local youth in Vermillion County in the Newport Chemical Depot reuse planning process and, more importantly, to learn from them their thoughts, ideas, and vision for the Depot site.

The teen workshop was held over a two day period. On May 15, 2009, approximately 15 students from South Vermillion High School and about an equal number of students from North Vermillion High School joined representatives from the planning team and the NeCDRA board, along with Colonel William Hibner, the Newport Chemical Depot Commander, for a two-hour bus tour of the Depot. Students were provided with information about the Depot's natural resources, history, environmental issues, redevelopment potential, and other aspects of the facility, and were also asked for their thoughts on how the Depot's reuse could proceed. For almost all of the students, it was their first opportunity to experience the inside of the Depot, and understand the extent of the property and the diversity of its resources.

On the following day, May 16, 2009, a few hours before Public Meeting #2 began, the students were presented with the Existing Conditions results and were led in a discussion by the planning team, relating those results to what the students had observed during the previous day's tour of the Depot. The students then participated in the same Visioning Survey exercise described above.



### Summary of Visioning Results

The following summarizes the results of the Visioning Survey:

- Of the 26 potential market sectors, a majority of Survey respondents indicated support (either Strongly or Mildly) for all but two of the sectors listed above, with only Hazardous Waste Storage and Sanitary Landfill receiving a general lack of support.
- The ranking of land use categories by priority was Business and Industrial first, followed by Energy-Related, Agriculture and Forestry, and finally Institutional.
- Regarding the balance between natural resource conservation and economic development, about 50% favored an emphasis on economic development, about 35% favored an equal balance between the two, and about 15% favored an emphasis on natural resource conservation.
- Regarding the use of areas with prime farmland soils, about 20% indicated these areas should be used for agricultural use only, with about 80% indicating they should be used for non-agricultural development uses to some degree.

- Regarding the use of areas with native prairie grasses, slightly less than 50% favored maintaining the native prairie grass conservation areas, and slightly more than 50% favored their use for agricultural, business, or other types of development to some degree.
- Regarding the use of unfragmented forest areas, about two-thirds favored maintaining the unfragmented forest areas intact, with a balance within these areas between conservation/recreation and forestry uses, and about one-third favored the use of these areas for other types of economic development to some degree.

Please note that the Visioning Survey was not intended to be a statistically significant survey nor a binding poll; rather, it was designed to inform the planning process by providing a general sense of the public's attitudes toward various aspects of the future reuse of the Depot.

A copy of the complete Visioning Survey is presented in [Appendix A](#).

### Public Meeting #3: Preferred Reuse Plan

The third and final public meeting was held on September 16, 2009 at North Vermillion High School. Approximately 60 people were in attendance. The focus of the meeting was to present to the public the Preferred Reuse Plan map and to receive input from the public before finalizing the map as the draft Reuse Plan map.

Large plotted maps of the Preferred Reuse Plan were posted in the school auditorium lobby for review by the public prior to the start of the meeting. The formal presentation by the planning team covered the following topics:

- Introductions
- Project Overview, Goals, Milestones
- Public Engagement Summary
- Public Visioning Survey Summary
- Land Planning Process Review
- Reuse Plan Concepts
- Preferred Reuse Plan

- Public Questions and Comments

A number of individuals asked questions or provided input regarding the plan and its implementation. Overall, the plan was very well received and no opposition to the plan or its various elements was voiced.

The following day, Thursday, September 17, 2009 at their regularly scheduled monthly meeting, the NeCDRA board voted to advance the Preferred Reuse Plan map as the draft Reuse Plan map and to instruct the Matrix planning team to complete the Reuse Plan report based accordingly.

## Focus Groups and Workshops

Throughout the planning process, several workshops and focus group meetings were held to gather information and/or discuss reuse options relating to specific topics, the results of which are discussed below:

### Land Use Focus Group

On March 26, 2009, the planning team conducted its first focus group meeting, targeting the discussion to land use issues. Held at the Depot, participants included representatives from Mason & Hanger, the contractor that operates and maintains the Depot for the federal government, as well as local U.S. Army officials, adjacent property owners, conservation and soil experts, and local farmers. The discussion focused around the various land uses occurring and surrounding the Depot, with a special emphasis on the Depot's natural resources and agricultural uses.

### Infrastructure Focus Group

On April 8, 2009, the Infrastructure Focus Group meeting was held at the Depot. Attendees to this meeting included representatives from Mason & Hanger, the U.S. Army, Vermillion County, and representatives from local utility providers. The focus of this meeting included detailed discussions about the Depot's existing water, sewer, gas, electric, and other utility conditions and capacities, the Depot's integration with civilian utility systems, and the future infrastructure needs and challenges for the Depot's reuse. Also discussed was the Depot's transportation assets and potential future roadway and rail connections.

## Economic Development Focus Group

On April 9, 2009, the Economic Development Focus Group was held at the Clinton City Hall. Attending this focus group were representatives from local, regional, and state economic development agencies; major utility providers; banks and lending institutions; and area colleges and universities. The discussion focused on potential viable market sectors such as biofuels and other alternative energy uses, government and institutional uses, educational research, manufacturing, business incubator, and other market sectors.

## Development Workshop

On August 16, 2009, the NeCDRA and its planning team welcomed about thirty representatives from various major utility, transportation, railroad, energy, and financial organizations, as well as local and regional economic development experts, to a Development Workshop. The purpose of the workshop was to discuss with workshop participants various physical attributes of the areas of the Depot that will be designated for Business and Technology uses. Specifically, the planning team wanted to receive from these development experts their input regarding the appropriate location, proximity, size, and configuration of future Business and Technology land use areas at the Depot. Receiving this feedback helped the planning team configure future Business and Technology land use areas on the Reuse Plan in a manner that would facilitate long-term flexibility and development opportunities for the community.



## Newport Chemical Depot Reuse Authority Meetings

Another aspect of the public outreach effort included the Newport Chemical Depot Reuse Authority's monthly and other special meetings. Not only were these meetings open to the public, as required by law, but at each meeting, members of the public were provided the opportunity to make comments to or ask questions of the NeCDRA board members and/or staff. Meeting agendas and minutes were made available to the public throughout the project duration. Copies of all NeCDRA board minutes are presented in [Appendix A](#).

## Project Website

One of the major communication tools used by the project team was the project website, located at [www.NeCDRA.com](http://www.NeCDRA.com). While the website was created to provide information specific to the reuse planning effort, by naming the website after the Reuse Authority itself, rather than the reuse planning project, the website domain name, architecture, and branding can continue to serve the Authority for years throughout the plan implementation stage. The website contains seven main pages:

### Process

This page provides a summary of the project work plan—the tasks necessary to complete the Reuse Plan—as well as a downloadable PDF of the entire detailed project Scope of Work. Also available is an overview of BRAC planning in general prepared by the Office of Economic Adjustment.

### Information

The Information page provides the bulk of the planning-related materials, exhibits, and documents developed throughout the project. Materials available to the public on this page include a variety of background documents about the Depot prepared by the Army, documents related to the Notice of Interest and Homeless/State/Local Screening process, and dozens of reports, assessments, and other documents generated by the planning team throughout the project duration. Also available on the Information page are dozens of maps and other exhibits, public meeting materials, and short news items that provide timely updates on the project.



## Team

The Team page contains information about the NeCDRA board members and the consultants hired by the NeCDRA to assist with the preparation of the Reuse Plan.

## Schedule

The Schedule page provides the public with the latest announcements of upcoming public meetings, a summary of past public meetings as well as downloadable versions of all handouts and other materials made available at public meetings. The Schedule page also provides a detailed master schedule for the entire reuse plan project, as well as monthly NeCDRA meeting agendas and minutes.

## Feedback

The Feedback page provides a list of the various ways the public can stay involved in the reuse planning project and how to submit comments or questions to the NeCDRA and the planning team by e-mail, telephone, fax, or in person at the NeCDRA offices. Throughout the project duration, the Feedback page also provided a downloadable Community Feedback Form that allowed the public to submit their input on any topic relating to the Newport Chemical Depot Reuse Plan.

## Links

The Links page provides a number of hyperlinks to online resources related to the Newport Chemical Depot Reuse Plan project as well as to relevant local, state, and federal organizations.

## FAQ

The Frequently Asked Questions page provides a list of questions (and their answers) that are commonly asked relating to the Newport Chemical Depot reuse planning project and BRAC planning in general.

# Newport Chemical Depot Reuse Authority

Vermillion County, Indiana

[HOME](#)[PROCESS](#)[INFORMATION](#)[TEAM](#)[SCHEDULE](#)[FEEDBACK](#)[LINKS](#)[FAQ](#)

NeCD REUSE PLAN HOME PAGE



Questions? Comments?

Contact the Newport Chemical Depot Reuse Authority at:

259 Vine Street  
Clinton, IN 47842

## Welcome to the Newport Chemical Depot Reuse Master Plan and Implementation Strategy project website!

### What is the Newport Chemical Depot Reuse Master Plan project?

In late 2005, Congress approved the Department of Defense 2005 Base Realignment and Closure (BRAC) recommendations, which included the closure of the U.S. Army's Newport Chemical Depot in [Vermillion County, Indiana](#).

In preparation for closure, the Newport Chemical Depot Reuse Authority (NeCDRA) was created to complete a reuse master plan for the depot. Over the course of 2009, the NeCDRA and its consultant team will work with the local community to create a plan and implementation strategy for the conversion of the depot to civilian use. The Newport Chemical Depot is required by law to be closed by 2011, but could potentially close ahead of schedule in 2010.

### Reuse Master Plan Guiding Principles

The NeCDRA is committed to an open and transparent planning process in which citizen advice and ideas are actively solicited at every stage. In addition to complying with all federal laws and

## 3 Existing Conditions

Newport Chemical Depot, as with most military installations, is surrounded by a broad mix of public-sector and private-sector uses and properties, communities of various sizes and characteristics, and a diverse natural landscape. As a federal property, compliance with local land use, zoning, and other regulations do not generally apply, and as a military property, the built environment on base often takes very unique forms, both horizontally and vertically, to accomplish a specific military mission. To help understand the similarities and differences between on-base and off-base environments, how they affect each other, and to lay the groundwork for the development of the Reuse Plan, a thorough existing conditions assessment was conducted. A summary of this assessment is presented in the sections below.

### Economic and Market Analysis

This section contains a summary of an economic analysis conducted on Newport Chemical Depot and its surrounding area. The complete analysis, including its disclaimer, can be found in [Appendix B](#).

#### Summary

Economics Research Associates (ERA) was retained by the Matrix Design Group Inc. to provide an economic and market analysis for the redevelopment of the Newport Chemical Depot. ERA's main tasks were to assess the market and economic characteristics of the region, evaluate the competitive position of the Newport site, identify opportunities for its reuse, and estimate the impacts of likely targets for reuse. ERA has contextualized the Newport Chemical Depot in the greater economy by evaluating trends statewide and in a ten county region that includes Vermillion, Warren, Fountain, Montgomery, Putnam, Parke, Vigo and Clay counties in Indiana, and the Illinois counties of Edgar and Vermilion. While trends in the ten counties are most relevant for redevelopment, ERA has also profiled change in Vermillion County, for as the location of the Newport Chemical Depot, economic development of the facility will have the most profound effect upon this geography.

Some of what has been learned includes the following:

- The Newport Chemical Depot is not located in a region of considerable economic growth. Near-term business and employment expansion at the Newport Chemical Depot must reflect this important regional context.
- Despite a growing labor force statewide, the labor force of the ten counties has remained unchanged, indicating new workers are not moving to the region. As existing workers transition to retirement, this trend will have long term economic development implications should the region not be able to replenish its workforce. Redevelopment of the Newport Chemical Depot is an opportunity to attract new, younger workers to the ten counties, enhancing the region for economic development.
- Employment in the ten counties is solidly geared towards manufacturing, suggesting a reliable market for redevelopment at the Newport Chemical Depot. Regional manufacturing clusters include automotive, chemicals, plastics, and agribusiness sectors.
- The Depot's former role as a chemical plant reflects the state and region's chemical industry cluster. West central Indiana is a preferred location for these manufacturers due to the region's well-educated workforce, its universities, and water availability through dolomite bedrock aquifers. This water resource may play a role in the Depot's reuse through ethanol production or chemical manufacturing.
- National and international companies have dominated the majority of historical business expansions and new starts in the ten counties. These companies generally have settled in the area to be close to their consumer and supplier networks-- there may be opportunity to target vendors and suppliers of Vigo County companies for incorporation at the Newport Chemical Depot.
- Degree programs at surrounding universities emphasize agriculture, engineering and biological sciences. This ultimately has implications for ten county business development in advanced manufacturing, agribusiness, life sciences, as well as cross-over industries like alternative energy.

Key findings as they relate to industrial supply and demand and growth potential at the Newport Chemical Depot are summarized below.

- Over the past ten years, demand for industrial and commercial space in the ten counties has been modest. During this period, the region experienced no speculative industrial or commercial development.
- Demand for industrial space in the region has been driven primarily by advanced manufacturers, typically by companies with no more than 200 employees. The majority of these users are international companies that have capitalized upon proximity to raw material inputs and consumer base. Over the next five to ten years, economic development officials project top industrial demand in the region to be by smaller-scale (50 to 100 employees) advanced manufacturing establishments.
- The Indiana warehousing/distribution market has been strong in recent years although Indianapolis continues to dominate this market. While the Newport Chemical Depot from a size perspective could accommodate warehousing/distribution uses, from a competitive standpoint, demand at the Depot is likely to be limited given the nearest interstates (I-70 & I-74) run only east/west and are twenty to twenty-five miles from the site.
- Generally speaking, the average size of a vacant industrial parcel in the ten counties is fairly small at 110 acres—there are few industrial parks statewide that could accommodate large-scale industrial uses like the Newport Chemical Depot.
- There are three available megasites at industrial parks in the ten counties—all three sites offer immediate access to rail. From the standpoint of business attraction at the Newport Chemical Depot, development of a rail spur will be critical.
- Office uses are not a driver of real estate development in the ten counties. There are no class A business parks in the ten counties, revealing the region historically has not attracted the type of corporate office users that would drive business park development at the Newport Chemical Depot. It is not anticipated that office uses will be a major component at the Newport Chemical Depot other than those supporting Newport Chemical Depot tenants.

## Overall Conclusions

While market conditions suggest that full redevelopment of Newport Chemical Depot is several years from fruition, trends within the ten county industrial and office markets are informative as to the types of users likely to drive its redevelopment. Based upon site

characteristics, economic base, broader market and policy trends, five redevelopment opportunities in manufacturing, energy production, R&D and institutional uses have been identified:

## Manufacturing

Smaller to mid-sized manufacturers will likely dominate the growth potential at the Newport Chemical Depot over flex, office, and distribution business models. Manufacturing growth is likely to be concentrated in both durable and non-durable sectors, by users that fit the profiles below:

- Businesses able to capitalize upon the region's agricultural base and access to water such as manufacturers of chemicals, biofuels and foods;
- Advanced manufacturing sectors that require proximity to the end-user such as manufacturers of wind towers and blades, or advanced automotive inputs like batteries;
- Manufacturing sectors requiring a skilled/professional labor force that can maximize regional university resources including manufacturers of chemicals or medical devices.

There is distinct opportunity at the Newport Chemical Depot to capitalize upon the growing wind market just north of the site in Benton County. Should northern Indiana continue to experience wind energy growth, then a wind component manufacturer located at the Newport Chemical Depot would be strategically located support this growth.

## Agriculture

Agricultural uses at the Newport Chemical Depot is another land use opportunity that can provide cash flow in the form of land leases, while functioning as a critical buffer between more intensive industrial uses and the surrounding community. Agricultural land leases are already in place at the Newport Chemical Depot, and their potential for growth is tied to expansion in the regional agricultural base. Three market and policy factors support the conclusion that regional agriculture is growing, and will continue to be a prominent industry in the region:

- The number of farms in the ten counties and the acreage devoted to farming in Vermillion County grew between 1997 and 2007;
- Statewide growth in the market value of agricultural products sold (4.7%) exceeded growth for the same period nationwide (4.0%). Annualized productivity in the ten counties also grew during this period.

- The Indiana State Department of Agriculture has made agricultural economic development a priority, with incentives targeted to support industry diversification in sectors that include foods, biofuels and specialty crops such as organics.

All of these trends have favorable implications for continued agricultural growth around the Newport Chemical Depot, which may be tied to farming, energy development or R&D in conjunction with a research university.

## Energy

Energy uses at the Newport Chemical Depot are an opportunity to both serve future Newport Chemical Depot tenants with electricity, while responding to broader nationwide trends that support a growing demand for alternative sources of energy. There are two distinct opportunities for energy and fuel production at the Newport Chemical Depot:

- Ethanol or biodiesel production; and
- IGCC coal gasification

Market and policy factors are supportive of ethanol plant development at the Newport Chemical Depot:

- Indiana is a major producer of biofuels. Over the past year, the industry in Indiana grew by twelve new ethanol and four biodiesel plants that employ 620 workers.
- The rich agricultural base of the ten counties and chemical manufacturing cluster ensures the workforce as well as agricultural inputs for a biofuel plant.
- Indiana has joined Iowa, Kansas, Michigan, Minnesota, Ohio, South Dakota, and Wisconsin in adopting the Energy Security and Climate Stewardship Platform Plan which establishes shared Midwestern goals for biofuels production and use—this should drive future demand for ethanol.
- Consumption of renewable fuels in the US is growing, a trend which should drive long-term demand for biofuels and other alternative fuels.

Gasification is an example of an emerging coal technology with promise for development in Indiana and nationwide. Opportunities for IGCC development at the Newport Chemical Depot are both market and policy-driven:

- Demand for energy at the Newport Chemical Depot is likely to grow as manufacturing and other energy-intensive processes are incorporated on site-- a new plant to meet the energy needs of these tenants is only one possibly for energy-related development at the Newport Chemical Depot.

- The Newport Chemical Depot's proximity to Cayuga enhances the site for IGCC development in three ways: 1) the Cayuga substation reduces the need for infrastructure associated with IGCC development thereby reducing potential project costs; 2) the Cayuga substation would allow the generated power to access the grid; and 3) there is demand in Cayuga for gas which could be supplied by an IGCC system at the Newport Chemical Depot.
- The State of Indiana currently incentivizes IGCC development through tax credits and other benefits. Newly constructed IGCC facilities are eligible for tax credits equal to the sum of 10% of the first \$500 million of investment in the facility plus 5% of any investment over \$500 million.
- Roughly \$4 billion in incentives has been pledged by the federal government to further develop clean coal technology—federal dollars are already being leveraged by Duke Energy to study carbon sequestration at the proposed gasification project in Edwardsport, Indiana.
- Officials from the Center for Coal Technology Research at Purdue University revealed interest to develop a coal gasification plant using IGCC technology at the Newport Chemical Depot. Critical to the concept would be the development of a rail spur on site.

### State Correctional Facility

The rural setting of military bases makes correctional facilities a logical reuse, especially a site like the Newport Chemical Depot that is not immediately adjacent to an interstate. While there is no guarantee the State would chose the Newport Chemical Depot for a correctional facility, prison development may be a relevant opportunity for the following reasons:

- Indiana is presently at 100% capacity in terms of prison space;
- The health care and educational resources of the ten counties would be regarded as key assets when evaluating the Newport Chemical Depot for prison development by the IDOC;
- Plans are underway for the Miami and Wabash correctional facilities to issue up to \$45 million in bonds for additional space as current facilities are approaching capacity; and
- Under the Senate's 2010-2011 budget, the IDOC would receive a \$61 million, two-year funding increase. Community Corrections, a state crime prevention and diversion program, would receive a \$3 million increase.



## Research and Development

R&D in conjunction with a university or institute is another opportunity for redevelopment at the Newport Chemical Depot. Based upon state-level initiatives in conjunction with program expertise at surrounding universities, the following fields have been identified for emphasis when marketing the site for R&D:

- Biofuels (ethanol and biodiesel) and clean coal technology;
- Agriculture; and
- Advanced automotive technologies

The Newport Chemical Depot is likely to be most marketable for R&D activities that require 1) a significant amount of space; or 2) a degree of seclusion or security. One specific opportunity may include a vehicle test site for basic evaluation. While present economic conditions have adversely affected the US automotive market, current automotive R&D in Indiana in propulsion and hybrid-electric battery technology will eventually need to be tested. Such a testing facility may range in size between 200 and 500 acres, and would focus upon evaluating just one or two aspects of vehicle technology.

## Community Planning Issues and Influences

The following section describes the general land use, transportation, and natural resource conditions that surround the Depot and that provide the broad community planning context for the Reuse Plan.

## Regional Setting

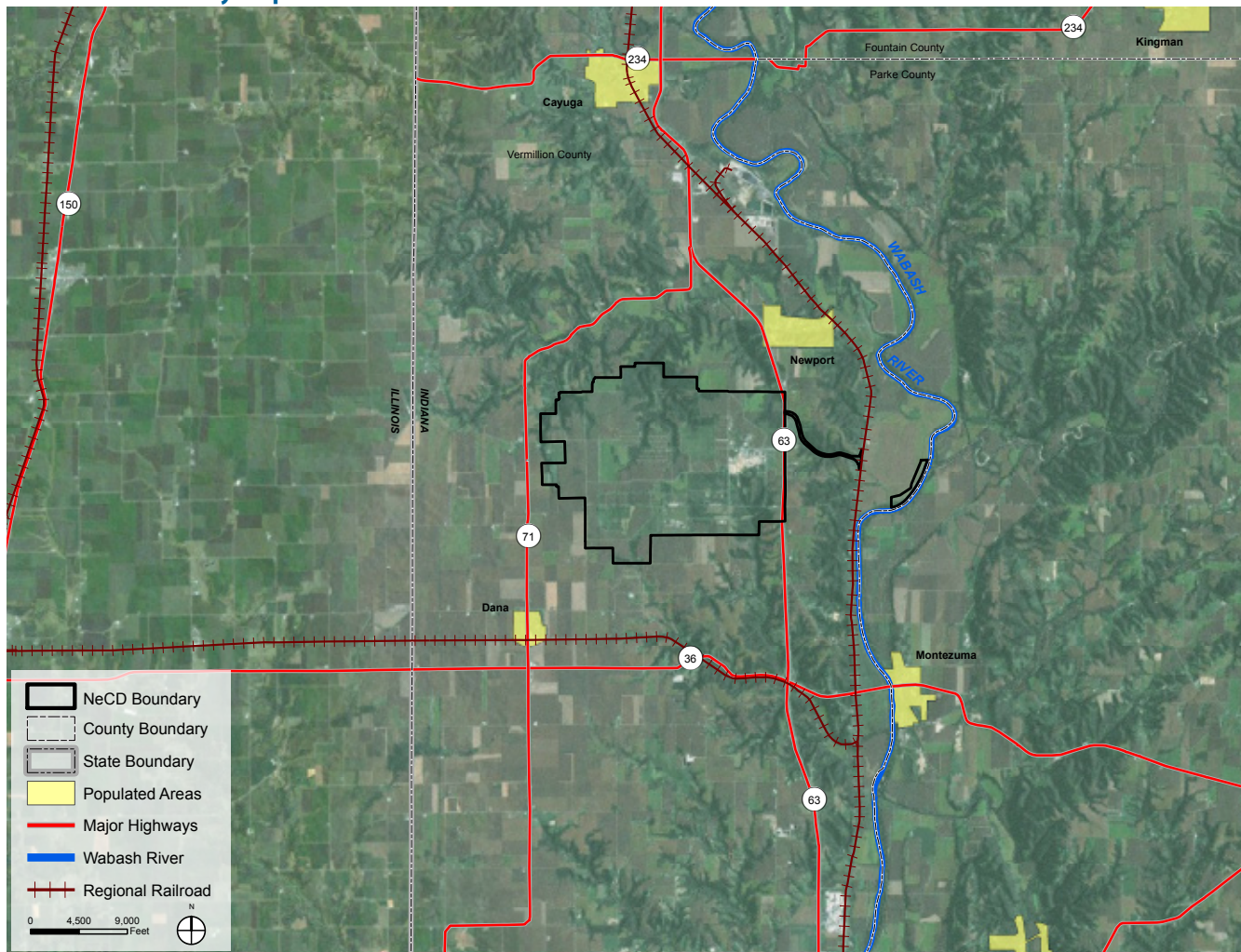
The Newport Chemical Depot is located in Vermillion County in west central Indiana, approximately 65 miles west of Indianapolis. Vermillion County, with a total area of 260 square miles and a 2000 census population of 16,788, is bordered by Warren County on the north, Fountain and Parke Counties on the east, Vigo County on the south, and Edgar and Vermilion Counties in Illinois on the west. The closest larger cities to the Depot are Terre Haute (population 59,614) in Vigo County, located approximately 25 miles south of the Depot, and Danville (population 33,904) in Vermilion County, Illinois, located approximately 22 miles to the north northwest.

The largest city in Vermillion County, Indiana is Clinton (population 5,126), which is located 12 miles south of the Depot. The small community of Newport (population 578), from which the Depot takes its name, is the county seat of Vermillion County and is located two miles to the north. Other nearby towns include Dana (population 662),

located approximately three miles to the southwest; Montezuma (population 1,179) located five miles to the southeast; and Cayuga, (population 1,109) located seven miles to the northwest.

The Wabash River, which forms the eastern boundary of Vermillion County, is located about two miles east of the main Depot facility, with the Depot's Ranney Wells located immediately adjacent to the river's western bank. The Wabash, the largest river in Indiana, flows approximately 500 miles from north central Indiana southward into the Ohio River.

**Exhibit 3-01: Vicinity Map**



## Land Use and Zoning

Vermillion County is primarily agricultural in nature, with farmland dominating its rural landscape. Located several miles from the closest communities, the Depot is surrounded on all sides by agricultural fields or, in a few areas, wooded areas. To the north, west, and south, the closest residential uses—generally stand-alone farm houses—are located approximately one mile from the Depot’s boundaries. Immediately adjacent to the Depot’s western boundary is a 100-acre US Coast Guard property that contains a communications tower and related technical facilities.

Along Highway 63, which forms the Depot’s eastern boundary, are a few farm houses and other detached residential structures as well as two non-residential/farm uses. The Vermillion County Jail is located immediately across Highway 63 from the Depot’s main gate, and a Vermillion County Public Works Garage is located across Highway 63 from the Depot’s far northeastern corner.

All properties adjacent to and surrounding the Depot are located in unincorporated Vermillion County and have been zoned by the County as “A” (Agricultural), with the exception of the two County-owned properties mentioned above, both of which are zoned “B2” (Business).

## Transportation and Utilities

The Depot has good access to Indiana’s State highway system and the federal interstate system. Primary north-south roads in the area include Indiana 63, a four-lane divided highway that forms the eastern boundary of the main Depot facility, that runs from Terre Haute north through Vermillion County into Warren County, where it merges with US 41. Approximately one mile west of the Depot’s western boundary is Indiana 71, a two-lane road that runs from the community of Blanford about 12 miles south of the Depot, through the town of Dana and past the Depot, before merging with Highway 63 two miles north of Newport.

The closest primary east-west road is US 36, a two-lane highway located approximately two miles south of the Depot’s southern boundary. US 36 traverses across Indiana and much of the United States and provides a direct east-west connection between Indianapolis and Springfield, Illinois.

The Depot is also conveniently located approximately half way between two major east-west Interstate highways. Interstate 70 connects Indianapolis with St. Louis, Missouri and runs through Terre Haute about 30 miles south of the Depot, and Interstate 74 connects Indianapolis with Champaign and Peoria, Illinois and runs through Danville approximately 20 miles north of the Depot.

The Depot is also located in proximity to two CSX freight rail lines. A CSX rail line runs north-south approximately one mile east of the main Depot's eastern boundary and roughly parallels Highway 63. Historically, a rail spur serving the base connected to this CSX rail; the right-of-way for the spur is included as part of current Depot property to be transferred. Another CSX line runs roughly parallel to US 36 two miles south of the Depot's southern boundary.

All major trunk utilities (natural gas, electric, telephone, etc.) are provided adjacent to or near the Depot property. Details on how these various utilities are connected to and provide service to the Depot are discussed in the On-Base Conditions section below.

## Natural Resources

The natural environment that surrounds the Newport Chemical Depot supports a variety of ecosystems and habitats that thrive in rivers, forested areas, open prairie, flatlands, and in areas that interface between croplands and forest. This section describes some of these natural resources in the vicinity of the Depot, as well as some of the geography and climate found in the area.

### Water

The lands in the vicinity of Newport Chemical Depot enjoy abundant water resources, due in large part to the proximity of one of Indiana's most notable water resources, the Wabash River. The Wabash, which drains the vast majority of Indiana's farmland, is a roughly 500 mile long waterway flowing to the southwestern corner of Indiana, where it meets the Ohio River. The river discharges an average of over 30,000 cubic feet per second, and flows through Vermillion County on a generally north-south axis, passing by Newport Chemical Depot roughly two miles from its eastern boundary. The Little Vermillion River, a small tributary to the Wabash, runs from west to east less than two miles north of the Depot, joining with the Wabash near the town of Newport. The Little Vermillion has numerous creeks and streams feeding into it, including some that traverse the Depot itself.

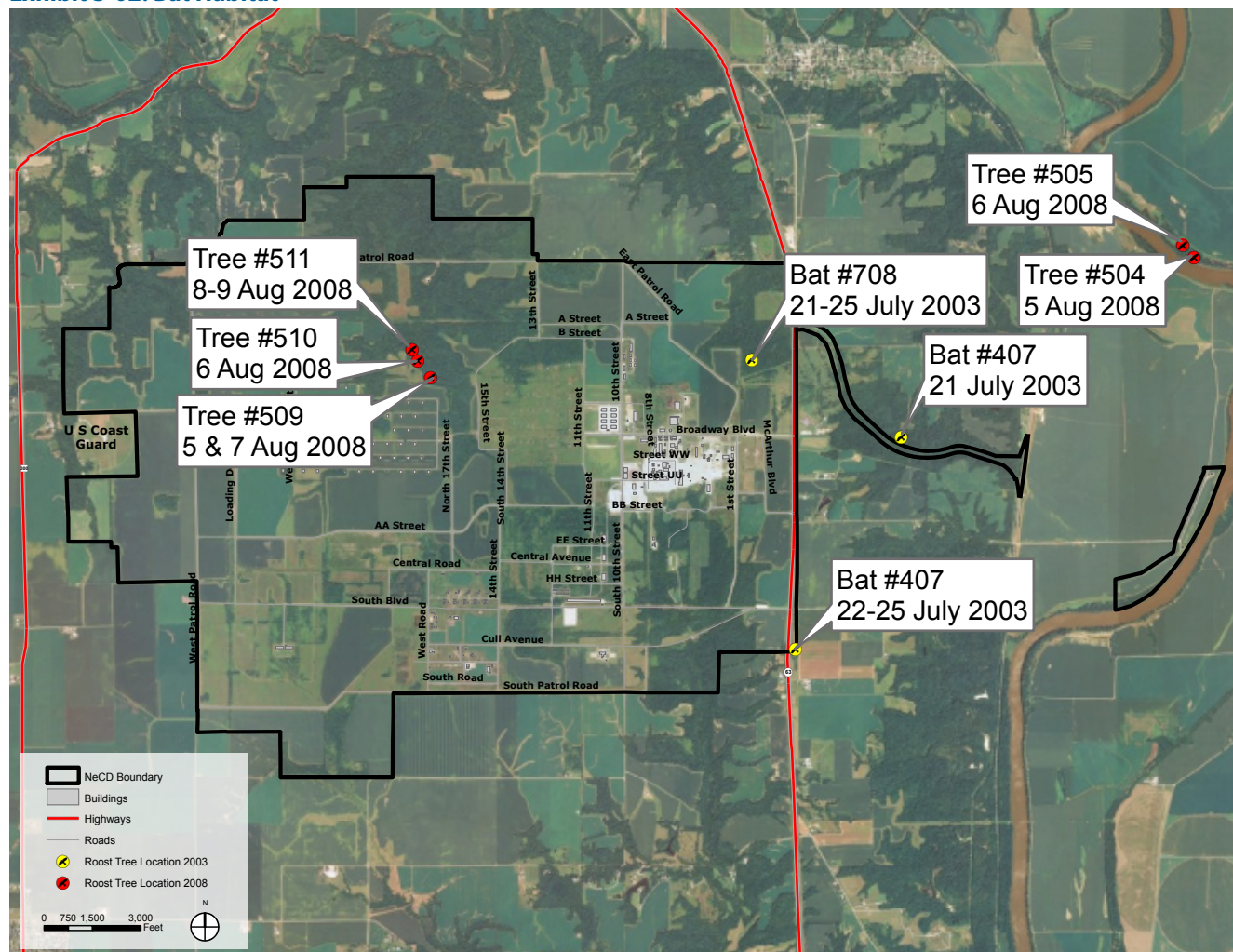
Most of the water used in the area comes from wells that tap the bottom land along the Wabash River. Rainfall is sufficient for diversified agriculture uses except during short intervals during the height of summer, when evaporation from soils can exceed rainfall for brief periods and complicate farming activities. Fortunately, rainfall during the springtime wet season is usually adequate to prepare the soil for the summer months. Average annual precipitation is 41 inches, ranging from 35 inches to 50 inches on a ten year cycle.

### **Wildlife**

West Central Indiana has a wide variety of wildlife species, the most common of which include the white-tailed deer, white-footed mouse, deer mouse, prairie vole, meadow vole, opossum, short-tailed shrew, masked shrew, eastern mole, northern myotis (bat), bog lemming, raccoon, coyote, cottontail rabbit, and bluegill. Additionally, numerous other less common or endangered species as well as migrating birds can be found on occasion in the area. Although less common than the northern myotis, the indiana bat has been observed with frequency in the area, despite being listed as endangered by the U.S. Fish and Wildlife Service. A map depicting documented bat habitat areas appears as **Exhibit 3-02: Bat Habitat** below.



### Exhibit 3-02: Bat Habitat



The lands surrounding Newport Chemical Depot consist of a mixture of fragmented and unfragmented forests as well as croplands, creating a significant amount of habitat that is ideal for animals that thrive in buffer areas in between dense, wooded areas and grasslands; many of the most common species found in the area fall into this category.

### Geography

The vicinity of Newport Chemical Depot consists of a fairly flat plain carved by various broad but shallow stream beds. Elevation varies somewhat, especially along the slopes of major stream beds, but generally remains between 500 and 700 feet above sea level.

Newport Chemical Depot is located at the convergence of two natural regions— the Grand Prairie, which stretches westward to the Rocky Mountains and is characterized in its eastern section by tallgrass and dark, fertile soil; and the Central Till Plain, which has flat or

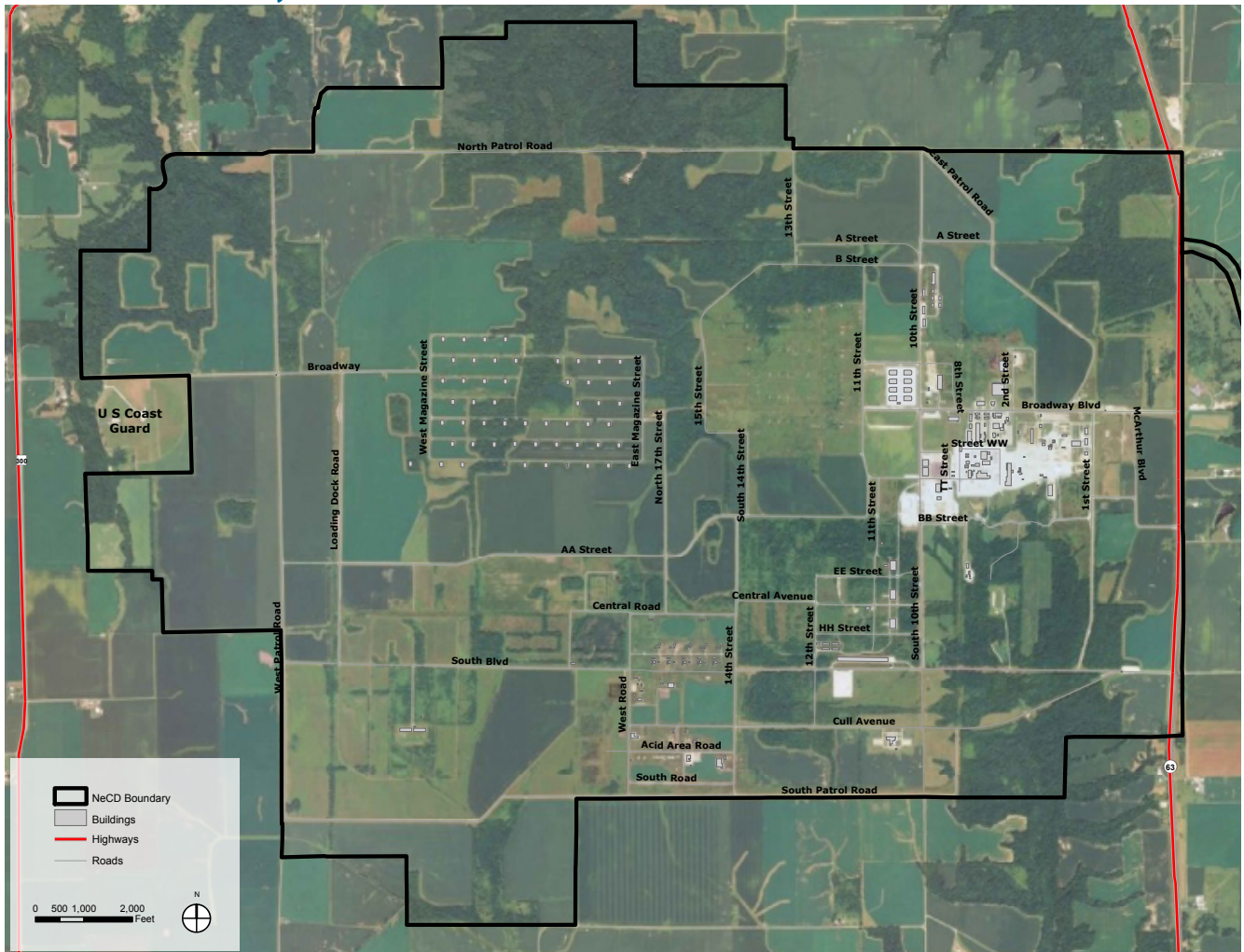
gentle terrain due to past glaciation. The fertile soils of tallgrass prairie make it attractive for cultivation, and hence only a tiny fraction of Indiana's former tallgrass prairie remains. In an attempt to preserve this dwindling ecosystem, the Depot has an ongoing prairie restoration program in place that began in 1994, which has resulted in one of the largest continuous sections of intact prairie in the state.

## On-Base Conditions and Characteristics

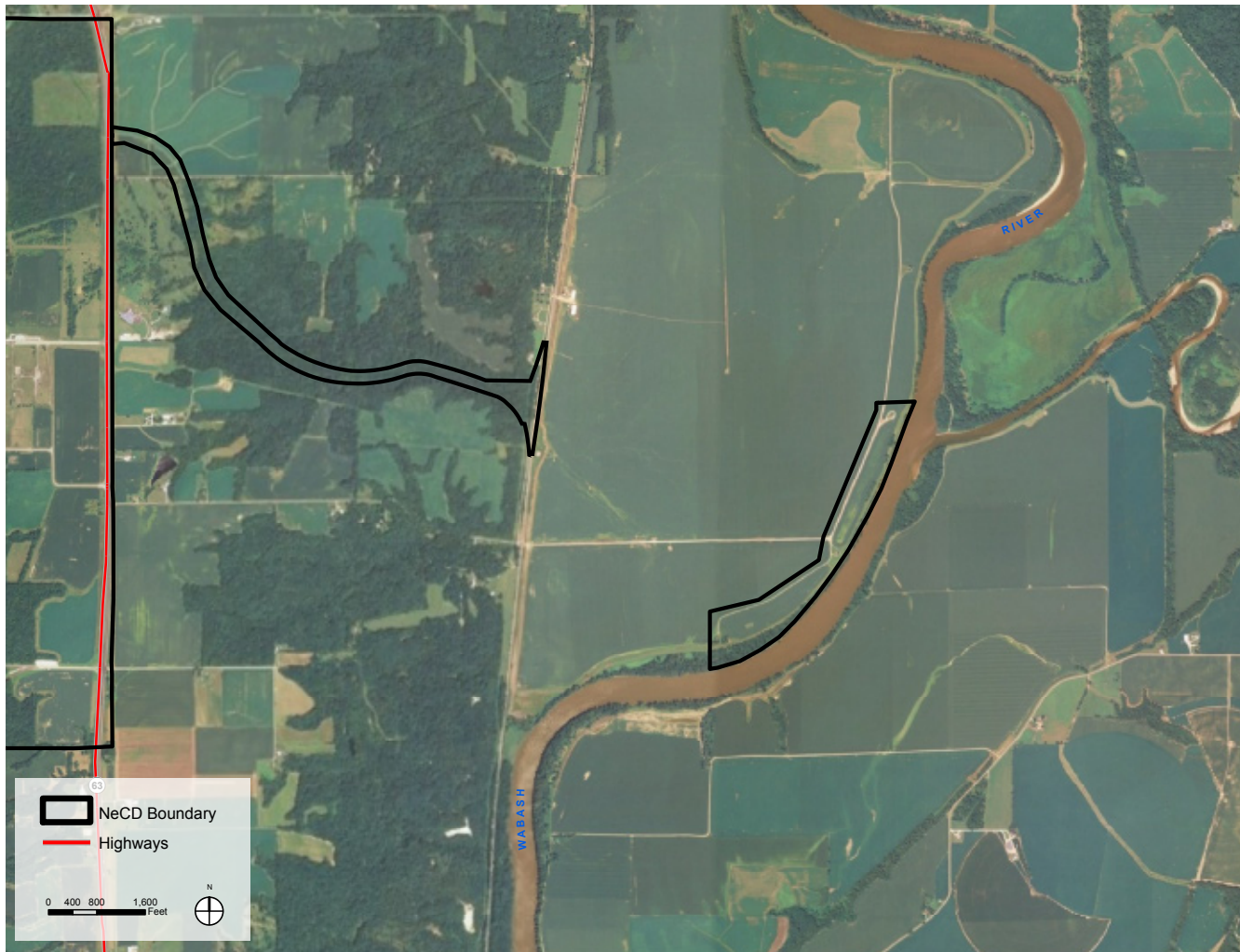
### Land Use

The Newport Chemical Depot is approximately 7,130 acres in area. The main facility is generally rectangular in shape, covering an area roughly four miles east-west by two and three-quarters miles north-south. In addition to the main facility, the Depot property also includes a 60-acre curved "Railroad Right-of-Way" subarea, as well as a 70-acre arc-shaped "Ranney Wells" subarea along the western bank of the Wabash River. See [Exhibit 3-03: Main Facility](#) and [Exhibit 3-04: Railroad and Wells Area](#) maps. The following sections provide a brief overview of the various subareas within the main Newport Chemical Depot facility.

Exhibit 3-03: Main Facility





**Exhibit 3-04: Railroad and Wells Area**

### Former VX and Shops Subarea

The largest concentration of buildings and other elements of a built environment is located in the east central portion of the main Depot facility. Located generally between Broadway and BB Street, 1st Street and 10th Street, this area contains the former VX production facilities which, as of 2009, are in the final stages of demolition. Consequently, much of the former VX area is now gravel-covered lots, concrete foundations, and open fields. North of the VX area, primarily focused along Broadway, the road leading from the Main Gate, is the Shops area, which contains smaller light-industrial buildings that house a variety of maintenance, operations, and support functions. North of Broadway is the Depot's water reservoir and treatment facility, as well as a few other smaller occupied buildings and several abandoned or partially demolished structures. At the northwest

The northeastern corner of the base is dominated by agricultural fields and a large block of unfragmented forest. The southeastern corner of the Depot, from BB Street to the southern Depot boundary east of 10th Street, is primarily covered by forested land and agricultural fields, as well as the Depot's sewage treatment facility and recycling storage yard.

### Former RDX Subarea

The area that once housed numerous structures relating to the production of RDX is located from 11th Street to 15th Street, BB Street to B Street. All former RDX structures have been demolished, however, their foundations and a variety of above and below ground process sewers remain. Surrounding these industrial remnants is a mix of woods and open fields.

### Headquarters Building / Bookends Subarea

South of BB Street, between 10th Street and 14th Street, is an area containing a variety of structure types and uses. In the area just east of 14th Street are the “bookends”—the informal name given to a grouping of 44 large concrete monolithic forms. Built decades ago by the Army for blast-protection purposes, these structures are laid out in a grid pattern over a roughly 30-acre area. While these structures were never used and are without function today, they remain as a feature of the landscape, surrounded by trees, overgrown vegetation, and open grassy fields. East of the bookends is a generally wooded area within which are several old concrete foundations, abandoned buildings, and storage and warehouse facilities, some of which are in functioning condition. The final notable structure in this subarea is the Headquarters building, located south along Cull Avenue just west of 10th Street.

### Former TNT Subarea

The area south of AA Street and west of 14th Street to the southwestern corner of the Depot was once the area where TNT and associated components were produced. The largest concentration of TNT-related structures is located between West Road and 14th Street, south of Central Road. These structures have been abandoned for several decades and exist in varying states of deterioration. Along with the structures themselves are additional remnants of the TNT production process including numerous above-ground and below-ground process sewers, detention ponds, and other industrial elements. Surrounding these abandoned facilities is a mix of trees and open fields. Farther west, the area is dominated by agricultural fields and an occasional foundation or ground feature relating to the former TNT production process.

**Exhibit 3-06: Buildings Detail Map 2** shows the southern portion of the Headquarters/Bookends subarea and the eastern portion of the Former TNT subarea.



### Exhibit 3-06: Buildings Detail Map 2



### Richmond Magazines / Northwestern Subarea

The west central section of the Depot is the location of the former Richmond Magazines. Spread across the terrain in a checkerboard manner, the small earth-mounded structures are surrounded by planted agricultural fields and small wooded areas.

The remainder of the Depot's main facility, consisting of land generally west and north of the Richmond Magazines, is almost entirely undeveloped from an industrial perspective and dominated by agricultural fields, natural drainage corridors, and large blocks of unfragmented forests. A small arms range, located just south of the North Patrol Road, is the only active facility in this large subarea.

## Transportation

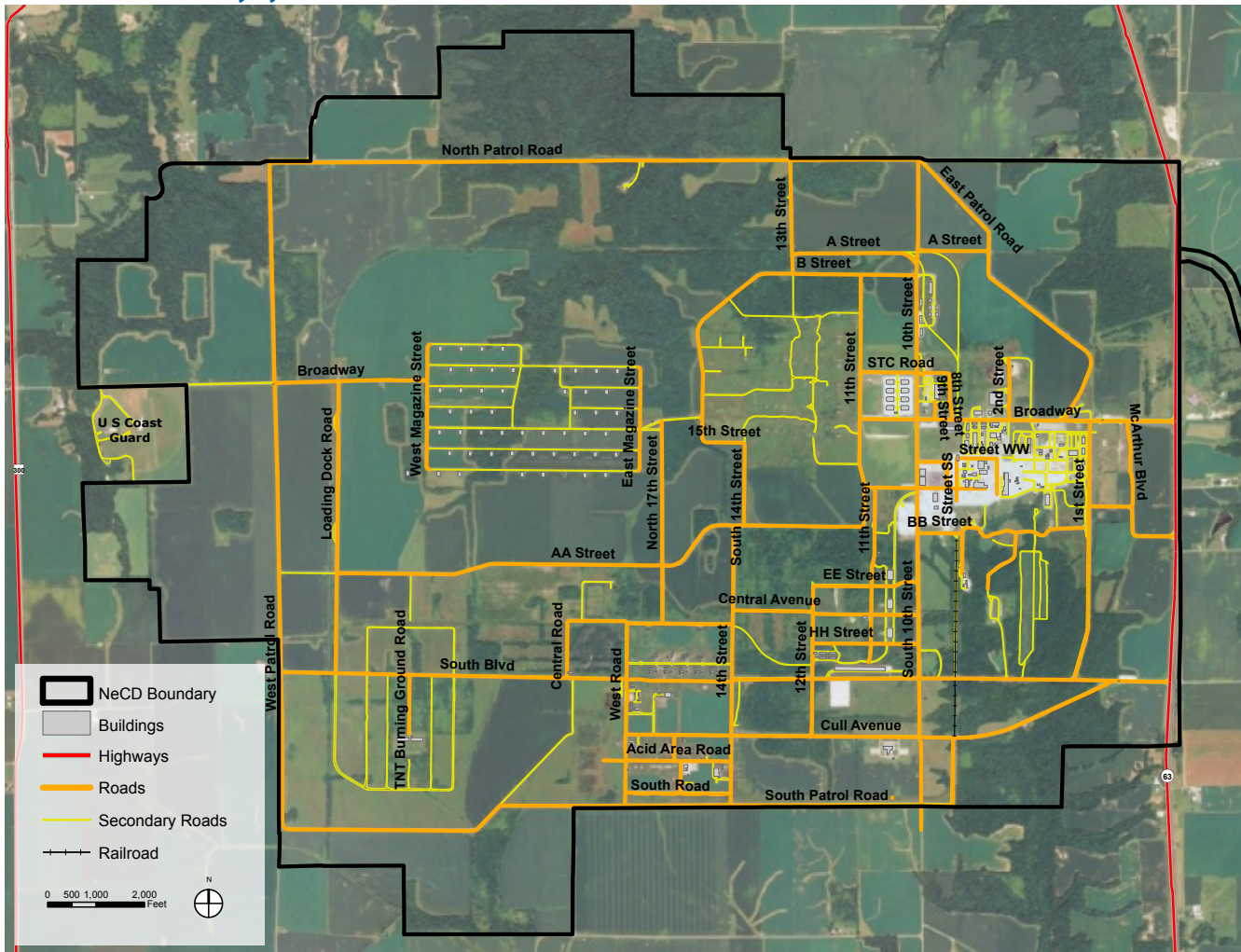
The Newport Chemical Depot contains numerous roadways that provide access to most areas within the 7,130-acre property. These roads were also created to directly suit the transportation needs for the various chemical production activities and other functions taking place at the Depot as an active military installation.

Unlike a municipal roadway system, the roads at the Depot do not have a clear hierarchy. Rather, they range in indeterminate levels of quality and capacity. However, the roads at the Depot can generally be categorized into primary and secondary roads.

Primary roads within the Depot can be generally described as two-lane paved roads. The quality of the pavement ranges from excellent to substantially deteriorated. The best of the primary roads include the perimeter roads (the North, South, East, and West Patrol roads), as well as Broadway, South Boulevard, AA Street, and Cull Avenue as east-west streets, and 1st Street, 10th Street, 14th Street, and Loading Dock Road as north-south streets. Other primary roads have not been maintained primarily due to the cessation of activities on or near them, resulting in a deterioration of the roadway surface.

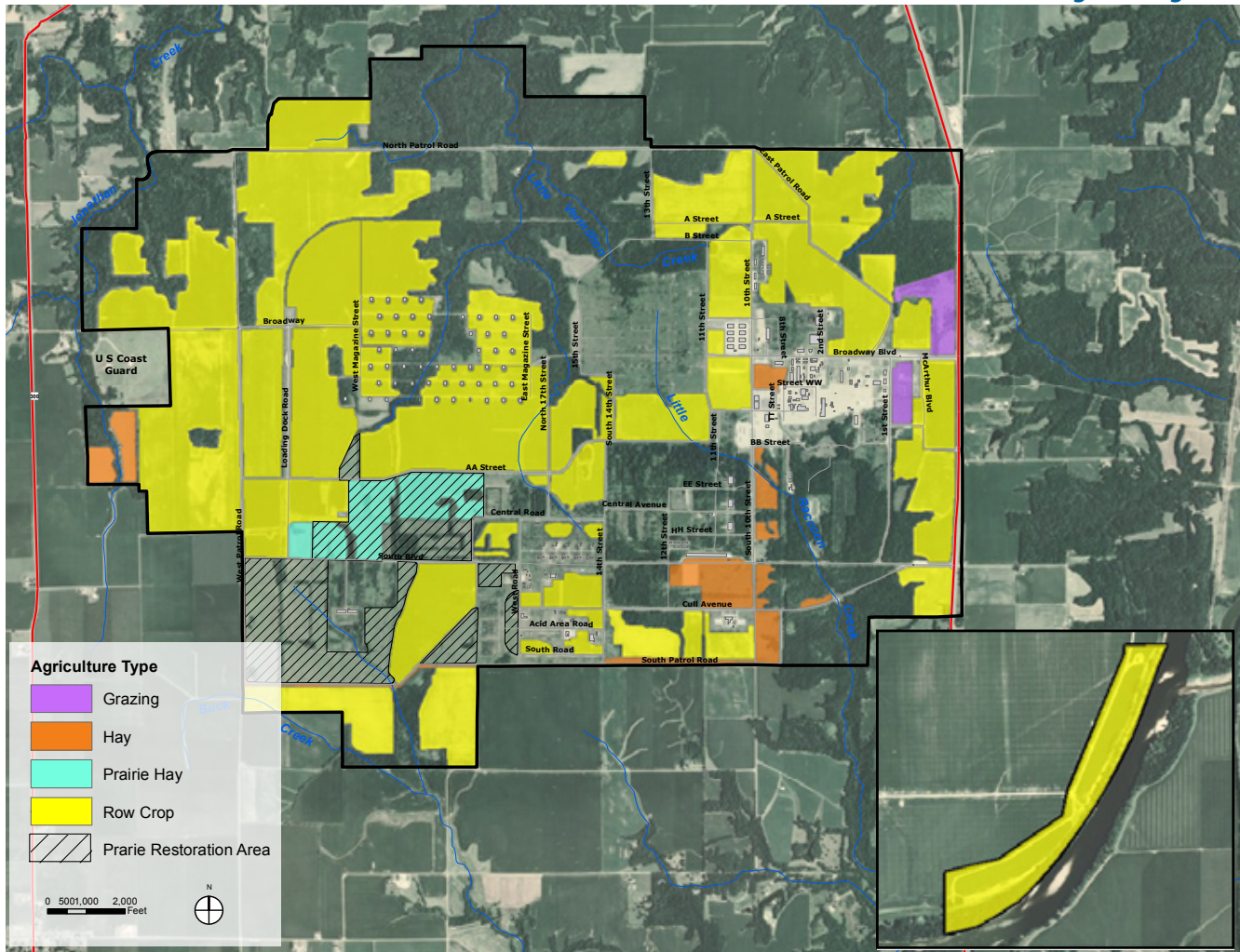
Secondary roads generally provide access to individual buildings or sites. In many cases, these secondary roads consist of gravel or an unpaved (dirt) condition, and many are barely passable by motor vehicle.

**Exhibit 3-07: Roadway System**, shows the location of all roads within and adjacent to the Depot.

**Exhibit 3-07: Roadway System****Agricultural Resources**

As mentioned previously, the lands surrounding the Depot are heavily developed for agricultural production, given the fertile soils, plentiful rainfall, and good drainage found throughout this part of Indiana. Such is also the case within the Depot property. Over the years, the Army has leased to local farmers Depot land that was not utilized or needed by the Army only as a buffer, for agricultural development. Given the quality and high value of this land for agricultural uses, approximately 3,300 acres, nearly one-half of Depot property, is actively used by area farmers for agricultural purposes. The vast majority (approximately 2,900 acres) of these agricultural parcels is used to grow row crops, mostly corn and soybeans, with the balance used for hay production and grazing. **Exhibit 3-08: Existing Farming Uses**, shows the areas within the Depot that are used for various agricultural purposes.



**Exhibit 3-08: Existing Farming Uses**

## Natural and Cultural Resources

The vast majority of the 7,130-acre property consists of agricultural fields or natural areas. Even those areas where the remnants of a built environment remain, such as the former TNT and RDX areas, the landscape is dominated by planted fields, woods, or natural drainage corridors. Consequently, the Newport Chemical Depot contains a wide variety of flora and fauna within its boundaries, which were described earlier in the Community Planning Issues and Influences section. The following paragraphs describe additional aspects of the Depot's natural and cultural resources.

## Natural Systems

**Exhibit 3-09: Natural Systems** and **Exhibit 3-10: Topography** show the primary physical features within the Depot, including major drainageways, larger blocks of unfragmented forests, streams, and wetlands. Also shown on the Natural Systems exhibit is the location of the Army's "Prairie Restoration Area." As a voluntary effort, the Army set aside approximately 461 acres of land from agricultural development for the purpose of allowing that land to thrive in its original native tallgrass prairie state. The western one-third (approximately) of the main Depot facility was originally tallgrass prairie, representing the extreme eastern edge of a prairie ecosystem that extended all the way west to the Great Plains.

**Exhibit 3-09: Natural Systems**

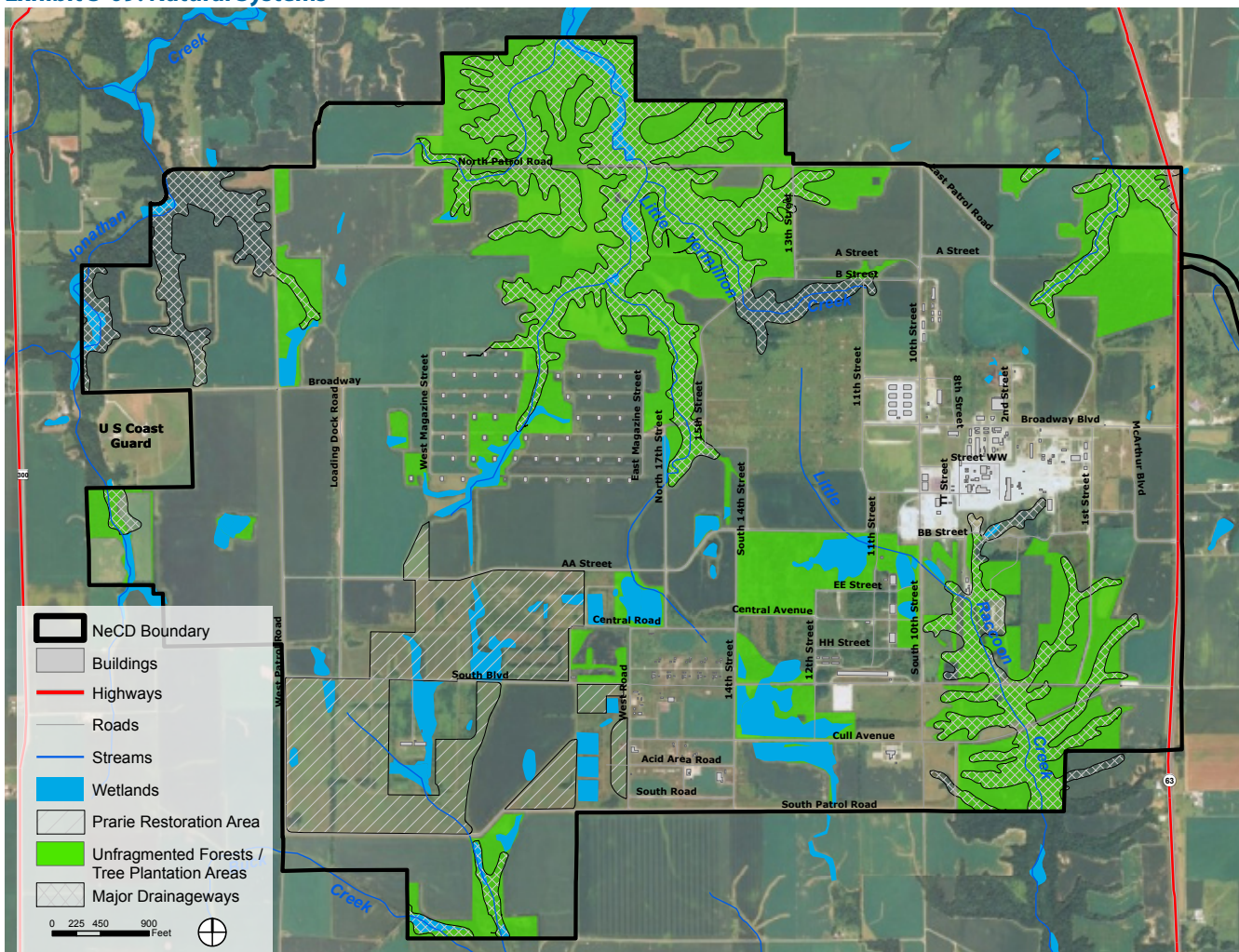
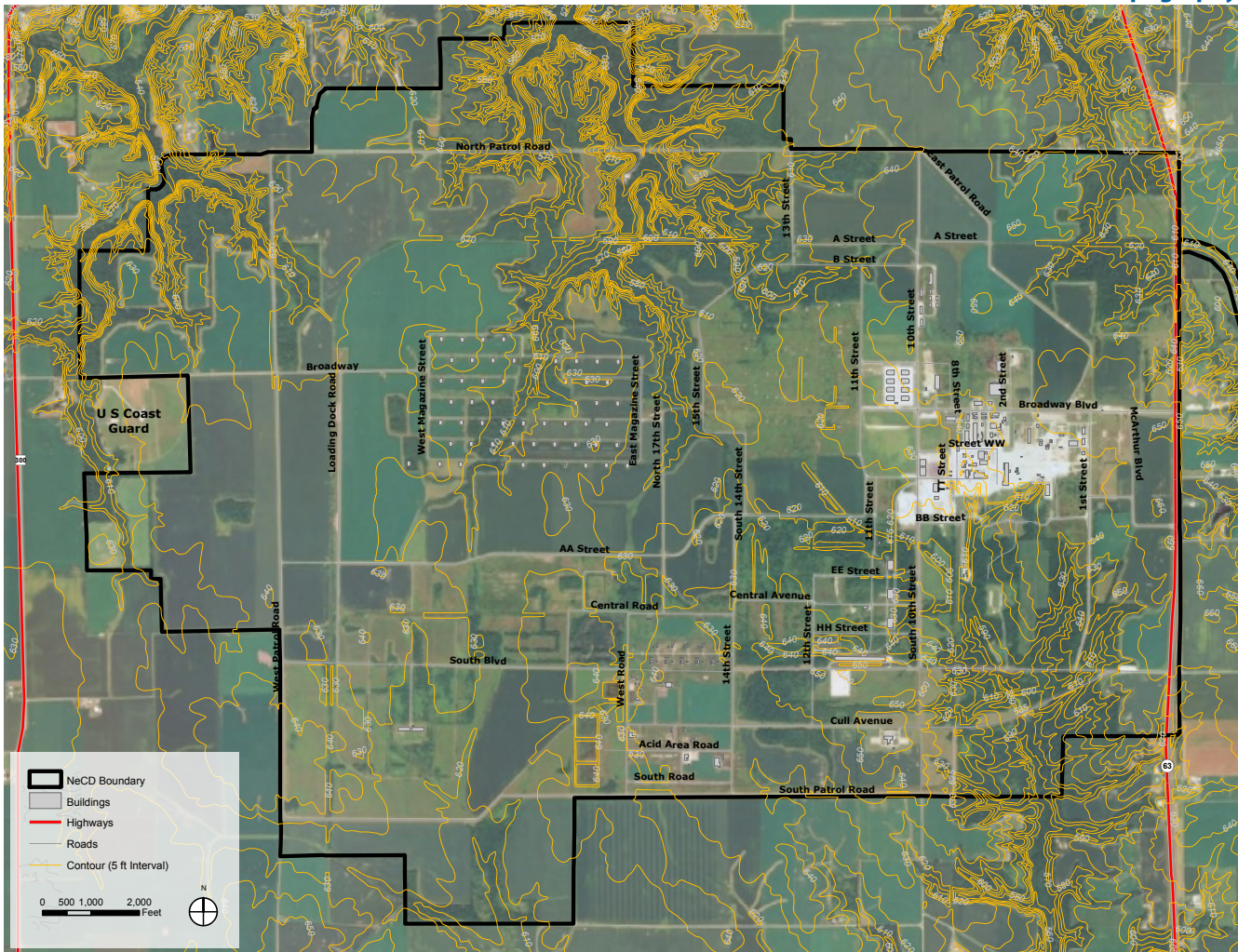


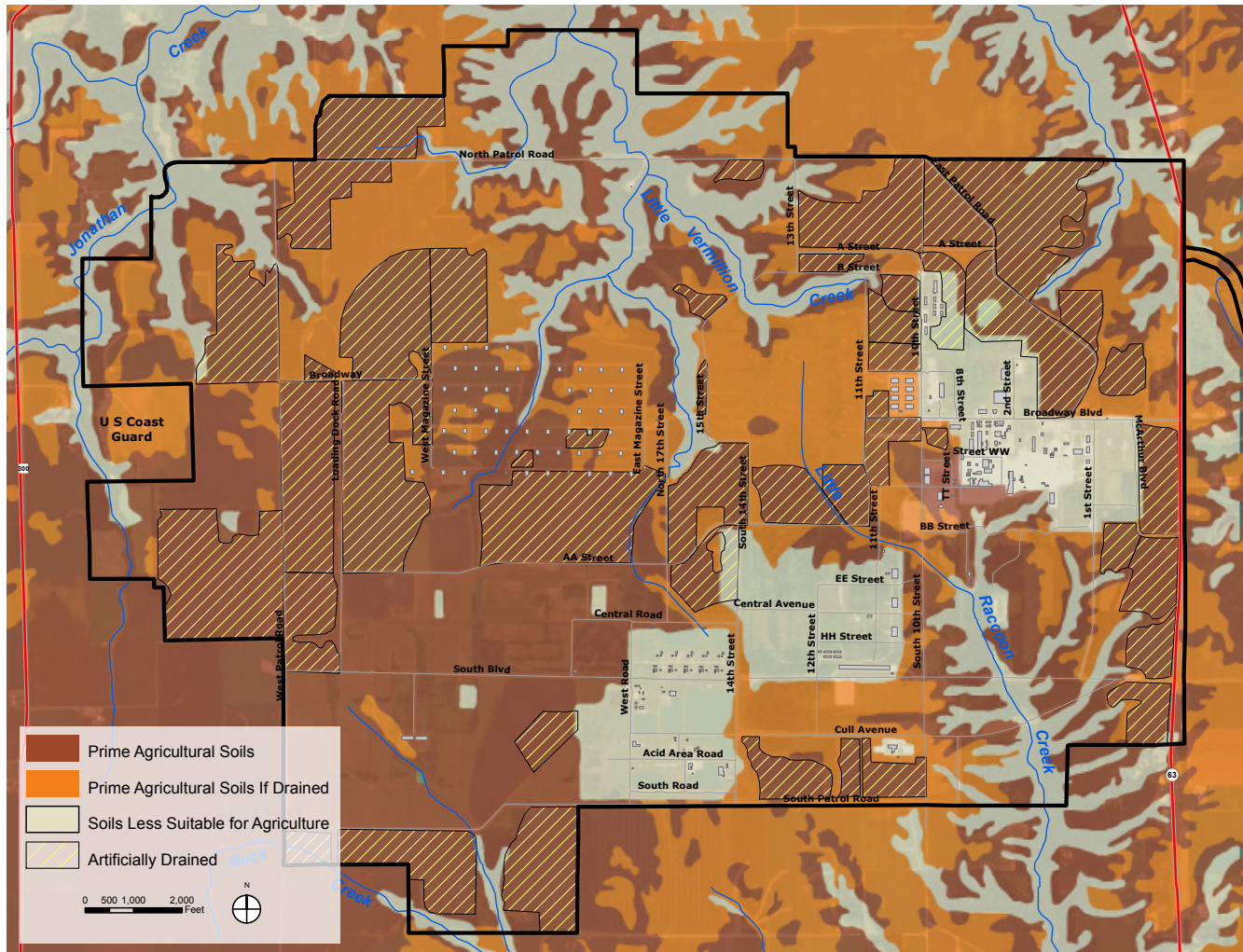


Exhibit 3-10: Topography



## Soils

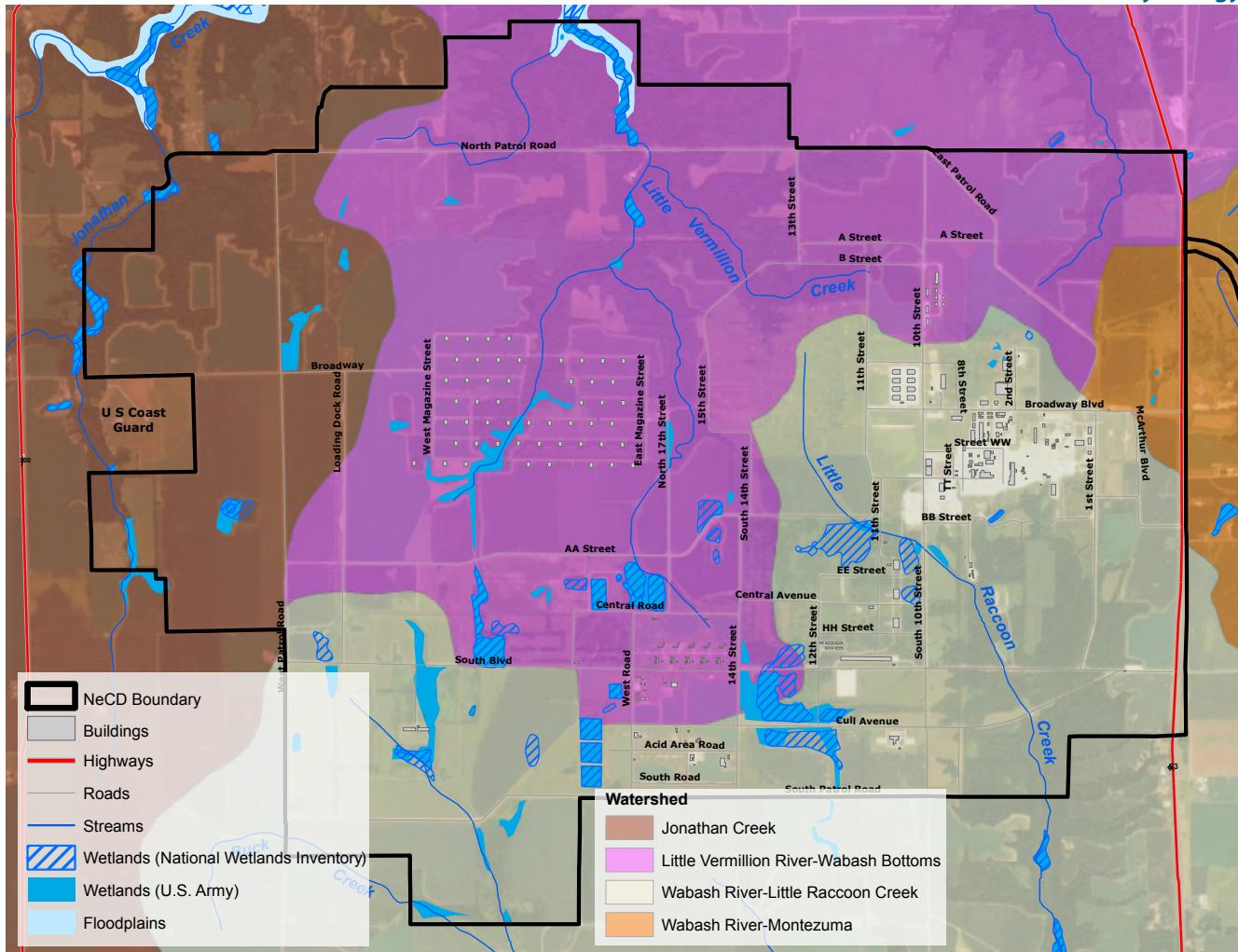
Much of the Newport Chemical Depot land contains rich, fertile soil that is excellent for agricultural production. As stated above, portions of the Depot, particularly the southwestern quadrant, were once covered by native tallgrass prairie. These former prairie lands offer the highest quality soils for agricultural production. On [Exhibit 3-11: Soils](#), these areas are shown in the brown color. Surrounding these best prairie soil areas are other soil types slightly less fertile than the prairie soils, but still very high quality soils by all other standards. These other soils benefit from improved drainage. Over the years, the Army has installed tile drainage systems in hundreds of acres of fields throughout the Depot, shown on the exhibit with the diagonal hatch. As a consequence of the improved drainage, these areas are also considered as having soils on par with the best native prairie soils. The areas shown on the exhibit in orange contain the slightly-less-than-prime soil types that are not tile drained.

**Exhibit 3-11: Soils****Hydrology**

The land within the Newport Chemical Depot drains into one of four natural drainage basins. The majority of the facility drains north into the Little Vermillion Creek watershed or south into the Little Raccoon Creek watershed. A small portion of the Depot closest to the Wabash River drains directly into the Wabash-Montezuma watershed, with the far western end of the Depot draining into the Jonathan Creek watershed. These areas are shown on the **Exhibit 3-12: Hydrology** map.



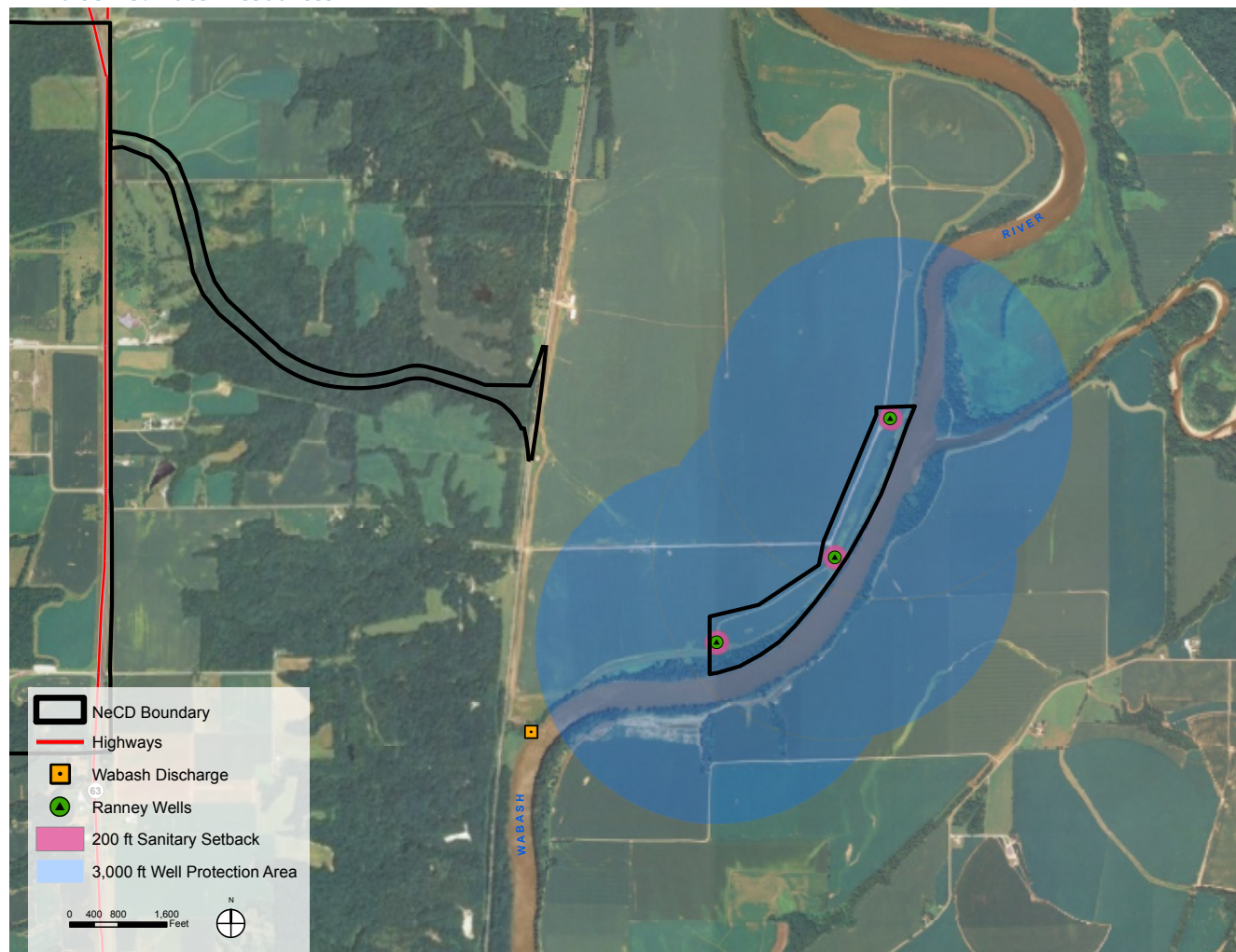
Exhibit 3-12: Hydrology



## Water Resources

The Depot enjoys abundant water resources. Not only does the area receive sufficient rainfall for dry-land farming and contain a good system of natural drainage ditches, creeks, and rivers, but also the Depot is located near a massive underground aquifer. It was the proximity to this aquifer that was one of the primary reasons the federal government chose this site for the Depot, given the government's need for vast quantities of high-quality fresh water to produce "heavy water" as part of the Manhattan Project during World War II. The Army originally established six wells along the western bank of the Wabash River that tapped into this aquifer. Three of those wells were later sold to private landowners, but the other three remain part of the Depot property and are located within the Ranney Wells Subarea. **Exhibit 3-13: Water Resources** shows the location of these wells and the location of two regulatory zones that help protect the quality of the aquifer: a 200-foot Sanitary Setback and a 3,000-foot Well Protection Area.

**Exhibit 3-13: Water Resources**



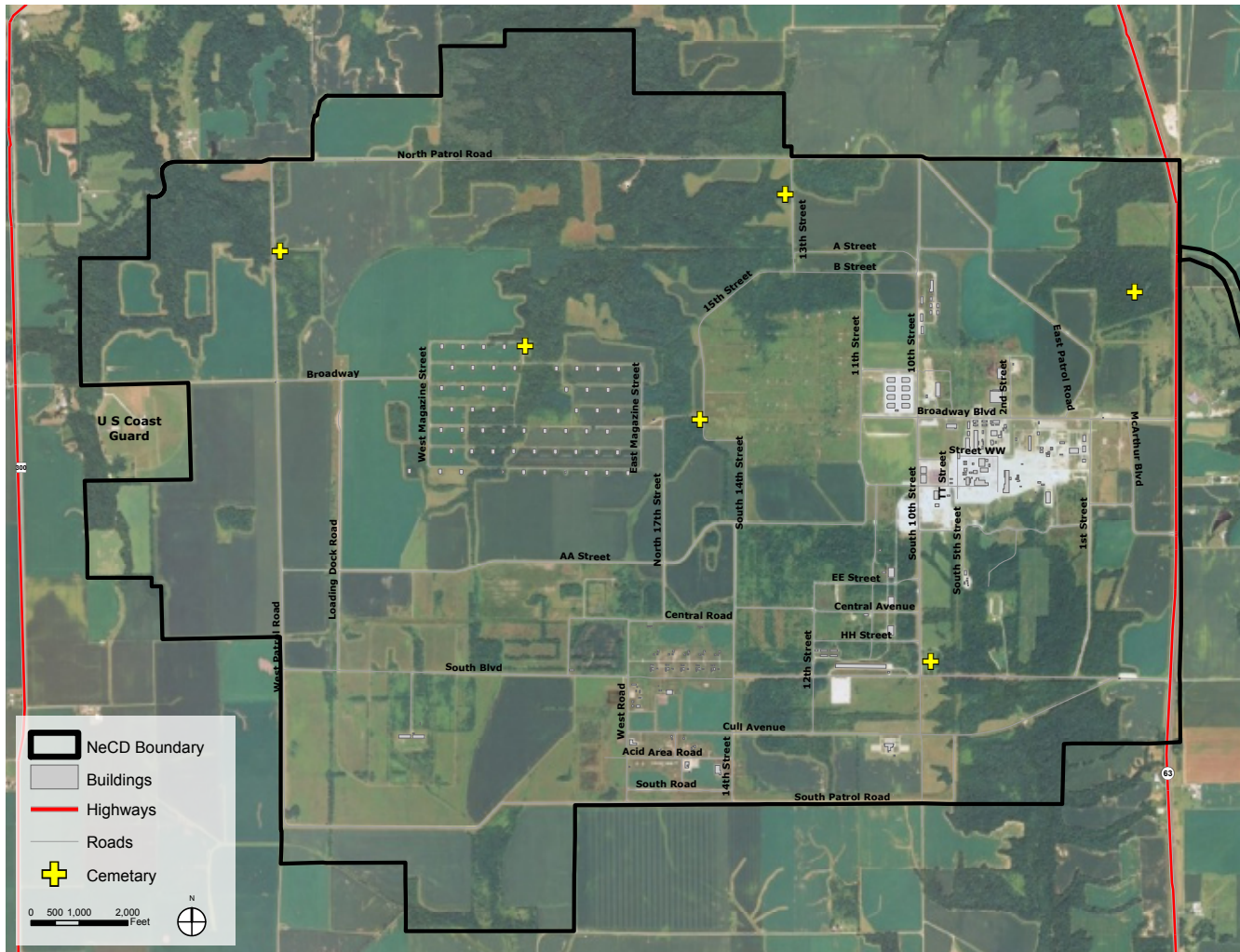
## Cemeteries

Six small cemeteries are located within the boundaries of the Newport Chemical Depot.

**Exhibit 3-14: Historical and Cultural Resources** shows the location of the cemeteries.

The largest of these cemeteries (but still a small cemetery by most standards) is located at the northeastern corner of 10th Street and South Boulevard. The remaining five cemeteries are very small—some containing no more than a just a few graves—and are usually located in wooded areas.



**Exhibit 3-14: Historical and Cultural Resources**

## Utility Infrastructure Systems

General conditions and characteristics of infrastructure systems that serve the Newport Chemical Depot are presented below for the transportation, gas, electric power supply and distribution, communication, water, wastewater and storm water systems. Prior to implementation of the Reuse Plan, additional inventories and assessments will be necessary to establish the extent to which these systems will need to be improved, expanded and/or extended.

The results of this inventory summarized here are based on several on-site assessments and a review of multiple documents provided by Depot staff and representatives of Mason & Hanger Corporation, the operator of the Depot. As a result of these activities

drawings and documents were obtained that provided additional information regarding the infrastructure utilities at the site. These documents included the following reports and studies:

- Newport Chemical Facility WWTP Joint Use Feasibility Study, dated 1998, prepared by THE PATHFINDERS
- Gas System Assessment, dated November 2000, prepared by THE PATHFINDERS
- Water System Assessment, dated October 2000, prepared by THE PATHFINDERS
- Site Assessment Report, dated May 2, 2006, prepared by STAUBACH
- Newport Chemical Depot Infrastructure Assessment, revised March 2008
- Depot Utility Management Plan, revised March 20, 2008

Review of the utility infrastructure systems not only considered historical and existing conditions within the Depot, but also the potential for the existing systems to meet future redevelopment within the Depot. The following general conclusions can be made regarding the infrastructure at the Depot:

- Natural gas is available at the Depot and can meet the needs of most industrial developments.
- Electrical service is available at the Depot and can meet the need of most industrial users. The on-site transmission and distribution system will be required to be upgraded for significant users.
- Communication systems including telephone and fiber optic are available on the site. These would need to be modified or upgraded to meet the needs of the developer.
- Water is a major asset at the facility. Water supply in the range of 15 to 30 million gallons per day is available. Upgrades to the supply pumping and distribution system will be required to achieve these levels of supply.
- The Depot has the potential to be a regional supplier of water.
- The Depot has the ability to treat 0.194 million gallons per day of wastewater. Excess domestic wastewater treatment capacity of approximately 0.15 million gallons per day exists at the treatment plant.

- Future industrial development that has industrial processes that produce wastewater will be required to pre-treat wastewater prior to discharge to the Depot wastewater plant. Due to the limited capacity of the Newport Chemical Depot wastewater plant it may be necessary for future industrial users to treat process water or participate in upgrading the Depot wastewater plant to meet specific needs.
- Availability of areas for stormwater management will not be an issue at the Depot due to the large area of undeveloped property.
- Easements are intact for off-site utilities including water and electric.
- Defined rights-of-way will need to be established as the Depot is developed. Significant utility mains and lines are typically located adjacent to existing roadways; however specific rights-of way will need to be established as the property is developed.
- On-site utility operations (gas, electrical, water, wastewater, stormwater management, and telecommunications) will likely be transferred to Vermillion County. Only those portions of the site that will be active upon transfer should remain in service to minimize operating costs.
- The utilities should be thoroughly evaluated for compliance with state, county and local ordinances. Costs for bringing them into compliance, if necessary, should be developed.

The observations listed above will be further reviewed and supplemented as part of more detailed planning efforts. Additional discussion of each of the infrastructure systems is presented below.

### Natural Gas Distribution System

Panhandle Eastern Pipeline has an 8-inch diameter transmission main that traverses north-south in the right-of-way of Indiana Highway 63. Natural gas is delivered to the Depot by Panhandle Eastern Pipeline via a 4-inch diameter service line that branches off this main near the southeast corner of the Depot property in the Highway 63 right-of-way. This 4-inch diameter services conveys natural gas to a Panhandle Eastern owned central metering station (#4292) located just east of Building 144 where the pressure is reduced to 30 psi for local delivery. **Exhibit 3-15: Natural Gas** shows the location of the natural gas lines at the Depot.

Panhandle Eastern owns the service line up to the and including the metering station, and owns and maintains an odorizer on the facility side of the station. The Newport Chemical Depot owns and operates the natural gas distribution system on the facility side of the metering station. Natural gas is distributed from the metering station by an 8-inch diameter steel line south to Building 7700 and by a 4-inch diameter polyethylene line to the de-militarized and shops area. The 8-inch diameter line formerly served the TNT production area, but has since been terminated just west of Building 7700. Natural gas plastic piping has been installed in the shops area since 1994.

Natural gas service at the Depot is currently restricted to approximately the eastern one-third of the site in the vicinity of the industrial area. Service is concentrated in the main shops area and proceeds north to Building 402A. The main administration building (Building 7700) is served from the central metering station by an 8-inch diameter steel line that traverses south from the station and then west along South Boulevard to 10th Street where it turns south to Cull Avenue and connects to the administration building.

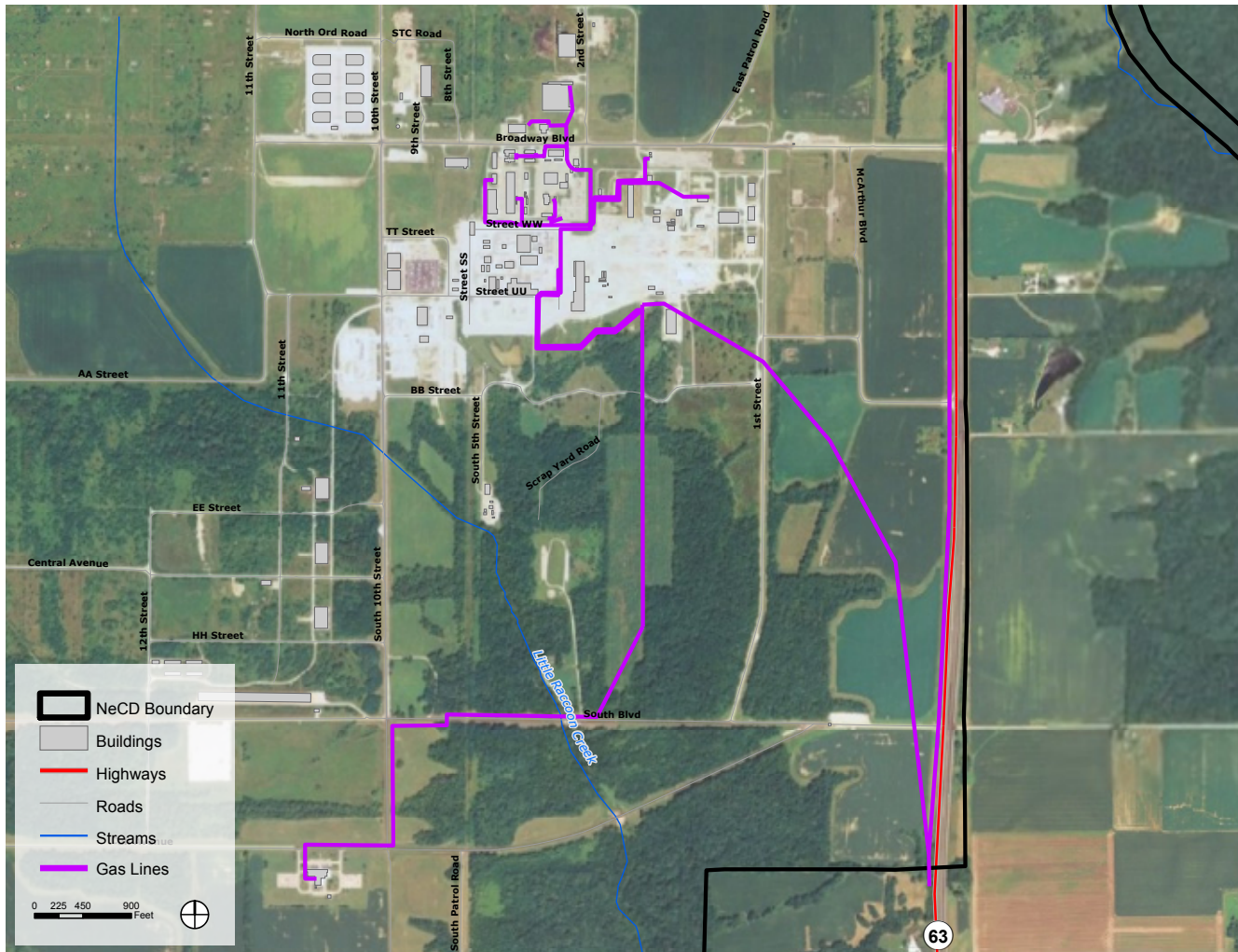
Steel gas lines at the Depot were installed in the 1970s and are cathodically protected. Minimum maintenance has been performed on the steel lines and the cathodic protection system in the last 25 years. Their overall condition is unknown and considered to be questionable. Tracer wire was not installed with the plastic pipe lines in all locations. All current, operating lines are installed underground with the exception of a 1-inch diameter steel overhead line along the northeast corner and face of Building 144 that extends to Building 143.

The Newport Chemical Depot has had preliminary discussions about privatization of the gas distribution system with Indiana Gas, (currently Vectron Energy Delivery of Indiana - North), which showed no interest in acquiring the gas distribution system.

**Summary:** Natural gas to the Depot is available for most types of industrial development. New service lines, possibly from the central metering station to areas being developed, may be necessary based on the condition of the steel lines and ability to provide the quantity of gas required by the development. It is anticipated that individual gas meters will need to be provided for new development.



Exhibit 3-15: Natural Gas



### Electric Power Supply and Distribution System

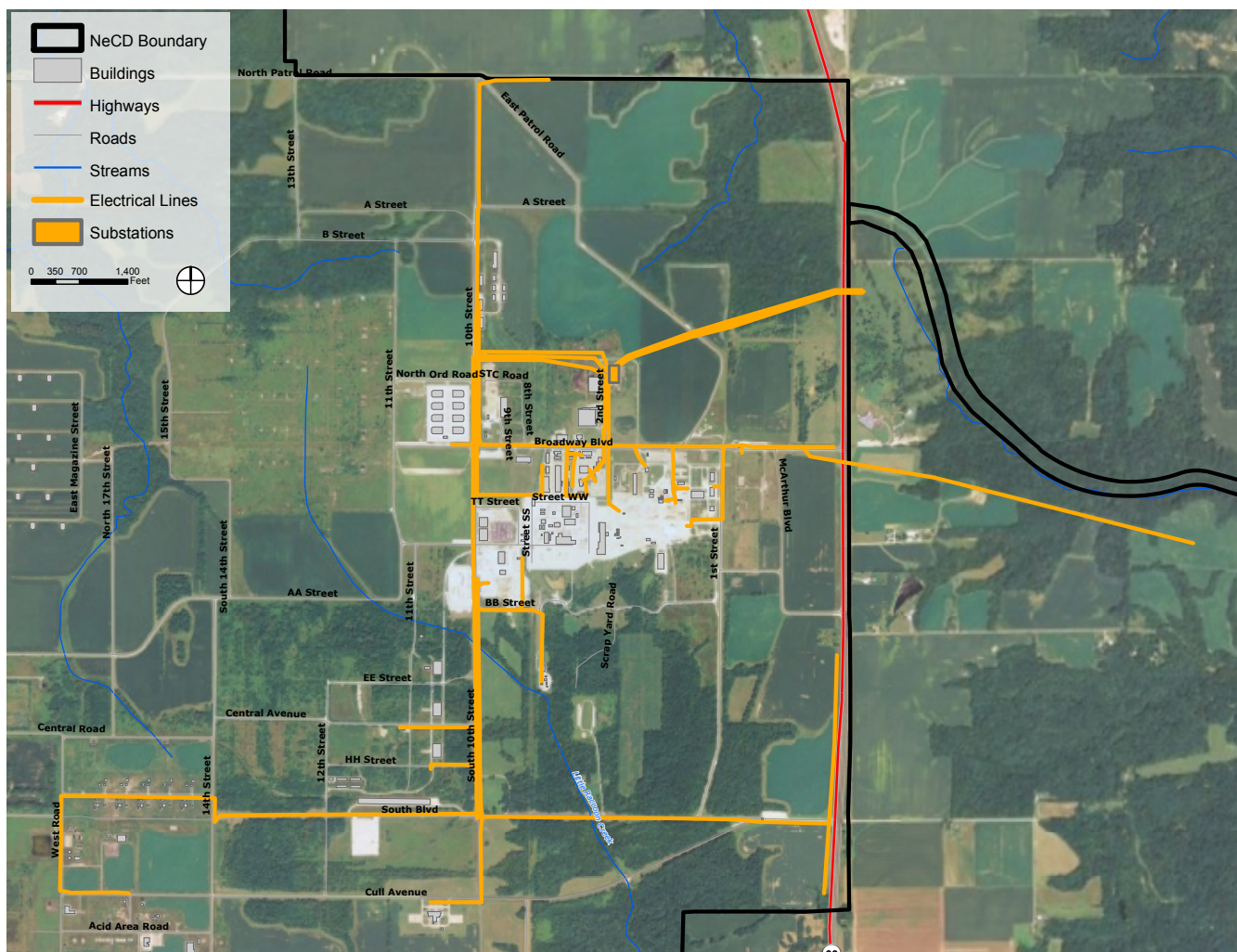
Electrical power to the Depot is supplied via 69 KV and 12.47 KV systems by PSI Energy, a subsidiary of Duke Energy. The transmission and distribution system is owned by the U.S. Government with a demarcation point for the 69 KV and 12.47 KV lines near Indiana 63 and the Depot's main substation. The 69 KV service is available as a four wire WYE service. A 13.8 KV backup feeder is available from Duke Energy.

The incoming 69KV power supply is converted to 13.8 KV, 3 phase, three wire DELTA at the Depot's main substation. The main substation contains two transformers, a 3500 KVA transformer and a 2500 KVA transformer. The 2500 KVA transformer serves as a spare. The 13.8 KV DELTA service is distributed to the developed area of the facility, with the exception of the Chemical Neutralization Area.

The Chemical Neutralization Area is served by its own substation. Incoming 69 KV power is converted to 4160 V, 3 phase, DELTA at the Chemical Neutralization Substation. Two relatively new 7500 KVA transformers are located at this substation.

The Newport Chemical Depot, which currently owns and operates the on-site transmission and distribution system, discussed the privatization of its transmission and distribution system with Cinergy. Cinergy had no interest in acquiring the system due to the ratio of maintenance cost to return, the age of the system and contrasting design criteria (DELTA versus WYE system). [See Exhibit 3-16: Electrical System.](#)

**Exhibit 3-16: Electrical System**



**Summary:** Electrical power to the Depot is available for most types of industrial development. New service lines, possibly from main substation to areas being developed, may be necessary based on the type of development. It is recommended that the Depot develop costs and consider converting the existing DELTA system to a WYE system, which is the current industry standard. It is anticipated that individual electric meters will be required for the development.

### Telecommunications Systems

**Telephone:** The Depot has DISN telephone trunk lines that enter the facility in underground cable. AT&T bonded twisted pair cable is available on the site. Government owned telephone lines are located throughout the Depot. Both above ground and below ground copper cables exist. Some of the buried cables were installed as recently as 2002 and 2004. Private Business Exchange (PBX) lines exist at the main administration building (Building 7700) and the Chemical Neutralization administration building.

**Internet:** Internet connections have been installed throughout the developed areas of the Depot. Both copper and fiber optic are available on site.

**Summary:** Telecommunications systems are available at the Depot. It is anticipated that telecommunications requirements will be dependent on the specific developer needs and that modifications or upgrades to the existing telecommunications systems will be required.

### Water System

**Water Supply:** The water supply consists of three government-owned wells, referred to as Ranney Well Collectors No. 1, No. 2, and No. 3. These wells are located in the floodplain of the Wabash River on government owned property approximately 3 miles east of the Depot. Each well was originally equipped with three pumps, each with a capacity of 4,500 to 5,000 gpm. Based on review of available information these wells are capable of producing 15 to 30 million gallons of high quality water per day. Access to the well area is via a government owned, unimproved 1.5 mile access road.

Well Collector No. 3, installed in 1942, is the only active supply well to the Depot. Its production capability has been significantly reduced due to lack of need and maintenance of the horizontal collector piping. The original pumps and motors have been inactive for approximately 30 years and have been replaced by a 60 hp and a 50 hp turbine pump. The current pumping capacity of this well is approximately 400 gallons



per minute (gpm). Well Collectors No.1 and No. 2 have not been operated in more than 40 years and are expected to need to be rehabilitated before being put into service. Well Collector No. 3 will also require maintenance and repair to maximize its water supply capabilities. Easements for electrical services to the collector wells and raw water piping from the wells to the Depot are intact. A propane gas backup heating source exists at Collector Well No. 3 to prevent any damage that may be caused by freezing. The four propane tanks are tethered to prevent them from being displaced by a flooding event.

Raw water from the collector wells is pumped directly into a seven million gallon reservoir (Building 402A) at the Depot. The raw water supply piping is considered to be in questionable condition. The transmission piping is primarily 48-inch diameter cast iron, with some smaller diameter carbon steel pipe. Raw water from Well Collector No. 3 is transmitted via a new 18-inch diameter high density polyethylene pipe to a 48-inch diameter cast iron main that discharges into two 36-inch diameter cast iron mains at the seven million gallon concrete reservoir.

**Storage:** Building 402A, a seven million gallon reservoir, is the only active raw water storage facility at the Depot. This reservoir and its related pump house (Building 412A) are in poor to fair condition and will require structural maintenance. There are two Drinking Water pumps, two Service Water pumps, and two Fire Water pumps located in the pump house. These pumps and related equipment are expected to be in need of significant maintenance or replacement in the next decade. The drinking water storage facility is the elevated tank (Water Tower 510), with a capacity of 100,000 gallons.

A 60,000 gallon elevated tank in the former TNT area once served as a secondary raw water storage facility at the Depot. This tower is out of service and is in need of repair. Based on limited review completed as part of this report it may not be economical to put the tank back into service.

**Distribution:** Water service within the developed area on the Depot is provided via a system that includes a Drinking (potable) Water distribution system, a Fire Water system, and a Service Water system. Reliable water service does not exist west of 10th Street with the exception of the services to the administration building, Building 3005 and the Fire Water System in the former TNT area. The Drinking Water, Service Water and Fire Water systems appear to be in fair condition.

Drinking Water is chlorinated and transferred to Water Tower 510 by two inline pumps located in the pump house. Drinking Water from Water Tower 510 is distributed via a 20-inch diameter steel transmission main to industrial and shops area at the site. This 20-inch

main once provided water to the TNT area; however it is no longer in service beyond the industrial and shops area. Drinking Water mains and services consist of piping ranging from 10-inches to 1.5- inches in diameter. Piping materials in the industrial and shops area consist of cast iron pipe with lead and oakum joints and polyvinyl chloride (PVC) pipe. New ductile iron and plastic water main was installed to provide service to the Chemical Neutralization area.

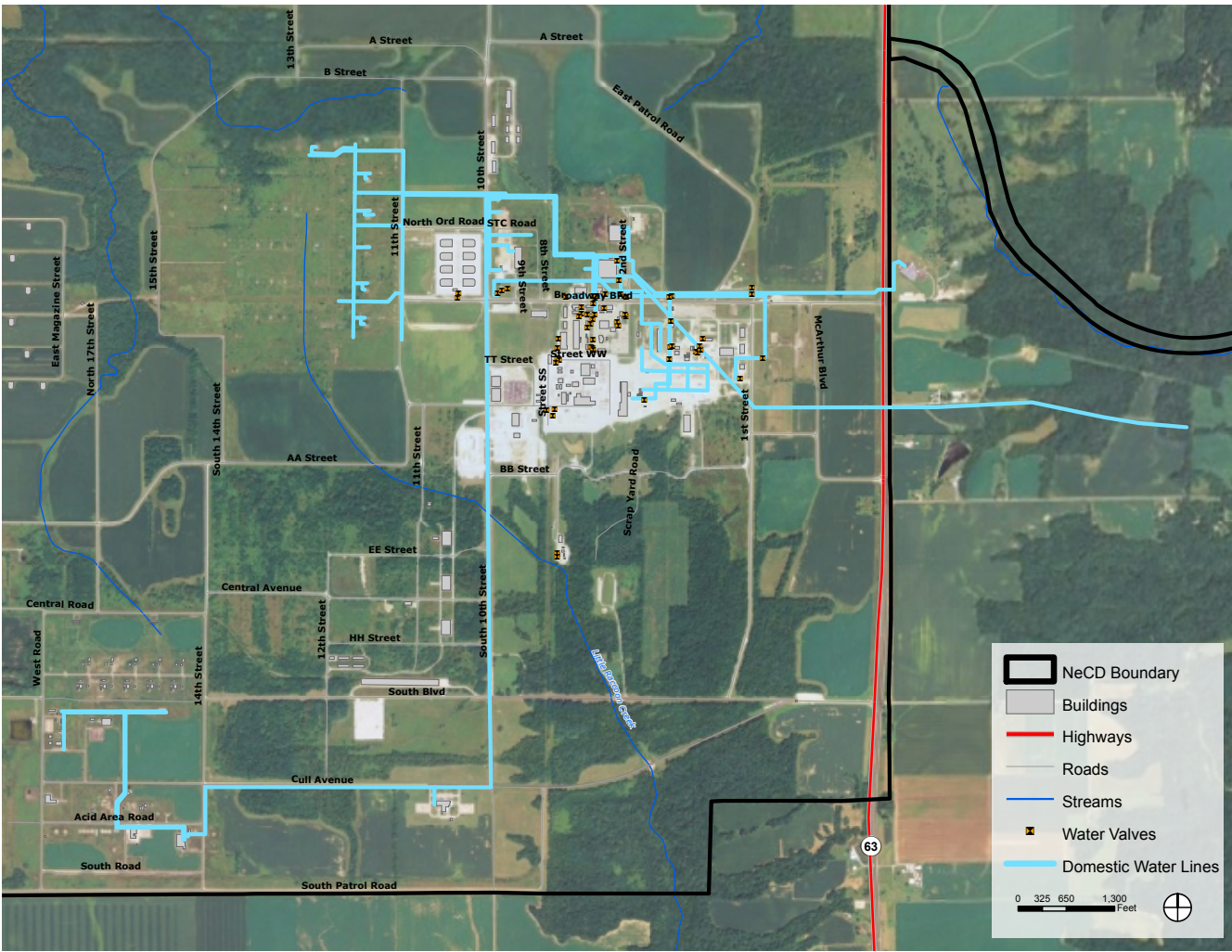
The Service Water system is supplied directly from the seven million gallon reservoir pump house by a 20-inch diameter spiral wound steel transmission main and 36-inch diameter cast iron pipe. The steel transmission main has cathodic protection. The condition of the main and cathodic protection system is relatively unknown. The Service Water system provides water to the Vermillion County Jail, the administration building (Building 7700) and Building 3005. Water is chlorinated for potable use at each of these facilities.

The Fire Water system piping primarily consists of cast iron pipe. Fire hydrants are located throughout the Depot. Evaluation of hydrant spacing and code compliance will be required for any new development. The Depot currently provides water service to the Vermillion County Jail via its service water distribution system.

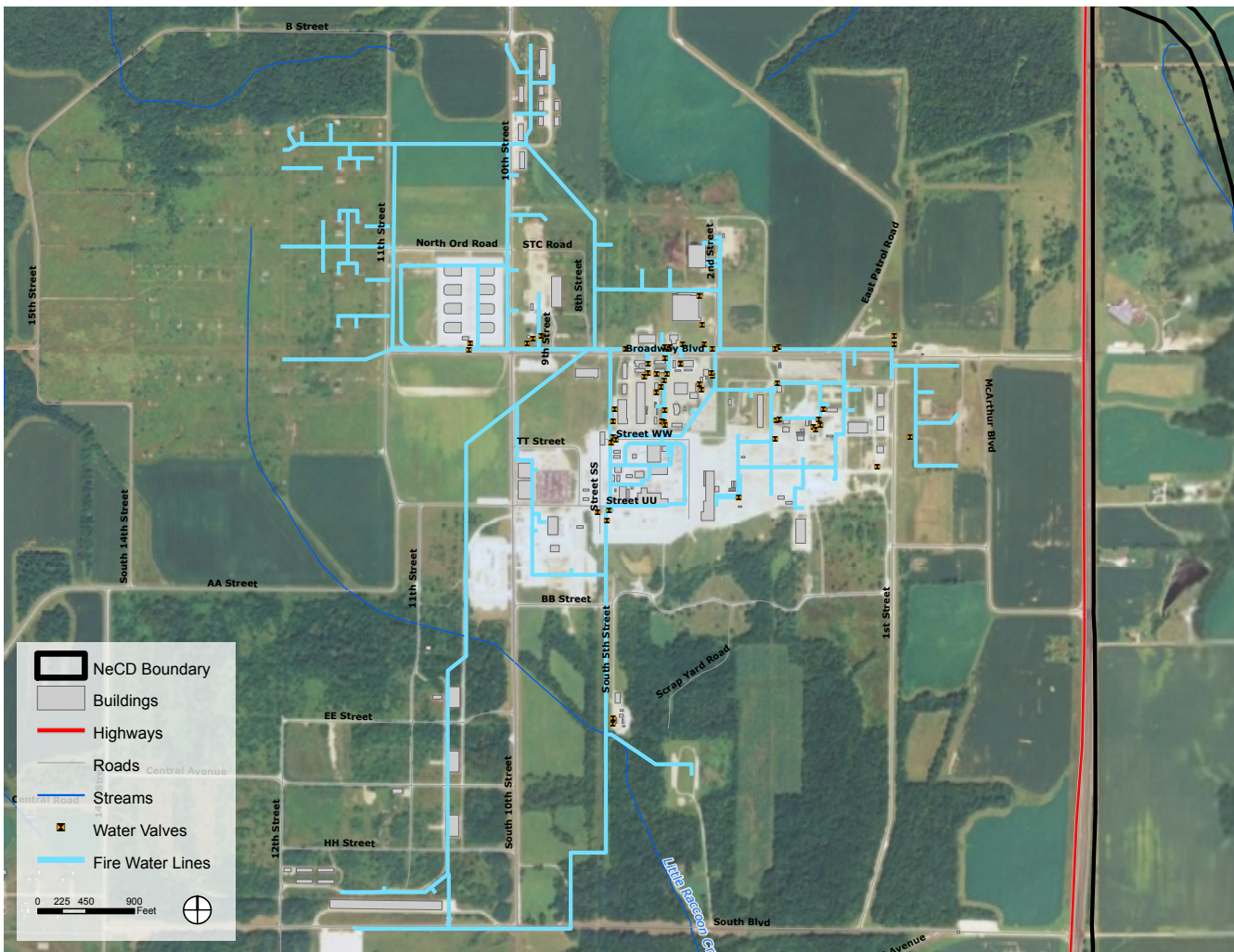
Based on discussion with Depot staff, the system is in compliance with IDEM monitoring requirements and operating permits.

**Summary:** The existing water treatment and distribution system at the Newport Chemical Depot has sufficient capacity to serve the developed areas of the site. The Depot has the potential to supply water to meet the needs of most industries and to potentially serve as a regional water supplier in Vermillion County and the surrounding region. Significant maintenance and repairs are required to bring the system back to a operating level where it can supply 15 to 30 million gallons a day of water. [See Exhibit 3-17: Domestic Water](#) and [Exhibit 3-18: Fire \(Service\) Water](#).

Exhibit 3-17: Domestic Water





**Exhibit 3-18: Fire (Service) Water**

### Wastewater Treatment and Collection

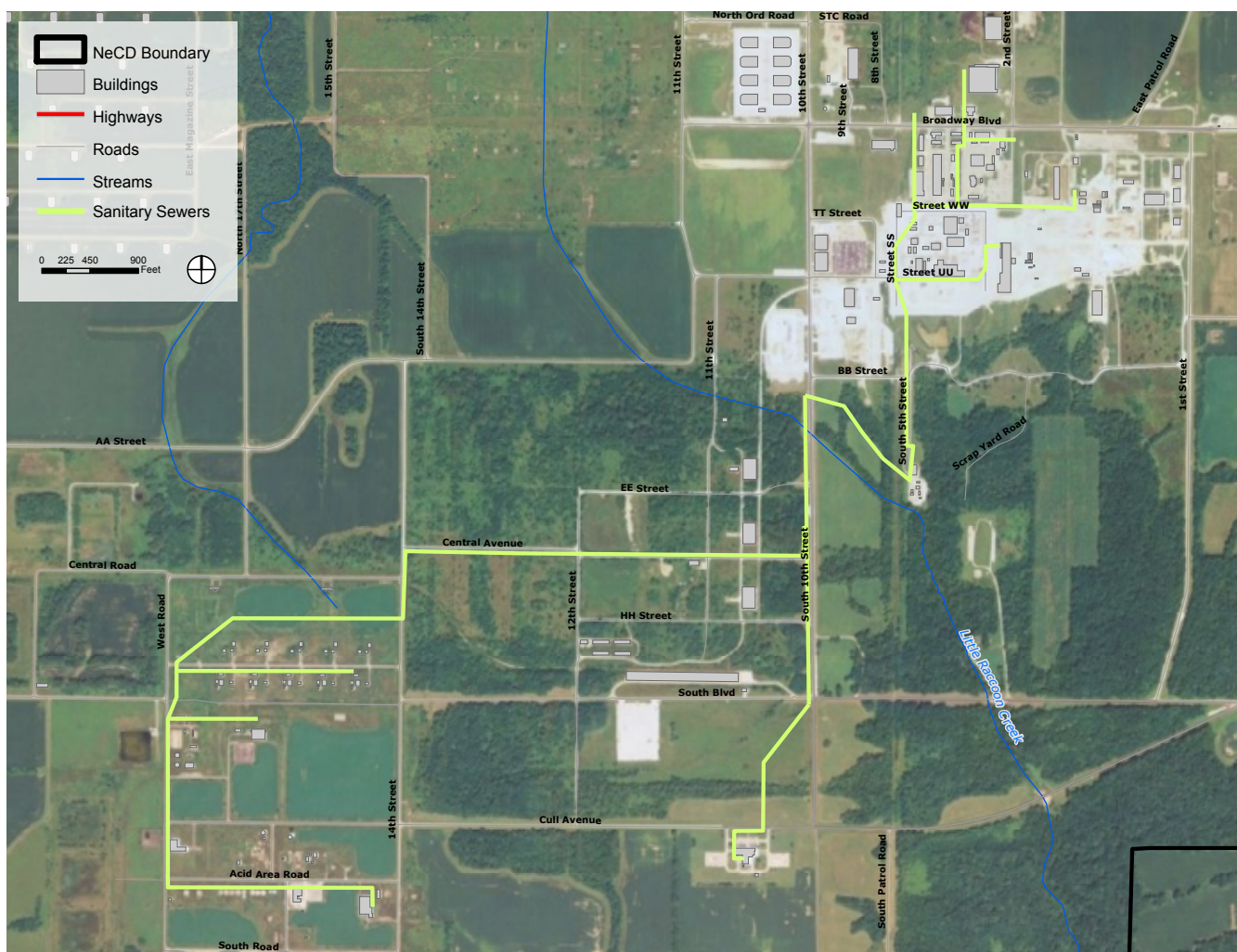
The wastewater treatment and collection system at the Depot consists of a centralized wastewater treatment plant and sanitary sewers that are located primarily within the developed area of the facility.

**Wastewater Treatment Plant:** The wastewater treatment plant components include a bar screen, comminutor, primary settling tank, secondary aeration tank, secondary settling tank, sludge digester, and a disinfection system including a chlorine contact tank and dechlorinator. Treated wastewater is pumped to the Wabash River at a permitted outfall. A stand-by generator is located at the plant to maintain operations in the event of a power outage.

The wastewater treatment plant has a capacity of approximately 0.194 million gallons per day (MGD), with a peak hourly flow rate of approximately 0.54 MGD. The plant has the capacity to serve approximately 3,000 people. Review of available information indicates that the Depot generates approximately 40,000 gallons per day of wastewater. The plant has sufficient capacity to treat wastewater generated by the Depot and available capacity of approximately 0.14 MGD.

**Sanitary Sewer Collection System:** The sanitary sewer collection system is primarily a gravity system and collects wastewater from the developed area of the site. [See Exhibit 3-19: Sanitary Sewer System.](#)

**Exhibit 3-19: Sanitary Sewer System**





**Summary:** The existing wastewater treatment and collection at the Depot has sufficient capacity to serve the current developed area of the site. Excess capacity of approximately 150,000 gallons exists at the plant. This should be sufficient to treat domestic wastewater from approximately 2,000 additional people at the site. The existing plant was not designed to treat industrial wastewater. An industrial pre-treatment program acceptable to IDEM will be required to accept industrial wastewater at the plant. Pre-treatment of industrial wastes by the associated industry will be required. Larger industrial process operations will likely need to treat their own water prior to discharge or participate in upgrading the existing plant to meet their needs.

### Stormwater Management

The stormwater management system on the Depot consists primarily of open drainage system comprised of natural and man made drainage ditches, open channels and swales.

Many of the existing and former agricultural tracts are drained by field tiles to improve soil drainage. The Depot has maintained these drainage systems and has installed new field tiles as necessary to support leasing of the agricultural properties.

A retention basin is located on the property that services the redwater ash basins and gypsum sludge basins in the former TNT burning grounds. This basin has a permitted outfall at its point of discharge into an open channel on the property.

**Summary:** The Depot has a significant amount of undeveloped property that can be used for stormwater management. While state, county and local stormwater management requirements will need to be met, it is not expected that stormwater management requirements will limit development of the site.

## Buildings and Facilities



The following section provides a brief overview of the current physical state of key buildings and their immediate surroundings at the Newport Chemical Depot; a detailed assessment of key buildings is provided in the [Appendix](#).

As part of this building assessment, 28 buildings and facilities were inspected. The following building elements and systems were evaluated:

- Site Layout
- Building Structure and Envelope
- Architectural and Spatial Qualities
- Mechanical, Electrical and Plumbing Systems

The purpose of the facility assessment was threefold: (1) to identify and document the current physical condition of significant buildings and facilities at the site; (2) evaluate the reutilization or adaptive reuse potential of these facilities; and, (3) determine the conditions and characteristics that might impact a building's cost-effective reutilization or reuse.

In addition to data gathered, significant information, including facility maps and building plans, was collected through interviews with Mason & Hanger staff, and from interviews with and record documents provided by employees of Parsons Infrastructure and Technology Group, Inc. (Parsons), the disposal facility operations contractor. Through a combined analysis of real property records, public works plans and documents,

information provided by on-site contractors and information collected from visits to each of the facilities an evaluation matrix was prepared to summarize the current condition and characteristics of all major buildings and facilities on the Newport property.

### Evaluation Approach and Inventory Assumptions

Through on-site reconnaissance, a baseline property condition assessment was conducted, based on information from site and building documents and from a walkthrough observation. The walkthroughs and data collection were performed generally in accordance with the standards outlined in ASTM E 2018-01 *Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process* to identify and communicate the presence of conspicuous defects or material deferred maintenance by non-intrusive visual observations.

### Buildings Inventoried

To provide the maximum benefit to the Newport Chemical Depot Reuse Authority for evaluation and implementation purposes, only structures that were considered “significant” to the reuse planning process were included in the on-site building surveys. Facilities inventoried included 23 buildings and supporting infrastructure on the installation proper and five (5) additional buildings within the Parsons cantonment area, considered by base personnel to be in the best physical condition and with the greatest potential for reuse. The 28 facilities assessed include:

7700	(Headquarters Building)
7702	(Ambulance Garage)
7703	(Generator Shed)
121A	(Warehouse)
121B	(Warehouse)
402A	(Reservoir)
412A	(Pump House)
723A	(Laundry*)
733K	(Vehicle Storage)
A3301	(Magazine)
A3200	(Entry Control Facility)
713A	(Shipping and Receiving)
717A	(Maintenance Shops)
717B	(Generator/Boiler Shed)

710	(Equipment Storage)
303	(Records Storage *)
255A	(Fire Department Training*)
227A	(Warehouse*)
3036A	(Propane Compressor*)
3036B	(Propane Mixer*)
709A	(Fire House*)
510	(Water Tower*)
1001A	(Water Tower Pump*)
223A	(Parsons – Warehouse)
2032	(Parsons – Office/Warehouse)
1034	(Parsons - Administrative)
1035	(Parsons - Administrative)
3001	(Parsons - CDB)

\* Buildings with asterisks were surveyed but did not receive their own individual Property Condition Assessment form, as described below.

## Property Condition Assessment (PCA) Forms

**Newport Chemical Depot**  
**Property Condition Assessment**

BLDG No: **P2032**

Name: **Warehouse - NECDF**

**GENERAL INFORMATION**

Type Code per IBC: \_\_\_\_\_  
 Property Number: **P2032**  
 Facility ID: **P2032 - Warehouse/NECDF**  
 Category Code: **STORAGE OF INGT**  
 Current Use: **Warehouses and Office Space**

Newport Present Value: \_\_\_\_\_  
 Year Built: **2002**  
 Date acquired by Government: **June 2002**  
 Government Cost: \_\_\_\_\_  
 Approximate Dimensions: **100' x 140'**  
 S. x W. x H.: \_\_\_\_\_  
 Approximate Area (Sq. Ft.): **14,000**

**ARCHITECTURAL**  
 Single story pre-engineered metal building with 2 south overhead doors on west side, 1 on east side. Approximately 2/3 open warehouse and 1/3 drop ceiling office areas.

South West Corner Elevation

Typical Interior View - Warehouse

Typical Interior View - Warehouse

1 of 3

Property Condition Assessment forms were prepared for 19 of the buildings identified for evaluation. These forms documented general findings related to each facility's architecture, structure, HVAC, mechanical, electrical, and site conditions. Opinions of probable cost for noted deficiencies and remedies were not provided as part of this process. Survey staff consisted of experienced / registered architects or professional engineers familiar with commercial, residential, institutional, and industrial building construction materials and methods. Site reviews documented and/or reviewed the following:

- Record drawing information
- Location

- Accessibility
- Building code compliance
- General building information
- Year built, area in size, length, width, height, and number of stories
- Architectural, structural, and electrical characteristics
- Site accessibility
- HVAC, plumbing, fire alarm, and sprinkler systems
- Roofing, interior and exterior characteristics
- Structural integrity
- Energy efficiency
- Expansion potential and feasibility
- Adaptive reuse potential
- Operation and maintenance issues and costs
- Recent and planned improvements
- Noted deficiencies
- Photographic documentation

## Summary of Significant Buildings and Facilities

General descriptions of the major facilities assessed at the Newport Chemical Depot are provided below. Completed property condition assessment forms are provided in the [Appendix](#).

## Administration Building



Building 7700 houses the Newport Chemical Depot Headquarters function. The 31,480 square foot facility is located in the southwest quadrant of the installation near the intersection of Cull Avenue and South 10th Street. Built in 1973 the three story steel frame building has concrete masonry

unit walls and includes its own water chlorination facility in the basement. In addition to the installation administration function the building houses a small medical clinic, the emergency operations center and water testing laboratory. Ancillary facilities include building 7702, an 820 square foot, two bay CMU garage and an approximately 80 foot tall steel truss tower supporting a radio repeater owned by the Indiana State Police.

## Raw Water Inlet House and Reservoir



Building 402A is comprised of the 864 square foot raw water inlet house and 58,000 square foot raw water storage reservoir. The two story wood frame inlet house contains two 36-inch diameter inlet pipes that bring raw water from a series of wells supporting the installation to the 7 million gallon water storage reservoir

housed in the single story reinforced concrete reservoir building. First constructed in 1942 the facility not only provides raw water for use on the installation; it was an integral part of the nation's heavy water production capability. Attached to the north side of building 402A is building 412A, a 6100 square foot reinforced concrete facility housing the service, domestic and fire water pumps and chlorination room. A small 1,600 square foot second story room contains the mechanical, electrical and alarm equipment.



## Surety Storage and Training



Building 733K is a 12,800 square foot wood frame warehouse building constructed in 1942. The Surety Storage and Training facility is representative of numerous similar warehouse buildings found across the installation. The buildings typically have concrete slab on grade foundations with heavy

timber framing clad with lightweight steel siding and flat built up roofs. Building 733K is in relatively good shape having undergone renovations as recently as 2000. The building currently provides vehicle storage and classroom training space to the installation. Located on the north side of Broadway Boulevard building 733K is in close proximity to the fire station as well as the stores and procurement and maintenance shops that comprise the industrial core of the installation.

## Ammunition Storage Igloo



Building A3301 is typical of eight ammunition storage igloos constructed on the site in 2002 for the storage of VX-filled ton containers. The igloos were used until the last VX-filled container was removed to the Newport Chemical Agent Disposal Facility on July 28, 2008. Each 3,125 square foot bunker is constructed

with a cast in place concrete floor slab, cast in place concrete bulkhead walls at each end of the building, and corrugated steel plate arches covered in crushed rock form the exterior walls and roof. Access into the bunker is through a pair of blast doors hung on the front face of the building. The storage igloos are in a secured area on the northwest corner of 10th Street and Broadway Boulevard. Access to the igloo area is through a single story entry control facility (Building A3200). The 1,500 square foot reinforced concrete entry control facility includes two small offices, bullet proof glass at all windows and a 125 KW, 408V emergency generator with a 550 gallon diesel underground storage tank.



### Maintenance Shop NECDF



Building P3001 is part of the Newport Chemical Agent Disposal Facility currently operated by Parsons. Built in 2003 the building was originally constructed for chemical agent destruction but never was used for that task, instead it has been used as maintenance shops for

the NECDF. The single story, high bay, steel frame building encloses 62,795 square feet of floor area. The bulk of the facility consists of 20 foot high open bays although there are several modular interior office spaces with enclosed 10 foot ceilings. The steel frame, metal clad, slab on grade construction of this building is representative of most buildings within the NECDF.

## Environmental Conditions

### Overview

This section presents a summary of known and potential environmental conditions at the Newport Chemical Depot that have been considered as part of the reuse planning process. Additional details regarding existing environmental conditions, as well as a data gap analysis are discussed in the comprehensive environmental review document included in [Appendix E](#).

This environmental analysis was conducted using limited data generated by other parties; the findings and conclusions, however, are based on the consultant's professional opinions, and on documents provided and produced by others. It should be noted that the potential exists for unreported and unknown environmental issues associated with the site or surrounding area that are not included in this document. A list of references used during this analysis is presented in [Appendix E](#).

### Background

Approximately 22,000 acres of land that encompasses the Depot was originally purchased by the War Department in 1941 for the purposes of constructing a 1,3,5-Trinitro-1,3,5-triazine (Royal Demolitions Explosive [RDX]) explosives production facility, known as the

Wabash River Ordnance Works. The RDX facility was operational beginning in 1942 until it was placed on standby status in 1946. After World War II, the Depot was reduced to an area of approximately 7,000 acres. In 1943, production facilities for the manufacturing of heavy water related to the Manhattan Project were constructed at the Depot for the Atomic Energy Commission (AEC). The heavy water plant was placed on standby status in 1946, but was reactivated from 1952 through 1957 to support the Korean War effort.

A chemical plant for the production of the nerve agent O-ethyl-S-(2 diisopropylaminoethyl) methyl phosphonothiolate (VX) was constructed in 1958 by the Food Machinery Corporation (FMC) in the area of the former heavy water production facility. From 1960 to 1968, all of the United States' VX was produced at the Depot until halted by President Richard Nixon. The VX was stored at the Depot until its destruction at the Newport Chemical Agent Disposal Facility from 2002 until 2008. In 1970, a 2,4,6-trinitrotoluene (TNT) production facility was constructed to support the Vietnam War. Only two of the five production lines operated, and the production was discontinued in 1975.

In 1999, through a contract with the US Army, Parsons Infrastructure and Technology (Parsons) was hired to build the Newport Chemical Agent Disposal Facility (NeCDF), destruct chemical weapons, and demolish the NeCDF after demilitarization. Construction of the NeCDF was completed in 2003, and the last container of VX was destroyed in 2008.

Mason and Hanger, the current operator of the Depot, is a caretaker only, and does not produce or manufacture any products. Active buildings at the Depot include facilities formerly used to store the onsite chemical agent inventory, as well as administrative, security, and maintenance buildings used to support the military mission. Inactive buildings include facilities associated with former production of TNT and RDX.

The chemical production activities conducted at the Depot have resulted in known and potential contamination of soils, groundwater, surface water, and structures, and numerous landfills and dumps are present at the site. Contaminants at the Depot include explosives, chemical agent components, volatile and semivolatile organic compounds, metals, petroleum hydrocarbons, and asbestos.

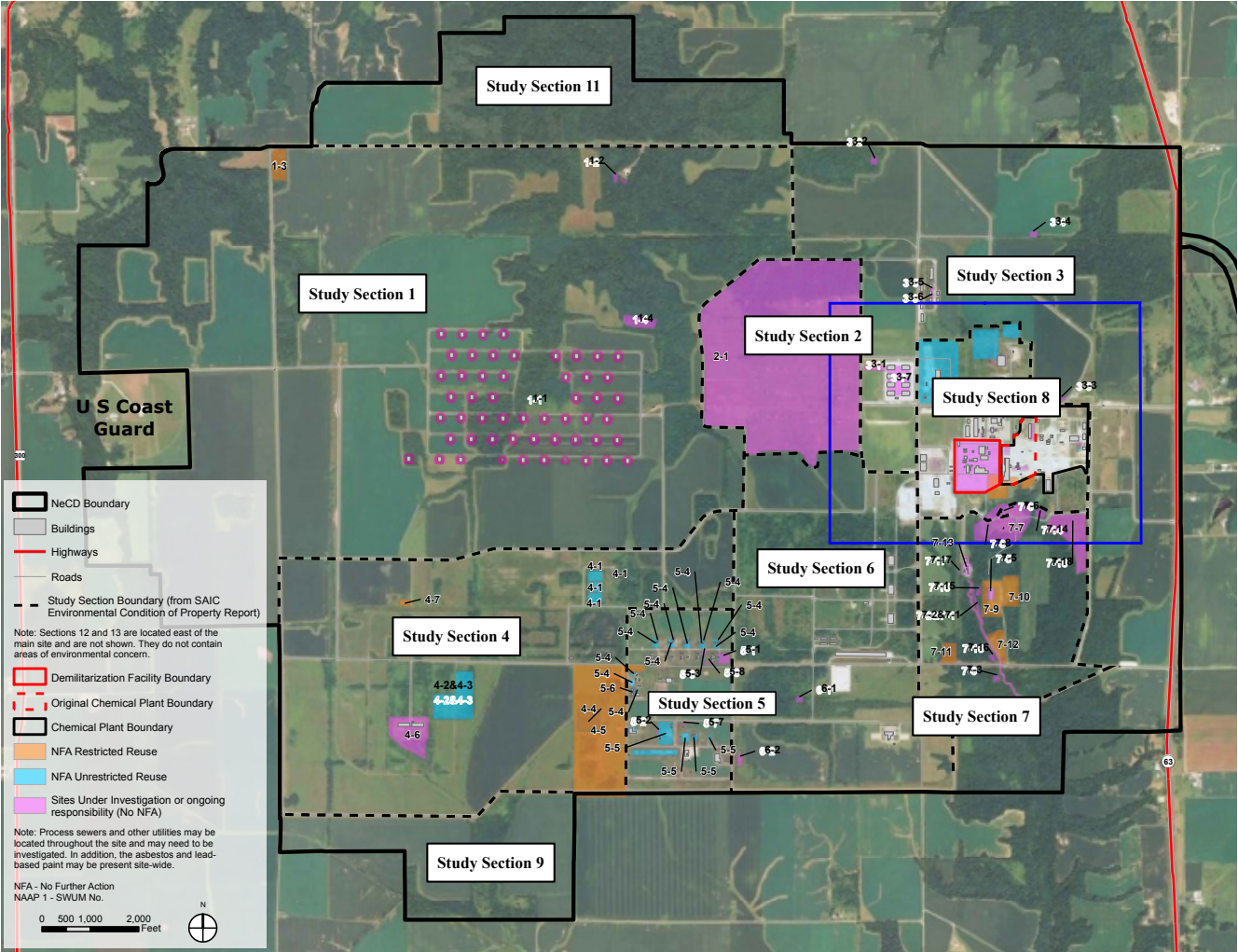
Environmental laws governing the storage, disposal, and cleanup of hazardous wastes, including the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), are applicable to contamination at the Depot. The Depot has been the subject of various environmental actions, studies, and cleanup actions since the 1970s, and is currently regulated under

a RCRA Part B Permit. The most recent RCRA Part B permit was issued by the Indiana Department of Environmental Management on January 5, 2006. Many sites have been investigated by the Army under the Department of Defense Installation Restoration Program (IRP) in accordance with CERCLA requirements. The IRP was developed by the DOD to comply with federal guidelines for managing and controlling past hazardous waste disposal actions. The IRP focuses on cleaning up contamination from past hazardous waste operations and past hazardous material spills. Because this property is governed by both RCRA (for transfer, storage, and disposal of wastes) and CERCLA (for cleanup of historical contamination), there are sometimes separate identification numbers and names assigned to the same area. For the purposes of this report, only the RCRA Solid Waste Management Unit (SWMU) numbers are used to identify a particular area. Additionally, all SWMUs will require closure under the RCRA permit.

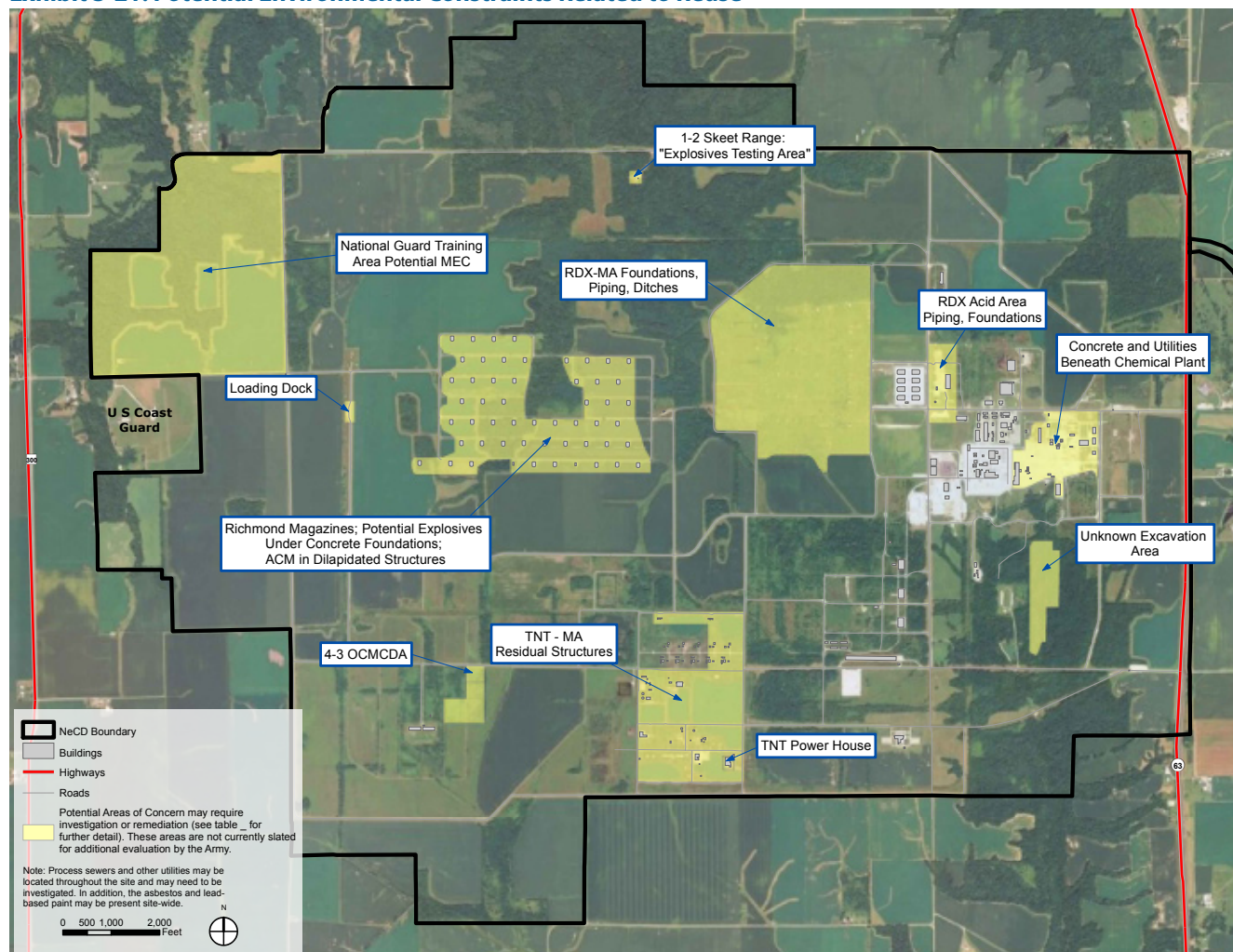
## Known Areas of Environmental Concern

Historically, industrial operations were present at the Newport Chemical Depot to support a variety of military missions, including the manufacture of explosives (RDX and TNT), heavy water, and chemical agent. Currently, there are known environmental sites in active and inactive phases of investigation and remediation at the Depot. These sites are being investigated and/or remediated by the Army under the supervision and guidance of the IDEM. A summary table of known information about each site and by Study Area as defined by the Environmental Condition of Property (ECP) report prepared for the DOD by SAIC is included in **Table 2** in the **Appendix**. Maps showing known and potential environmental constraints are provided as **Exhibits 3-20: Known Environmental Constraints Related to Reuse**, and **Exhibit 3-21: Potential Environmental Constraints Related to Reuse**, respectively. Larger versions of these maps are also available in the **Appendix**.

Exhibit 3-20: Known Environmental Constraints Related to Reuse





**Exhibit 3-21: Potential Environmental Constraints Related to Reuse****Active and Closed Known Environmental Sites**

There are 72 SWMUs and 10 areas of concern (AOCs) identified in the RCRA Permit. Sixty-four of the sites have been issued No Further Action (NFA) letters by IDEM, indicating that no further investigation or remedial action is required. Many of the sites also have Land Use Controls specifying any restrictions in place to protect human health and the environment. Specific issues related to each of the active and closed known environmental sites are listed in [Table 2](#) presented in the [Appendix](#). Issues include the potential need for further sampling/analysis for additional contaminants; requirements for institutional controls; and, clarification of type of NFA letter issued for the site (e.g., restricted NFA limiting some types of uses at the site or unrestricted indicating no restrictions on future land uses).



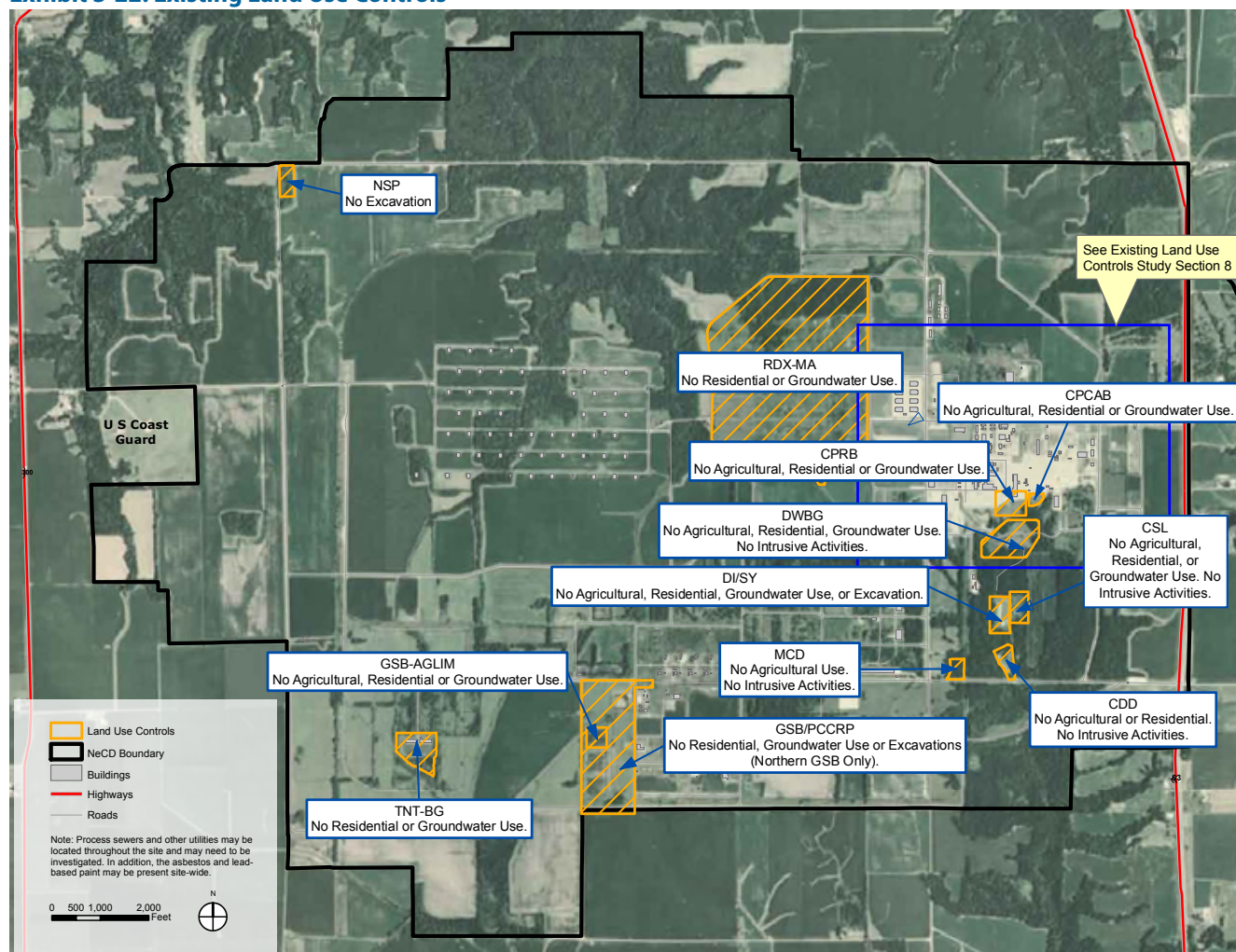
In addition to the known SWMUs and AOCs included in the RCRA permit, the Army identified an additional 35 sites that required investigation in the Environmental Condition of Property (ECP) report dated August 2007 prepared for the Army by SAIC (SAIC 2007). Results of these investigations were presented in the Site Investigation Report dated May 2009 (SAIC 2009). Many of the sites have been ruled out as environmental concerns, although some indicate the need for Land Use Controls or additional investigation. A summary of each of the sites identified by the Army is included in [Table 2](#) in the [Appendix](#).

## Potential Areas of Environmental Concern

The Army has completed an extensive amount of investigation and remediation at the Depot. However, based on review of environmental information, historical uses of buildings and areas, and processes conducted at the Depot, there are data gaps related to environmental conditions on the property. Data gaps were identified for the sites identified by the Army (e.g., IRP sites, SWMUs, and the ECP sites), as well as for unknown or potential areas of concern. These data gaps are detailed in the [Appendix](#), where the gaps are summarized by Study Area, as well as site-wide. A summary of the potential areas of environmental concern and data gaps is presented below.

## Existing Land Use Controls

The Final Newport Chemical Depot Land Use Control Implementation Plan dated October 2005 (SAIC 2005) outlines procedures to ensure proper enforcement of restrictions imposed on current or future use of the Depot at 11 total sites, one of which has two separate LUCs, for a total of 12 known contaminated areas. The document provides information on the location of hazardous waste and disposal sites, and enacts land use restrictions in the form of administrative controls including prohibiting one or more of the following: excavation, groundwater use, agricultural use, and residential use, as shown in [Exhibit 3-22: Existing Land Use Controls](#). Where specific land use controls are not considered appropriate for the planned reuse, they are noted in the [Appendix](#). For example, it should be noted that many agricultural use areas have groundwater use restrictions, prohibiting the use of groundwater for any purpose including irrigation or livestock watering. Additionally, certain areas restrict residential use, but not industrial use (e.g., RDX Manufacturing Area). However, it is likely that explosives are still present beneath the former building foundations that were not removed, and construction in these areas may require specialized equipment and qualified construction personnel, as well as remediation of explosives to enable industrial development. Additional details related to these issues are presented in the [Appendix](#).

**Exhibit 3-22: Existing Land Use Controls**

## Underground Utilities and Concrete Foundations

It is expected that many of the existing utilities at the Depot will be or have been abandoned in place. The existing utilities, especially in the Demilitarization Area, are located under very thick concrete foundations (approximately 10 feet thick) which may present a difficulty in assessment or removal when the facilities are closed. In addition, process sewers from historical activities are located throughout the former production areas and should be investigated to determine if adverse environmental impacts exist from either leaks in the existing lines, abandoned lines or at the sewer outfalls. Utilities that will be abandoned should be removed, or lacking removal, grouted in place to prevent preferential flow of any contaminants that may remain in the subsurface.

## Potential Explosives Contamination

Many structures associated with the former explosives manufacturing or storage and loading areas have been demolished, burned, and/or otherwise removed. However, many structures in the TNT manufacturing area remain, and many concrete foundations in the RDX manufacturing area, RDX Acid Area, and TNT areas were not removed; although, limited explosives contaminated soils removal was conducted in the manufacturing areas, no soils were removed beneath the concrete structures. Additionally, it is unclear from review of existing documentation what decontamination was performed in the structures and lines, and whether underground piping and ditches were decontaminated and/or removed. Explosives contamination may remain in residual structures and beneath foundations in the former explosives manufacturing areas at the Depot.

Two loading docks were identified west of the Richmond Magazines where raw explosives were loaded/unloaded. No documentation related to investigation of the potential presence of explosives was identified during this review. The Richmond Magazines were used for storage of raw explosives, as well as finished ammunition products. Two “representative” magazines were included in the ECP Site Investigation, and explosives were identified inside one magazine, but not at the drainage areas outside the magazines. All of the Richmond Magazines have the potential for explosives or explosives residue to be present inside and outside the magazines, and should be inspected and decontaminated or remediated as necessary.

Although NFAs have been issued for the TNT manufacturing area, and LUCs are in place at the RDX manufacturing area, industrial construction in these areas may require removal of additional structures and infrastructure, and may require remediation of additional explosives contamination beneath or within said structures/infrastructure. It should be noted that specialized contractors and equipment will be necessary to conduct construction in these areas, and that additional remediation costs are likely if development occurs in these areas.

## Munitions and Explosives of Concern (MEC)

The Army conducted a Historical Records Review (HRR) for the Depot in accordance with the Military Munitions Response Program (MMRP) as required by DOD regulations. While three locations of potential concern identified during this review did not warrant additional investigation or further review as part of the MMRP, these sites may present MEC hazards at the Depot. The three locations include:

- Small Arms Range
- National Guard Training Area
- Old Chemical Munitions Component Detonation Area.

The Small Arms Range was identified for further lead testing as part of the ECP. The results of that investigation are pending. A map from 1961 for the Wabash River Ordnance Area indicated that the area now known as the Small Arms Range was once labeled the “Explosives Testing Area.” A copy of this map is included in the [Appendix](#). It is unknown whether the existing Small Arms Range was indeed used for explosives testing, but further investigation should be conducted into this possibility. Contaminants other than lead may be present, and depending on the types of “explosives testing”, the possibility for MEC also exists.

Approximately 350 acres in the northwest corner of the Depot were used as the National Guard Training Area for the training of troops. The guard reportedly used smoke grenades during training activities. Because the area was considered an “Active Training Area” during the HRR, no investigation was recommended for this site. The potential exists for MEC in this area. A portion of the 350 acres is currently leased for agricultural use, and has presumably been plowed or farmed. However, much of the 350 acres are forested and have the potential for MEC.

The Old Chemical Munitions Component Detonation Area (OCMCDA) was reportedly co-located with the RDX Burning Grounds in the southwestern portion of the Depot. Limited information exists on the OCMCDA, and the investigation and closure of the RDX Burning Ground and OCMCDA did not definitively locate the area where this detonation occurred. Open detonation areas are likely to contain MEC, and potentially unexploded ordnance. No geophysical surveys or MEC investigations were conducted in this area, the OCMCDA has not definitively been located, and the potential exists that it is actually in a different area than previously investigated. Although an NFA is in place for the RDX Burning Ground and OCMCDA, MEC investigations were not performed; this data gap should be addressed.

## Potential Burial Area

A large portion of land directly south of the former Chemical Plant has been clear cut and replanted with trees. According to the ECP, this practice was used in areas where wastes were disposed and, as a result, numerous areas were identified for further investigation in the ECP Site Investigation. However, the area identified on **Exhibit 3-21: Potential Environmental Constraints Related to Reuse** has not been investigated to date, and represents, therefore, a data gap.

## Asbestos-Containing Materials and Lead-Based Paint

Due to the age of some of the buildings at the Depot, asbestos and lead-based paint are likely to be present in buildings onsite. Comprehensive asbestos and lead-based paint surveys suitable for demolition purposes have not been performed, although more limited information is available. All buildings on the Depot should be considered to contain asbestos-containing materials and lead-based paint, with the exception of newly constructed buildings such as the NECDF. Utility lines composed of Transite (asbestos material) will require special handling and disposal if encountered during construction. Steam lines may be asbestos wrapped if still in place. The cost of abatement and proper disposal of these materials during redevelopment can be significant, and should be considered during preparation of budgets and for planning purposes.

## Petroleum Hydrocarbons

Conflicting information concerning the status of underground storage tanks (USTs) and above ground storage tanks (ASTs) formerly or currently in use at the Depot was reviewed. According to the “UST/AST Permits” section of the ECP, twenty-four underground storage tanks (USTs) currently or historically existed at the Depot. The USTs held diesel, gasoline, and fuel oil. Seventeen USTs have been closed, and six are active and regulated by IDEM. However, Section 5.4 of the ECP, Table 5-6 lists four active tanks, and nine removed tanks. SWMU 66 included five USTs at four locations across the Depot; those locations are unspecified. Also, according to the ECP Report, a 1,000-gallon UST in the RDX acid area was removed in January 2007; contaminated soil was identified and reportedly left in place. The actual number of existing permitted tanks should be rectified, and the status of removed USTs and any sampling data should be reviewed and evaluated. The potential exists for petroleum hydrocarbon impacted soils to remain in locations of removed USTs. These soils sometimes are unsuitable from a geotechnical perspective for building and redevelopment activities. Management of petroleum impacted soils may be required at the Depot during development activities.



According to the ECP report, 17 current and former ASTs were present at the Depot for the storage of fuel oil, propane, used oil, ethylene glycol, and diesel fuel. Currently, there are four active ASTs used for fuel oil; thirteen ASTs have been removed or closed, none of which are regulated by IDEM. The active ASTs are not regulated by IDEM. The size and location of the ASTs is reported differently in various sections of the ECP. Section 5.1.3 of the ECP reports four active ASTs that range in capacity from 225 to 550 gallons of fuel oil for emergency generators, although it is also reported in the same section that two 10,000-gallon ASTs and two 500 gallon ASTs all containing fuel oil are present. In Table 5-7 it is reported that three active ASTs are present, and range in size from 225 to 480 gallons, and hold diesel fuel. The locations, sizes, and current status of all tanks should be confirmed by the Army.

## Potential Radiological Contamination

An area known as the “P-9” Plant and Dana Heavy Water Plant may have used unsealed radioactive materials. SAIC reportedly reviewed information related to the Dana Heavy Water Plant provided by the Department of Energy, and concluded that there was a low probability of the Dana Heavy Water Plant causing radioactive contamination. However, no additional information related to the P-9 Plant was reviewed, and attempts to obtain additional information regarding location, uses, and radiological information were unsuccessful. Additional information regarding the P-9 Plant should be obtained from the Army.

## 4 Planning Framework

With the completion of the Existing Conditions assessment phase of the project, which evaluated the current status of a variety of physical, market/economic, and environmental factors at the Depot, the next phase—crafting the Reuse Plan—could begin. To assist in developing the final reuse plan, the planning team completed two interim steps: a Development Suitability Analysis and the creation of several Reuse Plan Concepts. This chapter discusses these two important steps.

### Development Suitability Analysis

The first step in creating a framework for potential ways in which the Depot could be used in the future was to determine the “suitability of development” for all land at the Depot. To do this, the planning team categorized various physical and environmental factors identified during the Existing Conditions phase by the degree to which each factor would potentially impact the development suitability of land on which it is found. The three broad development suitability categories created were:

- Most Suitable
- Moderately Suitable
- Limited Suitability or Not Suitable

Additionally, given the importance and preponderance of farming in the region, agriculture was not viewed by the planning team as a placeholder land use until “higher” forms of development, such as business and industrial, could be supported. Rather, agriculture (and other similar uses that rely on natural resources such as forestry) was treated as an independent and equal form of development. Consequently, two separate development suitability analyses were undertaken:

- Agriculture/Forestry Development Suitability
- Business/Industrial Development Suitability

By understanding where the most (or least) suitable areas were located for both types of development, future land uses could be directed to different areas within the Depot in a manner that respects and potentially maximizes each.

## Agriculture/Forestry Development Suitability

The three major factors evaluated as part of the process of creating the Agriculture/Forestry Development Suitability map included:

- Soils
- Natural Systems
- Environmental Constraints on Agriculture

Maps showing these factors are found in **Chapter 3** and in **Appendix C**.

The specific attributes from these three maps that were associated with the three levels of suitability discussed above were:

Most Suitable:

- Prime Agricultural Soils
- Unfragmented Forests/Tree Plantation Areas
- Areas Without Environmental Constraints for Agriculture

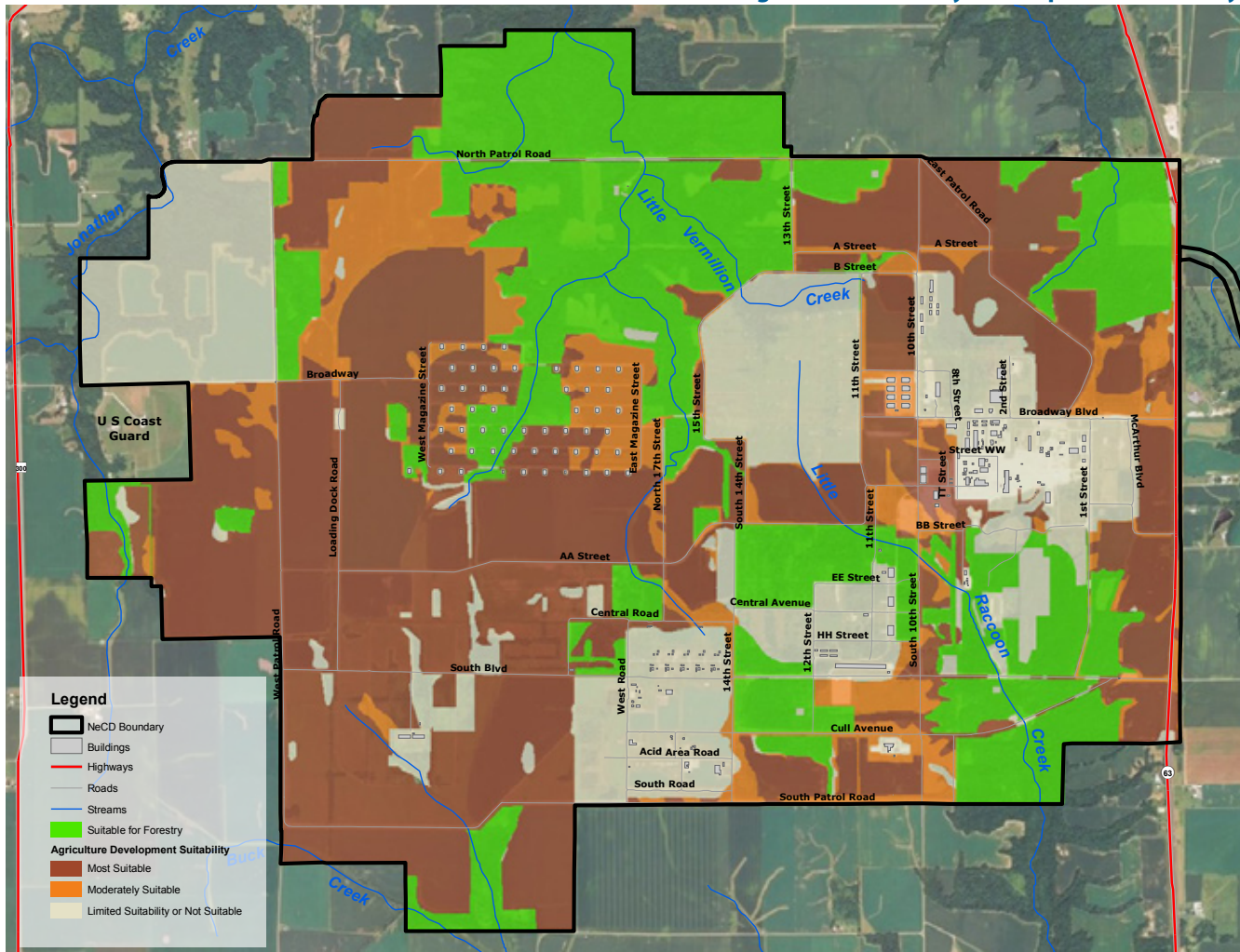
Moderately Suitable:

- Prime Agricultural Soils If Drained

Limited Suitability or Not Suitable:

- Soils Less Suitable for Agriculture
- Wetlands
- Areas With Environmental Constraints for Agriculture

By geographically overlaying these various attributes, the following **Exhibit 4-01: Agriculture/Forestry Development Suitability** map was produced:

**Exhibit 4-01: Agriculture/Forestry Development Suitability**

## Business/Industrial Development Suitability

The two major factors evaluated as part of the process of creating the Business/Industrial Development Suitability map included:

- Natural Systems
- Environmental Constraints on Business/Industrial

Maps showing these factors are found in [Chapter 3](#) and in [Appendix C](#).

The specific attributes from these three maps that were associated with the three levels of suitability discussed above were:

Most Suitable:

- Areas Without Environmental Constraints for Business/Industrial

Moderately Suitable:

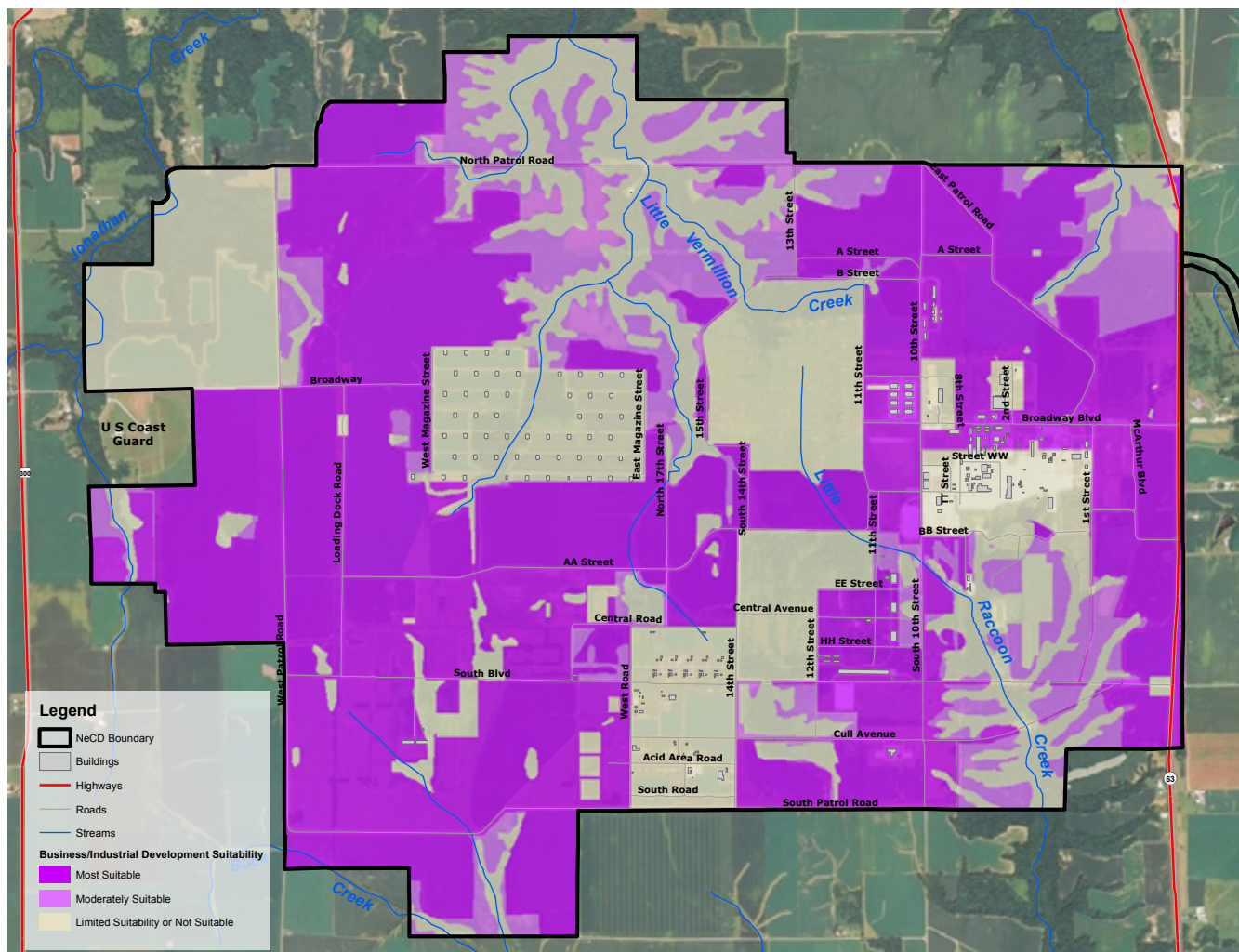
- Unfragmented Forests/Tree Plantation Areas

Limited Suitability or Not Suitable:

- Major Drainageways
- Wetlands
- Areas With Environmental Constraints for Business/Industrial

By geographically overlaying these various attributes, the following **Exhibit 4-02: Business/Industrial Development Suitability** map was produced:

**Exhibit 4-02: Business/Industrial Development Suitability**





As both Development Suitability maps were created independently of each other, there are many areas of overlap between the two maps; for example, areas that are considered Most Suitable for both Agriculture/Forestry and Business/Industrial. However, understanding the degree to which land at the Depot is suitable for both types of development provided a broad framework to begin the process of creating various future land use concepts.

## Reuse Plan Concepts

The planning team created three Reuse Plan Concepts (A, B, and C) from which the Reuse Plan evolved. The Reuse Plan Concepts increased in land area devoted to non-agricultural development from A (least) to C (most). The Reuse Plan Concepts were not intended to stand as independent, competing alternative solutions for reuse of the Depot. Instead, they were created to present a variety of plan themes and elements in different combinations, locations, and configurations—intentionally varied across the three concepts—to illuminate multiple reuse opportunities. The Reuse Plan Concepts were reviewed and commented on by the NeCDRA, real estate developers, economic development experts, members of the farming and natural resources communities, and the general public, with the idea that the final Reuse Plan would reflect a hybrid of themes and elements from the Reuse Plan Concepts.

The Reuse Plan Concepts were based on key principles important to the Newport Chemical Depot Reuse Authority and the community:

- Conservation of natural and cultural resources
- Continuation of agricultural-related uses
- Long-term market flexibility
- Creation of jobs and economic development for the region

There were also several themes and elements common to all three Reuse Plan Concepts:

- The largest blocks of unfragmented forests are maintained as natural conservation areas
- Major natural drainage corridors are maintained as natural conservation areas
- Noncontiguous natural areas are connected through “green corridors” where necessary

- Right-of-way for a Highway 63/Highway 71 east-west connection is provided or preserved
- Agricultural uses are concentrated in the areas with the best soils
- Opportunities for “mega-site” development are created

Additionally, while the two Development Suitability maps discussed above served as a starting point for the creation of the Reuse Plan Concepts, some of the land areas identified on the Development Suitability maps as “Least Suitable or Not Suitable” for environmental reasons were included within a development zone on the Reuse Plan Concept maps. Several of the environmental constraints identified on the “Environmental Constraints on Agriculture” and “Environmental Constraints on Business/Industrial” maps that contributed to a “Least Suitable or Not Suitable” designation on a Development Suitability map are areas where environmental data gaps exist, investigations are pending, or future environmental investigations may be required. However, for the purposes of designating future land uses on a Reuse Plan Concept map, it was assumed that environmental constraints that exist today are capable of being removed or overcome to allow for development in the future. Similarly, areas with other existing constraints (such as abandoned military buildings and foundations that would likely need to be removed before redevelopment could occur, or areas without any infrastructure at all) were not precluded from being included within a future development area.

## Reuse Plan Concept Land Use Descriptions

This section provides a brief description of the different land use categories found across the three Reuse Plan Concept maps. One should keep in mind that the various non-agricultural land uses shown on the concept maps are future land use designations. Until market demand justifies their development, these areas would remain in their existing agricultural or natural condition use.

### Natural Conservation Areas

Land shown with this designation would remain in its natural state into the future, featuring forests, native prairie areas, and other existing natural systems. Compatible activities such as hunting, fishing, camping, and hiking are potential uses within the Natural Conservation Areas.

### **Agriculture & Forestry**

These areas would allow for a variety of agricultural uses typically found in the region (such as planted crops and livestock grazing) as well as tree plantations and timber harvesting. Native prairie grass areas found within Agriculture & Forestry land could be preserved or used for prairie hay or other agricultural production.

### **Business & Technology**

Areas identified as Business & Technology could accommodate a wide variety of uses such as office / industrial parks, research and testing facilities, manufacturing and production, storage and distribution, energy production, agribusiness, educational, and institutional uses.

### **Highway-Oriented Commercial**

This designation could include uses such as auto / truck service plazas, restaurants, hotels, and convenience stores.

### **Energy Research & Production**

An area specifically designated for larger-scale energy production and energy-related educational, research and development, storage, and distribution activities.

### **Agribusiness Education & Research**

This area could include test fields, greenhouses, and similar facilities or sites related to agribusiness education and research.

### **Natural Systems Education & Research**

An area that could include sites or facilities oriented to education and research on the region's flora and fauna, climate, geology, hydrology, or other environmental conditions.

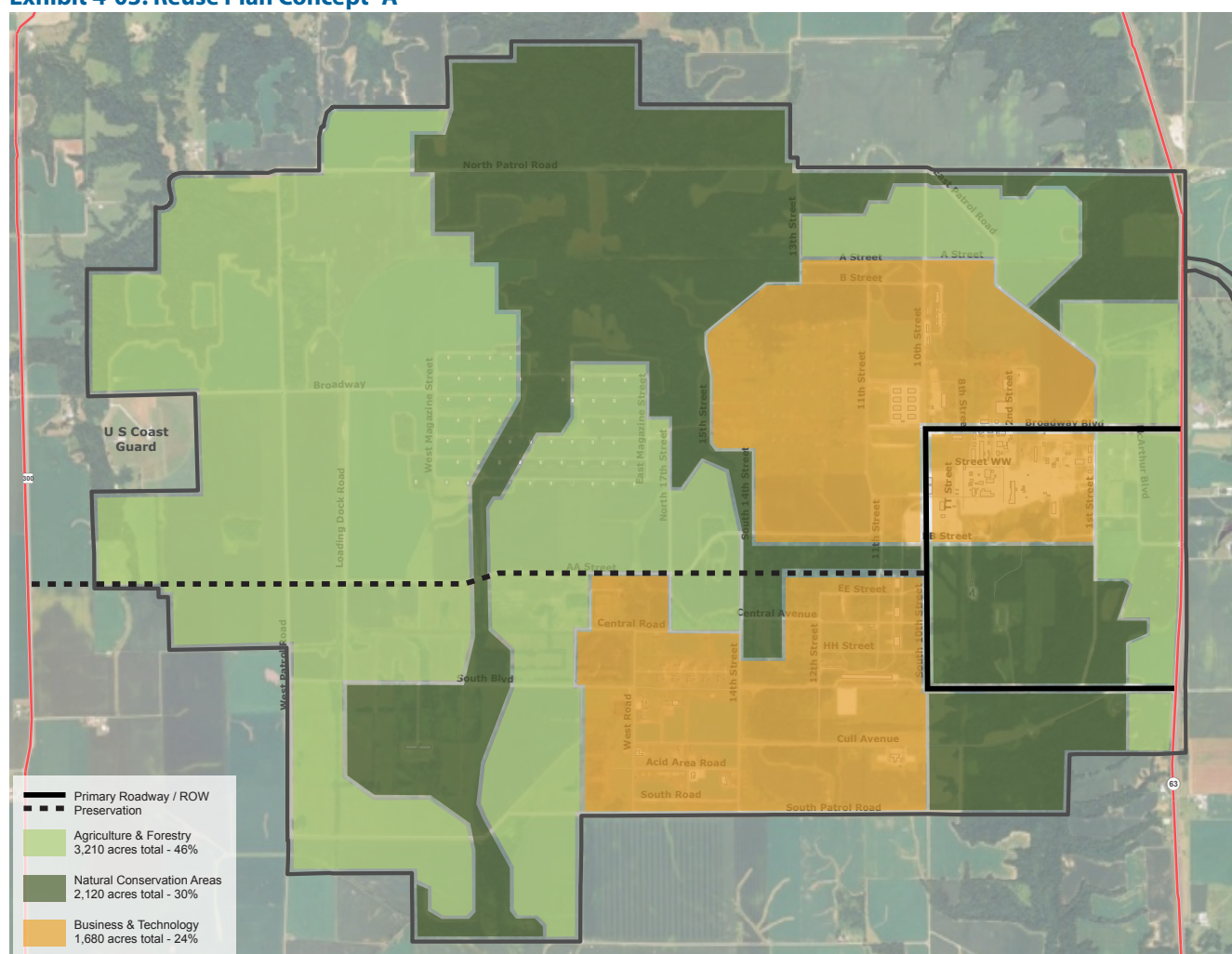
### **Shared Research and Conference Facilities**

An area designated for a conference facility shared by all users at the Depot and available to the community at large, as well as other educational, research, or support facilities and services that promote collaboration or economies of scale for Depot users.

## Reuse Plan Concept “A” Summary and Map:

Plan Concept A provided the most amount of land for both agriculture and natural areas, with approximately 76% of the land designated for those uses, and approximately 24% for business and technology development. Plan Concept A focused business and technology uses primarily in the areas where current or former military facilities exist, and buffered those uses from Highway 63 with agriculture. The transportation framework for Plan Concept A minimized new roadway investments by upgrading existing Depot roads to create a simple C-shaped arterial road system that provided access to the three business and technology areas. **Exhibit 4-03: Reuse Plan Concept “A”** is presented below:

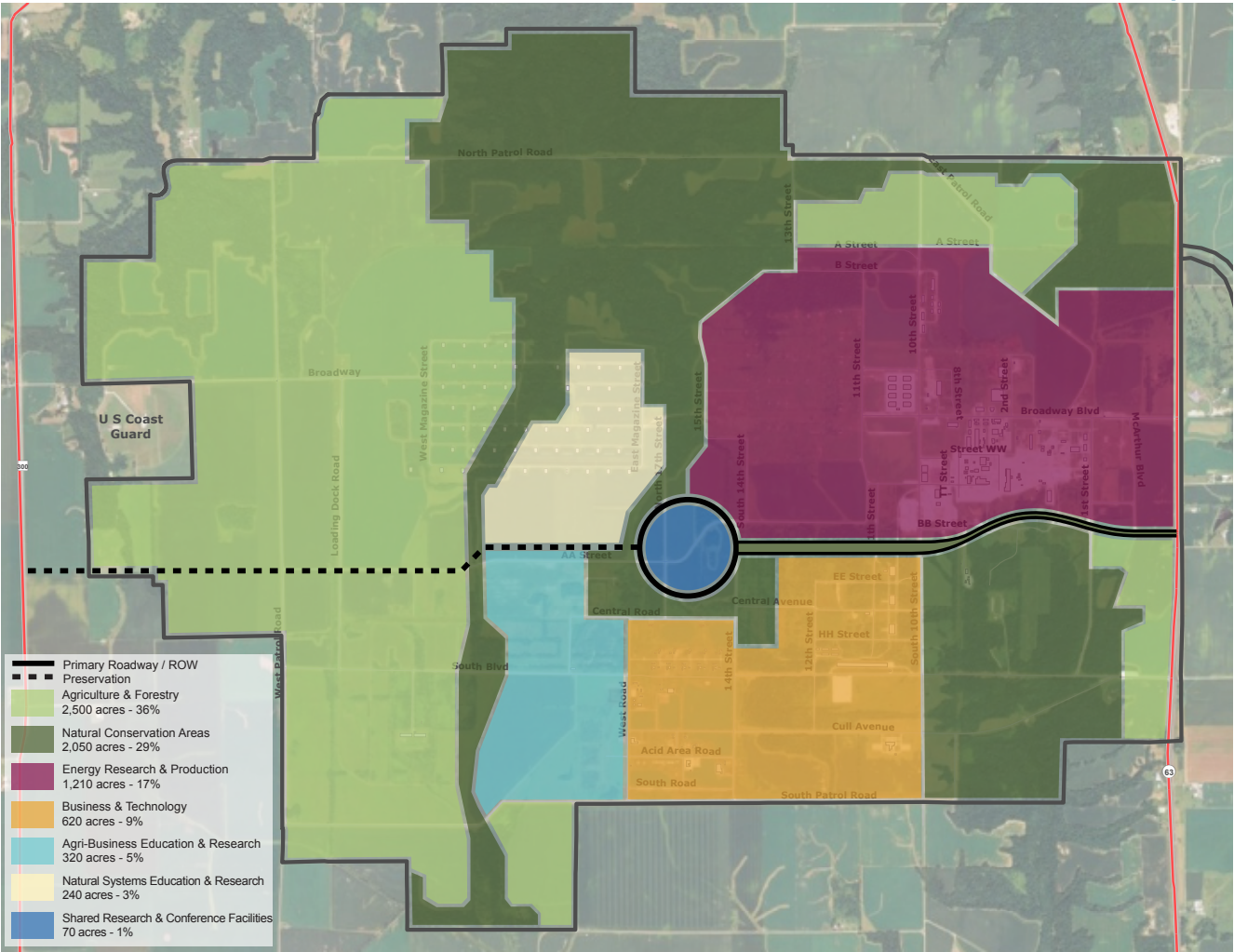
**Exhibit 4-03: Reuse Plan Concept “A”**



Reuse Plan Concept “B” Summary and Map:

Plan Concept B provided approximately 65% of the land for natural conservation and agricultural development, and approximately 35% for other types of development. Plan Concept B promoted an energy and research emphasis to the Depot’s reuse. Specific areas were designated for energy production, business and technology, agribusiness, and natural systems uses and research activities, that were oriented around a central “commons” that would provide land for a conference center and other shared or support services and facilities. The transportation framework for Plan Concept B included a new arterial parkway that provides access to the various land use districts and emphasizes the central hub. **Exhibit 4-04: Reuse Plan Concept “B”** is presented below:

Exhibit 4-04: Reuse Plan Concept “B”

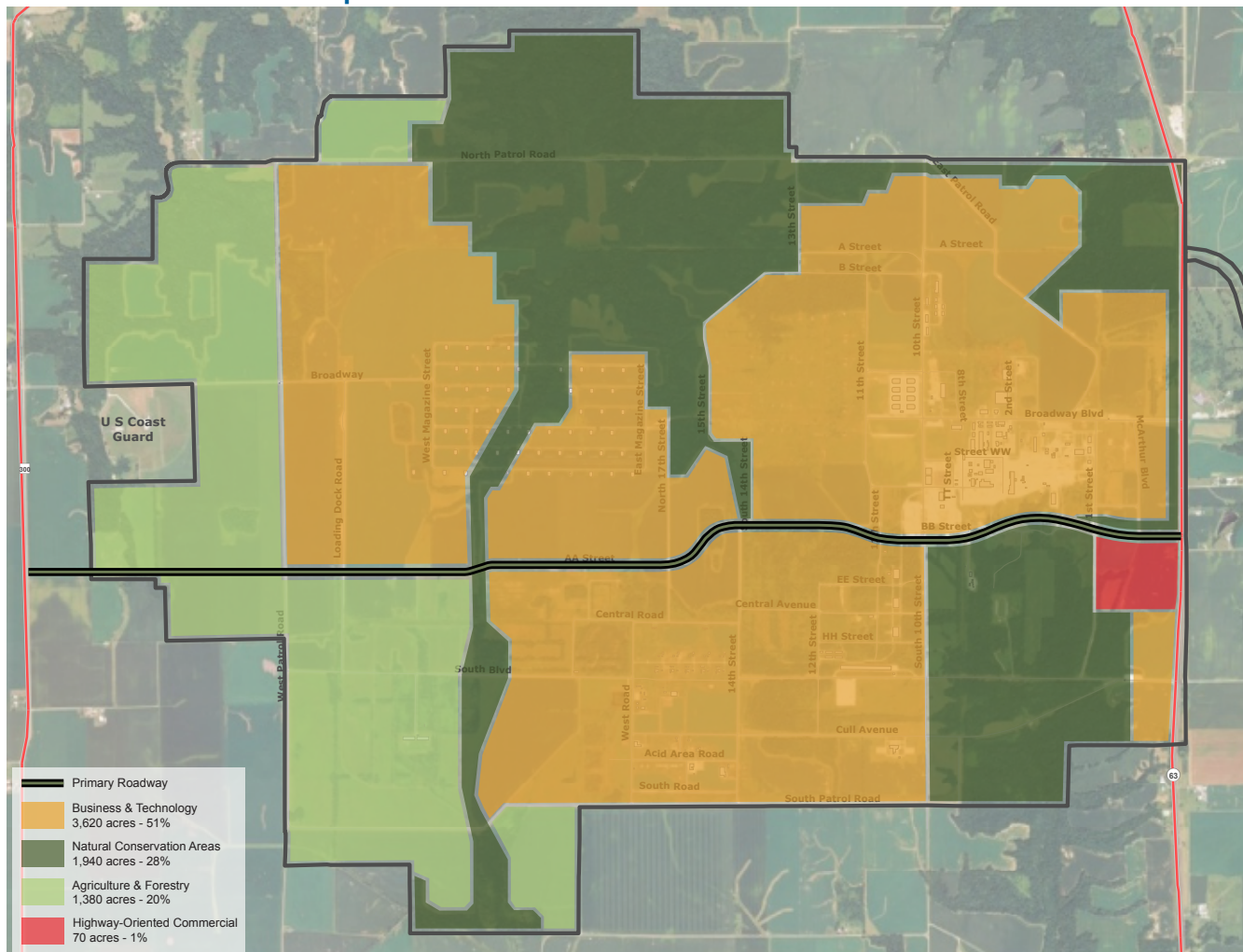




## Reuse Plan Concept “C” Summary and Map:

Plan Concept C provided a closer balance between natural conservation, agriculture, and industrial development, with approximately 48% of the land designated for natural conservation or agriculture, and approximately 52% for business and technology uses. Plan Concept C consolidated agricultural uses to the western edge of the Depot and designated the remaining non-conservation areas for general business and technology uses to create multiple “mega-site” development areas. Smaller districts for business uses were provided along Highway 63. Plan Concept C’s transportation framework relied on an arterial parkway across the Depot that provides access to all land use districts and creates a regional east-west connection between Highways 63 and 71. **Exhibit 4-05: Reuse Plan Concept “C”** is presented below:

**Exhibit 4-05: Reuse Plan Concept “C”**



## Preferred Reuse Plan

The three Reuse Plan Concepts were reviewed and commented on by the NeCDRA, real estate developers, economic development experts, members of the farming and natural resources communities, and the public in general. Based on that feedback as well as the NeCDRA's guiding principles, public visioning results, and existing physical, market/economic, and environmental conditions, the planning team crafted from the Reuse Plan Concepts' various themes and elements a Preferred Reuse Plan that was presented at Public Meeting #3 in September, 2009 (see [Chapter 2: Public Engagement](#)). After citizen feedback at Public Meeting #3 and additional review by the NeCDRA and the planning team, the Preferred Reuse Plan map became the Newport Chemical Depot Reuse Plan map and the basis for the Reuse Plan itself, as discussed in the next Chapter.

This page intentionally left blank

# 5 Reuse Plan

## Vision and Intent

The Reuse Plan for the Newport Chemical Depot is rooted in two fundamental principles: the continuation and conservation of agricultural and natural resource uses at the Depot, and economic development and the creation of jobs for the region. The Reuse Plan embraces both of these principles to a significant degree.

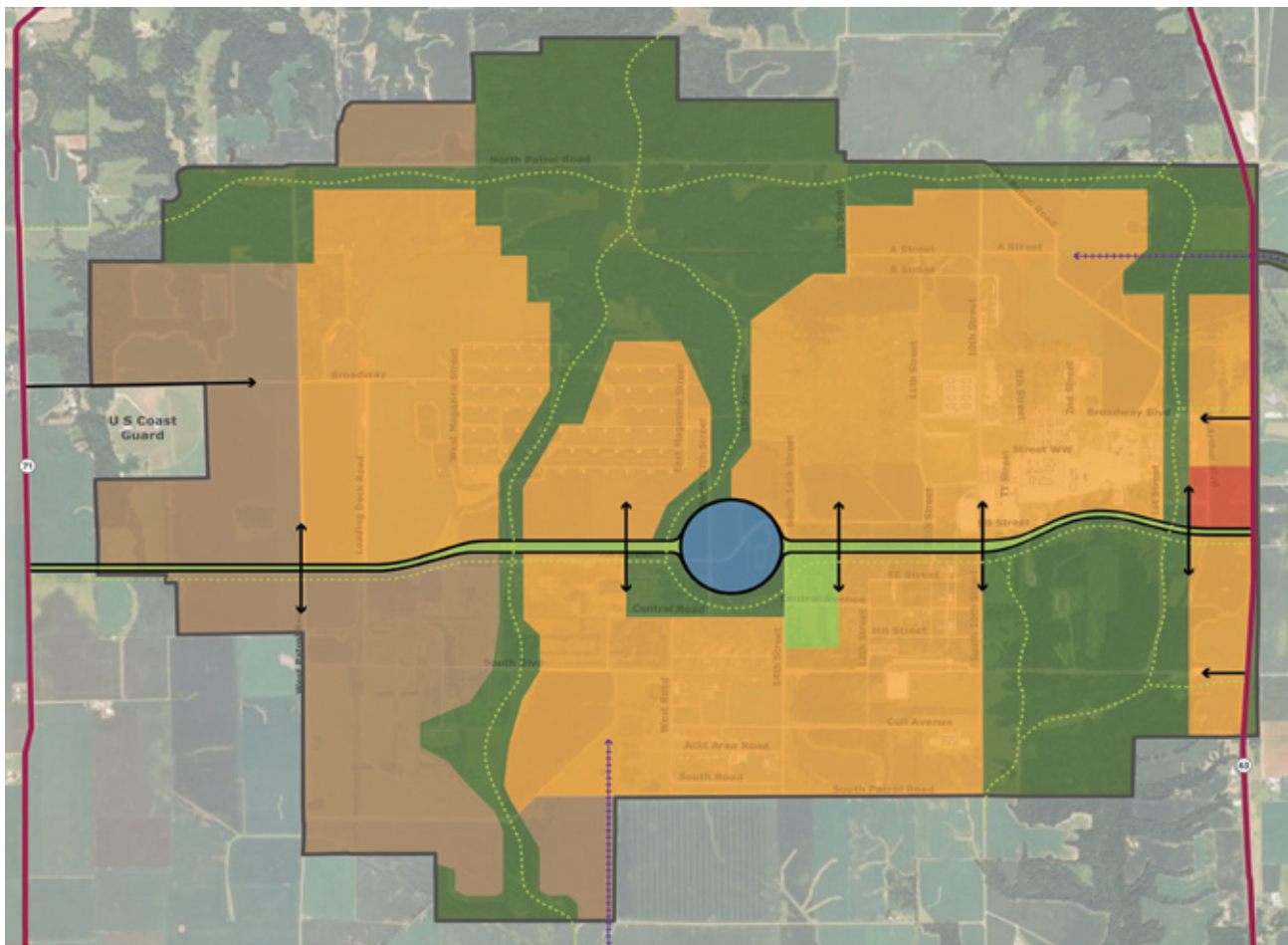
The Newport Chemical Depot Reuse Plan capitalizes on the Depot's large land mass and natural features, water resources, and proximity to highway and rail transportation networks to position the site as one of the nation's premier locations for large-scale business and technology development, while protecting thousands of acres of natural and agricultural areas at the same time. ***Flexibility is a key component of the Reuse Plan.*** Changes in energy usage and production, technology and industry, transportation and logistics, and a focus on sustainability of the natural and built environments will shape the Depot's redevelopment over the course of the next few decades. The Reuse Plan provides the flexibility to allow the Depot to respond to these changes and maintain its competitive advantage while remaining a good neighbor to local communities.

## Land Use Program

The location and configuration of the various land use districts identified on the Reuse Plan were shaped by several factors, including the Depot's topography and natural systems, sites with environmental conditions, and the Depot's proposed Transportation Framework. These and other issues relating to the land use program of the Reuse Plan are discussed below.

Overall, the allocated land uses for the Depot achieve a balanced 50/50 split between uses oriented toward the natural and built environments. Agriculture, Natural Areas & Open Space, and Parkland uses account for roughly one-half of the site's approximate 7,130 acres, with Business & Technology, Highway-Oriented Commercial, and Conference & Support Facilities accounting for the other half. The following two pages illustrate the land use program with **Exhibit 5-01: Final Reuse Plan Map** and **Exhibit 5-02: Land Use Program**, which are color-coded by land use to match each other. Following these exhibits are descriptions of the six major land uses proposed under this Reuse Master Plan.

## Exhibit 5-01: Final Reuse Plan Map



### Railroad / Wells Area



#### Legend

- NeCD Boundary
- State Highway
- Reuse Plan Elements**
- Central Parkway
- Key Secondary Roadway Access
- ⚡ Potential Railroad Connection
- ⋯ Potential Recreational Trail



#### NEWPORT CHEMICAL DEPOT REUSE MASTER PLAN

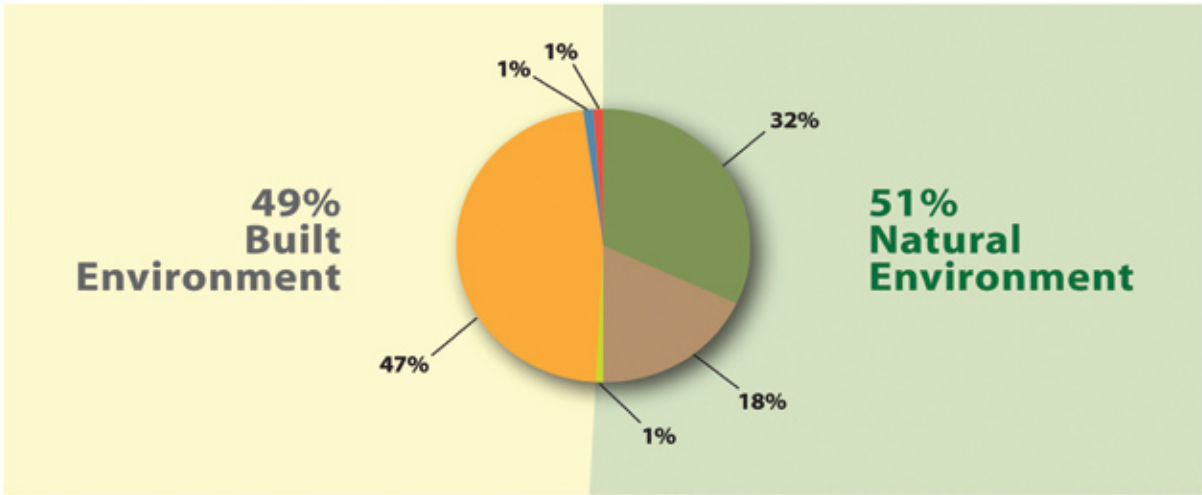


**Matrix Design Group Inc.**  
 Program Design Services  
 ECONOMICS RESEARCH ASSOCIATES - CHICAGO, ILLINOIS  
 BURNS & MCDONNELL - CHICAGO, ILLINOIS  
 GRIFFIN & KIMBLEY - BOSTON, MASSACHUSETTS



Exhibit 5-02: Land Use Program

A BALANCED PERSPECTIVE



LAND USE AREAS		ACRES	% TOTAL
NATURAL ENVIRONMENT	Natural Areas & Open Space	2,305	32%
	Agriculture & Forestry	1,250	18%
	Parkland	90	1%
	SUBTOTAL	3,645	51%
BUILT ENVIRONMENT	Business & Technology	3,375	47%
	Conference & Support Facilities	70	1%
	Highway-Oriented Commercial	40	1%
	SUBTOTAL	3,485	49%
GRAND TOTAL		7,130	100%

## Natural Areas & Open Space

The Depot's topography and natural systems created the framework for the overall land use program, in that all natural areas and drainageways to be preserved were identified first before the location for any other land uses were considered. Overall, the Natural and Open Space Areas, colored dark green on the map, account for approximately 2,305 acres or 32% of the Depot land area, and are comprised of the following four elements:

### Wooded Areas

Four major wooded areas are located on the Depot. The largest, at approximately 900 acres in size, is located in the north central part of the Depot and contains several branches of Little Vermillion Creek, two of the six historic cemeteries, and the Army's small arms range. The second largest wooded area, at about 400 acres in size, is located in the southeast corner of the Depot. This area contains one historic cemetery, portions of Little Raccoon Creek, the Depot's sewage treatment plant, and several areas with "no excavation" environmental land use controls that are appropriately maintained within a natural conservation area. Two other smaller wooded areas, at approximately 100 acres each, are located in the far northwest and northeast corners of the Depot. Each of these two areas contain an historic cemetery as well.

### Natural Drainageways

Branching south from the largest wooded area in the north central part of the Depot are two natural drainageways. The westernmost of these two extends to the Depot's southern boundary and beyond, while the other extends south and tapers off near the center of the Depot. Portions of the Army's Prairie Restoration Area, several wetlands, and one of the historic cemeteries are located within these natural drainageway areas.

### Green Connectors

An important aspect of the Reuse Plan is to have a single contiguous system of natural areas and open spaces within the Depot by creating, where necessary, green "connectors" to bridge the gaps between major wooded areas and to provide space for recreational trails and wildlife corridors. These green connectors are evident on the Reuse Plan map in between the four major wooded areas described above.

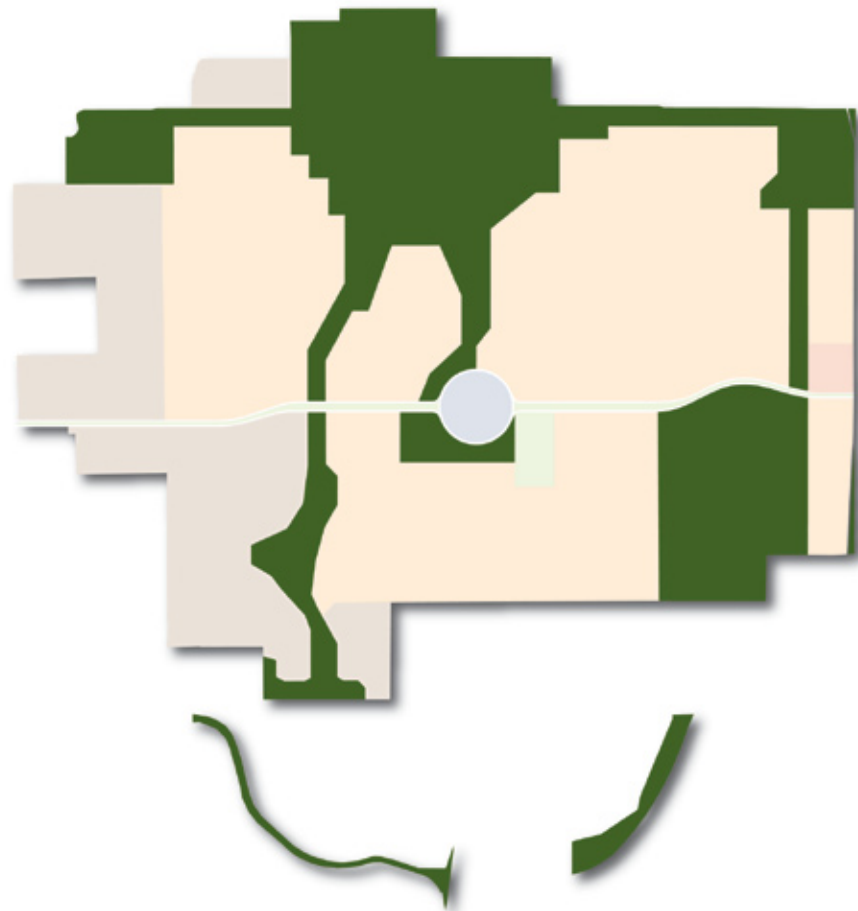


### Railroad Right-of-Way / Ranney Wells Area

Both the Railroad Right-of-Way and Ranney Wells areas located east of the main Depot facility are designated on the Reuse Plan map as Natural Areas & Open Space. In the case of the 70-acre Ranney Wells area, its location along the bank of the Wabash River creates an opportunity to provide public access to the river and its ecosystem for recreational and educational purposes. The 60-acre Railroad Right-of-Way area could potentially accommodate a recreational trail and/or a future railroad spur into the Depot.

Within the Depot's planned Natural and Open Space Areas, recreational activities such as hunting, fishing, camping, and hiking, educational field research and observation sites, and other compatible uses are potentially viable for these areas. The dashed light green lines on the Reuse Plan map show conceptually how a recreational trail network could be integrated throughout the Depot. Also, all of the endangered Indiana Bat habitat sites identified on Depot property (through 2008) are located within Natural and Open Space Areas on the Reuse Plan map.

#### Exhibit 5-03: Natural Areas & Open Space Location Map



## Agriculture & Forestry

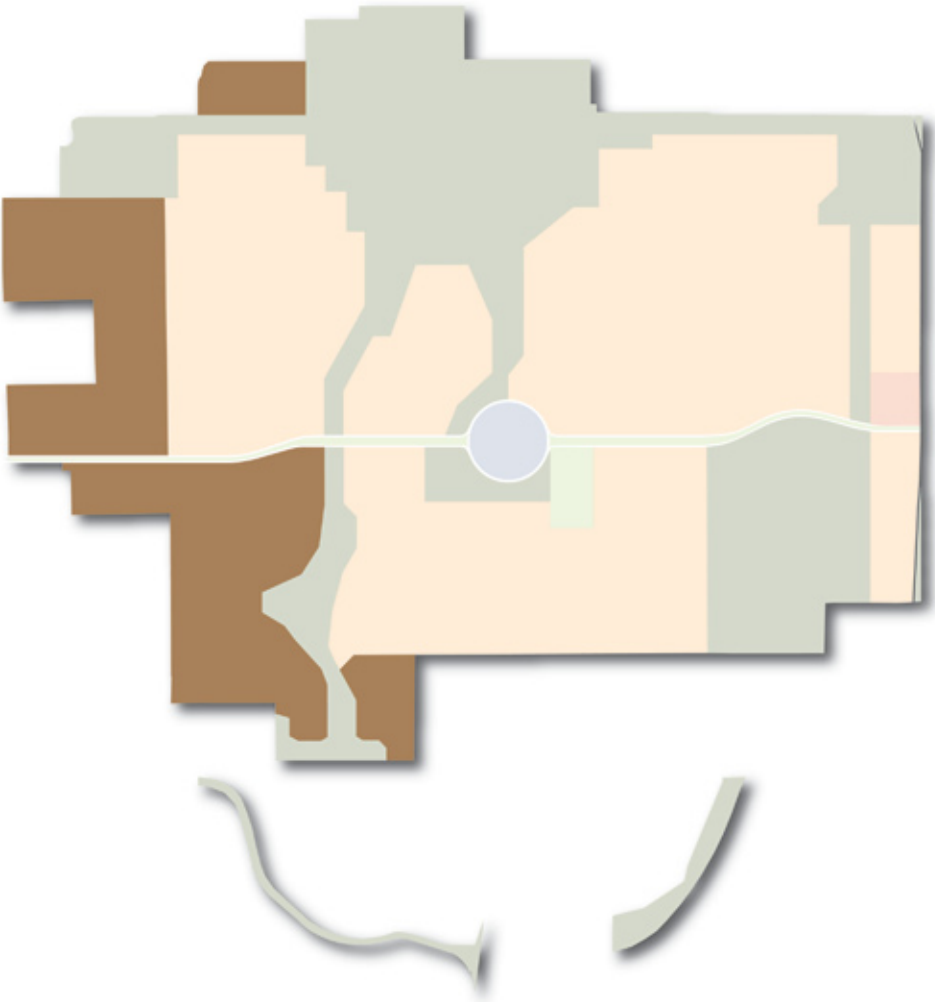
Most of the land on and surrounding the Depot has a long history of agricultural production. The western edge of the Depot was the far eastern extent of the native tallgrass prairie that once stretched west to the Great Plains. The rich prairie soil results in some of the most productive farmland in the country, with row crops—mostly corn and soybeans—being major agricultural commodities for the region. The areas designated for Agriculture & Forestry uses, shown in brown on the Reuse Plan map, account for approximately 1,250 acres or 18% of Depot land, and are located where some of the best of the agricultural soils are found.

Four major Agriculture & Forestry areas are identified on the Reuse Plan map. The two largest, at approximately 500 and 600 acres in size, are located at the far western and southwestern ends of the Depot. The two smaller sites, each about 75 acres in size, are located in the northwestern and south central parts of the Depot. Most of the land designated for Agriculture and Forestry is currently being farmed, with the exception of a portion of the land immediately north of the US Coast Guard facility, which contains some wooded areas. While timber harvesting is not as prevalent as row crops in the region, this plan proposes that tree plantations/forestry would be an allowable use in these areas. In addition to row crops and forestry, other types of agricultural uses would be suitable for these areas, including tallgrass prairie, prairie grass hay production, specialty and greenhouse crops, dairy production, and livestock grazing and production.

Finally, while approximately 1,250 acres have been designated in this plan for Agriculture & Forestry uses on a permanent basis, several thousand additional acres on the Depot are currently being used for agricultural production. Most of this additional farmland is located in areas designated on the Reuse Plan Map for Business & Technology. However, it is important to recognize that until market demand supports the development of those areas for business and technology uses, it is very likely that those areas will continue to be used for agricultural purposes, including prairie grass preservation and hay production.



**Exhibit 5-04: Agriculture and Forestry Location Map**





## Parkland

While over two thousand acres have been allocated on the Reuse Plan map for Natural Areas & Open Space, additional territory has been designated for a more designed landscape setting. Shown in light green on the Reuse Plan map, Parkland uses account for approximately 90 acres, or a little more than 1% of Depot land, and consist of two main elements:

### Bookends Park

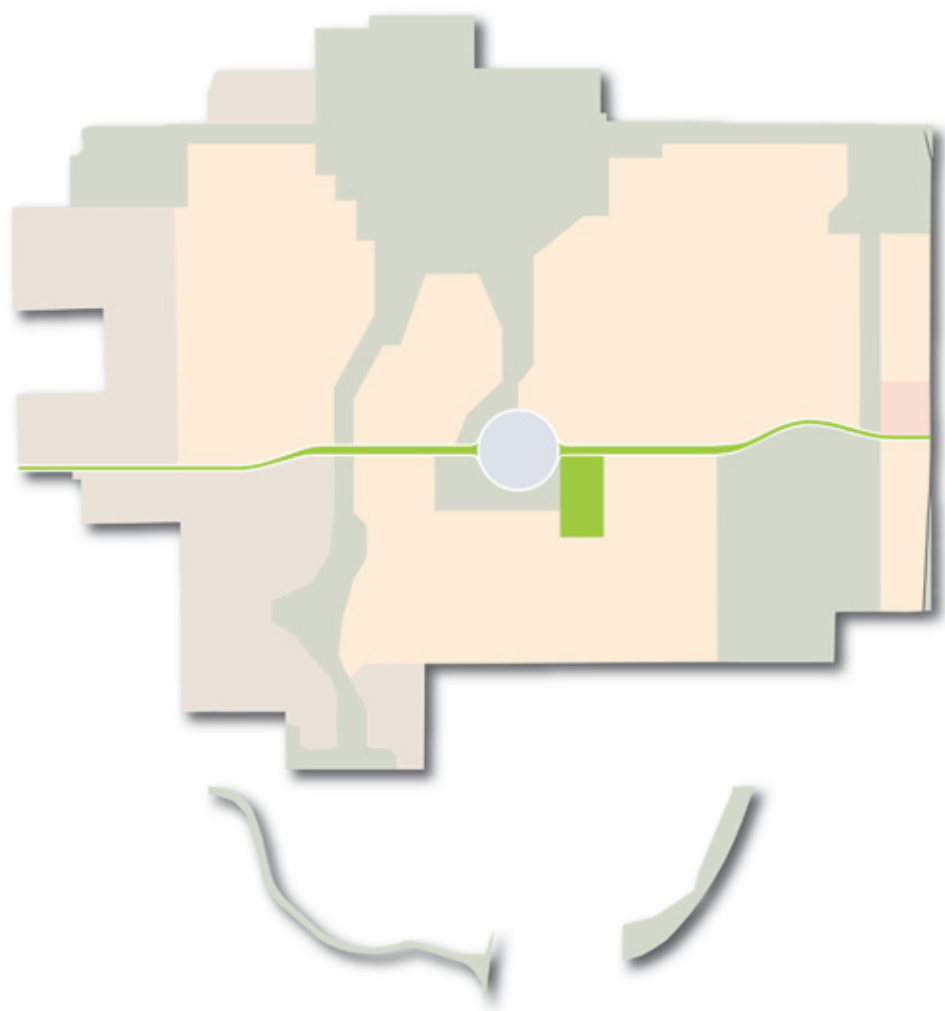
One of the main features of the Reuse Plan is Bookends Park. This proposed public park is envisioned to cover approximately 40 acres and is located at the southeastern corner of the Central Parkway and the Conference & Support Facilities hub in the center of the Depot. The term “Bookends” comes from the nickname given to the monolithic concrete blast-protection structures built by the Army decades ago that remain intact today in this area. These 44 iconic structures are not only fascinating remnants of the World War II era that would aptly serve as a permanent monument to the Depot’s military legacy, but as architectural forms, they are unique in Indiana—and perhaps in the world—and should be preserved in a park-like setting for future generations. Typical park uses such as landscaped lawns and gardens, picnic areas, walking trails and perhaps smaller-scale active recreational uses such as tennis courts, in addition to historical markers about the Depot, could be incorporated as part of Bookends Park.

### Central Parkway Linear Park

Central Parkway is envisioned as not just the main arterial roadway within the Depot, but as the signature infrastructure feature that provides a unifying design and high-quality gateway aesthetic to the expansive Depot site. Key to the Central Parkway concept is its function as a linear park, with a substantial right-of-way that can accommodate a generous median width and outside-curb setbacks suitable for prairie grass restoration, recreational trails, and/or prominent natural and formal landscaping. Additionally, Central Parkway has been aligned on the Reuse Plan map so that, as it runs along the northern edge of Bookends Park in its approach to the Conference & Support Facilities area, the northernmost row of Bookend structures would be located within the parkway median, providing a dramatic visual impact and welcoming feature to the center of the Depot. The remaining approximately 50 acres of Parkland shown on the Reuse Plan map is accounted for within the Central Parkway Linear Park.



**Exhibit 5-05: Parkland Location Map**



## Business & Technology

One of the fundamental principles for the Reuse Plan is the creation of jobs for the region. It is primarily through the Business & Technology areas, shown in the gold color on the Reuse Plan map, that the plan will accomplish significant economic development and job creation for the region over the coming years. The Business & Technology areas account for approximately 3,375 acres or about 47% of Depot land.

The activities proposed for the Business & Technology areas are intentionally broad and flexible, and include uses that could fall under any of the following categories:

- Office or office/industrial flex buildings
- Research and development/testing facilities
- Manufacturing/fabrication/assembly/production facilities
- Warehousing/storage/distribution facilities
- Multi-modal transportation/transfer/logistics facilities
- Energy production and/or energy-related research/distribution facilities
- Educational, institutional, and/or training facilities (particularly relating to alternative energy, agribusiness, or the environment)
- Business-to-business services and suppliers

An important aspect of the Business & Technology use is the “mega-site” concept. Many users that fall under the categories listed above need sites that have certain attributes that can be very difficult to find, such as:

- Large land area (upwards of 1,000 acres or greater) under one ownership
- Relatively remote location
- Secure perimeter or surrounded by suitable buffer land
- Good access to highway and rail transportation
- Availability of abundant fresh water

Fortunately, these are exactly the attributes found at the Newport Chemical Depot. Consequently, the Reuse Plan identifies three mega-sites: one in the northeastern part of the Depot at approximately 1,220 acres, one in the south-central part at approximately 930 acres, and a 750-acre site located in the northwestern part of the Depot that could accommodate users bringing hundreds or thousands of jobs to the region. Located in the center of these three sites is a 250-acre area that could accommodate a mix of larger



or smaller Business & Technology users. For Business & Technology users that do not need such large land areas or that prefer a more visible location, two additional Business & Technology areas, at approximately 105 and 120 acres each, are located along Highway 63. It is envisioned that these two smaller areas would be developed in an office/light industrial park manner.

Finally, located within several of the Business & Technology areas are existing Depot buildings that are suitable for civilian commercial and industrial uses. These buildings can be leased for the interim until a mega-site user is identified, or portions of the mega-site areas with existing buildings can be retained on a permanent basis for smaller-scale Business & Technology users. Flexibility in development site size, location, and use within the Business & Technology areas will be required over the long term to affect the kind of economic development and job creation the region needs.

#### **Exhibit 5-06: Business and Technology Location Map**



## Conference & Support Facilities

The proposed Conference & Support Facilities area is planned as a gathering place for both future Depot users and the community at large. This approximately 70-acre site, identified on the Reuse Plan map in blue, is located mid-way along Central Parkway near the geographic center of the Depot.

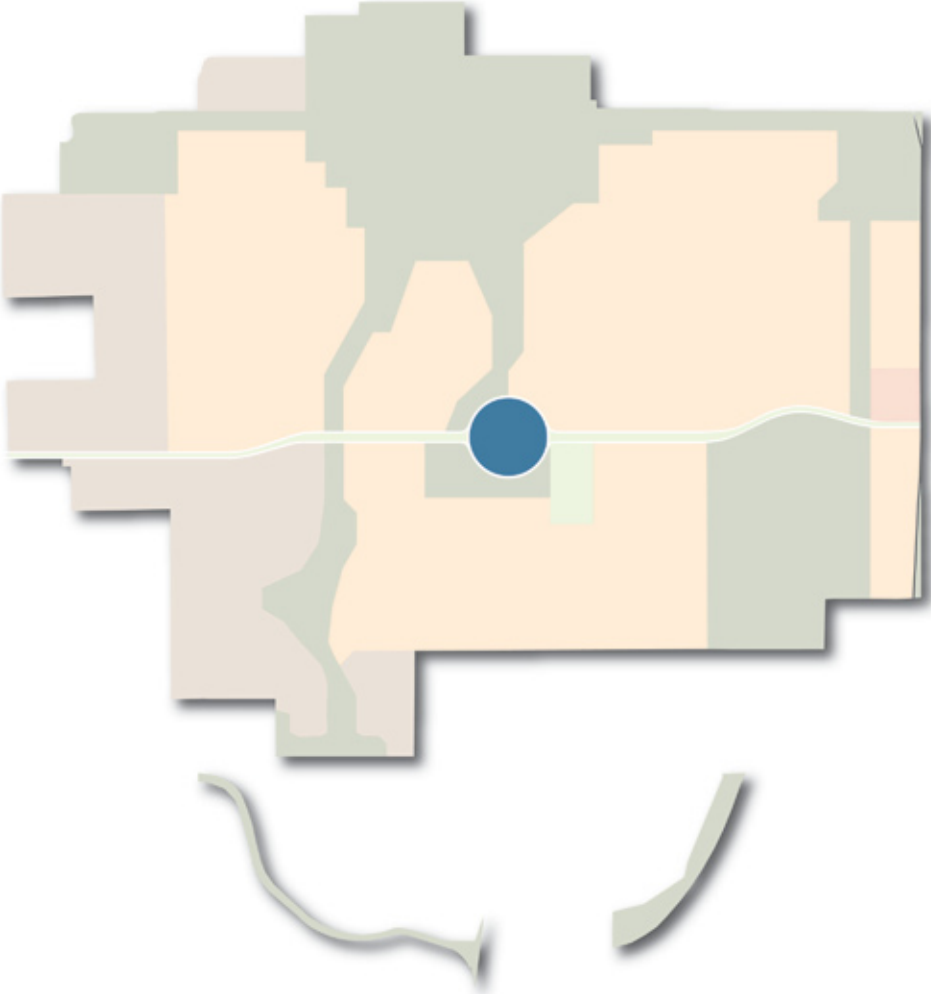
The concept behind this small but important area is to provide a centralized place that would host various functions that are shared or in support to users at the Depot and that promote collaboration among Depot users and the community. The size and nature of these shared/support uses will likely be determined by the manner in which the Business & Technology areas on the Depot develop and the number and type of jobs created. However, in general, the uses for this area are envisioned to include a conference center capable of hosting meetings, conferences, demonstrations and exhibits, and other functions consistent with the future uses at the Depot, as well as a variety of public and private community events. Additional uses could include shared research, education, or training facilities, offices for non-profit or public entities wishing to operate at the Depot, and other facilities that provide support functions to the Depot. The Conference & Support Facilities area could also accommodate a community facility such as a Depot History Museum, Tallgrass Prairie Research & Education Center, an amphitheater, health/recreation center, or other similar cultural or community uses.

The Conference & Support Facilities site has also been specifically sited to be adjacent to Bookends Park and surrounded on three sides by part of the Depot's Natural Areas & Open Space system. While shown on the Reuse Plan map as circular in shape, the Conference & Support Facilities area could take on any shape or configuration at this location, as long as it is clearly recognizable as the central hub and gathering place for the Depot through quality architectural, urban design, and landscape features and a special alignment or integration with Central Parkway.





**Exhibit 5-07: Conference and Support Facilities Location Map**



## Highway-Oriented Commercial

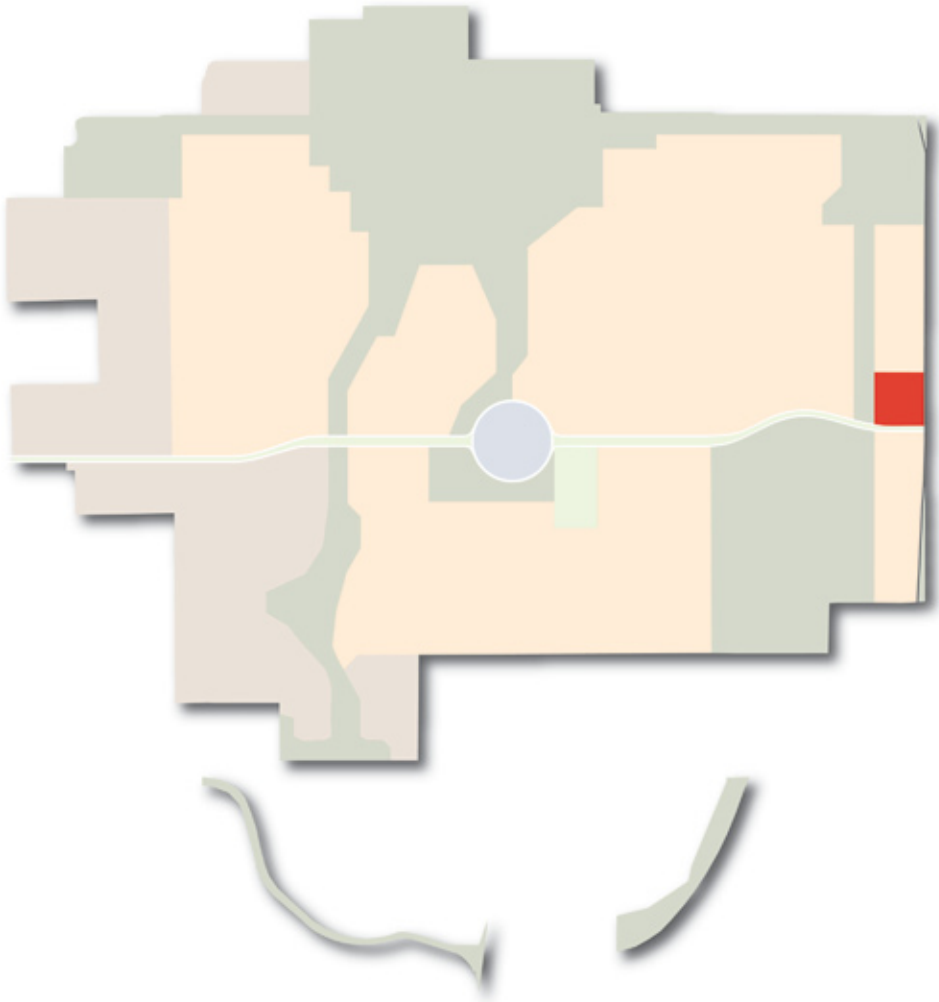
The Highway-Oriented Commercial land use area, shown in red on the Reuse Plan Map, covers approximately 40 acres or slightly less than 1% of Depot land, and is located at the intersection of Central Parkway and Highway 63.

Uses envisioned for the Highway-Oriented Commercial area could include a hotel, auto/truck service plaza, restaurants (both sit-down and fast food), and convenience stores. These uses are oriented not only to motorists traveling along Highway 63, but also to future Depot users as well.

Currently, these types of uses are in short supply between Clinton and Cayuga and, in a larger context, between Terre Haute and Danville. As the Depot's employment population grows, the Highway-Oriented Commercial area can be developed to provide a mix of business services and retailers that make doing business at the Depot more convenient for employees and area residents, as well as passing motorists.



**Exhibit 5-08: Highway-Oriented Commercial Location Map**



## Transportation Framework

The transportation framework for the Reuse Plan is anchored upon a single east-west arterial roadway (referred to in this plan as Central Parkway) that bisects the Depot at approximately its north-south midpoint. Central Parkway, as mentioned in the Parkland land use section above, is envisioned as the signature infrastructure feature that provides not only primary transportation access across the Depot, but also a unifying design and high-quality gateway aesthetic for the property.

Historically, three entrance gate locations existed along Highway 63. The most formal of these entrances, the one that contains the official Newport Chemical Depot sign, is located near the southern end of the Depot on alignment with South Boulevard. Within the past decade, that entrance was closed and now the main—and only—entrance to the Depot from Highway 63 is located near the north/central part of the Depot on alignment with Broadway Boulevard. A third entrance was located near the center of the Depot on approximate alignment with BB Street.

It was this central entrance on alignment with BB Street that was chosen as the location for Central Parkway. Not only is it centrally positioned, but it also provides a more attractive setting for the Depot's main thoroughfare. The current main entrance road, Broadway, is lined with numerous existing buildings that, while suitable for reuse for industrial purposes, are rather unattractive structures with virtually no architectural qualities to them. Conversely, an alignment along roughly BB Street will allow the Central Parkway to pass along the northern edge of a large natural area and south of the Former VX site. This alignment also splits the large Business & Technology land areas across the middle, providing access equally to Business & Technology sites to the north and south.

Secondary street access points are shown on the Reuse Plan map as black arrows. These represent the most logical places for collector-level streets to branch north and south from Central Parkway (or into the site from Highways 63 and 71) to provide access to the interiors of the various Business & Technology districts. The actual path of these secondary streets, and any local streets that may branch out from them, will be dependent upon the nature and extent of development and the Depot's parcelization plan, which has not yet been determined.

At the center of the Depot, the Reuse Plan map shows Central Parkway splitting into a circular configuration around the Conference & Support Facilities area. This has been done to conceptually convey the special focus to this area. However, as mentioned previously, the actual design of Central Parkway through or around the Conference &

Support Facilities area could take on a different form as long as it is clearly recognizable that, through the enhanced and integrated roadway, building, and landscape designs at this location, the heart of the Depot has been reached.

While the Depot currently does not have any rail lines on property, two major CSX lines are located nearby. Potential rail access points into the Depot are shown on the Reuse Plan map as purple lines, with future rail lines potentially entering from the east in the northeast corner of the Depot, or from the south near the center of the Depot. As with the secondary roads, the actual alignment of any future rail spur onto Depot property will be dependent upon the nature and extent of development, the Depot's parcelization plan, and a detailed technical and engineering assessment of rail alignment options.

## Environmental Influences

A review of environmental existing conditions, opportunities, and constraints was performed to help guide the development of the Reuse Plan. The analysis produced an implementation strategy that will best position designated land use districts for redevelopment. As a result, specific recommendations have been incorporated into the Preferred Reuse Plan, including:

- Designating potential MEC areas as open space
- Designating areas with "no dig" restrictions (e.g., the night soils pits in Study Area 1) as open space
- Routing the Central Parkway north of areas with land use controls and landfills in the eastern portion of the site
- Designating areas of high density disposal and landfill sites (southeast portion of the site) as open space
- Limiting development to like use, i.e., industrial uses, to minimize additional remediation requirements



This page intentionally left blank

## 6 Plan Implementation Considerations

While additional planning work, environmental investigations, market assessments, and engineering studies will be required before the Reuse Plan can be fully implemented, this chapter provides a discussion of some of the issues that the NeCDRA will have to consider in implementing the Reuse Plan as well as some of the impacts of the property transfer and the Plan's implementation.

### Economic and Development Impacts

#### Economic Impact

Realignment of the Newport Chemical Depot will have major implications for jobs, wages, purchases and taxes in the local and statewide economy. Currently, jobs supported by base contractors Parsons and Mason & Hanger generate wages that are funneled into the regional economy through spending on goods and services. By mid 2010, however, base remediation will have finished, and the economy will experience the impact from the loss of employment and regional spending. The loss of 690 jobs at the Newport Chemical Depot and transfer out of state in 2009 and 2010 will generate a series of ripple effects in the county and statewide economies (**Exhibit 6-01: Employment Loss**). This impact is estimated as follows:

- The direct change in output from this employment shift is estimated at \$61.2 million statewide.
- When business-to-business interactions and household spending are taken into consideration, the value across all industry sectors statewide from this employment loss is estimated at over \$101.6 million.
- In addition to the loss of 690 direct jobs at the Newport Chemical Depot, an additional 110 indirect and 220 induced job loss is also predicted statewide.
- At the county level, the indirect and induced effects resulting from this employment loss is estimated at \$14.5 million, with \$4.7 million in lost wages.

**Exhibit 6-01: Employment Loss**

<b>Statewide</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Output	(\$61,286,100)	(\$16,921,000)	(\$23,411,000)	(\$101,618,100)
Total Compensation	(\$24,343,000)	(\$4,851,000)	(\$7,037,000)	(\$36,230,663)
Employment	-690	-110	-220	-1,020
<b>Vermillion County</b>				
Total Output	N/A	(\$4,690,000)	(\$9,819,000)	(\$14,509,000)
Total Compensation	N/A	(\$1,920,000)	(\$2,812,000)	(\$4,732,000)
Employment	N/A	-50	-120	-170

Source: IMPLAN and contractor data

A loss of \$40 million in annual purchase order spending by base contractors is another direct effect that will have ripple effects through the local and statewide economies (**Exhibit 6-02: Base Spending**). The impact upon the county and statewide economies resulting from an estimated annual spending loss of \$40.8 million by base contractors is estimated as follows:

- An employment loss statewide of 660 jobs. In Vermillion County, it is estimated 110 jobs will be impacted.
- The impact upon wages associated with job losses is estimated at \$24 million statewide, and over \$10 million in Vermillion County.
- A decline of \$3.3 million in businesses-to-business interactions and \$6.8 million in household spending losses are also projected in Vermillion County.

**Exhibit 6-02: Base Spending**

<b>Statewide</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Output	(\$40,881,000)	(\$11,477,000)	(\$15,635,000)	(\$67,993,000)
Total Compensation	(\$16,245,000)	(\$3,255,000)	(\$4,700,000)	(\$24,200,000)
Employment	-450	-70	-140	-660
<b>Vermillion County</b>				
Total Output	N/A	(\$3,310,000)	(\$6,859,000)	(\$10,169,000)
Total Compensation	N/A	(\$1,347,000)	(\$1,965,000)	(\$3,312,000)
Employment	N/A	-30	-80	-110

Source: IMPLAN and contractor data

## Redevelopment Impacts

Redevelopment of the Newport Chemical Depot will be critical to replacing lost consumer and business spending associated with Depot operations, while also retaining county employment. The Newport Chemical Depot reuse plan targets a mix of business and technology, agriculture, and highway-oriented commercial uses. Key business targets include major energy producers, advanced manufacturers, and possibly, a state correctional facility. The impact of redevelopment on Vermillion County been quantified over two phases:

- Construction: Major capital investments at the Newport Chemical Depot will support temporary jobs and wages for area workers. Impacts from construction of major uses are reflected in current dollars.
- Operations: Business investment at the Newport Chemical Depot will generate new employment opportunities for area workers, as well as generate base income in the form of lease payments. Projected lease revenues have been generated assuming annual gross per square foot lease rates of \$2.00 to \$2.50 for manufacturing and office uses; and \$1.25 to \$1.75 for warehousing uses.

## Construction

**Exhibit 6-03: Construction Impacts - Vermillion County** summarizes economic impact in current dollars to Vermillion County resulting from the construction of energy, commercial and institutional uses at the Newport Chemical Depot. The most significant impact results from the \$975 million dollar investment to build a 250-megawatt coal gasification plant, and a 35-million gallon ethanol plant. During construction, this investment is projected to support a direct employment of 8,380, and \$363.7 million in labor income. Another \$85 million to build a 740-bed prison and commercial uses is projected to support an additional 690 jobs, and \$30.5 million in labor income.

### Exhibit 6-03: Construction Impacts - Vermillion County

	Energy	Prison	Commercial
Capital Investment	\$975 Million	\$80 Million	\$5 Million
Employment	8,380	650	40
Labor Income	\$363,772,000	\$28,663,000	\$1,851,000

Source: IMPLAN, ERA and Company officials

## Operations

Projected employment, wages and base income in current dollars resulting from new business development at the Depot is summarized below. By 2020, manufacturers, energy producers and other businesses are projected to generate between 2,370 and 2,650 jobs, and roughly \$200 million in labor income. Other base uses including agriculture and highway-oriented commercial, while not major generators of employment, do generate base income in the form of lease revenues and land sales.

### Exhibit 6-04: Operations

	Jobs		Wages (000's)		Lease Revenues		Land Sales
	Low	High	Low	High	Low	High	
Business & Technology Uses	2,070	2,300	\$190,176	\$210,196	\$15,818,000	\$20,406,000	\$2,473,000
Highway-Oriented Commercial	300	350	\$4,481	\$4,953	N/A	N/A	\$336,000
Agriculture/Forestry	N/A	N/A	N/A	N/A	\$11,110,000	\$11,370,752	N/A
<b>Total</b>	<b>2,370</b>	<b>2,650</b>	<b>\$194,657</b>	<b>\$215,149</b>	<b>\$26,928,000</b>	<b>\$31,776,752</b>	<b>\$336,000</b>

Source: Various Sources

## Implementation

The implementation plan provides the Reuse Authority with a strategic project approach that identifies potential strategies and tools to be considered as development advances at the Newport Chemical Depot. Based upon needs of the regional economy and select advantages of the Newport Chemical Depot, the following objectives have been identified to guide Base redevelopment:

**Generate jobs:** The 10 counties, Vermillion County in particular, are in need of additional employment. The Newport Chemical Depot is a prime opportunity to attract investment in emerging business sectors to generate high quality jobs, helping to attract new workers to the ten counties. Over the long-term, this will help to favorably position the region for additional economic growth.

**Attract new business investment:** Through a strategic branding, marketing and business outreach strategy, the Newport Chemical Depot has the opportunity to enhance the reputation of West Central Indiana for business investment. Attracting new businesses to the Newport Chemical Depot will ultimately generate spin-off development in the form of supporting businesses and services, and enhance the region for prospective residents.



## Strategies

Redevelopment strategies have been broken into two categories: 1) organizational strategies that address the evolving responsibilities and management of the Reuse Authority, and 2) operational strategies which seek to establish regularity and efficiency in their functioning and decision making. Under each strategy, a series of actions have been identified to implement the particular strategy.

### Short Term Steps and Considerations

Key to redevelopment in the short-term will be building the operational capacity necessary to implementing redevelopment, as well as generating developer interest in the site:

**1) Build economic development capacity:** Long-term business development at the Depot will depend upon maximizing all available resources including financial, technical and human resources to promote business investment. The organizational structure of the Reuse Authority should be one that allows for on-going site administration, with support from outside resources for marketing and development. The following actions are recommended to support this operational strategy:

- Depot staff and board member training through site visits to successful industrial parks in Indiana to learn of business processes, technologies used for site management, and business outreach strategies.
- Delegation of legal, professional and financial tasks to outside resources. Potential resources include the West Central Indiana Economic Development District and the Indiana Office of Community and Rural Affairs (OCRA).

**2) Promote organizational efficiency:** Economic development success will be enhanced if the Reuse Authority anticipates and plans for its evolving and increasingly complex role as redevelopment progresses:

- Establish a 2-year work plan to outlining strategies for the Reuse Authority to make decisions relating to business plans, site management, business outreach and policy issues.
- Appoint a committee to oversee agricultural land uses.
- Appoint a Depot finance committee.

Operational strategies seek to establish regularity and efficiency in the functioning of the Reuse Authority. Three operational strategies have been identified to support redevelopment at the Newport Chemical Depot:

**1) Establish procedural regularity for making critical business decisions**

- Develop a weighted scoring system to evaluate future proposals for development.
- Establish clear-cut evaluation criteria for contracting-out services.

**2) Prioritize financial sustainability:** The Reuse Authority should function as an independent entity that is financially self-sustained through lease revenues, land sales, and by maximizing federal and state resources. The following actions will help achieve this goal:

- Establish Depot business processes that are separate from the County.
- Contract with outside organizations for professional services such as accounting, legal, grant administration and other base operations.
- Develop performance measures to evaluate the effectiveness and efficiency of business operations at the Depot.

**3) Provide an effective Depot land management and marketing strategy:** In light of the current business environment, Depot operations including site management, marketing and business outreach will need to be professional-grade and competitive with other Midwestern industrial parks. Five actions are recommended to implement this strategy:

- Create a centralized system for property transfer, inventory control and property management.
- Establish an Economic Development Area at the Depot.
- Achieve Shovel-Ready designation through the State.
- Develop a base marketing plan that formulates a branding strategy related to energy or some other market niche.
- Develop a comprehensive Depot website highlighting base amenities, transportation assets, incentives, available buildings and lease rates.

**Longer Term Steps and Considerations**

Important over the long-term will be forging strategic relationships with area brokers and businesses, and taking steps to ensure targeted site investment is accurately reflected in the rent. Recommended key operational and tactical moves are:

- Collaboration with local and regional planning officials and prospective companies and developer(s) to obtain the local approvals necessary to implement redevelopment.
- Partnerships with Midwestern brokers and realtors to ensure maximum visibility of available sites.
- Periodic property revaluation and rent adjustment.

**Additional studies**

To maximize market opportunity and conduct long-term business planning, the following studies are recommended to explore on-site resources and plan for physical development at the Depot:

- Labor survey to understand current and potential workforce characteristics.
- Water supply and distribution resource study to explore the potential for providing water to surrounding communities.
- Wind resource study to evaluate whether wind energy generation at the Newport Chemical Depot could represent an additional viable source of income or electricity for the Depot.
- Infrastructure master plan that highlights both upgrades and extensions to transportation infrastructure, sewers, and utilities as well as a phased financing strategy combining state and federal sources, as well as bond revenues.

**Financing**

Two sources of revenue to finance the cost of initial upgrades at the Newport Chemical Depot include:

- TIF Bonds
- Land Sales/Lease Revenues to leverage state and federal funding

State and federal programs applicable to redevelopment activities at the Newport Chemical Depot include:

- Community Economic Development Funds (CEDF): Administered through the Indiana Office of Community and Rural Affairs, this program provides communities with a source of financing for economic development and large-scale physical development projects. According to the State, there is a limit of \$10,000 grant funding per beneficiary/job.
- Industrial Development Grant Fund: Administered through the Indiana Economic Development Corporation, this grant provides matching money to local governments for off-site infrastructure projects associated with the location of a new facility in Indiana.
- Economic Adjustment Assistance Program: Administered through the Economic Development Administration (EDA), this matching federal grant is intended to be part of a long-term strategy to promote the development of emerging industry clusters or the attraction of new regional economic drivers.
- Public Works and Economic Development Program: this EDA grant is intended to help support the construction of public infrastructure and facilities necessary to generate or retain private sector jobs and investments, attract private sector capital, and promote regional competitiveness.
- New Market Tax Credits (NMTC): Administered through the US Treasury, this program allows taxpayers to receive a credit against their federal income taxes for making equity investments in pre-designated, low income communities.

## Incentives

In light of the current economic climate, business incentives at the Newport Chemical Depot should be regarded as integral to its redevelopment. The State of Indiana and Vermillion County offer a variety of statutory and discretionary incentives to new businesses, particularly those in advanced manufacturing, renewable energy, and logistics. Relevant state programs include:

- Industrial Recovery Tax Credit;
- Hoosier Business Investment Tax Credit (HBITC); and
- Economic Development for a Growing Economy Tax Credit (EDGE)

There are also incentives that could be offered by the Reuse Authority to offset business relocation and long-term operational costs such as:

- Flexible leasing arrangements;

- Low-cost utilities; and
- Property tax abatements.

While such programs would enhance the Depot for business development, an assessment of each program's impact upon the Base's bottom line should be undertaken prior to implementation.

## Transportation and Infrastructure Impacts

As a part of future planning efforts, detailed "order of magnitude" estimates will be developed relative to the degree of public sector capital investment that will be necessary for implementation of the 20-year redevelopment plan. The majority of implementation costs relate to rehabilitation of existing facilities and construction of new transportation and utility infrastructure. Primary cost components will include:

- Arterial, collector and local streets
- Water and sewer systems
- Storm drainage
- Electrical transmission and distribution
- Telecommunications

The actual cost for implementation will be determined through additional information acquired during completion of the infrastructure studies, including an infrastructure master plan; water supply and distribution study; rail feasibility study; and other detailed studies that will help determine long-term costs and revenue to implement the Reuse Plan. These costs will include total projections through build out and a contingency allowance.

Based on analysis for proposed types and areas of land use, it appears likely that build out would be accompanied by increases in traffic generation associated with the facility during both AM and PM peak hours. Clearly, this would require improvements to the existing transportation infrastructure. It is anticipated that these would be predominantly on-site improvements to accommodate development. Based on the Preferred Reuse Plan, the main entrance at Route 63 will be relocated to the center of the Depot's boundary along that major arterial.



The time frames necessary for implementation of utility and transportation infrastructure improvements will be dictated to a large extent by the rate at which new businesses occupy the facility; phasing may also be driven by the logistics of transfer of ownership and operations responsibility of any utility systems. The need for capacity-related improvements to the transportation network in the vicinity of the base will be dictated primarily by the rate at which existing facilities are reused, and new facilities are constructed.

Due to the extremely long lead-time associated with major transportation improvements (driven in large part by the funding process), it is essential that any proposed transportation improvements be given a high priority.

While several options remain relative to the logistics associated with future operation of existing utility systems on the base, it is clear that extensive rehabilitation of the existing systems and construction of new system components will be required. While, ideally, the market will allow the reuse of facilities which can receive improved utility service based on limited “up front” capital investment first, it is likely that significant infrastructure improvements will be necessary, particularly in the areas of water and sewer system rehabilitation, streets and roadways, and communications infrastructure. At this stage of the planning effort, it is assumed that the capital investment in utility and transportation infrastructure will be spread over a 20 year period with weighting on the initial five years.

## Environmental Considerations

There are numerous environmental issues that must be considered prior to, and during, implementation of the Plan. Environmentally-impacted sites on the property are at various stages of investigation, remediation, and closure; some potential areas of environmental concern have not been assessed at all. A number of known environmentally-impacted areas have not been adequately remediated to fully implement the Reuse Plan. Environmental investigation and site characterization for known and potential environmentally-impacted sites are critical elements to redevelopment because the nature and extent of contamination must be defined prior to being able to adequately estimate costs for remediation to be protective of human health and the environment for the land uses described in the plan, and to adequately estimate and consider long-term obligations (e.g., long term monitoring or land use controls). The environmental strategy for proceeding with cleanup and redevelopment in accordance with the Reuse Plan should include filling identified data gaps while coordinating further site investigation, remediation, and closure of contaminated sites consistent

with the redevelopment schedule and priorities. For details on the known and potential environmental issues, how they relate to the land uses described in this Reuse Plan, and the status of the Army's investigation and planned cleanup, please refer to [Appendix E](#).

Contaminated sites at the Depot are in various stages of the RCRA investigation and cleanup process under a RCRA Part B Permit with oversight by the IDEM. Some areas identified in this assessment have not been investigated at all, and may have impacts on the Reuse Plan. For sites that have not been assessed at all, it is difficult to consider environmental constraints in the reuse process, and therefore, the Reuse Plan must be initially developed independently of potential environmental issues while still considering the known environmental issues. There are a number of known environmentally impacted areas at the Depot that have not been adequately investigated or remediated to fully support redevelopment in certain areas. That is, contamination remains that will impact the cost of development even though the areas are considered suitable for industrial reuse. Areas not sufficiently investigated or remediated for the intended reuse as described in this Reuse Plan include:

**Study Section 1**

- Loading dock (potential explosives)
- Richmond Magazines (potential explosives, friable ACM)
- Small Arms Range formerly labeled as an "Explosives Testing Range"
- National Guard Training Area (potential MEC)

**Study Section 2**

- RDX Manufacturing Area (concrete foundations, underground piping and ditches, and soil may contain explosives)

**Study Section 3**

- Several sites require IDEM concurrence and No Further Action follow up
- Battery Area requires additional sampling and follow up with IDEM
- Mason and Hanger Hazardous Waste Storage Building (decontamination of inside of building)
- Parsons Hazardous Waste Storage Building (closure follow up with Army and IDEM)
- Igloos (closure follow up with Army and IDEM)

**Study Section 4**

- Old Chemical Munitions Detonation Area (potential MEC; location not clear)
- Sanitary Landfill (confirm status and LUCs)

### **Study Section 5**

- Several sites require IDEM follow up and concurrence
- South Water Tower (additional investigation and remediation recommended)
- TNT Manufacturing Area and Acid Area (potential for additional explosives contaminated structures, piping, and soils)

### **Study Section 6**

- Drum Area (IDEM concurrence)
- Removal of petroleum tank piping recommended

### **Study Section 7**

- Several sites require follow up with the Army and IDEM for concurrence on Army recommendations and NFA
- Drums on the bank of Little Raccoon Creek (additional sampling recommended)
- Area where pine trees have been replanted (investigation recommended)

### **Study Section 8**

- Chemical Plant Demilitarization Area (review of Parson's investigation conducted after Plant Demolition)
- Additional LUCs will be implemented across entire Chemical Plant area
- Utility lines remain under thick concrete slabs (may require cleaning and capping or removal)
- RDX Acid Manufacturing Area (potential for contaminants beneath foundations or in lines)
- Fire Training Pit (additional investigation recommended)
- Locomotive House (additional investigation recommended)
- North Water Tower (additional investigation/remediation recommended)
- Power House (additional investigation and remediation recommended)
- Building 723 A (additional investigation and remediation recommended)
- Building 726 C (additional investigation recommended)
- Asbestos burial areas (additional investigation recommended)
- VX storage area (additional investigation recommended)
- Several sites require follow up and concurrence with the Army and IDEM

### **Sitewide Data Gaps**

- Existing Land Use Controls
- Residual explosives beneath foundations and within structures and utilities
- Underground utilities
- Asbestos containing material and lead based paint
- No further actions, RCRA Part B permit, and follow-on investigation and remediation follow up with IDEM and the Army
- Underground and aboveground storage tanks
- Potential radiological contamination

For a map showing the location of these Study Section areas, see [Exhibit 3-22: Known Environmental Constraints Related to Reuse](#).

## Environmental Phasing

During the development of the Reuse Plan, certain areas have been identified as priorities in the redevelopment phasing for the NeCDRA. The priority areas are the agricultural lands that will likely transfer first, and the large sections of industrial development property. At this planning stage, the following priorities related to environmental investigation and cleanup have been identified, along with the reasoning associated with the priorities:

- Property in the large blocks of land slated for Business & Technology development should be absent explosives contamination beneath the existing slabs, in the remaining buildings, and within remaining utilities and ditches. Although cleanup has been conducted in the RDX and TNT areas, explosives contamination remains. Additionally, the potential exists for explosives contamination in the Richmond Magazines, and in soils at the former loading dock. To develop an industrial facility, grading will be required, and existing slabs and foundations will need to be removed. Once the concrete is removed, soils beneath the foundations will require remediation of remaining explosives contaminants, and the concrete itself may require special disposal. This issue should be discussed with the Army and IDEM quickly so that land values and development costs can be appropriately estimated, and so that any required remediation can occur prior to property transfer.

- The Chemical Demilitarization Area, where remediation, and investigations continue. The NeCDRA should monitor the progress and results of any investigations so that reuse options can be adequately assessed in that area.
- The potential for unexploded ordnance and MEC exists at several sites, including the National Guard Training Area, the Small Arms Range, and the Old Chemical Munitions Open Detonation Area. These areas have not been identified by the Army for assessment under the IRP or MMRP programs. The potential for munitions and explosives of concern must be assessed prior to base redevelopment.
- The potential for radiological contamination must be assessed.
- Existing utilities may act as conduits for contaminant migration. If the utilities cannot be removed, they should be cleaned, filled, and capped prior to transfer.
- The Power Plant is in a partially demolished state, and contaminants are exposed to the atmosphere. The structure is a safety hazard due to potential exposure of ACM and PCBs to the atmosphere. Demolition of the structure should be discussed with the Army, or at a minimum, remediation of existing hazardous materials that are currently exposed to the atmosphere.
- Lower priority sites include investigation and potential remediation in areas slated for open space.

Environmental cleanup of the Depot is necessary to support redevelopment. Care has been taken to propose a Reuse Plan that considers “like use” of the property. However, even with “like use” as industrial and agricultural property, environmental issues remain and may impact development opportunities and costs. Discussion of potential issues and data gaps identified herein should occur with the Army and IDEM as soon as possible so that environmental investigation and cleanup as appropriate for implementation of this Reuse Plan can occur in advance of property transfer, and/or appropriate Business Planning and cost estimating can occur to value the property and assess redevelopment costs appropriately.

## Property Transfer Considerations

After the final property disposition strategies have been agreed upon by the NeCDRA and the Army, a parcel by parcel implementation occurs until all the property has been conveyed. As part of this process, the DoD, NeCDRA and the State of Indiana reach consensus on responsibility for completing remaining environmental restoration

activities for each parcel, and environmental cleanup or remediation is implemented by either the DoD or the property recipient. If the property recipient accepts responsibility for environmental restoration activities, a covenant deferral request and a Finding of Suitability for Early Transfer (FOSET) is signed by the Governor, and other legal and regulatory documents identifying the responsible party, the terms of the transfer, and scope of work for environmental restoration must be prepared and finalized.

There are a number of property transfer mechanisms that could be used to convey all or portions of the Depot property to new owners. The NeCDRA envisions that they will seek to acquire portions of the property via an Economic Development Conveyance. It is also recognized that the Army could make select parcels available to the highest bidder via Public Sales. Such transfers would require consistency with this Reuse Plan, and be subject to zoning and other land use controls and restrictions that might be placed on the property by the NeCDRA and/or Vermillion County. The following sections provide additional information related to potential property transfer mechanisms.

## Public Benefit Conveyances

A Public Benefit Conveyance (PBC) is “the transfer of surplus military property for a specified public purpose at up to a 100 percent discount” (Department of Defense Base Redevelopment and Realignment Manual, 2006). Surplus military property may be conveyed to public agencies and not-for-profit organizations to provide public goods and services. PBC categories include: parks and recreation, historic monuments, airports, health, education, correctional facilities, highways, self-help housing, wildlife conservation and emergency management. For each of these public purposes, there is a sponsoring federal agency with regulations that determine applicant eligibility and need. Through the State and Local Screening process, the NeCDRA reviewed proposed uses to see how well they fit with the overall guiding principles and direction of the Reuse Plan.

## Notice of Interest (NOI) Applications

On or before March 23, 2009, four NOIs were received from state, local and non-profit entities. The NeCDRA evaluated all Notice of Interest proposals for Public Benefit Conveyance in terms of their compatibility with the Reuse Plan, and arrived at the following conclusions and recommendations:



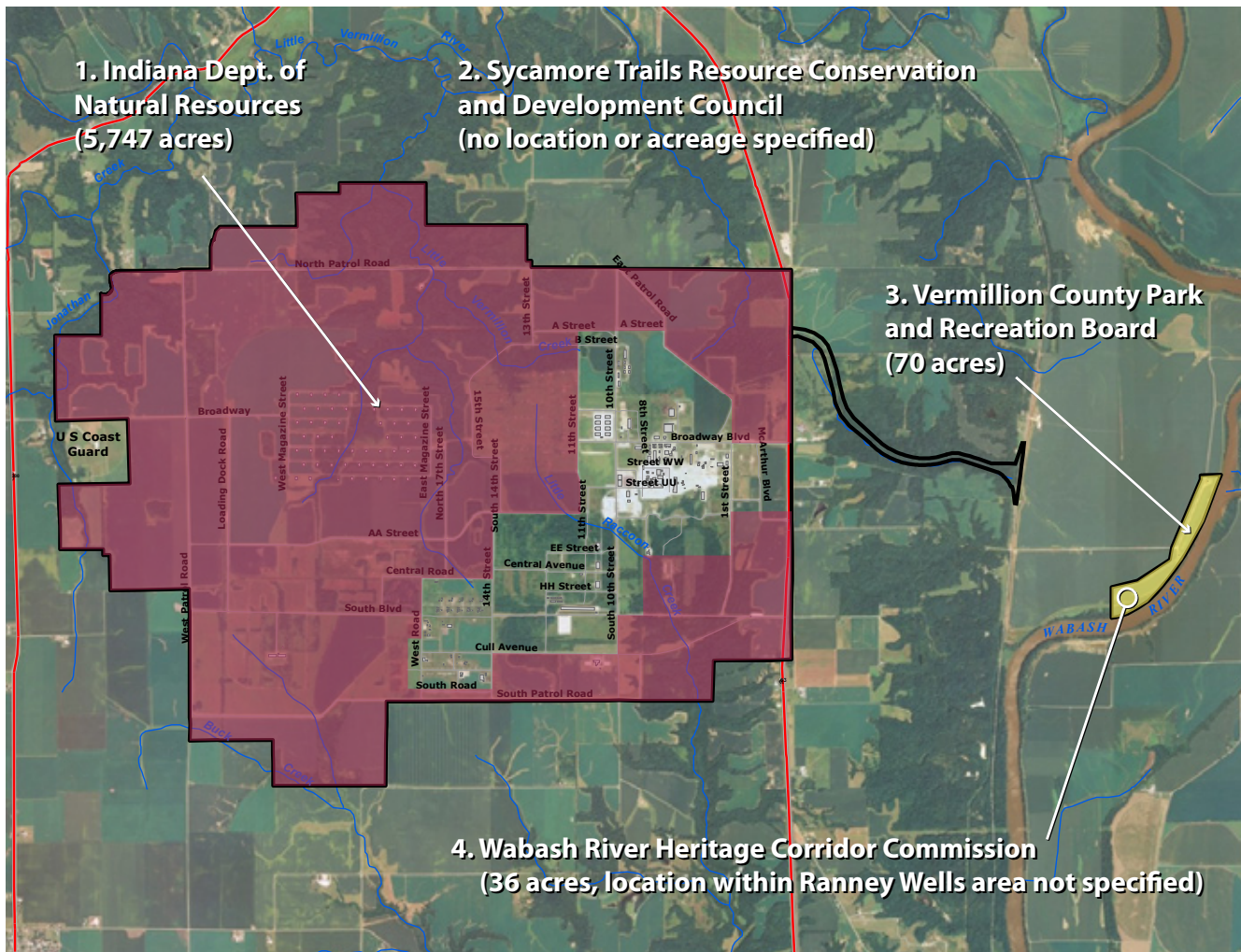
**1. Indiana Department of Natural Resources:** The requested uses were consistent with the Reuse Plan for those areas that overlap with the Natural Areas & Open Space districts on the Reuse Plan map, but not consistent with the Reuse Plan for the remaining requested areas.

**2. Sycamore Trails Resource Conservation and Development Council:** While the request did not identify any specific location or number of acres at the Depot, the requested uses were consistent with the Reuse Plan for those areas identified on the Reuse Plan map as Natural Areas & Open Space.

**3. Vermillion County Parks and Recreation Board:** The request was consistent with the Reuse Plan in both its proposed uses and location.

**4. Wabash River Heritage Corridor Commission:** The request was consistent with the Reuse Plan in both its proposed uses and location.

All four applicants share a common interest in and commitment to natural resource conservation, education, and compatible recreational activities. Several of the applicants even acknowledged in their NOI requests the commonality of purpose with the other PBC applicants and a desire to work together to accomplish their common goals. Consequently, in the spirit of providing a collaborative foundation for implementing the Reuse Plan, the NeCDRA recommends that none of the four PBC requests be approved and, instead, commits to establish a working relationship with the applicants and other interested parties to protect, manage, and promote the Depot's planned Natural Area & Open Space districts.

**Exhibit 6-05: NOI Requests Location Map**

## Homeless Assistance Provisions

The NeCDRA conducted an outreach process to solicit Notices of Interest from state and local agencies, representatives of the homeless and other persons as provided by the Defense Base Closure and Realignment Act of 1990 (Public Law no. 101-510; the "Act"), as amended. In November 2008, the NeCDRA was approved by the Department of Defense to fulfill the responsibilities of the Act in this regard. On November 28th, a Public Notice was printed in the *Clintonian*, the only daily newspaper in Vermillion County. Additionally, the Public Notice was sent to the HUD field office in Indianapolis, Purdue University, North & South Vermillion Schools, West Central Community Hospital, Ministerial Associations, and the Light House Mission.

On January 20, 2009, a Public Outreach Workshop was conducted at 2250 North Main Street, Clinton, Indiana to provide information to state and local government entities, representatives of the homeless, and other eligible persons or entities in the vicinity of the Depot who may have an interest in buildings or property at the Depot for homeless assistance or other public benefit purposes. The following items were briefed and discussed:

- Description of the Depot land, facilities, and infrastructure
- Explanation of the instructions for completing Notice of Interest
- Deadline for submission of the Notice of Interest: Midnight, May 31, 2009
- Tour of the Depot for interested parties

Handouts were distributed, including the Public Notice, instructions for submissions of NOIs, depot information, and a HUD pamphlet detailing homeless assistance programs. Following the Public Outreach Workshop, the LRA staff was available to assist interested individuals and groups by providing information concerning the Depot and the Notice of Interest process.

No homeless assistance Notices of Interest were received.

## Economic Development Conveyances

If approved by the Army, transfer of all or select properties within the Depot via an economic development conveyance could be granted to the NeCDRA for the purpose of job creation. This type of conveyance may be at no cost to the NeCDRA, at a discounted price, or at fair market value.

## Negotiated Sales

A Negotiated Sale option might be considered for any parcels not acquired via PBC or other type of conveyance from the Army. Negotiated sales must be to a recognized redevelopment authority for a specified public purpose. Negotiated sale authority requires the payment of fair market value.

## Public Sales

For those areas not considered for acquisition by the NeCDRA, the Army could dispose of the property via public sale. In the past, the Army has disposed of properties at other closed military facilities via auctions to the highest bidder.

This page intentionally left blank