



May 10, 2011

Mr. Darrell Nitschke  
Executive Director  
NORTH DAKOTA PUBLIC  
SERVICE COMMISSION  
600 E. Boulevard Avenue, Dept. 408  
Bismarck, ND 58505-0480

**RECEIVED**

MAY 12 2011

**PUBLIC SERVICE COMMISSION**

RE: CHS Inc.  
Certification Letter for Tank Construction at Minot Terminal

Dear Sirs:

In accordance with North Dakota Century Code 49-22-03(3) (2009), this letter is to notify the North Dakota Public Service Commission (Commission) that CHS Inc. (CHS) intends to construct two, new, 144' diameter by 50' tall, steel tanks for the storage of refined petroleum products at its Minot Terminal located in Ward County at 5125 Highway 2 & 52 West, Minot, North Dakota (see attached Drawing No. MTT-MS-01-0000-001-OA). The Minot Terminal site was acquired by CHS in 1959 and the original terminal facilities were constructed in 1960/1961. As such, this facility pre-dates North Dakota's Siting Act and thereby qualifies for construction through the Certification Process, N.D.C.C. 49-22-03(3)(a) (2009). CHS intends to begin earthwork and installation of concrete foundations for these tanks in May, 2011.

CHS certifies that this construction project will be restricted to the pre-owned Minot Terminal site and that it will be within the chain link fenced area that currently surrounds the terminal facilities. CHS also certifies that there are no residences, schools or businesses located within 500 feet of the facilities to be constructed.

Also, CHS certifies that the construction of these tanks will not affect any known exclusion or avoidance areas, as defined in North Dakota Administrative Code 69-06-08-02 (2009). Please refer to the enclosed "Avoidance/Exclusion Areas and Resources Analysis" document prepared by Kadrmas, Lee & Jackson of Bismarck, North Dakota. Please note that two alternative tank location areas were included in this analysis document and that the area on the west side of the terminal has been chosen for the tanks. Additionally, CHS certifies that it will perform all work on this tank construction project within the rules and regulations of other agencies that have jurisdiction.

For this project, one of the building requirements is to file a Special Use Petition with the City of Minot. This petition was filed in December 2010 and subsequently involved the notification of adjacent landowners; thereby soliciting any comments they may have with regard to the construction of these two new tanks. No adverse comments were filed and a public hearing was held in Minot on January 24, 2011. The Special Use Petition was voted upon and approved by the Minot City Council on February 7, 2011.

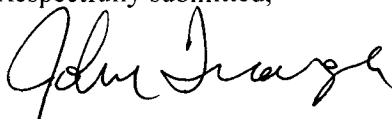
Upon your request, CHS is willing to have a pre-construction conference regarding this project. Plans currently call for construction activities to begin in May 2011 and the tanks to be completed and ready for operation by December 31, 2011.

**1 PU-11-152 Filed: 5/12/2011 Pages: 24**  
**Certification filing for Minot terminal**

Mr. Darrell Nitschke  
Executive Director  
NORTH DAKOTA PUBLIC  
SERVICE COMMISSION  
Page 2  
May 10, 2011

Your attention to this matter is greatly appreciated. I can be reached at 406-628-5202 for any questions or further information that may be needed.

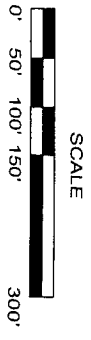
Respectfully submitted,

A handwritten signature in black ink, appearing to read "John Traeger". The signature is fluid and cursive, with the first name "John" being larger and more prominent than the last name "Traeger".

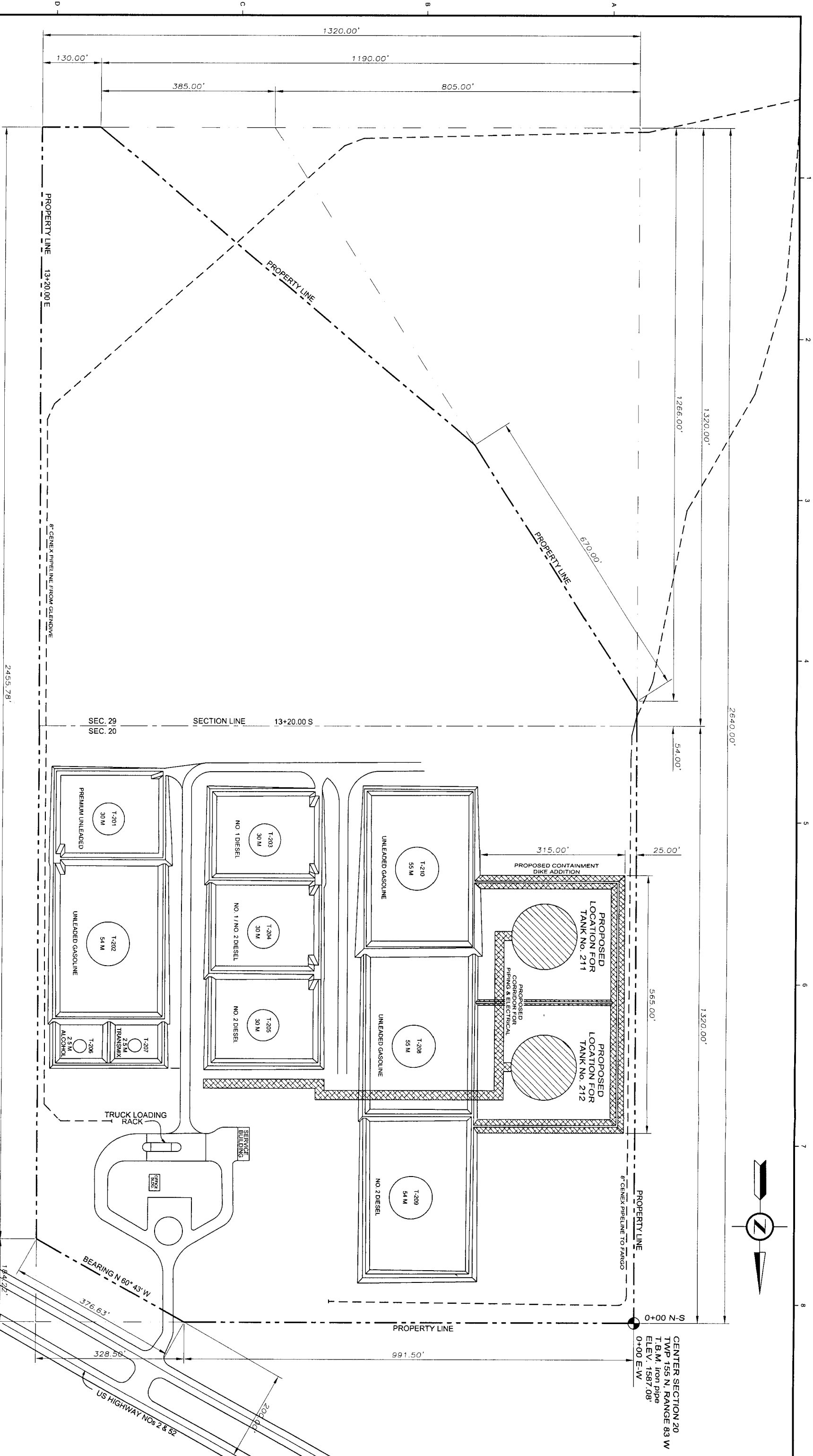
John Traeger  
Pipelines & Terminals Manager  
Laurel Energy Operations

Attachments

Cc: Brian Bjella, Attorney, Crowley Fleck PLLP, Bismarck, ND  
Grady Wolf, Kadrmas Lee & Jackson PC, Bismarck, ND



SCALE



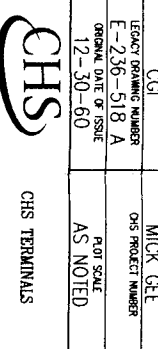
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SEC. 20

CENTER SECTION 20  
T.M. Iron pipe  
ELEV. 1587.08'  
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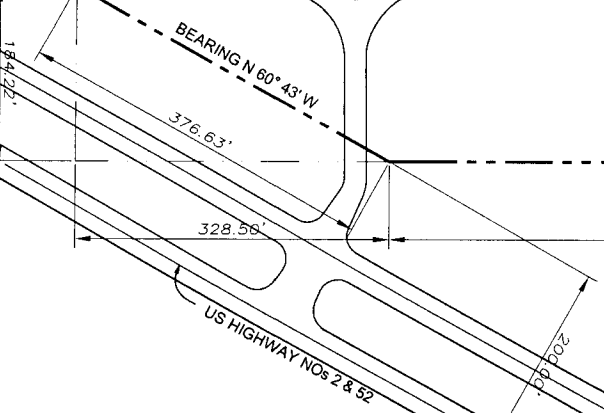
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DESIGNED BY  
CCI  
ELECTRICAL NUMBER  
E-236-518 A  
ORIGINAL DATE OF ISSUE  
12-30-60

CHS PROJECT MANAGER  
MICK OLE  
OIS PROJECT NUMBER  
AS NOTED



CHS TERMINALS  
MINOT TERMINAL  
KEY PLOT PLAN  
FACILITY LOCATION  
CODE  
MTT-MS-01-0000-001-0A  
DESCRIPTION  
CODE  
DESIGN  
CODE  
399  
LOCATION  
NUMBER  
NUMBER  
REV.



TRUCK LOADING RACK

SERVICE BUILDING

**Public Service Commission  
Avoidance/Exclusion Areas and Resources Analysis**

**CHS Minot Terminal Expansion Project**

**Minot, North Dakota**

Prepared for:  
CHS Inc.  
803 Highway 212 South  
Laurel, MT 59044

Prepared by:  
Kadmas, Lee & Jackson  
128 Soo Line Drive  
Bismarck, ND 58501

April 2011

**CONTENTS**

**1.0 BACKGROUND AND PROJECT DESCRIPTION ..... 1**

**1.1 Description of the Proposed Project ..... 1**

**2.0 SITE ANALYSIS ..... 1**

**2.1 Introduction ..... 1**

**3.0 AVOIDANCE/EXCLUSION AREAS AND RESOURCE ANALYSIS ..... 2**

**3.1 Public Services and Infrastructure ..... 2**

**3.2 Demographics ..... 3**

**3.3 Land Use and Land Based Economics ..... 3**

**3.4 Recreational Resources ..... 4**

**3.5 Cultural and Archaeological Resources ..... 4**

**3.6 Soils ..... 5**

**3.7 Geologic and Groundwater Resources ..... 5**

**3.8 Surface Water and Floodplain Resources ..... 5**

**3.9 Wetlands ..... 5**

**3.10 Vegetation ..... 6**

**3.11 Wildlife ..... 7**

**3.12 Rare and Unique Natural Resources ..... 8**

**3.13 Avoidance/Exclusion Area and Resources Analysis Conclusions ..... 11**

**APPENDICES**

- Appendix A: Project Location Map**
- Residential Distances Map**
- Public Services and Infrastructure Map**
- Land Use and Land Based Economics Map**
- Geologic and Groundwater Resources Map**
- Surface Water, Floodplain, and Wildlife Map**
- Whooping Crane Migration Corridor Map**

**TABLES**

- Table 1. Mixed-grass Prairie Vegetation**
- Table 2. Drift Prairie Species of Conservation Priority**

## 1.0 BACKGROUND AND PROJECT DESCRIPTION

### 1.1 Description of the Proposed Project

The proposed CHS Minot Terminal Expansion Project includes construction of 2 120,000 barrel petroleum tanks for the purpose of expanding the holding capacity at the Minot Terminal located in Ward County at 5125 Highway 2 & 52 West, Minot, North Dakota. The existing Minot Terminal consists of 10 petroleum tanks and a truck load out facility for liquid petroleum product. The proposed CHS Minot Terminal Expansion Project would take place within an approximate 400x700-foot project area located directly south of the existing facilities in the NW of the NE ¼ of Section 29, Township 155N, Range 83W or within an approximate 300x900-foot project area located directly west of the existing facilities in the SW of the SE ¼ of Section 20, Township 155N, Range 83W. Both locations are located on property owned by the existing CHS Minot Terminal Site. *Please refer to the Project Location Map located in Appendix A.*

The following report is intended to provide documentation and clearance regarding avoidance and exclusion areas to fulfill CHS Inc. obligations under the PSC (Public Service Commission) regulatory authority for expansion of existing liquid transmission facilities. In addition, potential impacts to public services, infrastructure, demographics, land use, land based economics, recreational, cultural, archaeological, soils, geologic, groundwater, surface water, floodplain, wetlands, vegetation, wildlife, and rare and unique natural resources were analyzed and included as part of this report for PSC consideration for this project.

## 2.0 SITE ANALYSIS

### 2.1 Introduction

The purpose of this analysis is to identify potential avoidance and exclusion areas along with additional resources within the proposed study area of the CHS Minot Terminal Expansion that could preclude construction of 2 120,000 barrel liquid petroleum tanks. Exclusion and avoidance areas have been identified, along with other potential environmental concerns that should be avoided, minimized, or mitigated. The baseline criteria used for the analysis was obtained from the North Dakota Public Service Commission Rules, Article 69-06, Energy Conversion and Transmission Facility Siting.

The PSC regulations include the following criteria as exclusion areas for transmission facility corridors and route criteria:

- Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; monuments; and wilderness areas;
- Designated or registered state: parks; historic sites; monuments; historical markers; archeological sites; and nature preserves.
- County parks and recreation areas; municipal parks; and parks owned or administered by other governmental subdivisions;
- Areas critical to the life stages of threatened & endangered animal or plant species.
- Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.

The PSC regulations include the following criteria as avoidance areas for transmission facility corridors and route criteria:

- Designated or registered national: historic districts; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
- Designated or registered state: wild, scenic, or recreational rivers; game refuges; game management areas; management areas; forests; forest management lands; and grasslands.
- Historical resources which are not specifically designated as exclusion or avoidance areas.
- Areas which are geologically unstable.
- Within five hundred feet (152.4 meters) of a residence, school, or place of business. This criterion shall not apply to a water pipeline transmission facility.
- Reservoirs and municipal water supplies.
- Water sources for organized rural water districts.
- Irrigated land. This criterion shall not apply to an underground transmission facility.
- Areas of recreational significance which are not designated as exclusion areas.

Avoidance and exclusion areas were identified through available data via coordination with resource agencies and through state and agency Geographical Information System (GIS) data hubs. Several resource agencies provided confidential information used to identify potential avoidance and exclusion areas. The purpose of the confidentiality of certain data is to protect the integrity of sensitive areas from intentional disturbance. Due to the confidential nature of this information, specific details regarding the nature and locations of these sensitive areas have been excluded from the document. In addition to GIS digital and agency provided data, environmental staff from KL&J completed a site visit and field inspection of the proposed project area on April 8, 2011.

### 3.0 AVOIDANCE/EXCLUSION AREAS AND RESOURCE ANALYSIS

#### 3.1 Public Services and Infrastructure

Data was gathered and analyzed to determine potential impacts to public services and infrastructure, including residences, commercial properties, public facilities, transportation infrastructure and right-of-way, known transmission lines, and telecommunication facilities.

The study area is located just west of the city limits of Minot, North Dakota. Public services and infrastructure found within and around the study area is for the most part associated with urban sprawl from the city of Minot. Minot contains a medical center which offers major medical services, 7 clinics, 1 eye care clinic and 1 nursing home. The city also has 13 elementary schools, 3 middle schools, and 4 high schools. Scattered throughout the 0.5 mile study area are 27 residences/farmsteads, 9 commercial properties, 1 domestic/stock water well and 1 irrigation well. The nearest residential site is located approximately 590 feet north of the closest proposed improvement, being the earthen berm placed around the tanks. The closest commercial building site, a trucking company, is approximately 540 feet north of the earthen berm. ***Please refer to the Residential Distances Map in Appendix A.***

Burlington Northern Santa Fe (BNSF) railroad tracks are located south of the proposed project, and run in a northwest/southeast direction. US Highway 2/52 borders the northeast side of the study area and extends in a northwest/southeast direction as it passes the facility. Additional roadways include gravel surfaced county roadways, and two-track trails used for agricultural purposes. There are no transmission lines located within the 0.5 mile study area. In addition, an underground gas pipeline and oil pipeline traverse the study area. ***Please refer to the Public Services and Infrastructure Map in Appendix A.***

### **3.2 Demographics**

The proposed project is located in Harrison Township in Ward County, North Dakota. The nearest incorporated city to the study area is Minot, North Dakota, which is approximately 1.5 miles east and has a population of 35,573 residents (2009 estimate).

### **3.3 Land Use and Land Based Economics**

Zoning of the project area falls under the authority of the city of Minot's extraterritorial jurisdiction. The southern potential project area falls within land zoned Agricultural. The western potential project area falls within land zoned as Special Use designated for the CHS terminal.

The study area is located in a semi-rural part of North Dakota comprised primarily of grasslands with smaller portions of developed land and cropland intermixed. The potential project area to the south of the existing tanks is comprised entirely of grasslands. The potential project area west of the existing tanks is comprised of grasslands with planted trees rows occurring on the far west side of the project area. Both the south and west sites appear to have been hayed last year for livestock feed. All land within the study area appears to be of private ownership except transportation corridors. The closest public land occurs as North Dakota State Land Department property approximately 0.5 miles north of the project area. ***Please refer to Land Use and Land Based Economics Map in Appendix A.***

A wetland easement is a perpetual agreement entered into by the landowner and the USFWS. In return for a single lump sum payment, the landowner agrees not to drain, burn, level, or fill wetlands covered by the easement. The boundaries of easement wetlands are defined by USFWS based on a high-water average using decades of aerial photographs. Wetland easements are considered part of the National Wildlife Refuge System and are administered for public benefit. There are no USFWS wetland easements located within the study area.

Similar to the wetland easement, a grassland easement is also a perpetual agreement entered into by the landowner and the USFWS except the landowner is tasked with also protecting upland vegetation. This means that land under a grassland easement cannot be cultivated and mowing, haying, and grass seed harvesting cannot occur until after July 15. There are no USFWS grassland easements located within the study area.

The USFWS also administers the National Wildlife Refuge System which includes National Wildlife Refuges (NWR) and Waterfowl Production Areas (WPA). NWRs serve the purpose of preserving and protecting lands for fish and wildlife and their habitat. WPAs are lands protected and/or restored for the purpose of waterfowl production. There are no NWRs or WPAs within the study area. The nearest NWR, Upper Souris NWR complex, is approximately 11.8 miles north-northwest of the study area and the nearest WPA is approximately 19 miles west of the study area.

Land managed by the NDGF consists of Private Land Opened to Sportsmen (PLOTS). PLOTS are easements administered by the NDGF to allow public hunting access and for develop of habitat. These easements are placed on private lands that already provided ample habitat or as a way to enhance wildlife habitat for a variety of wildlife species. PLOTS easements do not exempt the parcel from development; however, compensation paid to the landowner may need to be refunded if the NDGF deem construction devalues the habitat they wish to protect. There are no NDGF managed land located within the study area.

The Natural Resources Conservation Service (NRCS) administers the Conservation Reserve Program (CRP). Agricultural landowners may enroll their land into the CRP, essentially taking the land out of production for a given timeframe to protect wildlife and water resources, and receive annual payments. CHS indicated the potential project area does not include lands enrolled in the CRP Program.

### **3.4 Recreational Resources**

Rangeland, cropland, wetlands, rivers, and streams are found near the study area. These areas may be used for hunting, bird watching, recreation and potentially fishing purposes. The potential project area is part of the existing CHS Facility and therefore would not alter recreational opportunities. No recreational resources exist within the potential project areas.

### **3.5 Cultural and Archaeological Resources**

If the project would include any federal funding or require a federal approval, such as a permit, compliance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470), as amended, would be required. Section 106 requires that federally funded projects be evaluated for the effects<sup>1</sup> on historic and cultural properties included in, or eligible for listing on, the National Register of Historic Places (NRHP). Federal involvement would also require compliance with the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 461 et seq., and 23 U.S.C. 305) which provides for the survey, recovery, and preservation of significant scientific, prehistoric, archaeological, or paleontological data when such data may be destroyed or irreparably lost due to a federally licensed or federally funded project.

Kadmas, Lee & Jackson conducted a Class I literature review of the State Historical Society of North Dakota's site and manuscript files on March 2 and 3, 2011. The review revealed 19 previously documented cultural resources within a one-mile radius of the APE. No known previously documented resources lie within the potential project area. In addition, a Class III Cultural Resource Survey of the potential project sites was conducted on April 8, 2011. No sites were recorded during the field survey. A No Historic Properties Affected determination will be sent to the ND State Historic Preservation Office for their concurrence.

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<sup>1</sup> Effect means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register (36 CFR § 800.16).

### 3.6 Soils

Most of the soils in the study area have low to moderate susceptibility to sheet and rill erosion, and can tolerate high levels of erosion without loss of productivity. All but one of the soil types in the study area are moderately well drained with typical water table depth greater than five feet. Colvin silty clay loam is poorly drained, with frequent ponding, and the typical water table depth is approximately 0.5 feet; however, this soil series does not exist within the potential project area.

If the project were to require federal involvement, then the Farmland Protection Policy Act would apply. The Farmland Protection Policy Act of 1981 (7 U.S.C. 4201 et seq.) provides protection to prime and unique farmlands. Section 658.5 of the Farmland Protection Policy Act provides criteria for federal agencies to identify and take into account the adverse effects of federal programs on the protection of farmland. Federal agencies are to consider alternative actions, as appropriate, that could lessen adverse effects; and to assure that such federal programs, to the extent practicable, are compatible with state, unit of local government, and private programs and policies to protect farmland.

### 3.7 Geologic and Groundwater Resources

The study area is located in a region of North Dakota known as the Drift Prairie. The Drift Prairie consists of a mainly flat to undulating landscape of varying sand, silt and clay content. This area was formed by glaciers moving across the state that became stagnant, depositing rock debris, gravel, and fine grained sediments intermixed with large ice chunks. When buried ice chunks melted, wetlands were created. Due to these geologic sequences, the region in which the study area is located is commonly referred to as the prairie pothole region. Surface geology within the study area is considered part of the Oahe and Bullion Creek Formations. The Oahe Formation is comprised of dark clay and silt typically 30 feet thick with underlying cross-bedded sand, whereas the Bullion Creek Formation is comprised of yellow-brown silt, sand, clay, sandstone, and lignite approximately 600 feet thick.

Underlying the study area are deep sandstone aquifers within the Lower Tertiary. The Souris River aquifer is located within the project area. ***Please refer to the Geologic and Groundwater Resources exhibit in Appendix A.***

### 3.8 Surface Water and Floodplain Resources

The study area occurs in the prairie pothole region of North Dakota. This region is dotted with wetland basins of various sizes and water regimes. In addition, the Souris River, smaller streams and drainages occur near the study area. These water complexes may be used for hunting, bird watching, and potentially fishing purposes; however, they are likely not utilized for boating activities other than occasional occurrences of smaller watercraft associated with hunting or fishing. The Souris River's 100-year and 500-year floodplains are mapped approximately 550 feet north of the potential project area. The Gassman Coulee and South Branch Coulee has 100-year floodplains mapped approximately 650 feet north of the potential project area. Both of the potential project areas occur higher in elevation than the previous tank sites and would not impact the floodplain. ***Please refer to the Surface Water, Floodplains and Wildlife exhibit in Appendix A.***

### 3.9 Wetlands

Wetlands are defined both in the 1977 Executive Order 11990, Protection of Wetlands, and in Section 404 of the Clean Water Act of 1986, as those areas that are inundated by surface or groundwater with a frequency to support and, under normal circumstances, do or would support a prevalence of vegetative or

aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Three parameters that define a wetland, as outlined in the Federal Manual for Delineating Jurisdictional Wetlands (United States Army Corps of Engineers, 1987), are hydric soils, hydrophytic vegetation, and hydrology. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands are important natural resources that often serve many functions, such as providing habitat for wildlife, storing floodwaters, recharging groundwater, and improving water quality through purification.

According to the United States Fish & Wildlife Service (USFWS) National Wetland Inventory, there are four freshwater emergent wetlands scattered throughout the study area. The site visit revealed no wetlands within the potential project areas. **Please refer to the Surface Water, Floodplains and Wildlife exhibit in Appendix A.**

### 3.10 Vegetation

As previously discussed, the study area is located within the Drift Prairie, which is associated with mixed-grass prairie. Native grasses and forbs that are common within the mixed-grass prairie are summarized in **Table 4, Mixed-grass Prairie Vegetation**. The study area consists predominantly of grasslands with a mixture of native and introduced grasses and forbs along with tree rows planted by CHS. Parts of the study area have been previously disturbed by cultivation, tree plantings and unknown activities that have led to soil disturbance. Due to the timing of the survey, positive identification of grasses found on site was limited.

**Table 1: Mixed-grass Prairie Vegetation**

Grasses
Big Sandgrass
Blue grama
Canada Wildrye
Green needlegrass
Little bluestem
Matt Muhly
Needle-and-thread
Needleleaf Sedge
Northern reedgrass
Porcupine grass
Prairie junegrass
Sideoats Grama
Threadleaf Sedge
Western wheatgrass
Forbs
Fringed sage
Gaura
Goldenrod
Hairy puccoon
Harebell
Indian breadroot
Lead plant
Missouri milkvetch
Pasque flower

**Table 1: Mixed-grass Prairie Vegetation**

Grasses
Prairie rose
Purple coneflower
Purple loco
Purple prairie-clover
Smooth fleabane
Stiff Goldenrod
Torch flower
Upland wormwood
Western Wallflower

*Source: North Dakota Comprehensive Wildlife Strategy (NDGF, December 2005)*

North Dakota has listed 12 noxious weeds: absinth wormwood, Canada thistle, diffuse knapweed, leafy spurge, musk thistle, purple loosestrife, Russian knapweed, spotted knapweed, yellow toadflax, dalmatian toadflax, and saltcedar. Cities and counties are also able to list additional noxious weeds for control within their jurisdiction. Ward County has listed false chamomile and houndstongue. According to the North Dakota Weed Mapper, the 2010 noxious weed survey, Canada thistle, leafy spurge and wormwood were located within Gassman Coulee and other small drainages within the study area. No state or county listed noxious weeds were identified within the potential project area during the field survey; however, due to the timing of the survey, positive vegetation identification was difficult. Vegetation disturbed during construction should be reseeded with a grass seed mixture of species that currently exist on site. The grass seeding should be monitored and sprayed if necessary to prevent the further spread of noxious weeds.

### **3.11 Wildlife**

The study area lies in the prairie pothole region of North Dakota and the Central Flyway of North America. As such, this area is used as resting grounds for many birds on their spring and fall migrations, as well as nesting and breeding grounds for many waterfowl species. Other non-game bird species are known to fly through and inhabit this region. The Migratory Bird Treaty Act protects 836 species of migratory birds and, at this time, 58 of these species are legally hunted. The area is also inhabited by numerous mammals including white tail deer, rabbits, fox, coyote, beaver, and muskrat. In addition, game birds such as ducks and geese, as well as raptors can be found near the study area.

Protection is provided for the bald and golden eagle, as well as other migratory birds, through the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The Bald and Golden Eagle Protection Act of 1940, 16 U.S.C. 668–668d, as amended, was written with the intent to protect and preserve bald and golden eagles, both of which are treated as species of concern within the Department of the Interior. In addition, the Migratory Bird Treaty Act (916 U.S.C. 703–711) regulates impacts to these species such as direct mortality, habitat degradation, and/or displacement of individual birds. Additionally, the Migratory Bird Treaty Act prohibits the taking, among other things, of migratory birds, their eggs, parts, and nests, except when specifically permitted by regulations. Taking is defined as hunt, capture, kill, possess, sell, purchase, ship, transport, carry, or export any part, nest, or egg of a migratory bird. No bald or golden eagle nests were identified within the study area. The nearest documented golden eagle nest is approximately 15.6 miles south of the study area. No documented bald eagle nests occur within 20 miles of the study area.

During the field survey, 2 large raptor nests were observed southwest of the southern potential project site. The closest raptor nest was located approximately 400 feet from the tank site. Neither raptor nest appeared to be actively being used at the time of the survey. During the survey, 5 unidentified raptor species were observed flying along the ridgeline south of the study area. The 2 identified raptor nests should be surveyed prior to the start of construction to determine if they are being actively used. If the nests are determined to be actively used, the US Fish and Wildlife Service should be contacted prior to the start of construction to determine potential impacts and avoidance/mitigation measures. **Please refer to the Surface Water, Floodplain and Wildlife Map in Appendix A.**

### **3.12 Rare and Unique Natural Resources**

In accordance with Section 7 of the Endangered Species Act of 1973, 50 CFR Part 402 as amended, any proposed action must not be likely to jeopardize the continued existence of any federally-listed endangered or threatened species or species proposed to be listed. In addition, no such action can result in the destruction or adverse modification of habitat of such species that is determined to be critical by the Secretary. An endangered species is one which is in danger of extinction throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered in the foreseeable future. A candidate species is one which is being considered for listing as an endangered or threatened species, but no proposed rule for listing has been made. While candidate species are not legally protected under the Endangered Species Act, it is within the spirit of the Endangered Species Act to consider these species as having significant value and worth protecting.

According to the United States Fish & Wildlife Service North Dakota County List (October 2010), 2 endangered species (gray wolf and whooping crane), 1 threatened species (piping plover), and designated critical habitat for the piping plover occur within Ward County. In addition, 2 Candidate Species (Dakota skipper and Sprague's pipit), also occur within Ward County.

#### **Gray Wolf (*Canis lupus*)**

The gray wolf is the largest wild canine species in North America. It is found throughout northern Canada, Alaska, and the forested areas of Northern Michigan, Minnesota, and Wisconsin and has been re-introduced to Yellowstone National Park in Wyoming. While the gray wolf is not common in North Dakota, occasionally individual wolves do pass through the state. Historically, its preferred habitat includes biomes such as boreal forest, temperate deciduous forest, and temperate grassland. Gray wolves live in packs of up to 21 members, although some individuals will roam alone. The study area is located far from other known wolf populations. Because of the lack of preferred habitat in the potential project area, the proposed project will not affect the gray wolf.

#### **Whooping Crane (*Grus americana*)**

The whooping crane is the tallest bird in North America. In the United States, this species ranges through the Midwest and Rocky Mountain regions from North Dakota south to Texas and east into Colorado. Whooping cranes migrate through North Dakota along a band running from the south central to the northwest parts of the state. They use shallow, seasonally and semi-permanently flooded palustrine (marshy) wetlands for roosting and various cropland and emergent wetlands for feeding. During migration, whooping cranes are often recorded in riverine habitats, including the Missouri River. Currently there are three wild populations of whooping cranes, yielding a total species population of about 365. Of these flocks, only one is self-sustaining. The study area is located within the area of the Central Flyway where 95 percent of all whooping crane sightings have occurred. In addition, various emergent wetlands and cropland occur near the study area. **Please refer to the North Dakota and Montana Whooping**

**Crane Migration Corridor exhibit in Appendix A.** Due to the potential project area being comprised of grassland with no wetlands present and the large amount of development in the study area, it was determined the proposed project will not affect the Whooping Crane.

**Piping Plover (*Charadrius meoidus*)**

The piping plover is a small migratory shorebird. Historically, piping plovers could be found throughout the Atlantic Coast, Northern Great Plains, and the Great Lakes. Drastically reduced, sparse populations presently occur throughout this historic range. In North Dakota, breeding and nesting sites can be found along the Missouri River. Preferred habitat for the piping plover includes riverine sandbars, gravel beaches, alkali areas of wetlands, and flat, sandy beaches with little vegetation. The USFWS has identified critical habitat for the piping plover in Ward County. Critical habitat includes sparsely vegetated shoreline beaches, peninsulas, islands composed of sand, gravel, or shale, and alkali wetlands. Potential habitat in the form of the sandy/gravelly Lake Darling shoreline exists approximately 19 miles away at the closest point. Due to the lack of potential habitat, the proposed project will not affect the piping plover.

**Dakota Skipper (*Hesperia dacotae*)**

The Dakota skipper is a small butterfly with a one-inch wing span. These butterflies historically ranged from southern Saskatchewan, across the Dakotas and Minnesota, to Iowa and Illinois. The preferred habitat for the Dakota skipper consists of flat, moist bluestem prairies and upland prairies with an abundance of wildflowers. Dakota skippers are visible in their butterfly stage from mid-June to early July. Due to the majority of the potential project area being a mixture of native and introduced grasses and forbs, the proposed project may affect, but is not likely to adversely affect the Dakota skipper.

**Sprague's Pipit (*Anthus spragueii*)**

The Sprague's pipit is a small songbird found in prairie areas throughout the Northern Great Plains. Preferred habitat includes rolling, upland mixed-grass prairie habitat with high plant species diversity. The Sprague's pipit breeds in habitat with minimal human disturbance. Due to the potential project area occurring adjacent to highly developed land, it was determined the proposed project will not affect the Sprague's pipit.

The NDGF has also developed a *North Dakota Comprehensive Wildlife Conservation Strategy* (2005). As part of the strategy, the NDGF have identified species of conservation priority for the purposes of developing a management strategy; however, these species are provided no legal protection. There are three conservation priority levels (I, II, and III). Species of all three conservation priority levels are listed within the Drift Prairie region. **Please refer to Table 2, Drift Prairie Species of Conservation Priority.** Level I species are those that have a high conservation need because of declining population within North Dakota or are declining over the species' range and the core of their breeding population occurs in North Dakota. Level II species have a moderate conservation need or are high priority species without available funding for protection. Level III species are have a moderate need of conservation, but are believed to be on the edge of their range in North Dakota.

**Table 2: Drift Prairie Species of Conservation Priority**

<b>Birds</b>	
<b>Name</b>	<b>Priority Level</b>
American bittern	I
Northern pintail	II
Northern harrier	II
Swainson's hawk	I
Ferruginous hawk	I
Sharp-tailed grouse	II
Willet	I
Upland sandpiper	I
Marbled godwit	I
Wilson's phalarope	I
Short-eared owl	II
Loggerhead shrike	II
Sedge wren	II
Sprague's pipit	I
Lark bunting	I
Grasshopper sparrow	I
Baird's sparrow	I
Le Conte's sparrow	II
Nelson's sharp-tailed sparrow	I
Chestnut-collared longspur	I
Dickcissel	II
Bobolink	II
<b>Mammals</b>	
<b>Name</b>	<b>Priority Level</b>
Arctic Shrew	III
Pygmy Shrew	II
Richardson's ground squirrel	II
<b>Reptiles/Amphibians</b>	
<b>Name</b>	<b>Priority Level</b>
Plains spadefoot	I
Canadian toad	I
Smooth green snake	I
Western hognose snake	I

*Source: North Dakota Comprehensive Wildlife Strategy (NDGF, December 2005)*

In addition to the threatened and endangered species and conservation priority species discussed above, the North Dakota Natural Heritage biological conservation database identifies state sensitive species. No known state sensitive species are located within or adjacent to the CHS property.

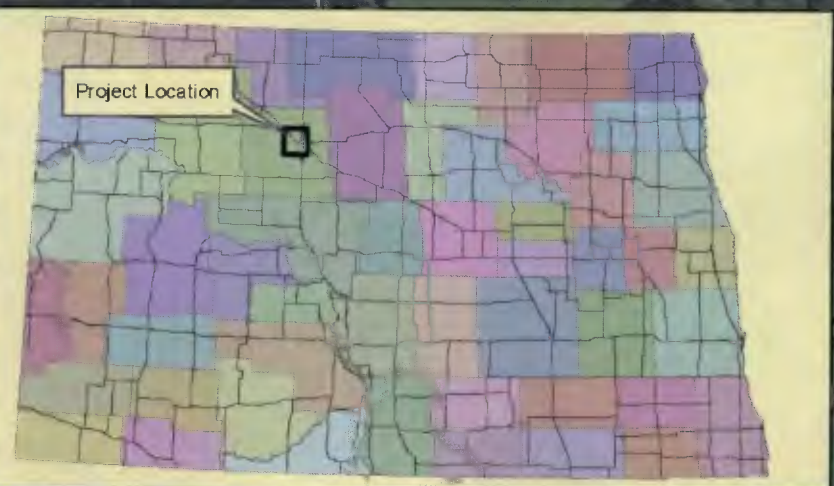
### **3.13 Avoidance/Exclusion Area and Resources Analysis Conclusions**

Results of the data analysis from GIS desktop review, agency coordination and field surveys reveal no avoidance or exclusion areas occurring within the potential project area. Part of the potential project area has been previously disturbed and construction would not impact pristine natural areas. The proposed project is anticipated to have no impact on public services, infrastructure, demographics, land use, land based economics, recreational, cultural, archaeological, soils, geologic, groundwater, surface water, floodplain, wetlands, vegetation, wildlife, or rare and unique natural resources.

# **APPENDIX A**



## **Maps**

# CHS - Minot Terminal Property Expansion Project Location



**Kadmas**  
**Lee &**  
**Jackson**  
Engineers Surveyors  
Planners

### Legend

-  Study Area
-  Potential Project Areas



# CHS - Minot Terminal Property Expansion

## Residential Distances

900 Feet  
590 Feet  
540 Feet  
1160 Feet



- Legend**
- Potential Project Areas
  - Tank Locations
  - Proposed Berm
  - Residential Site
  - Commercial Building Site

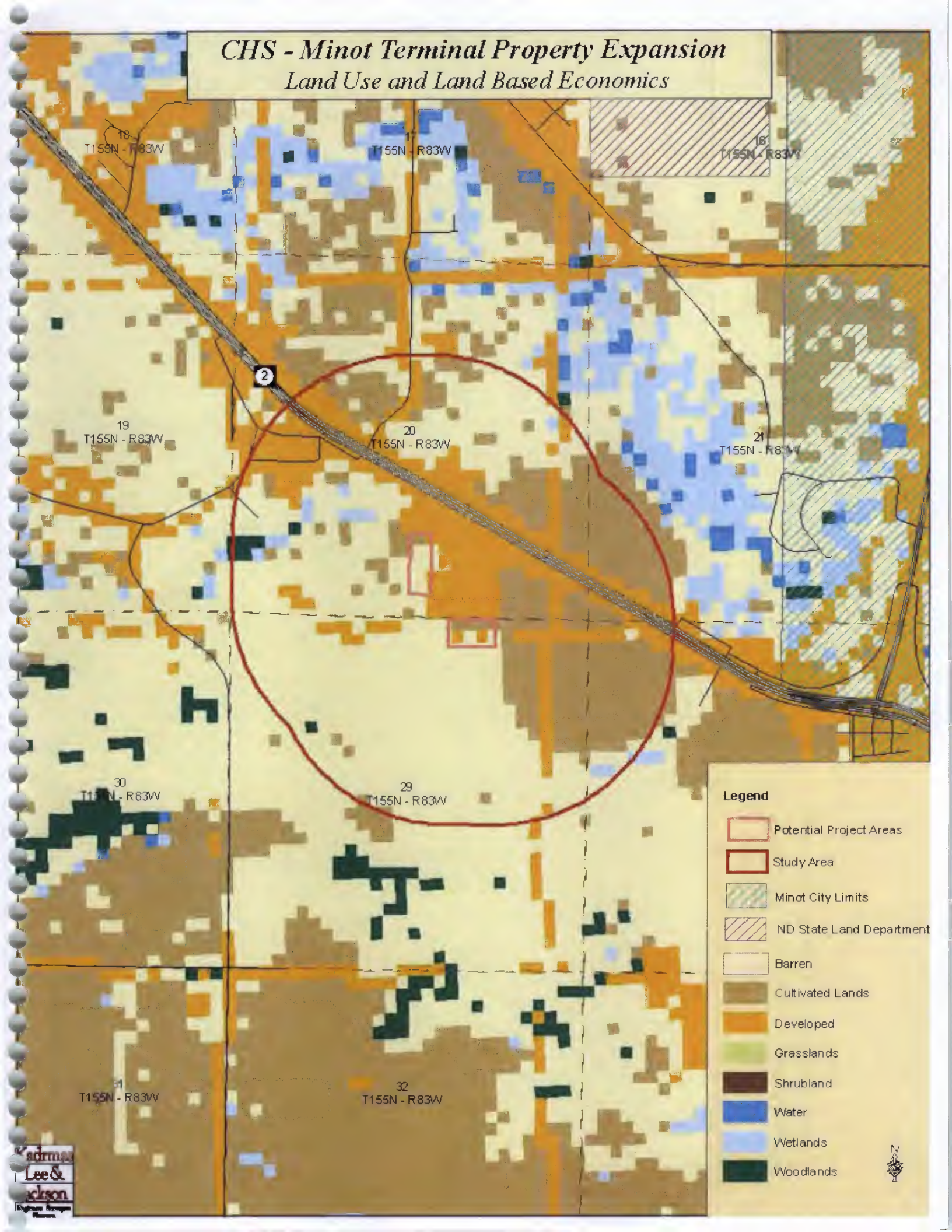
# CHS - Minot Terminal Property Expansion

## Public Utilities and Infrastructure



- Legend**
- Potential Project Areas
  - Study Area
  - Residential Site
  - Commercial Building Site
  - Schoolhouse
  - Electrical Power Lines
  - Booster Station
  - Gas Lines
  - Rail/Roads
  - Antenna Structures
  - Picnic Ground
  - Gravel Pit
  - Sanitary Landfill
  - Bridges
  - Roads
  - Section Line
  - Corporate Boundary

# CHS - Minot Terminal Property Expansion Land Use and Land Based Economics



- Legend**
- Potential Project Areas
  - Study Area
  - Minot City Limits
  - ND State Land Department
  - Barren
  - Cultivated Lands
  - Developed
  - Grasslands
  - Shrubland
  - Water
  - Wetlands
  - Woodlands

# CHS - Minot Terminal Property Expansion Geologic & Groundwater Resources

Channel Aquifer

Souris River Aquifer

2

**Legend**

- Potential Project Areas
- Study Area
- Aquifers

**Ground Water Wells**

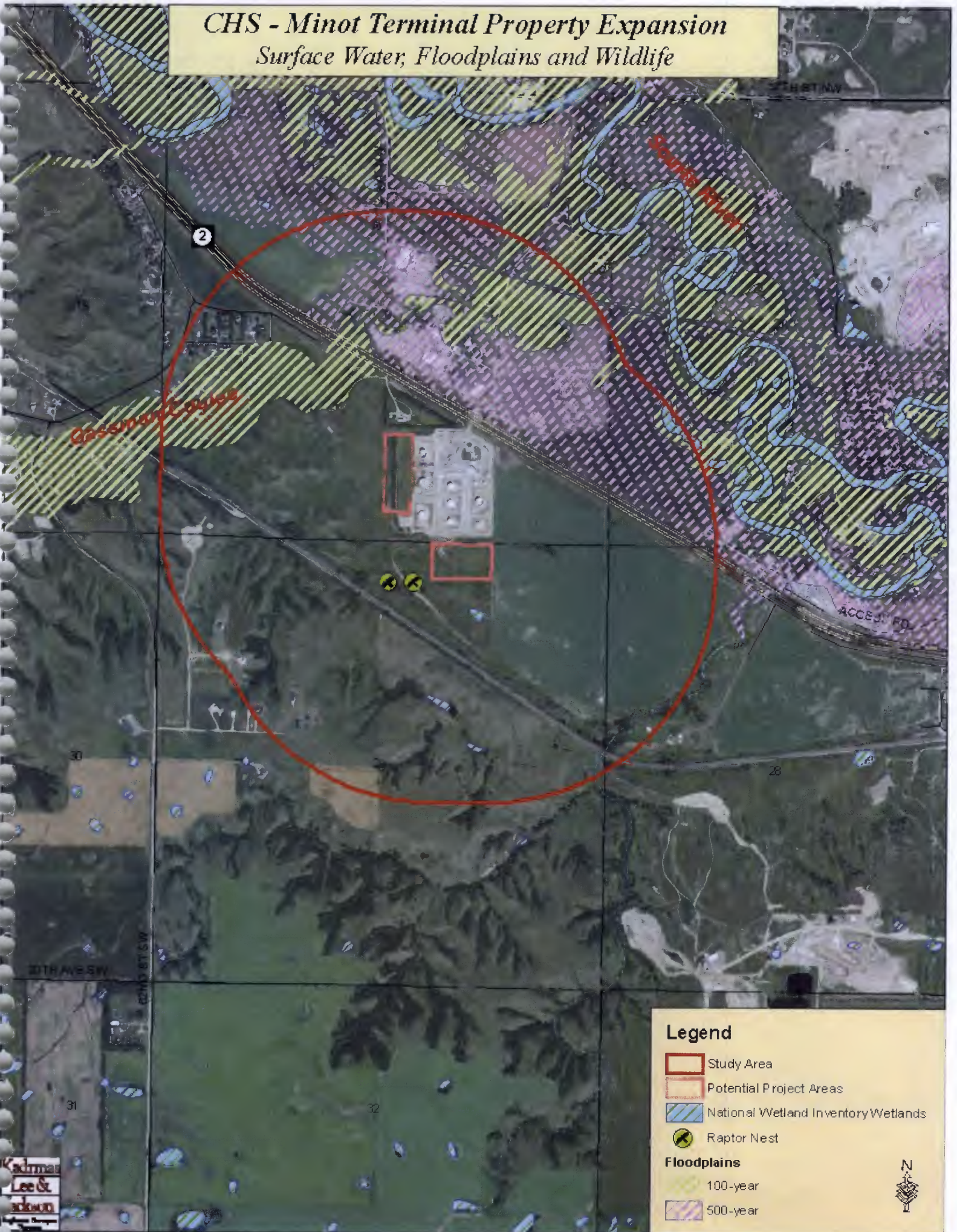
- Domestic Well
- Irrigation Well
- Observation Well
- Observation Well - Recorder
- Surface Water Monitoring Site
- Test Hole
- Unknown

**Formation and Minor Genesis**







- Oahe
- Coleharbor, Collapsed
- Bullion Creek, Lake and Swamp
- Coleharbor, Transition Sed.

# CHS - Minot Terminal Property Expansion

## Surface Water, Floodplains and Wildlife

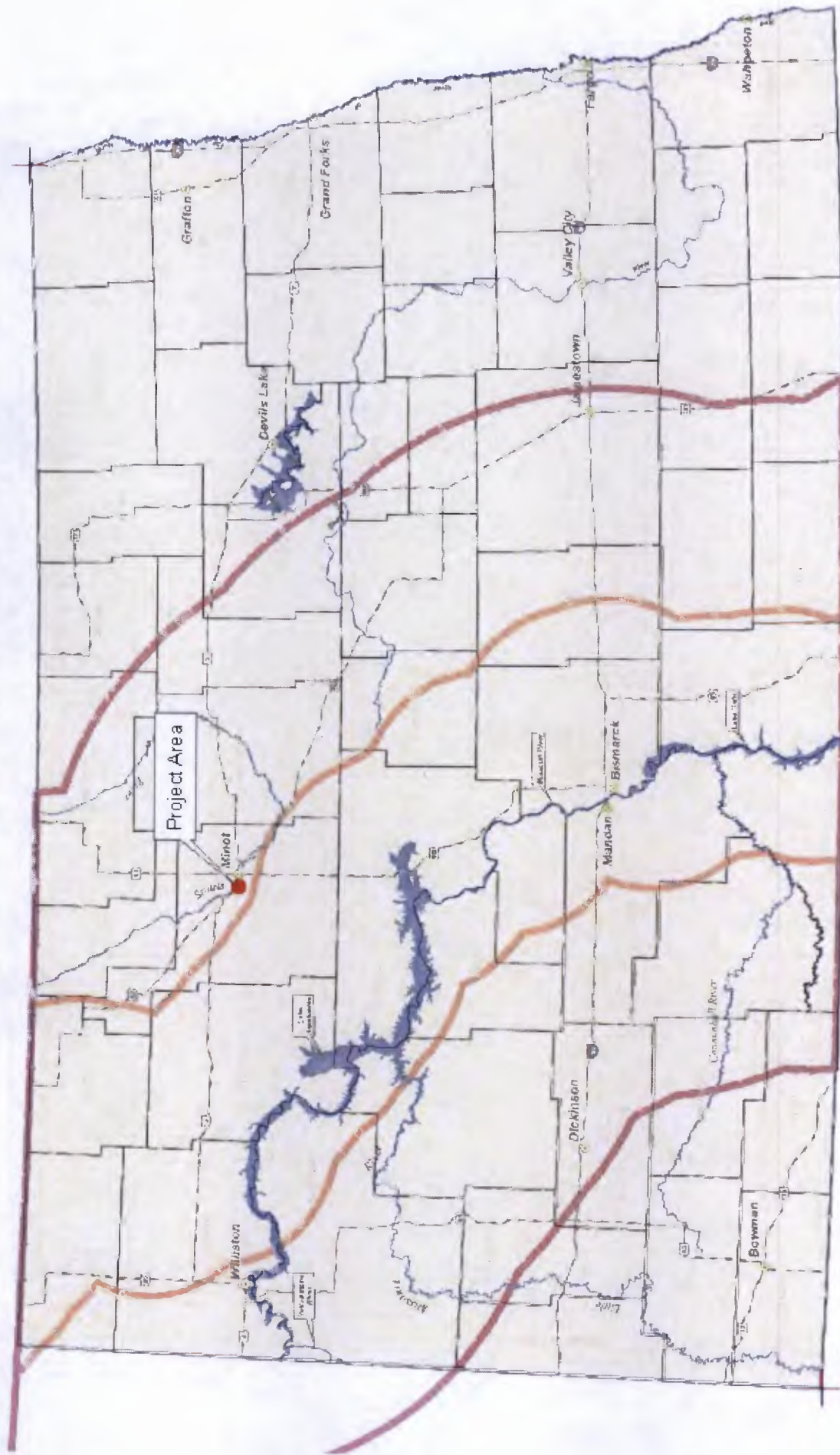




### Legend

-  Study Area
-  Potential Project Areas
-  National Wetland Inventory Wetlands
-  Raptor Nest
- Floodplains**
  -  100-year
  -  500-year



# CHS Minot Terminal Expansion Whooping Crane Migration Corridor Map



-  75% Whooping Crane Migration Corridor
-  95% Whooping Crane Migration Corridor