

**Class III Intensive Archaeological and Traditional Cultural Property Resources
Inventory for the Big Stone South to Ellendale
345 kV Transmission Line Project,
Dickey County, North Dakota to the South Dakota Border**

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Tables that list site locations and Figures 2 and 3, contain sensitive information and have been redacted from this version of the report.

Abstract

Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly, the Owners) are proposing to construct, own, and operate a single-circuit, 345 kV transmission line (Project), approximately 160 to 170 miles long, extending from Ellendale, North Dakota, to Big Stone City, South Dakota. The Owners will construct a new substation and tie lines and modify the existing Ellendale 230 kV Substation, near Ellendale, North Dakota. The North Dakota portion of the Project (North Dakota Facility) consists of the proposed Ellendale Substation located near the city of Ellendale, and an approximately 10-mile-long 345 kV transmission line between the substation and the North Dakota-South Dakota border. The North Dakota Facility includes a 150-foot-wide transmission line right-of-way (ROW) within a 500-foot-wide corridor referred to as the Cultural Resources Survey Corridor (Survey Corridor).

The North Dakota Facility received a Certificate of Corridor Compatibility and Route Permit from the North Dakota Public Service Commission (PSC), pursuant to North Dakota Century Code Chapter 49-22 on July 10, 2014. The approval process for the Certificate of Corridor Compatibility and Route Permit considered comments from the North Dakota State Historic Preservation Office (SHPO). Some segments of the project require review under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, because of the project's proposed activity in or immediately adjacent to USACE jurisdictional wetlands. In a letter dated July 9, 2013, SHPO requested a Class III Intensive Cultural Resources Inventory, including a historic structures inventory, be completed for the North Dakota Facility. This report documents the results of the Class III Intensive Cultural Resources Inventory for archaeological and Traditional Cultural Properties (TCPs). A separate report includes the results of the historic structures inventory (Palmer 2015).

This report documents a Class I Literature Search, modeling effort, a windshield review, and Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory. The work was completed in conjunction with the Sisseton-Wahpeton-Oyate Tribal Historic Preservation Office (THPO) and documents both archaeological and TCPs. Four areas were identified as having moderate to high potential for containing intact archaeological sites and/or TCPs in the North Dakota Facility's Survey Corridor. The four survey areas include approximately 2 miles of the transmission line ROW in North Dakota and total approximately 110 acres. SHPO concurred with the survey areas and planned documentation effort on July 25, 2013.

No new archaeological sites or TCPs were identified within the four survey areas. Based on these results, a finding of "No Historic Properties Affected" for archaeological sites and TCPs is warranted provided the North Dakota Facility is completed as designed and documented. In the event any discoveries occur during construction activities, the procedures provided in the North Dakota Cultural Resource Discovery Plan for the Project will be implemented.

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1.0 Introduction

In October and November 2014, HDR, on behalf of Montana-Dakota Utilities Co. and Otter Tail Power Company (jointly, the Owners), completed a Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory in the North Dakota portion of the Big Stone South to Ellendale 345 kilovolt (kV) Transmission Line Project (Project) (Figure 1). The Project consists of a proposed 345 kV substation (Ellendale Substation) and an approximately 160 to 170-mile-long 345 kV transmission line between the proposed Ellendale Substation in Dickey County, North Dakota, and the Big Stone South Substation near Big Stone City in Grant County, South Dakota. The North Dakota portion of the Project (North Dakota Facility) consists of the proposed Ellendale Substation located near the city of Ellendale, and an approximately 10-mile-long 345 kV transmission line between the substation and the North Dakota-South Dakota border (Figure 2 [redacted]). The North Dakota Facility includes a 150-foot-wide transmission line right-of-way (ROW) within a 500-foot-wide corridor referred to as the Cultural Resources Survey Corridor (Survey Corridor). The added width of the Survey Corridor will provide flexibility regarding the final design of the transmission line ROW.

The North Dakota Facility received a Certificate of Corridor Compatibility and Route Permit from the North Dakota Public Service Commission (PSC), pursuant to North Dakota Century Code Chapter 49-22 on July 10, 2014. The approval process for the Certificate of Corridor Compatibility and Route Permit considered comments from the North Dakota State Historic Preservation Office (SHPO). In a letter dated July 9, 2013, SHPO requested a Class III Intensive Cultural Resources Inventory, including a historic structures inventory, be completed for the North Dakota Facility. A separate report that includes the results of the historic structures inventory was submitted to SHPO independently of this report (Palmer 2015).

Federal funding is not anticipated for the Project. However, the North Dakota Facility will require permits to transect lands under United States Army Corps of Engineers (USACE) jurisdiction. As such, compliance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations, 36 Code of Federal Regulations (CFR) Part 800, pertains to areas that are subject to federal permits. Section 106 requires federal agencies to consider the effects of their undertakings on properties listed, or eligible for listing, on the National Register of Historic Places (NRHP).

In July 2013, HDR submitted to SHPO a Class I Literature Search for the Project (Eigenberger et al. 2013). Included with the Class I Literature Search was a cultural resources survey approach that included a model to identify areas in the Survey Corridor that warrant a Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory. The model called for refinement of targeted areas for survey via a windshield survey with representatives from the Sisseton-Wahpeton-Oyate (SWO) Tribal Historic Preservation Office (THPO). Archaeologists and tribal specialists collaborated to target those locations along the Survey Corridor that retained conditions suitable for locating archaeological sites and Traditional Cultural Properties (TCPs). In a response letter dated July 25, 2013, SHPO formally concurred with HDR's survey locations and survey approach.

In Fall 2013, HDR staff and SWO THPO representatives examined the North Dakota Facility via a windshield survey from public access roads. HDR staff included archaeologists Stephen Sabatke and Alan Stanfill. Representatives from the SWO THPO included archaeologist Kent Good and Wayne Cloud. Four areas exhibiting moderate to high potential for containing intact archaeological

resources and/or TCPs, designated as Survey Areas, were identified within the North Dakota Facility (Figure 2 [redacted]).

The Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory was conducted with representatives of the SWO THPO. HDR staff focused on identifying any new or previously recorded archaeological resources eligible for listing on the National Register of Historic Places (NRHP) within the four survey areas. SWO THPO staff focused on identifying any new or previously recorded TCPs eligible for listing on the NRHP within the four survey areas. The four survey areas include approximately 2 miles of the transmission line ROW in North Dakota and total approximately 110 acres.

In June 2015, an approximately 0.5 mile long segment of the North Dakota Facility was shifted approximately 0.25 to 0.5 miles to the northeast to run diagonally through the SW ¼ of Section 10, Township 129 N, Range 63 W in Dickey County, North Dakota. Based on a review of aerial photographs, this shifted segment appears to be located in the same agricultural field. Because this field was not identified as an area that exhibited moderate to high potential for containing intact archaeological resources and/or TCPs during the windshield survey, pedestrian survey of this area is not warranted.

The Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory was conducted on October 14 and November 5, 2014. HDR staff included archaeologists Stephen Sabatke, Dylan Eigenberger, Alan Stanfill, Pamela Hale, and Andrew Kurth who met the Secretary of the Interior's Professional Qualification Standards for Archaeology as published in 36 CFR 61. Stephen Sabatke served as the principal investigator. SWO THPO staff included archaeologist Kent Good, Jim Whitted, Wayne Cloud, Brad Cloud, Jeff Hesla, and LeAnn Eastman.

1.1 Project Description

The North Dakota Facility of the Big Stone South to Ellendale 345 kV Transmission Line Project is approximately 10 miles long and is located entirely in Dickey County (Table 1) (Figure 2 [redacted]). The North Dakota Facility will consist of the following five major components:

1. Approximately 10 miles of new, high-voltage (345 kV), three-phase, single circuit AC electric transmission line from the new Ellendale 345 kV Substation to the North Dakota-South Dakota state border. The transmission line mostly parallels existing field breaks in Ellendale and Van Meter townships, Dickey County, North Dakota.
2. A new Ellendale 345 kV Substation will be constructed and owned by the Owners, about 1.5 miles west of Ellendale, North Dakota, along the west side of 87th Avenue SE in Section 9, Ellendale Township (Township 129N, Range 63W), Dickey County, and across the street from the existing Ellendale 230 kV Substation, which is located in Section 10 of Ellendale Township.

The footprint of the substation will be approximately 11.3 acres. Construction of the new Ellendale 345 kV Substation will involve the installation of two 345 kV circuit breakers, one 345 kV line termination structure, five 345 kV disconnect switches, one 345 kV/230 kV 300/400/500 Mega Volt Ampere (MVA) Auto-Transformer, a 345 kV Shunt Line Reactor, eight 230 kV circuit breakers, twenty-one 230 kV disconnect switches, four 230 kV line termination structures, associated arresters, Capacitive Voltage Transformers (CVTs), bus work, and protective relaying and controls required to support the circuit breakers. The

existing Merricourt, Tatanka, and Hankinson 230 kV lines will be relocated to terminate in this substation, as will the Ellendale 230 kV tie line described below. All construction will occur within the land purchased for the substation.

3. The existing Merricourt-Ellendale 230 kV transmission line will be modified to terminate at the new Ellendale 345 kV Substation with part of the existing line being used as a 230 kV tie line between the new Ellendale 345 kV Substation and existing Ellendale 230 kV Substation within the existing right-of-way (ROW) of the Merricourt-Ellendale 230 kV transmission line.
4. Buswork within the existing Ellendale 230 kV Substation will be modified by removing the Merricourt, Tatanka, and Hankinson 230 kV lines and leaving only the Ellendale 345 kV Substation 230 kV tie line. All work will occur within the existing substation's fenced boundary.
5. One temporary laydown area (approximately 40 acres) will be required in North Dakota for equipment storage before transportation to the construction sites. It is anticipated that the laydown area will be located near the Ellendale 345 kV Substation on land that is currently cultivated. The exact location of this laydown area has not been determined at this time.

Table 1. North Dakota Facility Right-of-Way Legal Description

| County | Township Name | Township | Range | Sections |
|--------|---------------|----------|-------|-----------------|
| Dickey | Ellendale | 129N | 63W | 9-10, 15, 22-24 |
| | Van Meter | 129N | 62W | 19-20, 29, 32 |

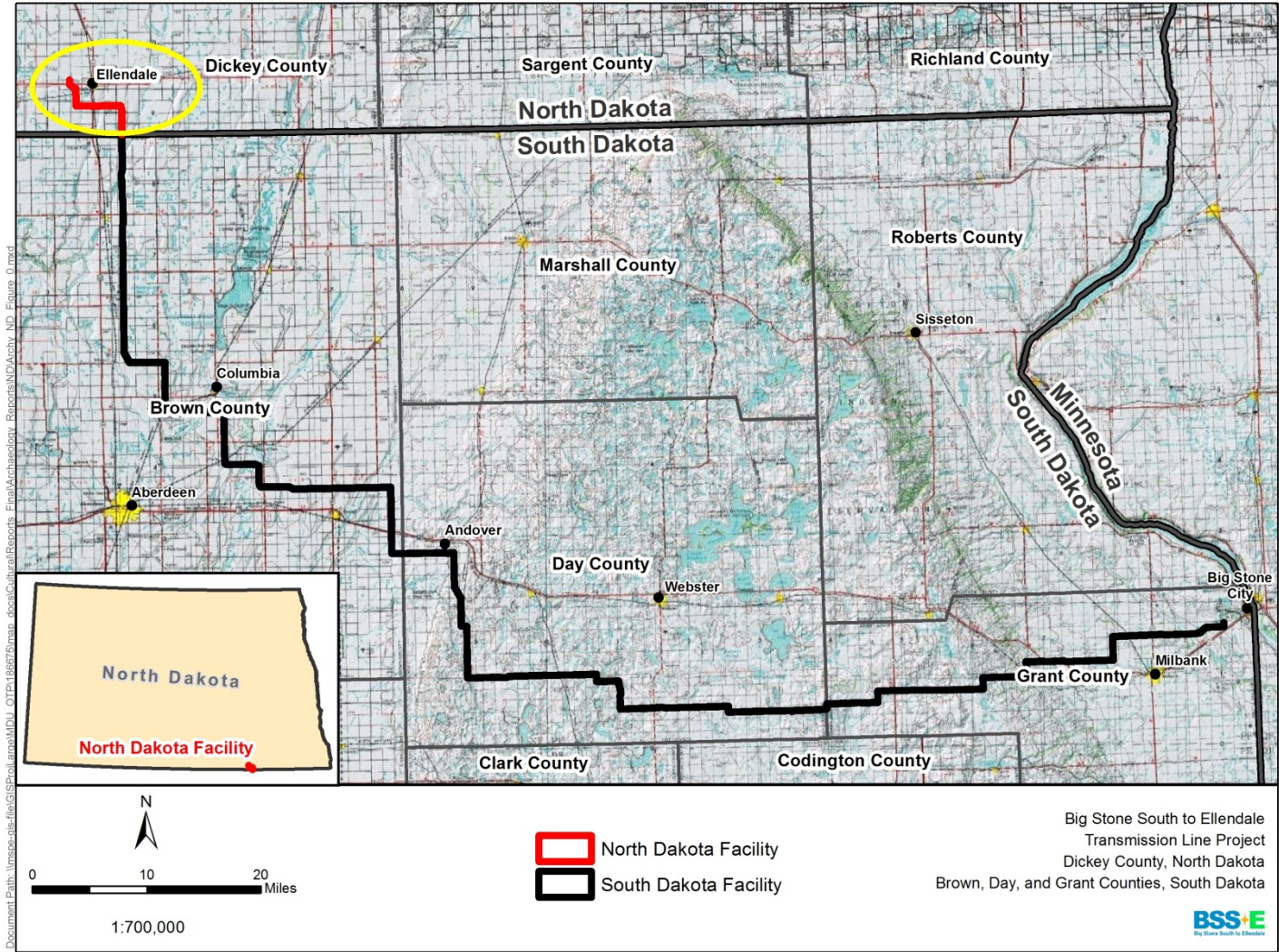


Figure 1. Big Stone South to Ellendale Transmission Line Project Overview.

Figure containing sensitive material has been redacted.

2.0 Physiography and Environmental Overview

The North Dakota Facility crosses the Central Lowlands physiographic province of North Dakota (Bluemle and Biek 2007). Within the Central Lowlands, the North Dakota Facility transects the Glaciated Plains physiographic region (Bluemle and Biek 2007; USGS 2006).

2.1 *Glaciated Plains*

The Glaciated Plains region is characterized by a rolling landscape with numerous temporary and seasonal wetlands formed by glacial till deposited by the Wisconsin glacier as it slowly retreated. Historically, this region was a mix of tall and shortgrass prairie with natural vegetation consisting of western wheatgrass, big and little bluestem, switchgrass, and indiagrass. The current land use consists almost completely of agriculture (spring wheat and other small grains, sunflowers, and alfalfa). The mean annual precipitation is 17 to 19 inches. The average January high temperature is 16°F, while the average July high is 83°F. The average frost-free season lasts from 95 to 125 days (Bluemle and Biek 2007; USGS 2006).

3.0 Cultural Contexts

This section provides brief summaries of the precontact, protohistoric/contact, historical, and modern contexts relevant to the North Dakota Facility. This section also includes an overview of the history of Dickey County as well as a discussion of the Native American perspective regarding the cultural contexts of the North Dakota Facility.

3.1 *Precontact*

The following precontact cultural contexts are summarized from the State Historical Society of North Dakota (SHSND)-SHPO planning document *The North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component: Paleo-Indian; Plains Archaic; Plains Woodland; Plains Village; and Equestrian Nomadic* (Gregg et al. 2008). These cultural traditions are differentiated based on technical innovations and changes in resource exploitation and mobility patterns that can be observed in the archaeological record. The following discussion of precontact cultural traditions has been adapted from *The North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component* (Gregg et al. 2008), and *The Handbook of North American Indians* (DeMallie 2001).

3.1.1 **Paleo-Indian (ca. 11,500 – 7500 BP)**

The Paleo-Indian Tradition (ca. 11,500 – 7500 BP) begins with what is thought to be the initial peopling of North Dakota following the recession of the Wisconsin glacier and lasts until the transition of Paleo-Indian lifeways into Plains Archaic lifeways. Boreal climatic conditions dominated the early part of the Paleo-Indian Tradition. Grasslands and spruce-aspen parklands surrounding major rivers and large lakes were common throughout the state and were popular locations for Paleo-Indian settlement. The Paleo-Indian Tradition is characterized by a highly mobile, nomadic settlement pattern and a subsistence strategy based largely on hunting Pleistocene megafauna such as mammoth, camel, and giant bison, and later, smaller species of bison closer in size to modern forms. Wild plant foods were gathered as well, but archaeological evidence regarding this activity is sparse. Large lanceolate and fluted projectile points diagnostic of this tradition are used to mark the various Paleo-Indian cultural complexes represented in North Dakota. These include Clovis, Goshen, Folsom, Hell Gap-Agate Basin, Cody, Parallel Oblique Flaked, Pryor Stemmed, and Caribou Lake. Site types include camps, Knife River flint quarry sites, other lithic procurement areas, lithic workshops, and isolate artifact finds.

3.1.2 Plains Archaic Period (ca. 7500 – 2100 BP)

The Plains Archaic Tradition (7500 – 2100 BP) is characterized by hunting and gathering adaptations to a plains ecosystem with a greater variety of resources available for exploitation. Climatic shifts during this period brought about more arid conditions, broken up by short periods of more mesic conditions. These climatic conditions may have led to declining populations and a reduction in the extent of interaction between population groups. Settlement patterns for this tradition are not as well known as other traditions because comparatively few Archaic period sites have been identified in the state. Projectile point styles became more regionalized, indicating the beginnings of regional cultural variation. Diversified technologies associated with hunting, trapping, fishing, foraging, wood working, and plant processing are represented in the material culture from Plains Archaic sites. Of particular note, the atlatl weapon is developed during this tradition, and ground stone tools appear in the archaeological record. Side-notched projectile points and chipped stone scrapers, knives, punches, and drills also appear in the Plains Archaic toolkit. Plains Archaic complexes recognized in North Dakota include Logan Creek-Mummy Cave, Oxbow, McKean Lanceolate, Duncan, Hanna, Yonke, and Pelican Lake. Site types include animal kill sites, camps, Knife River flint quarry sites, lithic workshops, and burial sites.

3.1.3 Plains Woodland Period (ca. 2400 – 600 BP)

The Plains Woodland Tradition (2400 BC – 600 BP) is characterized by the emergence of ceramic technology, mound burials, and limited horticulture in addition to the continued subsistence strategies and settlement patterns exhibited in the Plains Archaic Tradition. The climate began to stabilize and resembled the climate that exists today. The development of horticulture and construction of burial mounds indicate a transition to a more sedentary lifestyle in this tradition. Interaction between population groups broadened, and trade networks with other parts of the country expanded. The bow and arrow was developed during this tradition. Smaller side and corner-notched projectile points along with a variety of chipped stone cutting tools, ground stone tools, and ceramic pottery are common in the Plains Woodland toolkit. The Plains Woodland complexes recognized in North Dakota are based largely on ceramic wares and include Sonota/Besant, Laurel, Avonlea, Brainerd, Blackduck, Mortlach, Old Women's, and Sandy Lake. Site types include burial mounds and other burial sites, occupations, camps, quarries and lithic procurement areas, and bison kill sites.

3.1.4 Late Prehistoric/Plains Village Period (ca. 750 – 170 BP)

The Plains Village Tradition (1200 – 1780 AD) is characterized by an intensification of agriculture and the emergence of larger, more complex societies. Subsistence strategies included an equal mixture of cultivating river floodplains for garden crops and hunting game, primarily bison, in the upland grasslands. Corn was the primary crop cultivated during this tradition. Dried corn was stored in subterranean storage pits, creating a dependable surplus of food. This surplus supported semi-permanent earthlodge villages situated on the higher terraces and uplands overlooking river channels and floodplains. The Plains Village cultures in North Dakota were concentrated primarily along the Missouri River Trench and within the James and Sheyenne River basins, although hybrid Woodland/Plains Village cultures existed in other parts of the state. Material culture from this tradition includes distinctly decorated ceramic pottery, triangular chipped-stone side-notched and unnotched projectile points, chipped stone end scrapers, drills and bifaces, bison or elk scapulae hoes and digging tools, an array of bone tools and decorations, mollusk shell beads and ornaments, a variety of ground stone tools, and various smoking pipes. Luxury items include native copper from the Great Lakes, shells from the Gulf or Atlantic coasts, snails from the southeastern United States,

steatite from northern Wyoming, obsidian from near Yellowstone Park in Wyoming, dentallium from the Pacific Coast, and catlinite from southwestern Minnesota.

In North Dakota, the Plains Village Tradition is subdivided into the Middle Missouri and Coalescent Traditions, and the Northeastern Plains Village Complex. Site types include occupations (fortified and unfortified earthlodge villages), winter villages, camps (hunting), flint quarries, eagle trapping sites, conical timber lodges, burials, lithic workshops, bison kill sites, and rock art sites.

3.2 Protohistoric/Contact

The following overviews of the protohistoric/contact, historic, and modern period contexts in North Dakota have been adapted from *The North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component* (Gregg et al. 2008), *The Handbook of North American Indians* (DeMallie 2001), *Early History of North Dakota: Essential Outlines of American History* (Lounsberry 1919), *Out Where the West Begins: Early and Romantic History of North Dakota* (Trinka 1920), and the chapter “North Dakota History: Overview and Summary” from *North Dakota Blue Book* (Remele 1998). Within these contexts, historical events and trends important to the development of North Dakota as a state are examined.

3.2.1 Equestrian Nomadic (ca. 1780 – 1880 AD)

The Equestrian Nomadic Period (1780 – 1880 AD) encompasses both the late Protohistoric and Historic times, following the arrival of European trade goods and the introduction of the horse. The horse replaced the dog as a beast of burden and allowed a more nomadic settlement pattern. Subsistence economies changed as groups were able to travel further from residential bases to hunt bison and other large game. The new Equestrian Nomadic lifeway spread throughout the region and was adopted by different cultural groups, eventually leading to greater interactions among them. Less complex bands came together and formed larger tribes as migration increased and competition for resources grew. An increasing number of European trade goods appear in the material culture of this period. Site types include camps, battle sites, and animal kill sites.

3.2.2 Fur Trade (ca. 1780 – 1880 AD)

One of the first known Euro-American expeditions into North Dakota was by Pierre Gaultier de la Verendrye, a French explorer and fur trader, who in 1738 visited Mandan villages near present day Bismarck. By the 1790s, the Canadian North West Company and Hudson’s Bay Company erected trading posts along the Red River of the North and in the northeastern corner of the state. Euro-American interest in this part of the country increased with the United States’ purchase of the Louisiana Territory in 1803. The Lewis and Clark expedition was organized to explore and report on this new territory, and in 1804, they passed through North Dakota. During their time in North Dakota, Lewis and Clark visited Mandan, Hidatsa, and Arikara villages along the Missouri River, and wintered in Fort Mandan, which they built 6 miles below the mouth of the Knife River. The following year, the expedition made its way through the rest of North Dakota on its way into present day Montana.

Increasing numbers of explorers and fur traders would reach the area in the following years. This time period is recognized by the establishment, operation, and adaptation of gathering the hides of fur bearing mammals in exchange for other goods and materials. This exchange linked the Northern Plains to a world-wide economic and political system. Increased demand for furs by European societies lead to the establishment of settlements or forts in strategic locations throughout the Northern Plains. These areas of centered interaction allowed furs to be procured in an orderly

fashion and transported to markets in Europe as quickly as possible. One of the earliest settlements in North Dakota was a colony set up by white settlers from Winnipeg in 1812 at the confluence of the Pembina River and the Red River of the North near present day Pembina. The Red River Valley was also occupied by the Metis, a group of people of mixed European and Native American ancestry. The Metis were active in the fur trade in the region, and they carried furs and merchandise between Winnipeg and St. Paul, Minnesota, by way of oxcart. By 1859, steamboats were being used to transport goods between the two cities. Known site types include fur trading posts and forts, trails, loading and shipping facilities, trapping, trading, and hunting grounds, camps and camp sites, steamboat docks, stores, dwellings, warehouses, and residences of prominent fur trade participants.

3.3 Historic Period

3.3.1 Military Confrontation (ca. 1862 – 1870 AD)

The Military Confrontation period (1862 – 1870 AD) is characterized by an increasing United States government presence in the form of a chain of military outposts. An unfulfilled treaty between the federal government and the Dakota led to a violent uprising in Minnesota in 1862. This in turn led to major military expeditions by the United States government in 1863, 1864, and 1865. Battles at Whitestone Hill and Killdeer Mountain in 1863 and battles in the Badlands in 1864 diminished Dakota resistance. However, strained relations between federal entities and Dakota populations existed well into the 1890s. Known site types include forts, posts, armories, battlefields, trails, roads, bridges, fords, mail stations, cemeteries, villages, camps, camp sites, dumps, defensive work corrals, barns, storage areas, dwellings, and residences.

3.3.2 American Settlement/Statehood (ca. 1861 – 1889 AD)

The American Settlement period (1861 – 1889 AD) extends through North Dakota's statehood on November 2, 1889. The settlement of North Dakota was a direct tie to the creation of railroads and railroad lines across the state. In 1862, gold was discovered in present day Montana and Idaho, leading to waves of settlers traveling west across North Dakota. In 1864, the Northern Pacific Railroad Company was granted rights to build a railroad through the territory, and in 1871, an expedition with a military escort was sent to scout and survey potential routes. In 1872, the Northern Pacific was built as far as Bismarck, and by the end of the 1870s, railroad links from the east brought homesteaders, including many Norwegian and German immigrants, into the state. Throughout the 1870s and 1880s, towns and settlements developed in order to serve the homesteaders, frontier citizens, and railroad crews working in the territory.

Around 1879, a population boom occurred that had direct ties to the development of organized and highly mechanized, large bonanza farms. These bonanza farms had a dramatic effect on the landscape. For the first time, large sections of the area were cultivated and farmed. On November 2, 1889, President Benjamin Harrison approved the admission of North Dakota to the United States. The new state was a Republican stronghold, with the state government dealing with issues concerning large amounts of resources and wealth being extracted from the state with no reinvestment. This eventually led to the Democratic Party winning elections and in turn reinvesting wealth and resource back into the state. Known site types include towns, colonies, settlements, reservations, businesses, residences, farms, courthouses, city halls, township halls, government office buildings, office jails, police and sheriff's offices, fire stations, maintenance shops, storage yards, buildings and facilities, dumps, warehouses, roads, highways, streets, alleys, bridges, water and sewer treatment facilities, and homes of prominent local leaders.

3.4 Modern Period

3.4.1 The Great Depression (1929 – 1940 AD)

During the Great Depression (1929 – 1940 AD), the slowing national economy heavy from debt, low prices for agricultural goods, crop failures, dust storms, and extreme weather resulted in a series of farm foreclosures, bank failures, and residence and business abandonments in the state. Known site types include abandoned farms, banks, business buildings, city parks, civic improvements, relief facilities, Works Progress Administration projects, and Civilian Conservation Corps camps and project sites.

3.4.2 Modern Industrial Development (ca. 1940 – 1970 AD)

During the Modern Industrial Development period (1940 – 1970 AD), a post-war economy was driving the development of large industrial facilities in order to change raw materials into products for local and national consumption (Remele 1998). Large construction projects, such as dam building and reservoirs allowed farms, corporations, and citizens of the state to control their access to water resources throughout the year in a more predictable manner. Discovery of natural resources, such as oil and coal, allowed the development of these industries in the state.

The beginnings of Cold War stress between the United States and foreign governments generated a perceived need for strategic placement of military bases. In response to this need, in 1960, two large Air Force bases were built in North Dakota at Grand Forks and Minot. Known site types include Air Force installations, armories, storage areas, dwellings and residences, brick plants, concrete plants, blotting plants, meat packing plants, food processing plants, assembly plants, factories, foundries, saw mills, gristmills, gravel potash and uranium mines, tipples, mines, mine entrances, loading and transportation facilities, storage yards, railroad spurs, office buildings, camps, oil wells, gas wells, petroleum product refineries, tank batteries, pipelines, and pumping stations.

3.5 Dickey County History

The information presented in this subsection has been adapted from *A History of Dickey County, North Dakota* (Black 1930), The State Historical Society of North Dakota State Historic Sites website (SHSND 2013), and the *Soil Survey of Dickey County, North Dakota* (United States Department of Agriculture 1993).

The first known exploration party to pass through Dickey County was the Nicollet-Fremont party. In the summer of 1839, the party was sent to explore the tributaries of the Upper Mississippi River Basin, traveling from Pierre, South Dakota to the James River, near Aberdeen, South Dakota. From Aberdeen, the group continued north, following the west bank of the James River, and entered what is now Dickey County, North Dakota.

As part of the United States-Dakota conflict, General Henry H. Sibley and General Alfred Sully crossed Dickey County in 1862 and 1863. The two Generals pursued bands of Dakota moving west, outside of Minnesota, into the Dakota Territory. On September 3, 1863, General Sully's troops attacked a camp of Yanktonai, Dakota, Lakota, and Blackfeet. The subsequent assault at Whitestone Hill led to the death and capture of numerous Native American men, women, and children, while casualties on the military side were relatively few.

The next known expedition that transected the county occurred in 1864 and was led by Captain James L. Fisk, who had received permission from the federal government to escort gold seekers to the Rocky Mountains. In July 1864, another government-sponsored party traversed Dickey County. The party, led by Captain L.S. Burton, was sent to determine whether the James River would provide a suitable area for fort development and construction. The party marched north, following

the east bank of the James River, reaching the area near the Nicollet-Fremont camp of 1839. As timber resources in the area were limited, it was determined that a fort could not be supported on the James River.

The first attempt to organize what is now Dickey County was initiated by the Minnesota Territory in 1850. At that time, the area was included as part of Wahnatah County. This was one of the nine counties that the Minnesota Territory claimed at the time. Wahnatah County was never organized; however, in 1851, Pembina County was created to include all of eastern North Dakota as well as a portion of South Dakota east of the Missouri River. When Minnesota was admitted into the Union on May 11, 1858, all of eastern Dakota was left without a government.

Following the creation of the Dakota Territory in 1861, portions of what is now Dickey County were included in multiple county boundaries. On March 7, 1881, Dickey County was created, taking 21 townships from LaMoure County, three from Ransom County, and a small strip of land on each side of the 46th parallel that had not been previously included in any county.

At that time, no settlers were living within the county borders, and approximately seven miles of the Chicago Milwaukee & St. Paul Railway traversed the new county. Soon, settlers began claiming land around the railroad, with concentrations near the rail terminus. In the late fall of 1881, four men filed claims on the four quarters known as the “center of Ellendale.” This center was created approximately three miles southeast of the rail terminus and consisted of only a few shanties.

By 1882, Dickey County witnessed a great influx of settlers as eastern papers told of homesteading opportunities in the new territory. Towns and settlements were created adjacent to waterways such as the James and Maple rivers and also followed the expansion of the Chicago Milwaukee & St. Paul Railway and the addition of other rail lines. By 1883, multiple stagecoach lines extended out of Ellendale to the northeast connecting to Hudson, to the north connecting to Keystone, and to the west connecting to Fort Yates, Bismarck, and Ashley.

In 1889, the Dakota Territory was divided into two new states: North Dakota and South Dakota. This change did not affect those living in the territories at the time. The early 1890s brought severe drought to the region and many in Dickey County sold their claims and moved on. The county population was 5,573 in 1890 and reached an all-time high of 10,877 in 1930. Due to drought conditions and the Great Depression, the county witnessed a steady population decline. Today the primary economic enterprise in Dickey County is farming. The principal crop consists of spring wheat, although other small grains such as corn, sunflower, millet, hay, and flax are also grown. Livestock is raised primarily in the western quarter of the county in the more undulating landscape. Approximately 73 percent of the county is devoted to cropland or pasture area, and approximately 19 percent is in rangeland.

3.6 James River Archaeological Study Unit

The ND SHPO has divided the state into 13 archaeological study units based on the state’s major drainage basins. These study units were developed to enable a better analysis of prehistory or history in terms of regional adaptations to geography and environmental conditions (Gregg et al. 2008). The North Dakota Facility is located within the James River Study Unit (JRSU). The JRSU is centered on the James River, which flows north to south, in eastern North Dakota. This study unit falls within the Central Lowlands physiographic province and traverses the Glaciated Plains physiographic region (Bluemle and Biek 2007). A detailed discussion of the JRSU can be found in *The North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component: James River Study Unit* (Swenson and

Bleier 2008). A summary of this study unit is available in the Class I Literature Search prepared for this project (Eigenberger et al. 2013).

4.0 Records Search and Literature Review

From October 2012 to September 2014, HDR, on behalf of the Owners, performed several cultural resources records searches and a literature reviews for the North Dakota Facility Study Area as adjustments to the route were made. The record searches were conducted to encompass the Study Area, defined as an area one mile on either side of the North Dakota Facility. On October 19, 2012, HDR received cultural resources locational data for previous cultural surveys, previously identified archaeological sites, and previously recorded architectural properties from the SHSND in the form of geographic information system (GIS) files. A Class I Literature Search for the North Dakota Facility Study Area as it was then defined was completed in July 2013 (Eigenberger 2013). Additional cultural resources file searches were conducted at the SHSND on December 4, 2012, and September 17, 2014, to account for changes in the North Dakota Facility Study Area and to update existing files in preparation for the Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory.

Additional background research for the North Dakota Facility included online review of the National Park Service's National Register of Historic Places (NRHP), online review of historical General Land Office (GLO) plat maps, and a review of the SHPO planning document, *The North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component* (Gregg et al. 2008). Online review of the NRHP was conducted to identify registered sites and districts within the Study Area. GLO maps corresponding to the Study Area were reviewed to identify any potential historical resources that may be present. This section presents the results of the background research conducted for the Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory.

4.1 Previous Surveys

Five cultural resource investigations have been completed in the Study Area (Table 2) (Figure 3 [redacted]). These investigations include surveys for rural water utilities, a sewage lagoon expansion, a communications tower, a transmission line, and a material source area. None of these investigations intersect the North Dakota Facility ROW or Survey Areas.

Table 2. Previous Surveys in the North Dakota Facility Study Area

| Year | SHPO Number | Report | Authors |
|------|-------------|--|-------------------------|
| 1981 | 3020 | Cultural Resources Survey of the Proposed Sewage Lagoon Expansion Site at Ellendale, Dickey County, North Dakota | Fox, S. |
| 1991 | 5496 | A Cultural Resources Inventory of WEB (Phase 7) Construction in Dickey County, North Dakota and South Dakota | Buechler, J. |
| 2005 | 9309 | An Archaeological Survey of a Proposed Communications Tower Site in the Township of Ellendale, Dickey County, North Dakota | Salkin, P. |
| 2007 | 10107 | The Pahl Material Source Area: A Class III Cultural Resource Inventory, Dickey County, North Dakota | Burns, C. G. |
| 2011 | 12310 | Class III Archaeological Resource Inventory for a 230 | Eigenberger, D., et al. |

| | | | |
|--|--|--|--|
| | | kV Transmission Line from the Merricourt Wind Farm to the Ellendale Substation, Dickey and McIntosh Counties, North Dakota | |
|--|--|--|--|

4.2 Recorded Archaeological Sites/Site Leads

One previously recorded archaeological site and one previously recorded archaeological site lead have been identified in the North Dakota Facility Study Area (Table 3) (Figure 3 [redacted]). The previously recorded site and site lead do not intersect the North Dakota Facility ROW or any of the Survey Areas. Site 32DI0034 consists of a historic artifact scatter and foundations. Site lead 32DIx0102 consists of an isolated find and includes one tertiary flake and one biface. The previously recorded site and site lead have not been evaluated for NRHP eligibility.

Table 3. Archaeological Sites/Site Leads in the North Dakota Facility Study Area

| Site Number | County | Township | Range | Section | Site Type | NRHP Eligibility |
|-------------|--------|----------|-------|---------|-------------------------------------|------------------|
| 32DI0034 | Dickey | █ | █ | █ | Historic Artifact Scatter/Farmstead | Unevaluated |
| 32DIx0102 | Dickey | █ | █ | █ | Precontact Isolated Find | Unevaluated |

Exact location redacted.

4.3 Architectural Properties

No previously identified architectural properties have been recorded in the North Dakota Facility Study Area.

4.4 NRHP Listed Properties

No NRHP listed properties have been identified within the North Dakota Facility Study Area.

4.5 General Land Office (GLO) Map Research

Official GLO survey plats corresponding with the North Dakota Facility Study Area were examined to identify areas that may have potential for containing historical era cultural resources.

Archaeological sites may be present in locations where historic resources have been documented on the GLO maps.

These maps reveal that by 1882, both Ellendale and Van Meter townships contained evidence of Euro-American settlement (North Dakota State Water Commission 2013) (Table 4). Most evidence of settlement includes named residences scattered across the landscape. Settlement concentrations were identified west of the Maple River in Township 129N, Range 62W. Additional features identified on the GLOs include agricultural fields and the Chicago, Milwaukee & St. Paul Railway. The Chicago, Milwaukee & St. Paul Railway rail line extends across the entirety of Township 129N, Range 63W, transecting the eastern portion of the township. The rail line extends almost directly north to south with a slight northwest-southeast angle. One residence was identified adjacent to the rail line in Township 129N, Range 63W, Section 11. No other features were identified in Township 129N, Range 63W.

Table 4. GLO Map Resources

| Township | Range | Section(s) | Civil Township | Resource Type |
|----------|-------|------------|----------------|--|
| 129N | 62W | 2 | Van Meter | Residence of Geo. Perry in the SE 1/4 |
| 129N | 62W | 4 | Van Meter | Residence of H. Helferty in the SE 1/4 and the residence of W. Helferty in the SW 1/4 |
| 129N | 62W | 6 | Van Meter | Residence of W. Moran in the NE 1/4, the residence of E.R. Harkness in the NW 1/4, the residence of Carrie Hanck in the SE 1/4 and the residence of D.W. Holbrook in the SW 1/4 |
| 129N | 62W | 7 | Van Meter | Residence of D. Johnson in the NE 1/4, the residence of L. Osborne in the NW 1/4, the residence of G. Menthorn in the SE 1/4, and the residence of E.N. Leiby in the NW 1/4 |
| 129N | 62W | 9 | Van Meter | Residence of B.E. Cook in the NE 1/4, the residence of R. Jackson in the SE 1/4, and the residence of J.C. Hood in the NW 1/4 |
| 129N | 62W | 10 | Van Meter | Residence of G.S. Stewart in the NE 1/4, the residence of S.B. Cook in the NW 1/4, the residence of H. Goschkee in the SE 1/4, and the residence of J. Chamberlin in the SW 1/4 |
| 129N | 62W | 11 | Van Meter | Residence of H.H. Glenn in the NE 1/4, and the residence of A.W. Glenn in the NW 1/4 |
| 129N | 62W | 15 | Van Meter | Residence of F. Snell in the NW 1/4 and the residence of G.H. Spangler and associated agricultural field in the SW 1/4 |
| 129N | 62W | 16 | Van Meter | Residence of E.P. Lauback in the SE 1/4 |
| 129N | 62W | 17 | Van Meter | Residence of D. Barrister in the NE 1/4, the residence of C. Blackmer in the NW 1/4, the residence of A.H. Cornwell in the SE 1/4, and the residence of J. Lauback in the SW 1/4 |
| 129N | 62W | 19 | Van Meter | Residence of Mary Culbertson in the NE 1/4 and the residence of A. Gilbert in the SE 1/4 |
| 129N | 62W | 20 | Van Meter | Residence of Jennie Bonnie in the SE 1/4 and the residence of W.S. Gilbert in the SW 1/4 |
| 129N | 62W | 30 | Van Meter | Agricultural field in the SE 1/4 |

| | | | | |
|------|-----|-------------------------|-----------|--|
| 129N | 62W | 31 | Van Meter | Residence of O.H. Bonker and an agricultural field in the NE 1/4, the residence of W.P. Brown in the NW 1/4, the residence of E. Hollenbeck in the SE 1/4, and the residence of A.J. Cross in the SW 1/4 |
| 129N | 62W | 32 | Van Meter | Residence of E. Leighton in the NE 1/4, the residence of F. Bonker in the NW 1/4, and the residence of G.W. Gross in the SW 1/4 |
| 129N | 63W | 2, 11, 13-14, 23-25, 36 | Ellendale | The Chicago, Milwaukee & St. Paul Railway extends N-S at a slight angle |
| 129N | 63W | 11 | Ellendale | Residence of Francis M. Dann in the SE 1/4 |

Figure containing sensitive material has been redacted.

5.0 Research Design

5.1 Objectives

The Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory was undertaken to identify any new archaeological sites and Traditional Cultural Properties and to assess the condition of any previously recorded cultural resources in the North Dakota Facility ROW. All work was done in accordance with the *Historic Preservation in North Dakota Volume II: A Statewide Comprehensive Plan* (SHSND 2003), *North Dakota SHPO Guidelines Manual for Cultural Resource Inventory Projects* (SHSND 2006), and *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* [48 Federal Register 44716-44740] (National Park Service [NPS] 1983).

5.2 Methods

5.2.1 Cultural Resource Survey Strategy

In preparation for the Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory, HDR developed a Cultural Resources Survey Strategy that was approved by ND SHPO in July 2013. This survey strategy distinguishes methods and approaches for surveying segments of the Project route that would require federal permits and approvals from segments of the Project route that are not under the jurisdiction of a federal agency.

Project Segments Requiring Federal Permits or Approvals

The cultural resource survey strategy for segments of the Project route that require federal permits or approvals are determined by the responsible federal agency. Currently, the only segments for the North Dakota Facility that would require federal review would be under the jurisdiction of USACE. The trigger for these reviews would be Section 404 permits. In accordance with the regulations, 36 CFR Part 800, the responsible federal agency determines the Area of Potential Effects (APE) and may require an intensive cultural resource survey of their APE.

Project Segments Not Under the Jurisdiction of a Federal Agency

The cultural resource survey strategy for Project segments not under the jurisdiction of a federal agency is based on several variables for selection of survey areas. The variables discussed below provided the basis for determining where to conduct intensive survey. These are based on the presumptions that historic properties are not randomly distributed across the landscape, that certain types of significant sites are more likely to be encountered in association with certain landforms and conditions than others, and that the likelihood of locating significant properties is substantially reduced when recent disturbances such as cultivation are present. These variables include:

- Land Ownership.
 - Areas under federal ownership or jurisdiction are excluded from the sample survey strategy. Only those portions of the Project route that are not subject to federal permits are the subject of this sampling approach.
- Property Types and Proximity.
 - Archaeological sites are generally vulnerable only to physical alterations. The 500-foot-wide Survey Corridor has been developed to account for physical disturbance attributable to construction activities within which survey efforts to locate archaeological properties will be conducted.

- TCPs are vulnerable to visual and physical disturbances attributable to transmission line construction and operation. The survey strategy includes areas identified by the SWO as warranting survey to account for their concerns.
- Past Land Use.
 - Rangelands that have not been plowed retain sufficient integrity for encountering intact cultural resources. Important archaeological sites may be encountered on rangelands, particularly where cobbles from glacial till deposits were used to construct geometric arrangements of stones signifying prehistoric occupations (i.e. stone circles, cairns, etc.). Such areas would be subject to intensive cultural resource survey. Dense vegetation cover can obscure surface visibility in these areas, and may merit shovel testing in some segments to examine the mineral surface and subsurface, and expose any artifacts beneath the vegetative cover as part of the survey strategy.
 - Cultivation damages and can diminish the likelihood of finding significant cultural resources. Decades of plowing and contouring fields for agricultural purposes disrupts the integrity of archaeological sites situated within the plow zone. For any sites that extend below the plow zone, plowing results in a disturbed overlying soil layer that can buffer buried intact deposits from compaction attributable to construction activities. Consequently, intensive surveys are not proposed for cultivated fields. The only exception to this practice will be when known sites are identified in a cultivated setting that intersect or are immediately adjacent to the cultural survey corridor or any newly discovered sites are identified that are immediately adjacent to a cultivated setting. A discovery plan would be developed to account for the remote chance of encountering intact buried cultural deposits at structure footprints in cultivated fields, and elsewhere as needed.
 - Other recent disturbances can negate the chances of finding important archaeological remains. Highway and rail line beds and berms, industrial parks, and other similar types of historic developments usually mask and disrupt the integrity of near surface cultural deposits to the extent they are unrecognizable. Such areas have been excluded from cultural resource survey efforts.
- Proximity to Sensitive Environmental Features.
 - Human behavior is non-random. Consequently, archaeological sites are not distributed randomly. The distribution of archaeological sites across the landscape often correlates with the distribution of critical resources, such as water, timber, and proximity to other important plant and animal resources, as well as with vantage points from which observations of the immediate environment could be conducted. Archaeological sites of greatest importance are often found where depositional environments allow for their preservation and protection. Areas above shorelines, terraces, overbank deposits, and cutbanks along water courses, upland flats, and promontories and overlooks provide conditions where sites are often situated and where depositional circumstances may contribute to their preservation, particularly where cultivation has not occurred. Such areas warrant intensive survey for archaeological sites.

- Other environmental conditions can prevent the preservation of archaeological sites, such as steep slopes along the edge of the Coteau that are subject to mass wasting (i.e. mechanical erosion that can transport archaeological remains out of their original context). However, the base of steep slopes can be subject to colluvial or alluvial deposition that may preserve archaeological sites. In addition steep slopes with large boulders may contain examples of pictographs, petroglyphs, and ceremonial stone features or hunting blinds that represent specialized activities. Consequently, steep slopes will not be dismissed from the survey.
- Properties Listed on the NRHP will be considered as part of the survey strategy.
- Previously Identified Properties.
 - Cultural resources that were previously identified along the preferred route may have been determined ineligible, eligible, or were not evaluated for NRHP eligibility. Properties previously determined eligible or unevaluated within the Project APE will warrant an examination by survey crews to assess their current condition and whether they are vulnerable to effects from the Project.
 - Properties previously determined ineligible may not merit further consideration for purposes of the Project.
 - Previously identified properties that have not been evaluated will merit further examination if they are situated within the Project's APE.
- Native American Sensitive Areas.
 - The survey strategy accommodates identification of properties of traditional religious and cultural importance to the SWO. Consequently, the survey strategy for these properties was designed in consultation with the SWO. The SWO are amenable to a sample survey strategy that targets segments of the preferred route known or suspected to retain such properties. Visual intrusions from the Project are less of a concern to the SWO than the physical intrusions that may occur.
 - Tribal representatives will participate in the survey with the Project's archaeology crew and will contribute their observations to the survey results.

5.2.2 Archaeological and TCP Survey

Identification of Survey Areas

On November 14, 2013, HDR Archaeologists Alan Stanfill and Stephen Sabatke performed a preliminary reconnaissance survey of the North Dakota Facility with SWO THPO representatives Kent Good and Wayne Cloud. The purpose of this reconnaissance survey was to determine where intact archaeological resources and locations of TCPs are likely to occur. HDR staff and THPO representatives examined the entire North Dakota Facility through windshield survey from public access roads to identify areas along the North Dakota Facility with potential for containing intact archaeological resources and/or TCPs. These areas were selected for pedestrian survey based on their applicability to the cultural resource survey strategy detailed above, their location within United States Army Corps of Engineers (USACE) jurisdictional wetland boundaries, and information provided by THPO representatives. Although cultivated areas have low potential for retaining intact archaeological resources and/or TCPs, and most would not require systematic survey, some cultivated fields were identified for further investigation based on proximity to USACE jurisdictional

wetland boundaries. The areas with potential for containing intact archaeological resources and/or TCPs were designated as Survey Areas and each was assigned a unique designation (Survey Area A, Survey Area B, etc.). Four Survey Areas were identified within the North Dakota Facility (Figures 4-7).

Archaeological and TCP Field Survey

Each Survey Area was visually inspected to confirm its characteristics for fitting into the survey strategy criteria above. A Trimble GPS unit loaded with the survey segment was used to guide the surveyors during the review. Each viable Survey Area was pedestrian surveyed with 10 transects spaced at intervals of 15 meters. Rodent burrow spoil piles, cut banks of streams and draws, and other exposed surfaces within the Survey Area were routinely examined for cultural material. Portions of the project area disturbed by earth-moving or development, or within wetland habitat, were not systematically surveyed. Subsurface testing was not completed across the Survey Areas as ground surface visibility was 25 percent or greater in the portions of each survey location that required systematic survey. A narrative of each Survey Area was documented in a field notebook, which included the Survey Area locations and brief description of the current environmental conditions with each area. A digital camera was used to photograph each Survey Area. No artifacts were collected or encountered during the survey.

5.2.3 Artifact Collection Policy

The policy for this project was to not collect artifacts for analysis, but to record artifacts in the field. No cultural materials were identified during the Class III Intensive Archaeological and Traditional Cultural Property Resources Investigation of the North Dakota Facility.

6.0 Survey Results

The cultural resources survey for archaeological sites and TCPS in the North Dakota Facility was conducted on October 14 and November 5, 2014. The following work summary is divided by township, range, and section, and Study Area. The Survey Area descriptions move from northwest to southeast. Individual Survey Area descriptions include specific locations, land use, ground surface visibility, survey methods, and recommendations.

6.1 Survey Area Coverage

6.1.1 Township 129 North, Range 63 West, Sections 22 and 24

Survey Area A (T129N, R63W, S22), Structure Location 14

Survey Area A extends approximately 500 ft. north-south near the center of Section 22 (Figure 4). This survey area is located in a low-lying area along a modified intermittent stream that widens into a pond. The pond has resulted from an earthen dam located approximately 150 ft. to the east of the survey area. The area has a low, gently rolling landscape with a gradual slope towards the pond (Figure 5). To the north and south are cultivated fields with planted corn. Ground surface cover in the survey area at the time of survey was a mix of cattle grazed grassland and wetland grasses.

HDR and THPO representatives identified this area for survey based on the presence of rangeland surrounding a small drainage and because the drainage was identified as a USACE jurisdictional wetland. Pedestrian survey of the Survey Area A was conducted with THPO representatives. Ground surface visibility was greater than 25 percent as numerous cattle trails, wallows, animal burrows, and other areas of exposed soil were present. No cultural materials or TCPs were

identified. Survey Area A has low potential for containing subsurface deposits and is recommended for no additional survey.

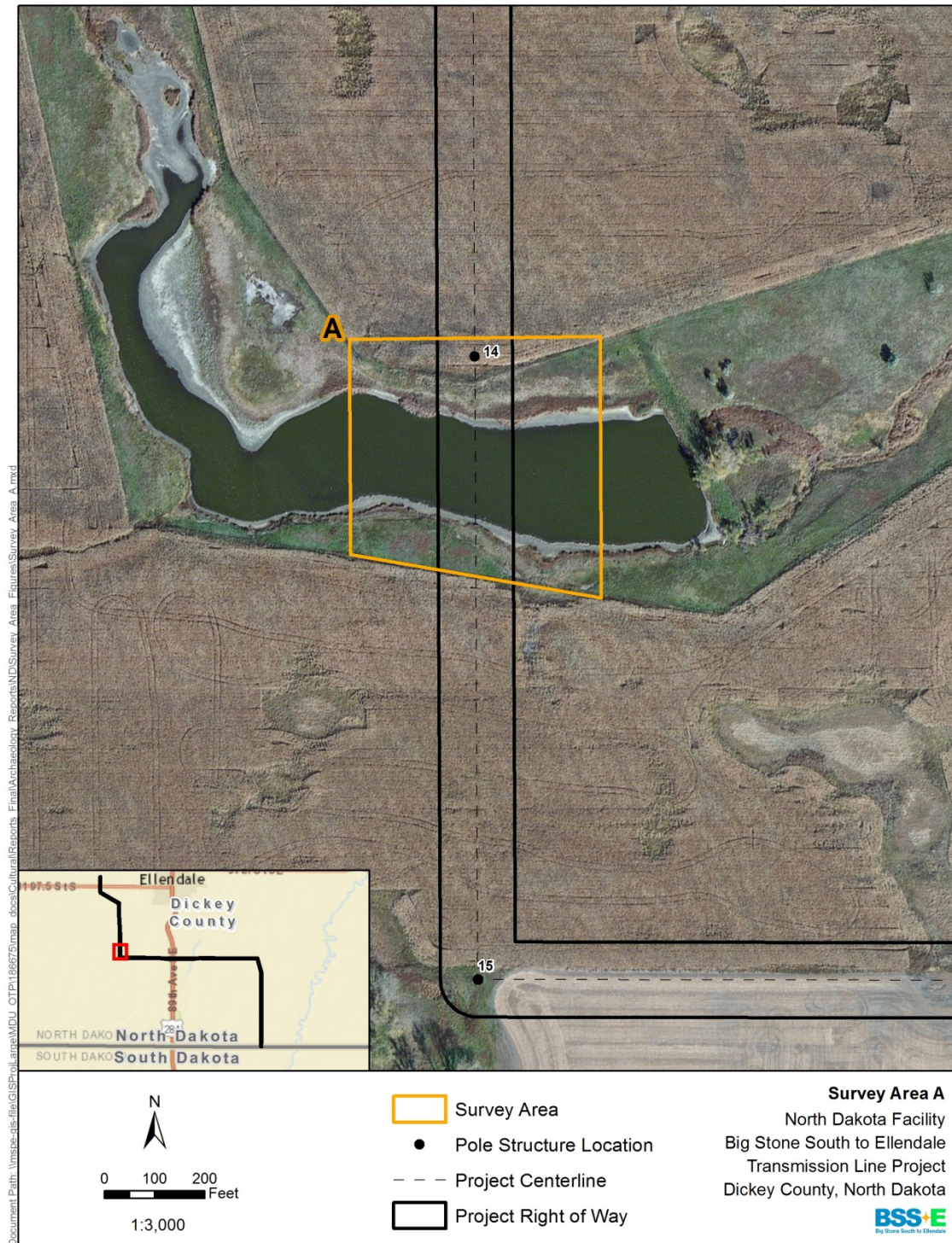


Figure 2. Survey Area A.



Figure 3. Survey Area A Overview, View to North.

Survey Area B (T129N, R63W, S24), Structure Locations 24 – 25

Survey Area B extends 0.5 mile east from the center of Section 24 to the section line of Section 24 and Section 19 (Figure 6). Most of Survey Area B is located in a level cultivated field with harvested soybean vegetation (Figure 7). Surface visibility in the field at the time of survey was 50 percent. The west end of Survey Area B is a low-lying seasonal wetland with tall grass vegetation (Figure 8).

HDR and THPO representatives initially identified this area for survey based on the presence of a USACE jurisdictional wetland. After visual inspection of this area during the Class III survey, THPO representatives determined there was low potential for TCPs in this area due to extensive cultivation up to the wetland margins and declined to survey this area. Although the potential for encountering TCPS was determined to be low in this area, HDR's Principal Investigator reviewed the area because of the federal jurisdiction of the wetland, the size of the wetland, and the small riparian area adjacent to the wetland. No cultural materials were identified during the pedestrian survey and HDR recommends no additional survey for this area.

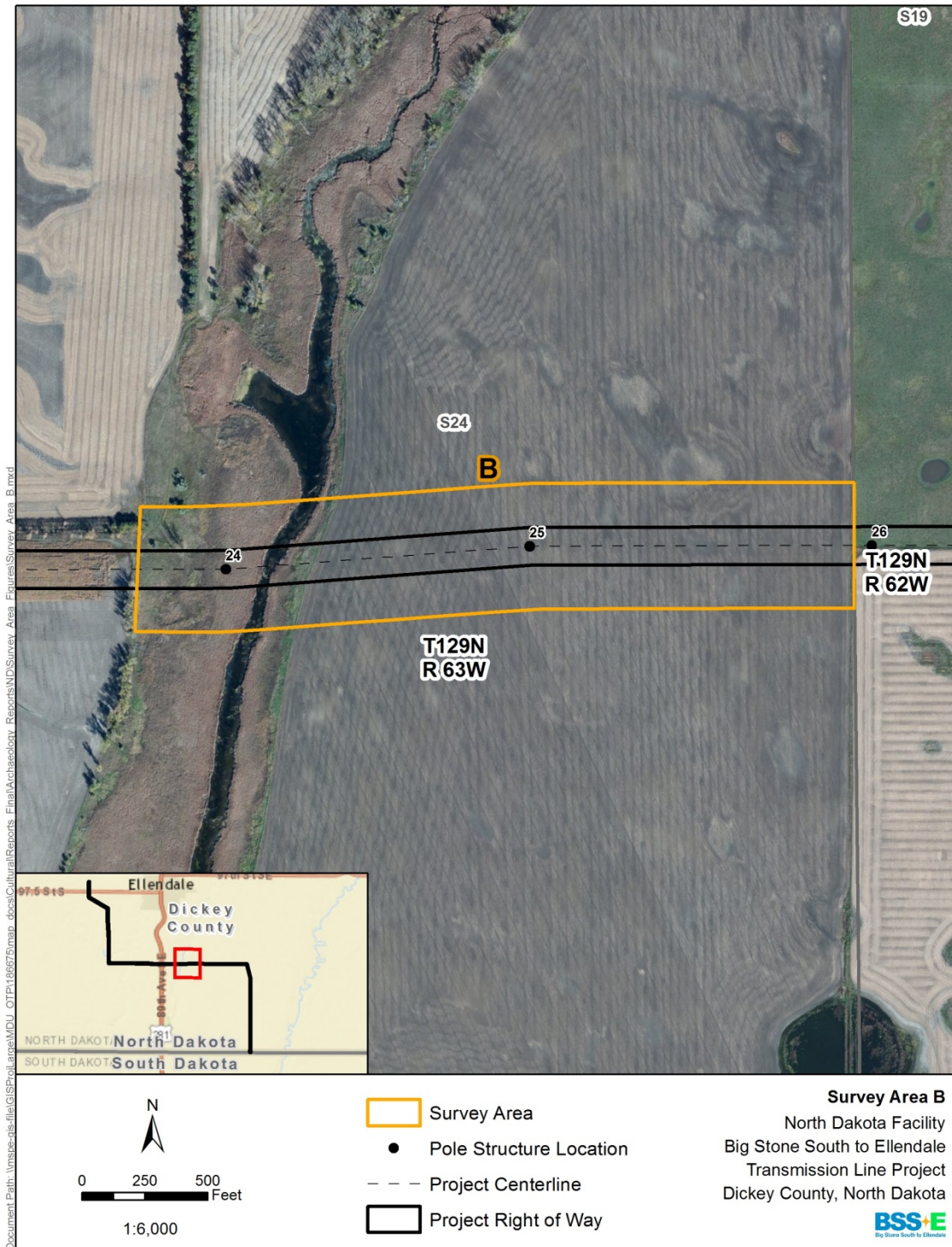


Figure 4. Survey Area B.



Figure 5. Survey Area B Cultivated Field, View to West.



Figure 6. Survey Area B West End Wetland, View to West.

6.1.2 Township 129 North, Range 62 West, Sections 19, 20, and 29

Survey Area C (T129N, R62W, S19 and 20), Structure Locations 29 – 33

Survey Area C extends east for 0.75 mile from near the middle of Section 19 to near the middle of Section 20 before turning southeast for 1,000 ft. (Figure 9). Survey Area C is located in a level cultivated field with harvested soybean vegetation (Figure 10).

HDR's Principle Investigator and THPO representatives initially identified this area for survey based on the presence of two wetlands that fall under USACE jurisdiction. After visual inspection of this area during the Class III survey, HDR's Principal Investigator and THPO representatives determined there was low potential for archaeological resources and TCPs in this area due to extensive cultivation up to and through the margins of the wetlands. As a result, Survey Area C was not pedestrian surveyed. HDR recommends no additional survey in Survey Area C.

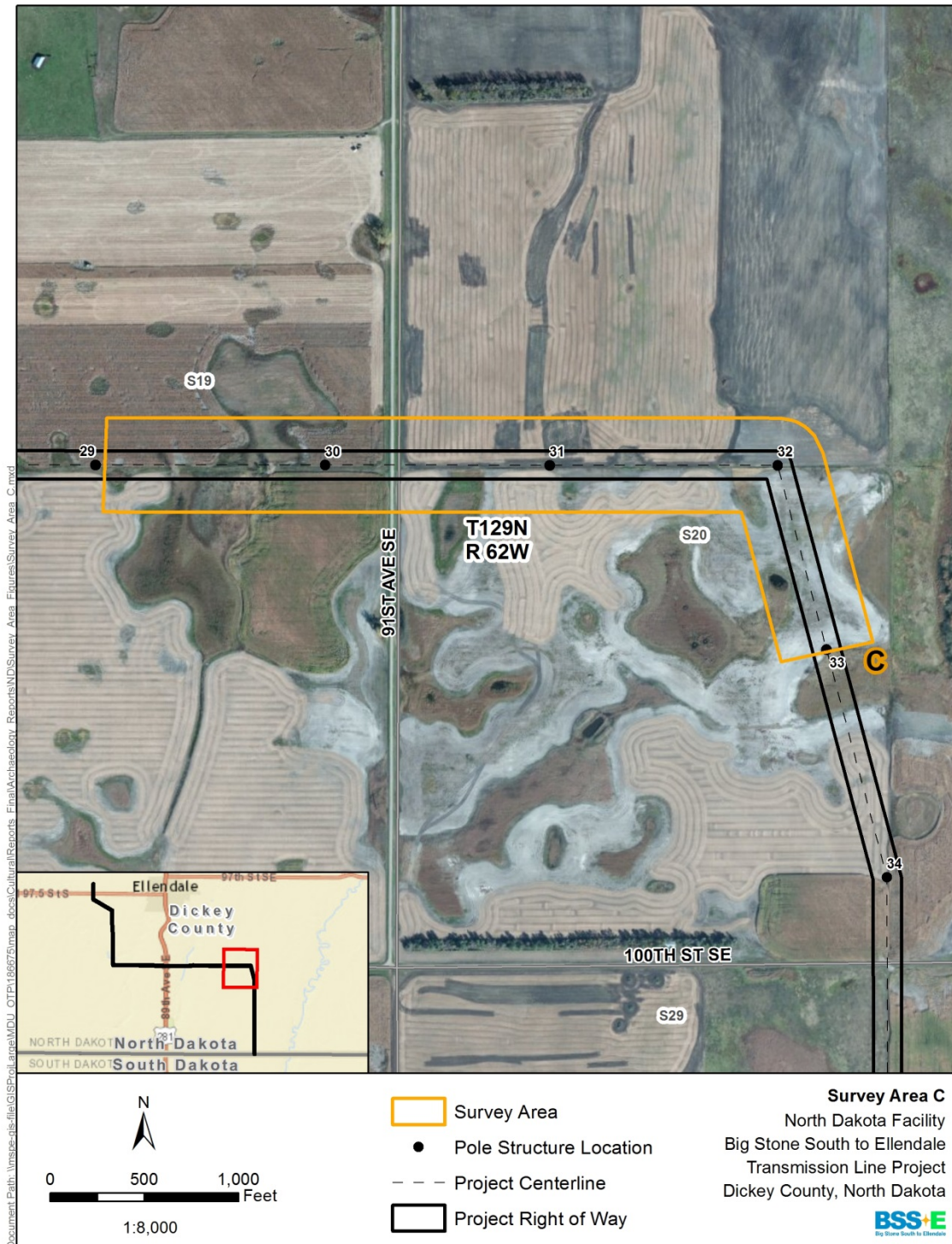


Figure 7. Survey Area C.



Figure 8. Survey Area C Overview, View to East.

Survey Area D (T129N, R62W, S29), Structure Location 36

Survey Area D extends approximately 0.25 mile north-south near the center of Section 29 (Figure 11). The east half of Survey Area D is encompassed by a former farmstead yard and shelterbelt (Figure 12). The west half of Survey Area D was located in a cultivated soybean field at the time of survey (Figure 13).

HDR's Principle Investigator and THPO representatives initially identified this area for survey based on the presence of uncultivated land, presence of a likely tree shelterbelt, and the presence of what seemed to be abandoned ruined buildings. Pedestrian survey of this area was conducted with THPO representatives. Ground surface visibility was 50 percent in the cultivated soybean field. No cultural materials were identified during pedestrian survey of the soybean field.

Pedestrian survey of the former farmstead yard and shelterbelt area revealed it has been extensively modified by earth moving equipment. Most of the tree vegetation in this area has been removed and placed in large debris piles (Figure 14). The remains of a modern era metal grain bin was identified in one of these piles near the middle of the of the survey area. An extant modern era metal grain bin was identified near the north end of the survey area (Figure 15). Soil scarring is present throughout this area as a result of the tree removal. A remnant grove of trees is located in an inundated, low-lying area near the middle of this area (Figure 16). No artifacts or evidence of former structures (other than the grain bins) associated with the former farmstead were found in this area. There is no evidence of structures at this location, other than the grain bins, on aerial photographs from 2003 to the present (Figure 17).

No artifacts or TCPs were identified within Survey Area D. A former farmstead may have been located in this area, but no evidence of it is present except for the remains of modern, metal grain bins. If a former farmstead was located here at one time, it was likely destroyed by extensive earth moving activities in the area.



Figure 9. Survey Area D



Figure 10. Survey Area D Former Farmstead Area, View to East.



Figure 11. Survey Area D Soybean Field, View to North.



Figure 12. Survey Area D Example of Tree and Debris Pile, View to Northeast.



Figure 13. Survey Area D Extant Metal Grain Bin and Debris Piles, View to East.



Figure 14. Survey Area D Inundated Tree Grove, View to East.



Figure 15. 2003 Aerial Photograph of Farmstead Area in Survey Area D.

7.0 Conclusions and Recommendations

The Class III Intensive Archaeological and Traditional Cultural Property Resources Inventory, was conducted by HDR and the SWO THPO of four Survey Areas in the Survey Corridor that were selected based on the survey strategy model and a preliminary reconnaissance survey of the North Dakota Facility. The four survey areas include approximately 2 miles of the transmission line ROW in North Dakota, totaling approximately 110 acres.

No new archaeological sites or TCPs were identified within the four survey areas. Based on these results, a finding of “No Historic Properties Affected” for archaeological sites and TCPs is warranted provided the North Dakota Facility is completed as designed and documented. In the event any discoveries occur during construction activities, the procedures provided in the North Dakota Cultural Resource Discovery Plan for the Project will be implemented.

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