



TETRA TECH EC, INC.

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Jerry Lein
North Dakota Public Service Commission
600 E. Blvd. Dept. 408
Bismarck, ND 58505-0480

PUBLIC SERVICE COMMISSION

SUBJECT: Baldwin Wind Energy Center, Case No. PU-09-668

Dear Mr. Lein,

On behalf of NextEra Energy Resources, Inc., Tetra Tech is pleased to provide you one original and ten copies of the following reports in support of the Application for a Certificate of Site Compatibility for the Baldwin Wind Energy Center:

- Wildlife Baseline Studies, Final Report (missing pages in Application)
- Native Prairie Survey Report (missing pages in Application)
- Class III Cultural Resources Inventory Report (completed after Application was submitted)

Please add these reports to the project file. Note that the northern portion of the Project Area in Grass Lake Township has not yet been surveyed for cultural resources; this survey will begin next week and an addendum report will be submitted once it is complete.

Feel free to contact me at (617) 443-7552 or Tracey.Martorano@tetrattech.com if you have any questions.

Sincerely,

TETRA TECH EC, INCORPORATED

Tracey M. Martorano, P.E.
Senior Project Manager

MANUSCRIPT DATA RECORD FORM

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- 2. SHPO Reference #:
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Burleigh	141	79	2-5, 8-13, 15	SM
	142	79	8-9, 16-17, 19-22, 25, 27-34	SM

Baldwin Wind Energy Center: A Class III Cultural Resource Inventory in Burleigh County, North Dakota

Prepared for:
Tetra Tech, EC

on behalf of
NextEra Energy Resources, LLC

Principal Investigator:
Kimball Banks, PhD

Prepared by:
Aaron L. Barth and Ed Stine
Metcalf Archaeological Consultants, Inc.
Bismarck, North Dakota

March 2010

Abstract

Tetra Tech, EC, on behalf of NextEra Energy Resources, LLC, contracted with Metcalf Archaeological Consultants, Inc. to conduct a Class III cultural resource inventory for a proposed wind farm northeast of Baldwin in Burleigh County, North Dakota. Western Area Power Administration (Western) is the lead Federal Agency for the project, which necessitated providing the information necessary for Western to comply with the National Historic Preservation Act (Public Law 89-665), as amended, and its implementing regulations, 36 CFR Part 800.

The undertaking involves the construction of wind turbines and associated access road and collector line corridors. The undertaking area of potential effects is located within portions of the following legal locations in Burleigh County, North Dakota: T. 141 N., R. 79 W., sections 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, and 15, and T. 142 N., R. 79 W., sections 8, 9, 16, 17, 19, 20, 21, 22, 25, 27, 28, 29, 30, 31, 32, 33, and 34. It is adjacent to the already functioning Burleigh County Wind Energy Center, east of Wilton, North Dakota (Stine et al. 2005, 2006).

Metcalf Archaeological Consultants, Inc. was contracted to inventory approximately 76 turbine blocks, a substation block, and the associated access road and collector line corridors. Of the 76 blocks, 66 will be used for wind turbine construction. Most of the inventoried blocks measure 500 feet by 500 feet (5.7 acres each), although 20 of the blocks are 600 feet by 700 feet (9.6 acres each). Extra space needs are anticipated at these 20 locations for vehicle maneuvering. The substation block is situated within a larger block (900 feet EW by 700 feet NS) already inventoried for the Burleigh Wind Energy Center and no additional inventory for the substation was conducted. All corridors are 200 feet wide and run between turbine blocks or along existing road ways and section lines.

The inventory was conducted between October 7 and October 28, 2009. The field crew consisted of Ed Stine, Project Director, Crew Chiefs Aaron Barth and Andrea Kulevsky, and crew members Bill Christensen, Nichole Reisdorf, Jonathan Schwartz, and Derek Sondeland.

Two architectural historic sites, 32BL654 and 32BL655; six archaeological sites, 32BL653, 32BL656, 32BL657, 32BL658, 32BL659, and 32BL660; and three isolated finds, 32BLx120, 32BLx121 and 32BLx134, were identified during the inventory.

The two historic architectural sites consist of a schoolhouse (32BL654) and a farmstead with three structures (32BL655). Neither appears to be eligible for inclusion in the National Register of Historic Places (NRHP), but the proposed wind farm construction and operation will not directly affect the sites.

Of the six archaeological sites, five sites are stone cairns (32BL653, 32BL656, 32BL657, 32BL658, 32BL659) and one site is a stone circle (32BL660). Cairns are known to have served a variety of functions including marking caches, trails, and locations, serving as burial caps, and also associated with other domestic and ceremonial purposes. Stone circle sites also have numerous functions associated with social, domestic and ceremonial activities. Although the archaeological sites have not been evaluated for inclusion in the NRHP, they may qualify as properties "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). The three isolated finds consist of lithic artifacts. The isolated finds are recommended as not eligible for inclusion in the NRHP.

Because their eligibility for inclusion in the NRHP has not been evaluated, it is recommended that the six archaeological sites be avoided by all activities associated with the undertaking. This can be achieved by erecting fences around them before the onset of construction. The sites are far enough from the proposed turbines and corridor centerlines that no turbine will need to be moved and only minor shifts within the 200 foot wide corridors will be needed to avoid the fenced sites. Provided that the archaeological sites are fenced and avoided, a finding of *No Historic Properties Affected* is recommended for the proposed undertaking as surveyed, mapped and described herein.

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Chapter 1: Introduction

Introduction

Tetra Tech, EC, on behalf of NextEra Energy Resources, LLC, contracted with Metcalf Archaeological Consultants, Inc. (MAC) to conduct a Class III cultural resource inventory of the proposed Baldwin Wind Energy Center northeast of Baldwin in Burleigh County, North Dakota. Western Area Power Administration (Western) is the lead Federal Agency and, as such, is responsible for compliance with the National Historic Preservation Act, as amended (NHPA [Public Law 89-665]) and its implementing regulations, 36 CFR Part 800. The inventory located two historic architectural sites, six archaeological sites, and three isolated finds within the undertaking area of potential effects (APE). MAC recommends that the two architectural sites and isolated occurrences are not eligible for inclusion in the National Register of Historic Places (NRHP) and do not have to be avoided. Survey data are insufficient to evaluate the eligibility of the archaeological sites and avoidance is recommended; Tetra Tech, EC, anticipates that construction will avoid the archaeological sites. Provided that the archaeological sites are avoided, a determination of *No Historic Properties Affected* is recommended for the undertaking as documented and mapped herein. If they cannot be avoided, the sites will need to be evaluated with respect to their NRHP eligibility before the project can proceed.

Project Description

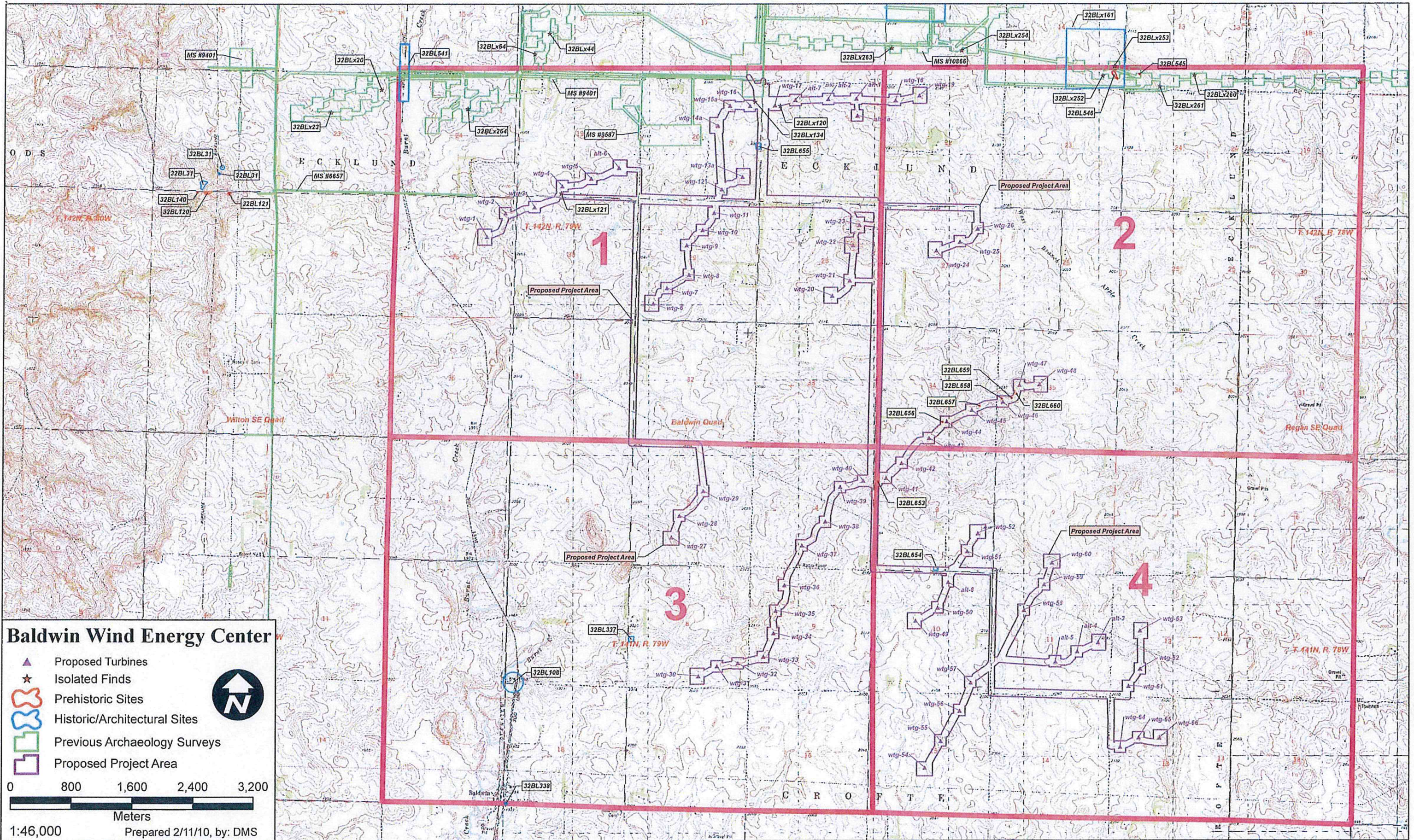
The undertaking involves the construction of wind turbines, a substation, collector lines, and access roads. The turbines will be constructed within blocks to allow for construction activities. A total of 76 blocks were inventoried, of which 66 will be used for wind turbine locations with the remaining 10 being alternate locations. Most of these blocks measure 500 feet by 500 feet (5.7 acres each), although 20 measure 600 feet by 700 feet (9.6 acres each). The extra space at these 20 blocks allows for vehicle turn around and maneuvering at the end of turbine strings. The collector lines and access roads will be constructed within 200 foot wide corridors that run between the turbine blocks or along existing roadways and section lines. The substation block is situated within a larger block (900 feet EW by 700 feet NS) already inventoried for the Burleigh Wind Energy Center and no additional inventory for the substation was conducted. Approximately 55.9 miles of 200 foot wide corridor (1,355 acres) and 512 acres of block inventory were conducted. In all, 1,867 acres were inventoried for the proposed undertaking.

Project Location

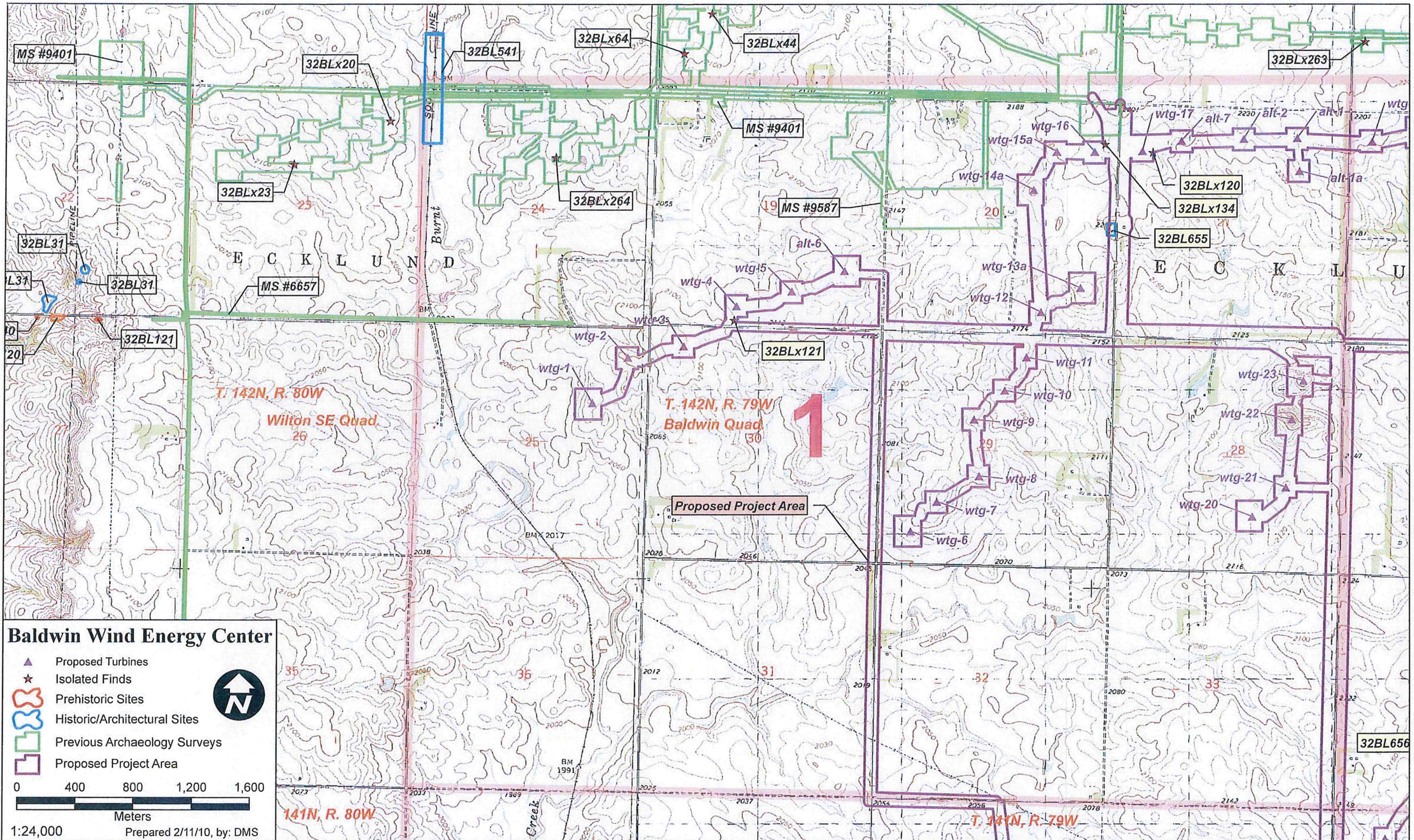
The undertaking area of potential effects (APE) is located in Burleigh County, North Dakota. The APE is adjacent to the already functioning Burleigh County Wind Energy Center east of Wilton (Stine et al 2005, 2006) and falls within portions of the following townships and ranges:

- T. 141 N., R. 79 W., sections 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, and 15
- T. 142 N., R. 79 W., sections 8, 9, 16, 17, 19, 20, 21, 22, 25, 27, 28, 29, 30, 31, 32, 33, and 34.

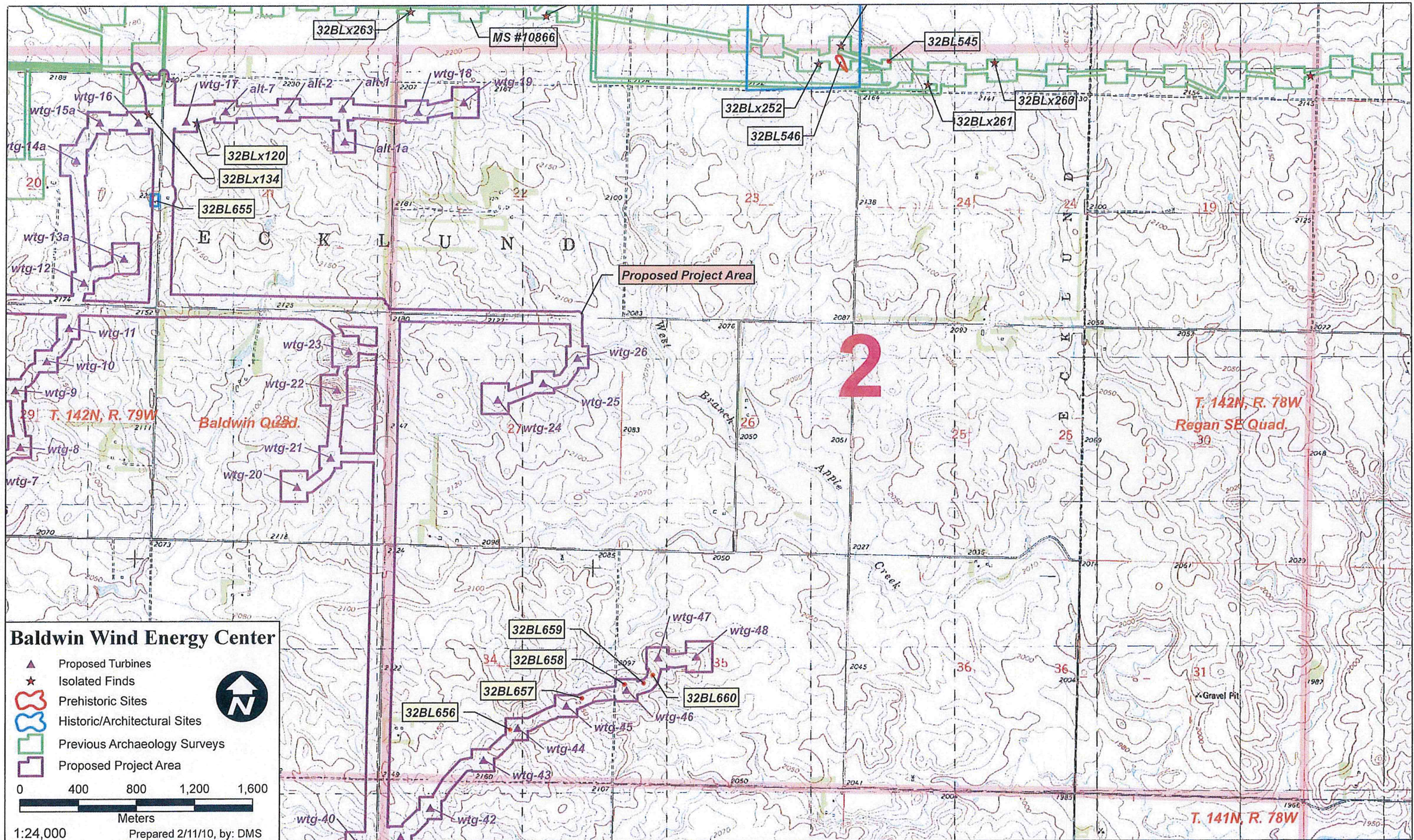
The APE encompasses portions of the Grass Lake (1979), Baldwin (1979), Wilton SE (1966, photorevised 1976) and Wilton (1966) USGS 7.5' topographic maps. The appropriate sections of these maps that depict the locations of the turbine blocks, and collector lines, and access roads are reproduced in (Maps 1-5).



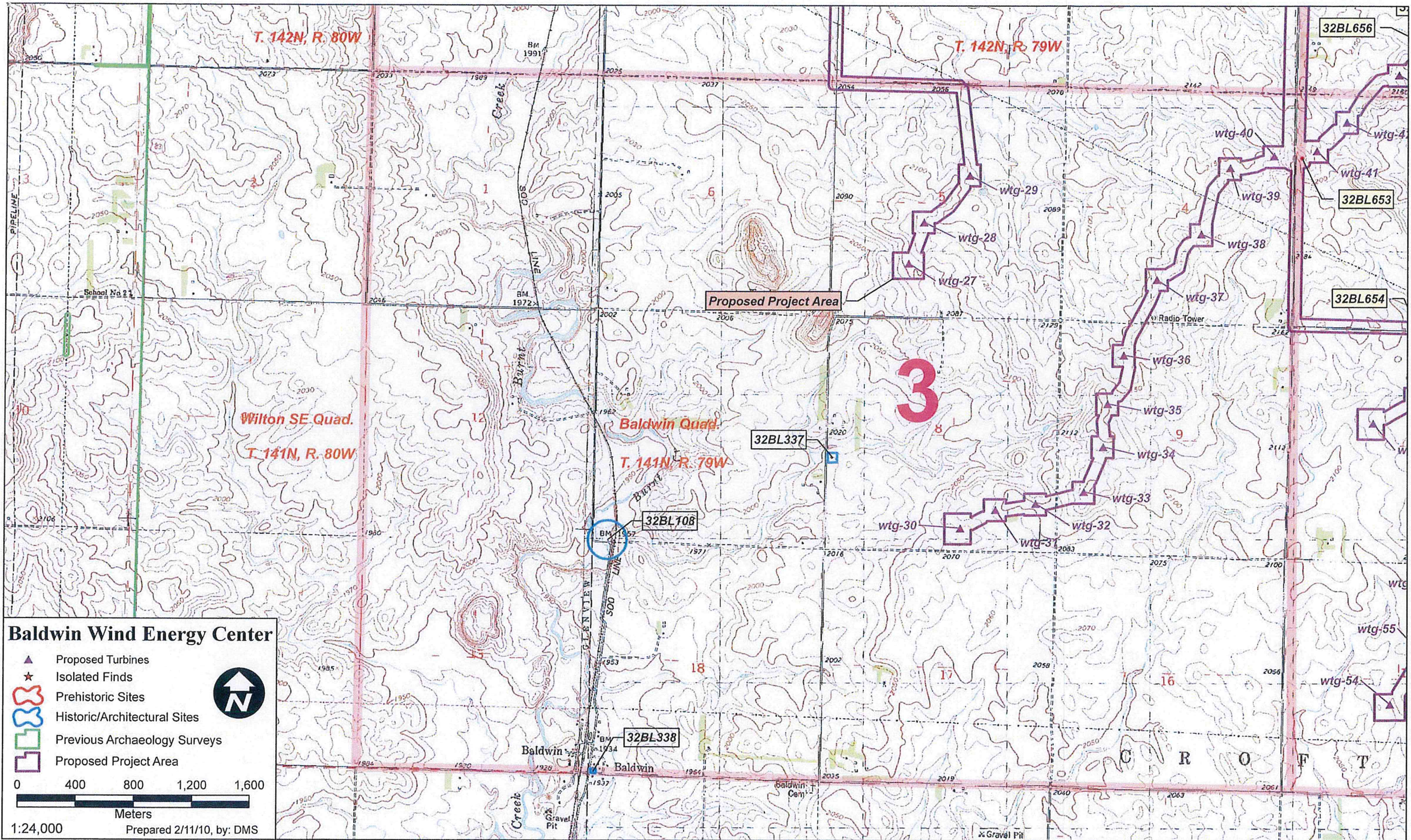
Map 1: Key Overview Map, details to follow in maps 2-5.



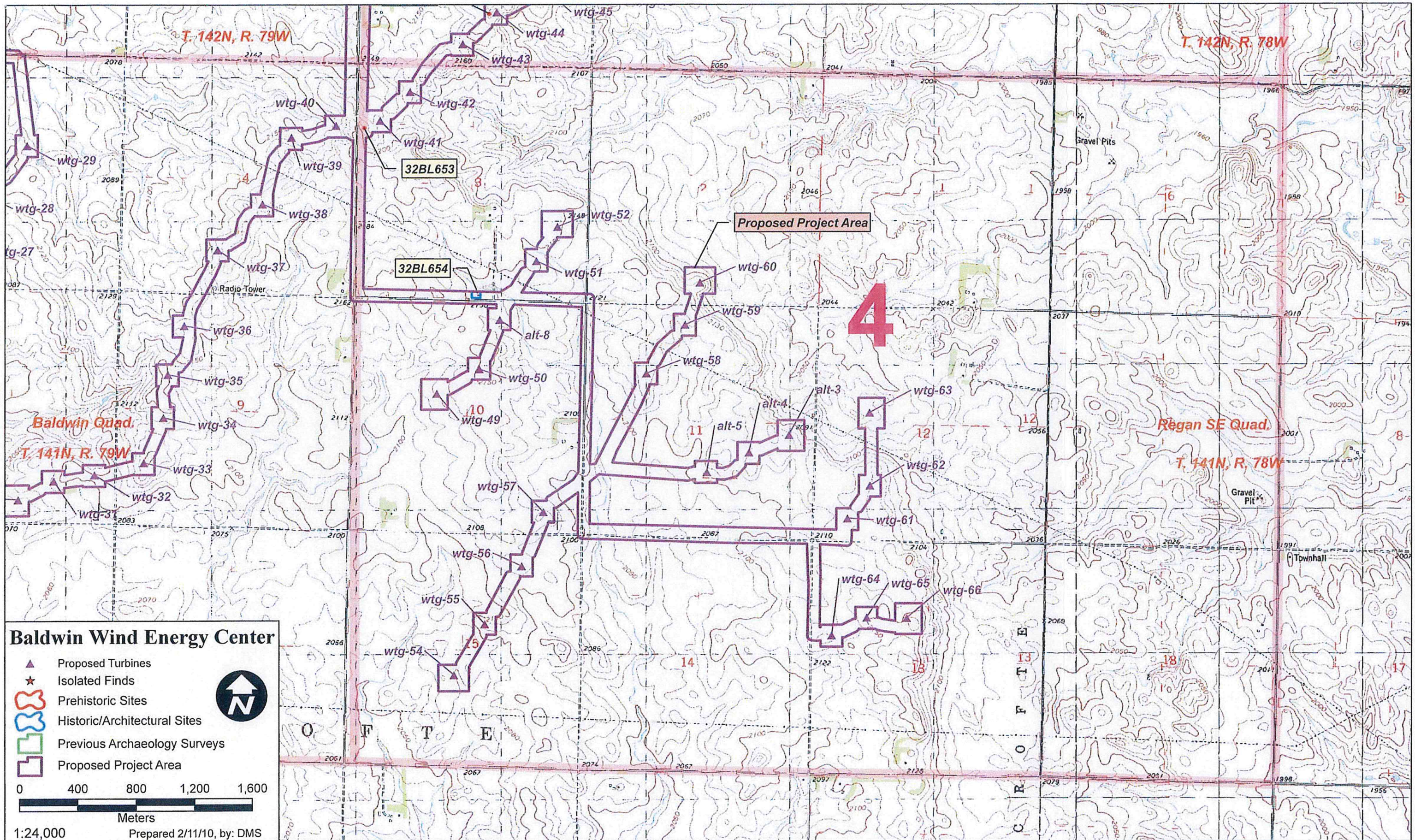
Map 2: Map Area 1, proposed project area, sites and previous archaeology surveys as depicted on the USGS 7.5' Wilton SE (1966 photorevised 1976) and Baldwin (1979) quadrangle maps.



Map 3: Map Area 2, proposed project area, sites and previous archaeology surveys as depicted on the USGS 7.5' Baldwin (1979) quadrangle map.



Map 4: Map Area 3, proposed project area, sites and previous archaeology surveys as depicted on the USGS 7.5' Baldwin (1979) quadrangle map.



Map 5: Map Area 4, proposed project area, sites and previous archaeology surveys as depicted on the USGS 7.5' Baldwin (1979) quadrangle map.

Chapter 2: Project Setting

Project Setting

The APE lies within the Southern Missouri River Study Unit (SMRSU, Unit #5) as defined by *The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component* (SHSND 2008: Figure 1). The SMRSU is within the Glaciated Missouri Plateau subsection of the Missouri Plateau Section within the Great Plains physiographic province (SHSND 2008: 5.2). The APE is on the Coteau Slope approximately seven miles east of the Missouri River. The topography consists of low, rolling to hilly plains associated with both erosional and glacial landforms. Gentle slopes make up 50-80% of the area and the relief ranges from 300 feet to 500 feet. The erosion comes from drainages flowing into the Missouri River (Bluemle 2000: 4; SHSND 2008: 5.2).

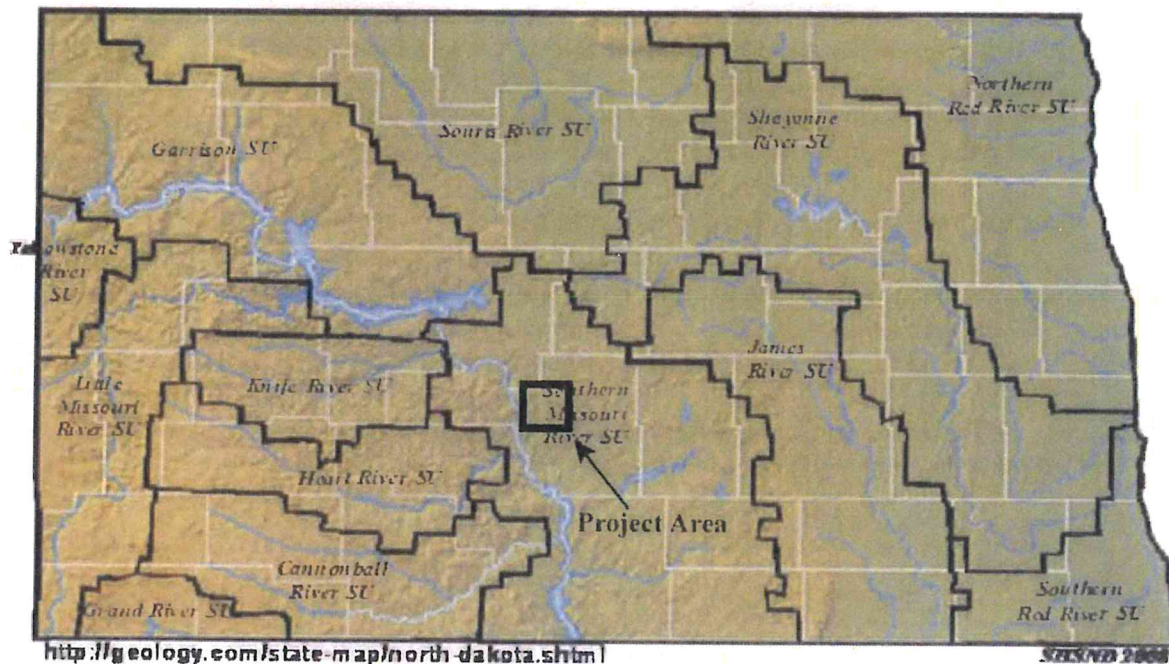


Figure 1: General location of the undertaking area of potential effects

The soils are of the Williams-Max association (Stout et al. 1974). This association is characterized by nearly level to rolling, well-drained, medium textured soils that formed on glacial till plains. Lag boulders are present in areas of native prairie and piles of cleared boulders occur along the edges of or in agricultural fields. Rare cobbles of Tongue River silicified sediment cobbles are present but beyond these, little knappable material is present in the APE.

The SMRSU has a diverse flora and fauna. Deciduous trees such as cottonwood (*Populus* sp.), willow (*Salix* sp.), box elder (*Acer negundo*), green ash (*Fraxinus lanceolata*) and bur oak (*Quercus* sp.) occur along swale edges and ephemeral creeks and draws. Areas of mixed prairie grass contain green needlegrass (*Stipa viridula*), blue grama (*Bouteloua gracilis*), and western

wheatgrass (*Agropyron smithii*). Along with two other edible roots and fruits, the prairie turnip (*Psoralea esculenta*) was an important part of the diet of past peoples.

Today, the majority of the project today consists of cropland with ground surface visibility ranging from 10 to nearly 90% (SHSND 2008: 5.9-5.10). Small patches of native prairie can be found along the margins of these croplands, generally where slopes are too steep to be plowed effectively. A few areas are enrolled in the Conservation Reserve Program (CRP), and these are distinguished by tall grass and voluntary wheat.

Large mammals today include white-tailed deer (*Odocoileus virginianus*) and mule deer (*Odocoileus hemionus*). In the past elk (*Cervus elaphus*) and prong-horn sheep (*Antilocapra americana*) were present along with large herds of bison (*Bison bison*). Smaller mammals include the cottontail, jack rabbits, porcupine, and various species of rodents such as gophers and voles. Predators include the mountain lion (*Puma concolor*), coyote (*Canis latrans*), fox (*Vulpes*), and the wolf (*Canis lupus*). The wolf has largely been exterminated while the population of the mountain lion has increased in western and central North Dakota. In the past, prairie grizzlies (*Ursus arctos*), also roamed the area. The nearby Burnt Creek and Painted Woods Creek, along with the Missouri River prehistorically and historically supported beaver, muskrat and mink along with turtles, mussels, and a myriad of fish. Eagles, hawks, owls, pelicans, magpies, upland game birds, and waterfowl are present and have been exploited at various times for food, clothing, and various other needs (SHSND 2008: 5.9-5.10).

Lithic material includes Knife River flint (KRF) and Tongue River silicified sediment (TRSS). The former could be procured in the northern portion and the latter in the southern area of the SMRSU, near the confluence of the Missouri and Cannonball rivers. Prehistoric populations used granite rocks to transfer heat for food preparation and ceremonial sweatbaths (SHSND 2008: 5.10). The lithic material located during the inventory consisted of KRF flakes and the base of a projectile point made out of pink quartzite.

Chapter 3: Cultural History

Cultural History

In terms of traditional archaeological spatial units, the APE lies within the Middle Missouri subarea of the Northern Plains (SHSND 2008: B.10-B.11). More specifically, the APE lies within the SMRSU, and the following discussion primarily draws from the section on the SMRSU in *Archaeological Component in The North Dakota Plan for Historic Preservation* (SHSND 2008: 5.63-5.88) and “Burleigh County Wind Energy Center Expansion” (Stine 2006: 3.1-3.5). Generally accepted temporal divisions or chronological periods include, from earliest to latest, Paleo-Indian, Plains Archaic, Plains Woodland, Plains Village, and Equestrian Nomad. Euro-American settlement overlapped and followed the Equestrian Nomadic period.

Paleo-Indian Period (12,000-7,500 BP)

The Paleo-Indian period designates the time of initial peopling of the area sometime around 12,000 BP following the retreat of the last glaciers. Paleo-Indians are the earliest recognized inhabitants in present day North Dakota, yet their life ways here are little understood. Several Paleo-Indian projectile points have been found along the Missouri River in Mercer, Oliver, Morton, Sioux, McLean, Burleigh, Emmons and Kidder counties and in the Knife River Flint quarry area in Dunn County. Paleo-Indian peoples appeared at the end of the Pleistocene as the glaciers retreated. They are thought to have been nomadic, following herds of Pleistocene megafauna – camels, mammoths, mastodon, and ancient bison – that dominated the landscape, and also exploiting locally available nuts, berries and plant foods. Paleo-Indian stone-tool technologies are limited to observations on a comparatively small sample of chipped stone points and assemblages. Tools from domestic sites have yet to be sampled, but it is reasonably presumed these tools would provide insight into the broad range of everyday domestic activities. Tool kits are distinguished by distinctive, well-manufactured, lanceolate projectile points such as Clovis, Goshen, Folsom, Hell Gap-Agate Basin, and Cody.

The Clovis complex is the oldest confirmed cultural entity in the Americas, dating from 11,500 to 11,000 years BP. Clovis points have been found in almost every one of the 48 contiguous states. In North Dakota, Clovis points have been located near the town of New England, in Pembina County, and at 32ME946 on the Lake Sakakawea shoreline. The Goshen complex dates to the late Clovis and predates the Folsom (SHSND 2008: 5.65-5.66; Stine 2006: 3.1) and Goshen projectile points have been found at the Alkali Creek site (32DU336) near Dunn Center and elsewhere in the adjacent Knife River Study Unit to the west-northwest of the APE. Goshen points resemble Clovis points but lack the distinctive fluting of the latter.

The Folsom, Hell Gap, Agate Basin, and Cody complexes have overlapping ranges between 11,000 and 8,500 (listed in a generally temporal sequence). A well-investigated site in North Dakota with Folsom-aged components is Lake Ilo approximately 90 miles to the west of the current project. Agate Basin and Hell Gap points have been found across the state at sites such as Alkali Creek, 32DU336, which is approximately 75 miles to the west of the APE which along with the Goshen component also contained a Hell Gap point, 32ML903; which is approximately 15 miles to the north-northwest of the APE and contained a Cody Knife and two

Hell Gap-Alberta points, and Beacon Island, 32MN234, which is near New Town approximately 100 miles northwest of the APE and contained 30 Agate Basin points and point fragments along with several Folsom points. The Cody complex points are more common in North Dakota and represent the later stage of the PaleoIndian life way which ended on the Great Plains around 7,500 BP with the onset of essentially modern flora and fauna.

Plains Archaic Period (7,500-2,400 BP)

The environmental changes at the end of the Pleistocene, including the extinction of the megafauna hunted by Paleo-Indians and the appearance of the modern flora and fauna, corresponded with the appearance of the Plains Archaic settlement-subsistence patterns. These Archaic settlement-subsistence patterns dominated the Northern Plains between about 7500 BP to around 2400 BP. The Plains Archaic Period witnessed a variety of hunting and gathering settlement patterns that reflected the different ways in which the prehistoric populations dealt with modern flora and fauna. Thus, the main differences between the Paleo-Indian and Archaic periods are reflected in the respective subsistence strategies and tool kits. Essentially modern mammals, such as the buffalo (*Bison bison*), were now hunted and an increasing reliance was placed on plant resources. Settlement rounds appear to have become more restricted than during the Paleo-Indian, possibly because Archaic people were adept at exploiting micro-niches. This increased regional specialization is reflected in the more restricted distribution of projectile point styles and craftsmanship. The projectile points are thought to be associated with the use of the atlatl although there is evidence that the bow and arrow was in use at least by the Late Archaic and possibly even earlier. Based on distinct differences in the material culture, particularly projectile points, the Plains Archaic is divided into three temporal periods including the Early, Middle, and Late.

The Early Plains Archaic is represented by the Logan Creek-Mummy Cave complex and the Oxbow complex. The former dates between 7,500 and 5,300 BP and is distinguished by Mummy Cave, Simonsen, and Hawken projectile points, which are generally large side-notched points. The latter complex dates between 5,300 and 4,500 BP and is distinguished by the Oxbow point which is roughly triangular in plan with a concave base and broad shallow side-notches. Early Archaic sites west of the APE include Olsen Ranch, 32MZ487, which is approximately 125 miles west of the APE in the Little Missouri River Badlands and contained Simonsen and Oxbow points; and 32ME794 and 32ME796, which are in the Knife River Study Unit and contained Hawken and Oxbow points. To the east are the Smilden-Rostberg site, 32GF123, which is approximately 160 miles from the APE and the Rustad site, 32RI775, which is approximately 175 miles from the APE; the former is a bison kill site the latter is an occupation site. The Smilden-Rostberg site has been dated to around 5,800 BP while the Rustad site has been dated between 7,100 and 7,700 BP.

The Middle Plains Archaic lasted from approximately 4,500 BP to 3,000 BP and is marked by the appearance of the McKean complex, possibly during a drought period. There are several interpretations of the McKean complex and the Middle Archaic. One is that the McKean complex is distinguished not only by the McKean projectile point but also by the Duncan and Hanna points and all are more or less contemporaneous. Another is that the three represent different phases, with the Duncan phase growing out of the McKean and the Hanna phase

growing out of the Duncan. These point types are often found together although when Hanna points have been found alone the associated dates are generally younger than for McKean and Duncan points. The middle Plains Archaic is more commonly represented across North Dakota than is the Early Archaic and it would not be unexpected for Middle Archaic artifacts to be present in the APE.

The Late Archaic lasted from approximately 3,200 BP to around 2,400 BP and is distinguished by distinctive corner-notched dart points such as Pelican Lake and Yonkee and a variety of as-yet unnamed corner-notched points. Each point type is thought to represent a different phase. The Pelican Lake phase may be an outgrowth of the Middle Archaic Hanna phase as Pelican Lake points have been found in late Middle Archaic sites. The morphology of the unnamed corner-notched points is often indistinguishable from Late Woodland corner-notched points. Such points at sites are sometimes identified as Late Archaic based on a lack of pottery. Many of the points are arrowhead-sized, suggesting bow and arrow technology arrived at least by the end of the Late Archaic. Late Archaic points are common across North Dakota and it would not be unexpected to find points in the APE.

Plains Woodland Period (2,400 Years BP – AD 1,000)

Like the Plains Archaic, the Plains Woodland Period is divided into Early, Middle and Late. The appearance of ceramics, increased sedentism and the construction of burial and ceremonial mounds are hallmarks of the Woodland Period. Mound construction is primarily associated with the Sonota complex of the Middle Plains Woodland period and is concentrated east of the Missouri River, especially along the James and Sheyenne rivers. Although the atlatl continued to be used, it was ultimately replaced by the bow and arrow. Subsistence now included incipient horticulture. By the Late Woodland, the subsistence pattern included both hunting/gathering, especially bison, and gardening. In addition, permanent, sedentary villages appeared, such as Menoken Village (32BL2), approximately 15 miles southeast of the APE, and possibly Flaming Arrow (32ML2), which is approximately 10 miles to the northwest. Although some date to the Archaic, most stone circle sites are attributed to the Plains Woodland period. Within the APE, pottery is rare. In the absence of pottery, attributing a site to the Early, Middle, or Late Woodland is empirically problematic and it is likely that some Plains Woodland sites have been misidentified as Archaic and vice-versa. Middle Woodland occupations are distinguished by Besant and Samantha corner-notched points, although Besant-like points have been found in Archaic and Early Woodland sites. A number of other as-yet unnamed points are also associated with the Woodland Period. Isolate 32BLx121, documented within the APE is a Besant projectile point base. Stone circle sites dating to the Woodland could be present within the APE.

Plains Village Period (AD 1000-1780)

The Plains Village Period is distinguished by the presence of numerous earthlodge village sites, especially along the Missouri River. Such sites are numerous both upstream and downstream from the APE. Subsistence was based on extensive gardening of corn, squash, beans and sunflowers. In addition to gardening, there was also heavy reliance on the buffalo, which dominated the megafauna of the northern Plains. Surplus crops and buffalo meat was dried and stored for trade or for consumption during the winter. Pottery became increasingly detailed and

more varied, and projectile points became smaller as the bow and arrow rendered the atlatl obsolete. Away from the major rivers – the Missouri, James and Sheyenne rivers – settlement patterns were more nomadic, as evidenced by stone ring sites. No village sites would be likely in the APE but Plains Village stone circle sites would not be unexpected.

Equestrian Nomadic Period (AD 1780-1880)

The Equestrian Nomadic Period coincides with the ascendancy of the various Sioux tribes on the northern Plains and Mandan, Hidatsa, Arikara village sites along the Missouri. It is a period of population movement and change among the Native Americans, especially for those populations away from the major rivers. The introduction of the horse around 1780 signaled the appearance of this period while the establishment of the reservation system by the United States government marked its end.

Several difficulties impede and hinder the definitive identification of Equestrian period sites, especially stone circle sites. Typically, they are identified with the presence of Euro-American trade goods, such as glass beads, knives, axes, guns, and metal pots and pans, or through Native American oral traditions. Diagnostic artifacts, such as metal arrowheads, may simply have rusted away and the presence of a skillet, knife, or axe could arguably be interpreted as the result of subsequent Euro-American settlement activities. Trade beads are small which makes them hard to identify during cultural resource inventories. Most often they are found during testing or mitigation programs when fine mesh screening is used. While sites from this period are possible within the APE their identification would be difficult at the pedestrian inventory level of investigation.

Euro-American Period (AD 1738 – Present)

The Euro-American period in North Dakota began with Pierre Gaultier, Sieur de La Verendrye's 1738 attempt to find an overland route to the Pacific Ocean and his visit to Native American villages on the Northern Plains. The next well-documented expedition was that of Lewis and Clark between 1804 and 1806. After the Lewis and Clark expedition, the Missouri River and the surrounding region experienced a steady increase in fur traders, river boat traffic, military incursions, and, ultimately, settlers. Trading posts and military forts were constructed throughout most of the nineteenth-century, but settlements did not become widespread until President Lincoln passed the 1862 Homestead Act and the conclusion of the Civil War.

Eastern North Dakota was settled before western North Dakota, primarily because of access through ox-cart trails and especially the railroad, which reached the state in the early 1870s. By 1873 the railroad extended from eastern North Dakota to the Missouri River at Bismarck and in 1878 railroads pushed into western North Dakota (Schmidt and Vermeer 2009: 8-9). By 1884 buffalo herds had been decimated by commercial hunting nearly to the point of extinction. The more arid western North Dakota was not as conducive to agriculture as the more fertile river valleys in the east and cattle ranching came to dominate western North Dakota.

Several branch lines of the Soo Line Railroad were extended from the 1890s through the 1910s to serve the wheat farms north of Bismarck. In 1900, the Bismarck, Washburn and Great Falls

Railroad Company Line built a track from Bismarck to Wilton. This track is immediately west of the APE. In 1904, the Soo Line acquired the Bismarck, Washburn and Great Falls Railroad Company and over the next two decades, grew in to one of the three dominant railroads in the state. The Soo Line remained in sound financial condition throughout the 1920s, but like most railroads, the Great Depression severely affected revenues and in 1937, the line filed for bankruptcy. Five years later, freight and passenger demands increased due to America's entry into the Second World War and in 1944, the railroad was renamed the Minneapolis St. Paul and Sault Ste. Marie Railroad Company (Schmidt and Vermeer 2009: 79-80).

Chapter 4: Methodology

Background Research

On August 12, 2009, Jaimey Windish of MAC conducted a search of the site and manuscript files at the State Historical Society of North Dakota (SHSND). The objective was to determine if any cultural resource inventories have been conducted and/or if any cultural resources have been recorded within the APE and the surrounding one-mile. Eleven inventories have been conducted and 29 cultural resources have been recorded within the one mile search area. Tables 1 and 2 present the results of the files search and are plotted on the project maps. None of the cultural resource inventories on file, other than portions of the 2005 and 2006 inventories of the Burleigh County Wind Farm (MS #s 9587 and 10866, respectively), were within the APE. The proposed substation is entirely within a block inventoried for the Burleigh County Wind Farm.

Two of the cultural resources – 32BL545 and 32BL546 - are archaeological cultural material scatters, one – 32BL553 – is a stone circle site; and another 13 are archaeological isolated finds of chipped stone. Four are architectural historic sites that include a bridge (32BL108), two churches, (32BL337 and 32BL338); and a railroad (32BL541) while another is a historic site that consists of a post office, (32BL100); the remaining eight resources are historic site leads. None of these resources are within the APE.

Late nineteenth-century maps for the APE and surrounding area were scrutinized via the internet (link: http://alabamamaps.ua.edu/historicalmaps/us_states/northdakota/index.html). The purpose was to identify any trails, stage coach routes and railroads within or near the APE. The maps examined included Roeser’s 1882 “Territory of Dakota,” Frank A. Gray’s 1883 “Gray’s New Map of Dakota with Part of Manitoba, Etc.,” H. H. Hardesty’s 1883 “Map of Dakota – Northern Portion,” and Rand McNally and Company’s 1885, “Dakota” map. The Rand McNally map includes railroads, proposed railroads and stagecoach routes and is the only one to note a proposed railroad that would follow the east bank of the Missouri River, from Bismarck north to Washburn and passing to the west of the APE. Beyond this, none of the maps depicted any trails, stage coach routes or railroads within or near the APE.

T/R-Section	SITS #	NRHP Eligibility	Site Type & Description	Recorder, Date	MS #
141/78-6	No Sites/No Surveys				
141/78-7	No Sites				9715
141/78-18	No Sites				9715
141/78-19	No Sites/No Surveys				
141/79-1	No Sites/No Surveys				
141/79-2	No Sites/No Surveys				
141/79-3	No Sites/No Surveys				
141/79-4	32BLx99	0	Historic- Crofts Post Office, Cultural Material Scatter and Foundation	E. Benson, 1980	No Surveys
141/79-5	No Sites/No Surveys				
141/79-6	No Sites/No Surveys				
141/79-7	32BL108	NI	Architectural- Bridge	D. Johnson, 1991	5920, 9715, 10128

Table 1: Files Search Results					
T/R-Section	SITS #	NRHP Eligibility	Site Type & Description	Recorder, Date	MS #
141/79-8	32BL337	NI	Architectural- Baldwin Presbyterian Church/Jehovah Witness Church	R. Ford-Dunker, 1999	9715
141/79-9	No Sites/No Surveys				
141/79-10	No Sites/No Surveys				
141/79-11	No Sites/No Surveys				
141/79-12	No Sites/No Surveys				
141/79-13	No Sites/No Surveys				
141/79-14	No Sites/No Surveys				
141/79-15	No Sites/No Surveys				
141/79-16	No Sites/No Surveys				
141/79-17	No Sites/No Surveys				
141/79-18	32BL108	NI	Architectural- Bridge	D. Johnson, 1991	5920, 10128
	32BL338	NI	Architectural- St. John's Lutheran/Baldwin Post Office	R. Ford-Dunker, 1999	
	32BL541	NI	Architectural- Earthworks	D. Engel, 2009	
	32BLx100	0	Historic- Conger Post Office	E. Benson, 1980	
141/79-21	No Sites/No Surveys				
141/79-22	No Sites/No Surveys				
141/79-23	32BLx101	NI	Archaeological- Cultural Material Scatter, Chipped Stone	Unknown	No Surveys
141/79-24	No Sites/No Surveys				
142/79-14	32BL546	0	Archaeological- Cultural Material Scatter, Chipped Stone	E. Stine, 2005	9587, 10866
	32BL553	0	Archaeological- Stone Circle	E. Stine and S. Dale, 2006	
	32BLx68	NI	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2009	
	32BLx161	NI	Historic- Two Quarry/Mine	LCT, 1990	
	32BLx252	0	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2005	
	32BLx253	0	Archaeological- Isolated Find, Chipped Stone	D. Hiemstra, 2005	
142/79-15	32BLx162	NI	Historic- Quarry/Mine	LCT, 1990	5045, 9587, 10866
	32BLx254	0	Archaeological- Isolated Find, Chipped Stone	D. Hiemstra, 2005	
	32BLx263	0	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2006	
142/79-16	No Sites				9587, 10866
142/79-17	No Sites				9587, 10866
142/79-18	32BLx44	NI	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2009	9587,10866
	32BLx64	NI	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2009	
142/79-19	No Sites				9401, 9587
142/79-20	No Sites				9587
142/79-21	No Sites/No Surveys				
142/79-22	No Sites/No Surveys				
142/79-23	32BLx125	NI	Historic- Quarry/Mine	LCT, 1990	5045, 9715
142/79-24	No Sites				9715

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Table 1: Files Search Results					
T/R-Section	SITS #	NRHP Eligibility	Site Type & Description	Recorder, Date	MS #
142/79-25	No Sites				9715
142/79-26	No Sites				9715
142/79-27	No Sites				9715
142/79-28	No Sites/No Surveys				
142/79-29	No Sites/No Surveys				
142/79-30	No Sites/No Surveys				
142/79-31	No Sites/No Surveys				
142/79-32	32BLx126	0	Historic- Moltke Post Office, Cultural Material Scatter and Foundation	E. Benson. 1980	No Surveys
142/79-33	32BLx127	0	Historic- Quarry/Mine	E. Benson, 1980	No Surveys
142/79-34	32BLx163	0	Historic- Quarry/Mine	LCT, 1990	9715
	32BLx164	NI	Historic- Quarry/Mine	LCT, 1990	
142/79-35	No Sites				5045
142/79-36	No Sites/No Surveys				
142/80-23	32BLx20	NI	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2009	849, 6657, 9587, 10866
	32BLx23	NI	Archaeological- Isolated Find, Chipped Stone	E. Stine, 2009	
142/80-24	32BL541	NI	Architectural- Earthworks	D. Engel, 2009	6657, 9587, 10866
	32BLx264	0	Archaeological, Isolated Find, Chipped Stone	E. Stine, 2006	
142/80-25	No Sites/No Surveys				
142/80-26	No Sites				849
142/80-35	No Sites/No Surveys				
142/80-36	No Sites/No Surveys				
National Register Eligibility:					
0-Undetermined 1-Listed 2-Nominated 3-Eligible Individually 4-Not Individually Eligible					
5-Determined Eligible 6-Eligible as a Thematic Component No Information-No Information					

Table 2: Manuscript List	
MS #	Reference
849	Snortland-Coles, J. 1978 North Dakota State Highway Department Project Number F-1-083()090, US 83 From Bismarck to Wilton Survey, Burleigh County, North Dakota
5045	Vivian, J. 1989 Wilton, Burleigh County, North Dakota, Historic Coal-Mining District
5920	Johnson, L., M. Hufstetler, F. Quivik, and C. Roise 1992 Historic Bridges in North Dakota
6636	Larson, T. and D. Penny 1996 Report of Findings From an Intensive Cultural Resource Inventory In Emmons, Burleigh and McLean Counties, Conducted on Portions of a Proposed Water Project for the Burleigh Water Users Cooperative With Addendum
6657	Kulevsky, A. 1995 BEK's Wilton Exchange: A Class II Cultural Resource Inventory in Burleigh and McLean Counties, North Dakota
9197	Bleier, A. 2005 2005 State Wide Tree Mitigation Sites In Burleigh, McLean, Pembina, Ransom, Stark, and Stutsman Counties, North Dakota: A Class III Cultural Resource Inventory

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Table 2: Manuscript List	
MS #	Reference
9401	Stine, E. 2005 Addendum B and Addendum C to : Burleigh County Wind Farm: A Class III Cultural Resource Inventory to Burleigh County, North Dakota
9587	Stine, E., D. Hiemstra, A. Kulevsky 2005 Burleigh County Wind Farm: A Class III Cultural Resource Inventory in Burleigh County, North Dakota
9715	Stine, E. 2006 Capital Electric Cooperative's Four Year Construction Plan: A Class II and Class III Cultural Resources Inventory in Burleigh and Sheridan Counties, North Dakota Addendum A
10128	Hufstetler, M and J. Goff 2005 Historic Bridges in North Dakota 2004 Revision
10866	Stine, E., S. Dale, A. Kulevsky 2006 Burleigh County Wind Energy Center Expansion: A Class III Cultural Resource Inventory in Burleigh County, North Dakota

Field Personnel

The inventory was conducted by Ed Stine, Principal Investigator, Crew Chiefs Aaron Barth and Andrea Kulevsky, and crew members Bill Christensen, Nichole Reisdorf, Jonathan Schwartz, and Derek Sondeland.

Field Methods

The inventory was conducted between October 7 and 28, 2009. The methodology involved pedestrian transects spaced at 15 to 20 meter intervals. When a feature or cultural material was encountered, the area surrounding it was closely examined for additional features or cultural items, using transects spaced at 5 meters or less. Special attention was paid to areas of enhanced ground surface visibility such as blowouts, cutbanks, and around rodent burrows. A location with five or fewer artifacts and good ground surface visibility was defined as an isolated find whereas a location with six or more artifacts or any features constituted a site. No artifacts were collected during the inventory.

Tetra Tech supplied MAC with shape files, dated September 9, 2009, depicting the locations of the turbine blocks, access routes and collector line corridors. These files were downloaded into hand-held GPS units to locate survey units in the field. Encountered cultural resources were mapped with the GPS units and these maps were overlaid onto the project shape files. Field conditions and cultural resources were documented with digital photographs and in the field notes. The field notes, maps, and electronic photo images are on file at the MAC Bismarck office.

The majority of the APE was within agricultural fields with good ground surface visibility. The remainder consisted of pasture and Conservation Reserve Program lands. The vegetative cover of the inventory areas is presented in Table 3 (Chapter 5). The agricultural areas consisted primarily of crops of wheat, sunflowers, and beans. Since the survey took place in autumn, the vegetative cover in these areas consisted of short grasses, which rendered stone features easily identifiable. For these reasons no shovel probes were employed during the inventory.

Chapter 5: Results

Results

The inventory covered 76 proposed turbine location blocks. Fifty-six of the blocks measured 500 feet by 500 feet; with each block encompassing 5.7 acres for a total of 319.2 acres. Another 20 measured 600 feet by 700 feet, with each block encompassing 9.6 acres for a total of 192.8 acres. Also surveyed were 55.9 miles of 200 foot wide access road and collector line corridors, which totaled 1,355 acres. In some cases, the access road and collector lines paralleled one another. A 300 foot by 500 foot block for a substation falls within a larger block (900 feet EW by 700 feet NS) already inventoried for the Burleigh Wind Energy Center and no additional inventory for the substation was conducted. In all, MAC surveyed 1,867 acres for this project.

Two architectural sites; 32BL654 and 32BL655, six archaeological sites, 32BL653, 32BL656, 32BL657, 32BL658, 32BL659, and 32BL660; and three prehistoric isolated finds, 32BLx120, 32BLx121 and 32BLx134; were identified during the inventory. Table 3 lists the turbine blocks, environmental setting and associated cultural resources. In some cases, the cultural resource falls within the proposed turbine block, and in others the resource falls within the access road/collector line corridor. Only one cultural resource, isolated find 32BLx121, was located outside of the APE; it was found by the field crew exiting turbine block wtg-4 to the south and does not have to be avoided. When the site is located within the proposed turbine block, it is noted in the "Site #" column; when the site is within an access road or collector line corridor, it is noted in the "Comments" section.

Table 3: Data for Turbine Blocks			
Turbine #	Setting (WL=Wetlands)	Site #	Comments
wtg-1	Agriculture	None	
wtg-2	Agriculture	None	
wtg-3	Agriculture	None	
wtg-4	Agriculture	None	Isolated find 32BLx121 south of turbine in corridor. No avoidance.
wtg-5	Agriculture	None	
wtg-6	Agriculture	None	
wtg-7	Native Prairie	None	
wtg-8	Agriculture	None	
wtg-9	Native Prairie	None	
wtg-10	Agriculture	None	
wtg-11	Agriculture	None	
wtg-12	Agriculture	None	
wtg-13a	Agriculture	None	Architectural 32BL655, ¼ mile NE of turbine in corridor. No avoidance
wtg-14a	Agriculture	None	
wtg-15a	Agriculture	None	
wtg-16	Agriculture	32BLx134	Isolated find, no avoidance.
wtg-17	Agriculture	32BLx120	Isolated find, no avoidance.
wtg-18	Agriculture CRP	None	
wtg-19	Agriculture	None	
wtg-20	Agriculture	None	
wtg-21	Agriculture	None	
wtg-22	Native Prairie	None	

Table 3: Data for Turbine Blocks			
Turbine #	Setting (WL=Wetlands)	Site #	Comments
wtg-23	Native Prairie	None	
wtg-24	Agriculture	None	
wtg-25	Agriculture	None	
wtg-26	Agriculture	None	
wtg-27	Agriculture	None	
wtg-28	Agriculture	None	
wtg-29	Agriculture	None	
wtg-30	Agriculture	None	
wtg-31	Agriculture/WL	None	
wtg-32	Agriculture	None	
wtg-33	Agriculture	None	
wtg-34	Agriculture	None	
wtg-35	Agriculture	None	
wtg-36	Agriculture	None	
wtg-37	Agriculture	None	
wtg-38	Agriculture	None	
wtg-39	Agriculture	None	
wtg-40	Agriculture	None	
wtg-41	Native Prairie	None	Cairn,32BL653 west of turbine in corridor, avoidance recommended.
wtg-42	Agriculture	None	
wtg-43	½ Agriculture	None	
wtg-44	Native Prairie	32BL656	Cairn , avoidance recommended.
wtg-45	Native Prairie	None	Cairn, 32BL657 east of turbine in corridor, avoidance recommended.
wtg-46	Native Prairie	32BL658	Cairn, 32BL658, avoidance recommended. Cairn, 32BL659 east of turbine, avoidance recommended.
wtg-47	Native Prairie	None	Stone circle,32BL660 south of turbine in corridor avoidance recommended.
wtg-48	Agriculture	None	
wtg-49	Agriculture	None	
wtg-50	Agriculture	None	
wtg-51	Agriculture	None	
wtg-52	Agriculture	None	
wtg-54	Agriculture	None	
wtg-55	Agriculture	None	
wtg-56	Agriculture	None	
wtg-57	Agriculture	None	
wtg-58	½ Agriculture	None	
wtg-59	Native Prairie	None	
wtg-60	½ Agriculture	None	
wtg-61	Agriculture	None	
wtg-62	Agriculture	None	
wtg-63	½ Agriculture	None	
wtg-64	Agriculture	None	
wtg-65	Agriculture	None	
wtg-66	Agriculture	None	
alt-1	Agriculture	None	
alt-1a	Agriculture	None	
alt-2	Agriculture	None	
alt-3	Agriculture	None	
alt-4	Agriculture	None	

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Table 3: Data for Turbine Blocks			
Turbine #	Setting (WL=Wetlands)	Site #	Comments
alt-5	Agriculture	None	
alt-6	Agriculture	None	
alt-7	Agriculture	None	
alt-8	Agriculture	None	Architectural 32BL654 northwest of turbine in corridor, no avoidance.

The two architectural sites consist of a farmstead - 32BL655 - and a schoolhouse -32BL654. The proposed undertaking will not directly affect the sites but neither appears to be eligible for inclusion in the NRHP. Of the six archaeological sites, five – 32BL653, 32BL656, 32BL657, 32BL658, and 32BL659 - are stone cairns and one – 32BL660 - is a stone circle. Cairns constructed by Native Americans are known to have served a variety of functions including marking caches, trails, and locations, serving as burial caps, and also associated with other domestic and ceremonial purposes. Similarly, stone circle sites also served a variety of functions associated with domestic and ceremonial activities. Although the archaeological sites have not been evaluated for inclusion in the NRHP, they may qualify as properties "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). Of the three isolated finds, two - 32BLx120 and 32BLx134 - consist of Knife River flint flakes, and the third - 32BLx121 - is the base of a possible Besant projectile point. Isolated finds by their very nature are not considered eligible for inclusion in the NRHP.

Historic Architectural Sites

32BL654

Architectural Site 32BL654 is located in the SW/SW/SE of Section 3, T. 141 N., R. 79 W., in a linear east-west corridor northwest of proposed Turbine alt-8 (Map 5). The site consists of an abandoned schoolhouse that measures 26 feet north-south and 16.5 feet east-west (Figures 2 and 3). It sits on a poured concrete and rebar foundation. The schoolhouse is of wood frame construction and the exterior walls are tongue-and-grooved drop siding with a 5 inch reveal. The roof is covered with wood shakes. Seven window openings are present although all but one of the openings are boarded up. A pile of utility poles is present to the southwest of the feature.

The schoolhouse consists of a main room at the north end and an entryway at the south end. The unboarded window opening provided a view of both the main room and the entryway. The structure has wood floors. The top half of the walls is plastered and painted white and the bottom half is covered in wainscoting. A chimney flue rises through the ceiling at the north end of the room; an electric outlet is also present here. The roof over the main room is gabled with closed soffits. The entryway has a hip roof.

The schoolhouse retains some aspects of location, design, setting, feeling and association. However, it lacks certain aspects of materials and workmanship. First, the entryway and main room appear to have been modified as demonstrated by the vertical seam between the two and the incongruity in horizontal drop siding between the main room and the entryway. This suggests the entryway is a later addition. However there is no break in the foundation and

fieldwork and archival research did not reveal whether the modern concrete foundation is a reconstruction or the original foundation. All evidence of any associated structures that may have existed to the north or east has been eradicated by agricultural activities.

MAC recommends that the schoolhouse does not meet any of the four criteria in 36 CFR 60.4 (United States Department of the Interior 1997:12-13) necessary to be considered eligible for inclusion in the NRHP. It is not considered eligible under Criterion A: Event because it cannot be demonstrated to be associated with one or more events important in a defined historic context. A thematic state-wide context for the evaluation of schoolhouses has yet to be developed.

The site is recommended as not eligible under Criterion B: Person because it is not associated with the life of an individual significant in our past; that is, an individual whose activities are demonstrably important within a local, State, or national historic context (United States Department of the Interior 1997:14-16). In November 2009, Aaron L. Barth of MAC conducted a deed search of the property at the Burleigh County Courthouse in Bismarck, North Dakota. The names from the deed search were then compared against the North Dakota Biography Index, a database search engine created by the North Dakota Institute for Regional Studies. In 1907, William and Amelia Fricke, Sr., donated an acre of land to the Crofte school district for the purposes of building a new schoolhouse. The five recorded teachers who taught in the schoolhouse are Emma Bartel, Abigail Crum, Hazel Nixon, Clara Reid, and Mrs. Tilly (Jim) Watkins. Throughout the 1920s and 1930s, William Fricke, Sr., served on the school board. Beyond this, research does not definitively demonstrate that the individuals associated with this schoolhouse were significant within a local, State, or national historic context (Bauman & Jackman, 1978: 103-104).

The site is recommended as not eligible under Criterion C: Design/Construction since the building's physical design – including such elements as architecture, landscape architecture, engineering, and artwork – does not embody a readily identifiable characteristic of a type, period or method of construction, and it does not appear to possess high artistic value, or represent the work of a master (United States Department of the Interior 1997:17-20).

The site is recommended as not eligible under Criterion D: Information Potential. In November 2009, the SHSND implemented a volunteer research program entitled, "Historic Preservation – Country Schoolhouses: Recording Historic Buildings in North Dakota" (<http://history.nd.gov/hp/recordingbuildings.html>). The steps outlined in this program have been met, including consulting historic atlases and county records and histories to document the schoolhouse. Because the research steps have been followed, and since a state-wide thematic context in which to analyze the physical aspects or cultural materials at the schoolhouse has not yet been developed, the site does not appear to have potential to contribute information important in history (United States Department of the Interior 1997:21-24).



Figure 2: View southwest to northwest over site 32BL654 (Image #001)

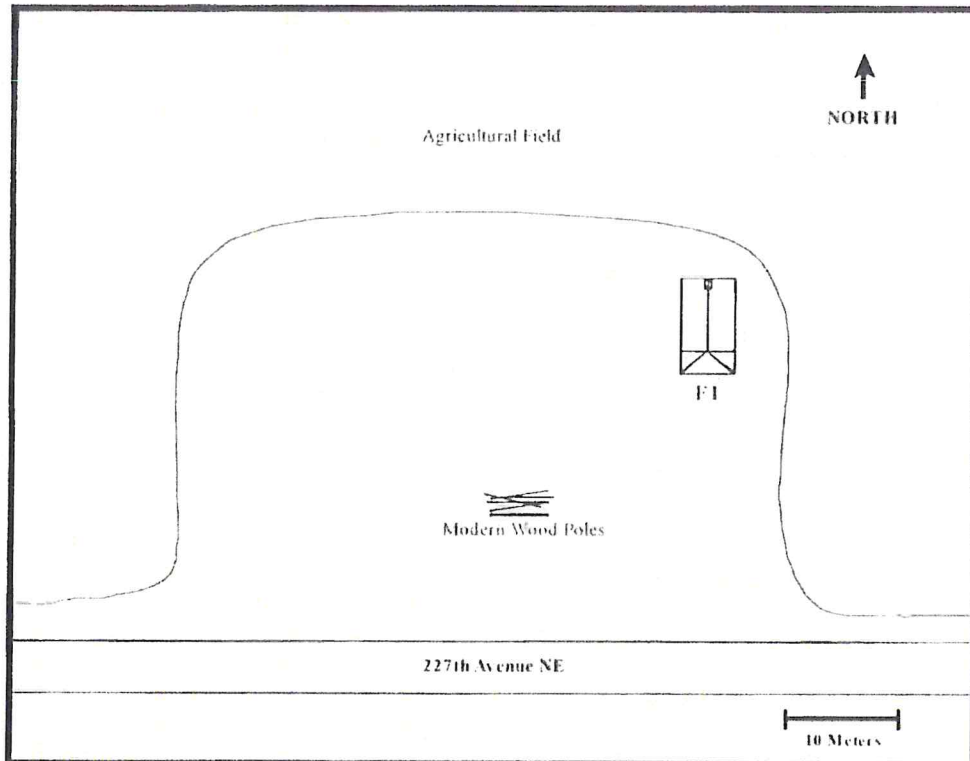


Figure 3: Sketch map of site 32BL654.

32BL655

Architectural Site 32BL655 is located in the NE/NE/SE of Section 20, T. 142 N., R. 79 W., in a linear north-south corridor northeast of proposed Turbine wtg-13a (Map 2). The site is a farmstead that consists of three features: a farmhouse dwelling (Feature 1), and two ancillary outbuildings (Features 2 and 3). The farmhouse (Figure 4) is a 2.5 story, L-shaped and wood frame structure with a gable roof, a projecting porch, a shed roof on the southeast corner, and an attached projecting room with a shed roof on the west elevation. The exterior elevations are covered with horizontal drop siding with a 4-inch reveal.

The building has 11 windows, three of which were boarded up. Of the boarded up windows, there are two on the north half of the east elevation, and one on the east half of the north elevation. As for the east elevation, there are two side-by-side single-hung windows located under the southeast corner shed roof, on the southern half of the first floor of the east elevation. The top sash of each has three vertical panes and the bottom sash has a single pane. The roof of the projecting porch on the south half of this east elevation is supported by five wood 4" x 4" posts with manufactured turning lathe decoration, and additional decorative eaves brackets where the posts meet the shed roof.

The south elevation has three two-pane, double-hung windows, two of which are on the second floor. On the west elevation, the first floor of the south half has two windows. Of these two windows, the more southerly is a two-pane, double-hung window; the more northerly is also double-hung, but smaller, the top sash of which has three vertical panes and the bottom sash a single pane. Two more two-pane, double-hung windows are centered on the north end of this west elevation, one above the other on the first and second floors respectively.

The structure has closed soffits on the gable overhangs and the roof is covered in interlocking asphalt shingles. A brick chimney extends out of the center of the north-south running roof ridge. The structure has a poured concrete foundation and a cellar.

Feature 1 retains integrity of location, design, setting, workmanship, feeling and association. The windows and horizontal drop siding appear to be original, or representations of the original materials. Due to the asphalt shingles, however, it lacks at least one integral aspect of materials.

Feature 2 is an ancillary outbuilding approximately 30 meters north of Feature 1 and is apparently a garage or machinery shed (Figures 5 and 6). The feature measures approximately 5 meters north-south and 7 meters east-west, is of wood frame construction, and has a poured concrete foundation. The exterior elevations are covered with horizontal drop-siding with a 4-inch reveal and the main portion of the building has an east-west oriented gable roof with a slight overhang and covered with interlocking asphalt shingles. A single-room entryway with a shed roof is attached to the west side of the feature. The disparity in siding suggests that the entryway post-dates the construction of the rest of this building. The feature has six windows, of which three are boarded up. The remaining three are 6-pane, fixed windows; two are located on the west half of the south elevation and the last is on the south elevation of the entryway. An exterior sliding door is located on the east elevation. A modern agricultural implement, a John

Deere model 336 baler, is housed within. Feature 2 retains certain aspects of integrity including location, setting, workmanship and association but lacks certain aspects of design, materials and feeling due to the shed addition on the western elevation.

Feature 3 is located approximately 6 meters south and 19 meters west of Feature 1 (Figures 5 and 6) and measures 5 meters north-south and 4 meters east-west. It has a dirt, or rammed earth, foundation, and is of wood frame construction. The exterior walls are covered with horizontal drop siding with a 4-inch reveal. The main component is a gable shed with a sliding exterior door on the east elevation. Attached on the south elevation is an addition with a shed roof with a personnel doorway on the east elevation. The roof is covered with interlocking asphalt shingles and corrugated metal. Feature 3 retains certain aspects of location, setting and association. The disparity in roofing materials, however, brings Feature 3's temporal context into question, as the building appears to have been altered from its original design. Therefore, it lacks aspects of design, materials, workmanship and feeling.

It is recommended that none of the features meet any of the four criteria in 36 CFR 60.4 (United States Department of the Interior 1997:12-13) necessary to be considered eligible for inclusion in the NRHP. None are considered eligible under Criterion A: Event because they cannot be demonstrated to be associated with one or more events important in a defined historic context. A thematic state wide context in which to evaluate farmhouses and ancillary structures has yet to be developed.

The features are recommended as not eligible under Criterion B: Person because none are associated with the life of an individual significant in our past; that is an individual whose activities are demonstrably important within a local, State, or national historic context (United States Department of the Interior 1997:14-16). In November 2009, Aaron L. Barth of MAC conducted a deed search in the Burleigh County Courthouse to ascertain the chain of ownership, which was then crosschecked against the North Dakota Biography Index. Roderick Monroe was the only name returned by the search engine. According to the Burleigh County records, Monroe first took possession of the land on May 20, 1862, yet this seems problematic since the index indicates he was born in 1856. The county histories note that Roderick and his wife Rebecca (Ann Shanks) arrived with their 14 children in Bismarck on March 18, 1900, and they moved to Wilton in October of that year. They then had three more children for a total of 17. Of these, only Cora and Zetta, appear to have taken possession of the land, the former in 1926 and the latter in 1927. The Burleigh County records state that "The Public" took possession of the property in 1935. Subsequent ownership information came from a 1962 atlas which notes that Philip Monroe, the son of Roderick and Rebecca, held it as early as that year. Irrespective, research does not demonstrate that the individuals associated with this property were significant within a local, State, or national historic context (Bauman & Jackman, 1978:107; Midwest Atlas Company, 1962: "Ecklund Township"; Wilton Pioneer Club, 1974:53).

The features are recommended as not eligible under Criterion C: Design/Construction since their physical design – including such elements as architecture, landscape architecture, engineering, and artwork – does not embody a readily identifiable characteristic of a type, period or method of construction, and they do not appear to possess high artistic value, or represent the work of a master (United States Department of the Interior 1997:17-20).

The features are recommended as not eligible under Criterion D: Information Potential. A state-wide thematic context within which to analyze the physical or cultural material for such sites has yet to be developed.



Figure 4: View southeast to northwest, Feature 1 at site 32BL655. (Image #15)

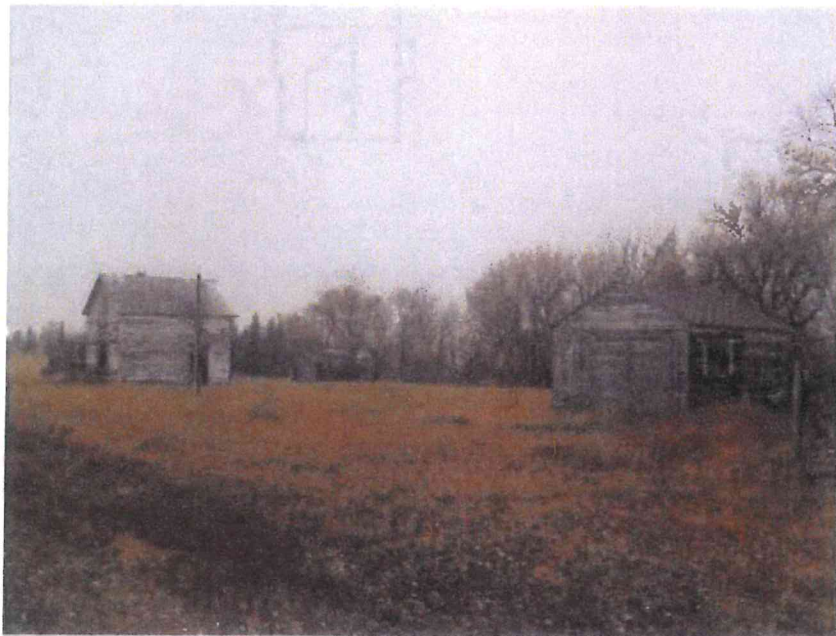


Figure 5: View northeast to southwest over site 32BL655. (Image #30)

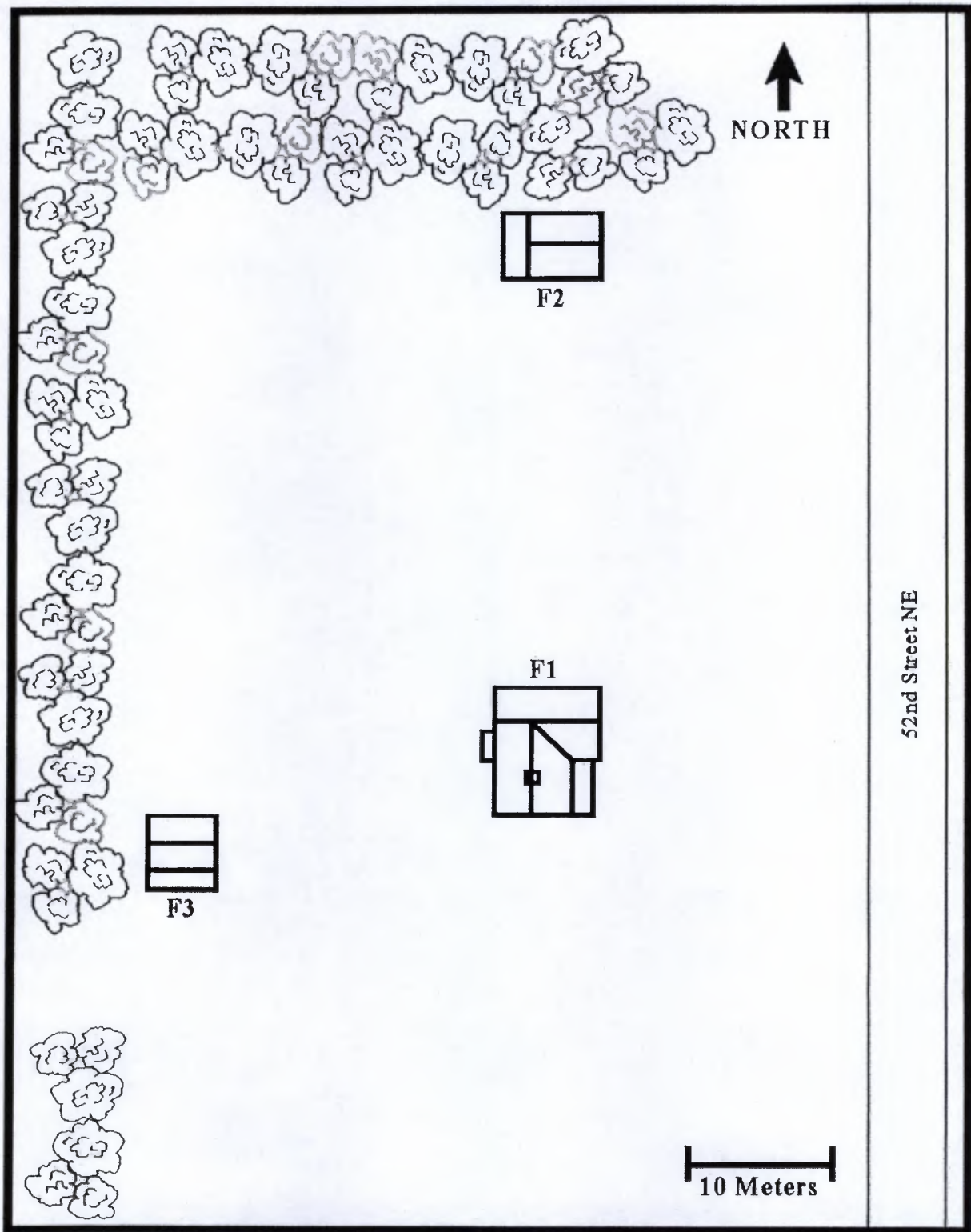


Figure 6: Sketch map of site 32BL655.

Archaeological Sites

32BL653

Site 32BL653 is located in the NW/SW/NW of Section 3, T. 141 N., R. 79 W., along a linear north-south corridor 15 meters west of the block for Turbine wtg-41 (Map 5). The site consists of a single rock cairn situated on the northeast slope of a hill and measures approximately 2 meters north-south and 1.5 meters east-west. It is comprised of 22 embedded stones, most of which are granite (Figures 7 and 8). The nearest agricultural field is over 300 meters north of the site so this site probably does not represent a field-clearing pile.

The survey data are insufficient to evaluate whether 32BL653 is eligible for inclusion in the NRHP. No artifacts were observed and the site's function is unknown. Cairns served a variety of functions including marking caches, trails and important locations and serving as burial caps and various domestic and ceremonial purposes. Although the site has not been evaluated, it may qualify as a property "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). Until the site is evaluated, it should be fenced off and avoided.



Figure 7: View to north over cairn at site 32BL653.
Pink flag denotes cairn location. (Image #003)

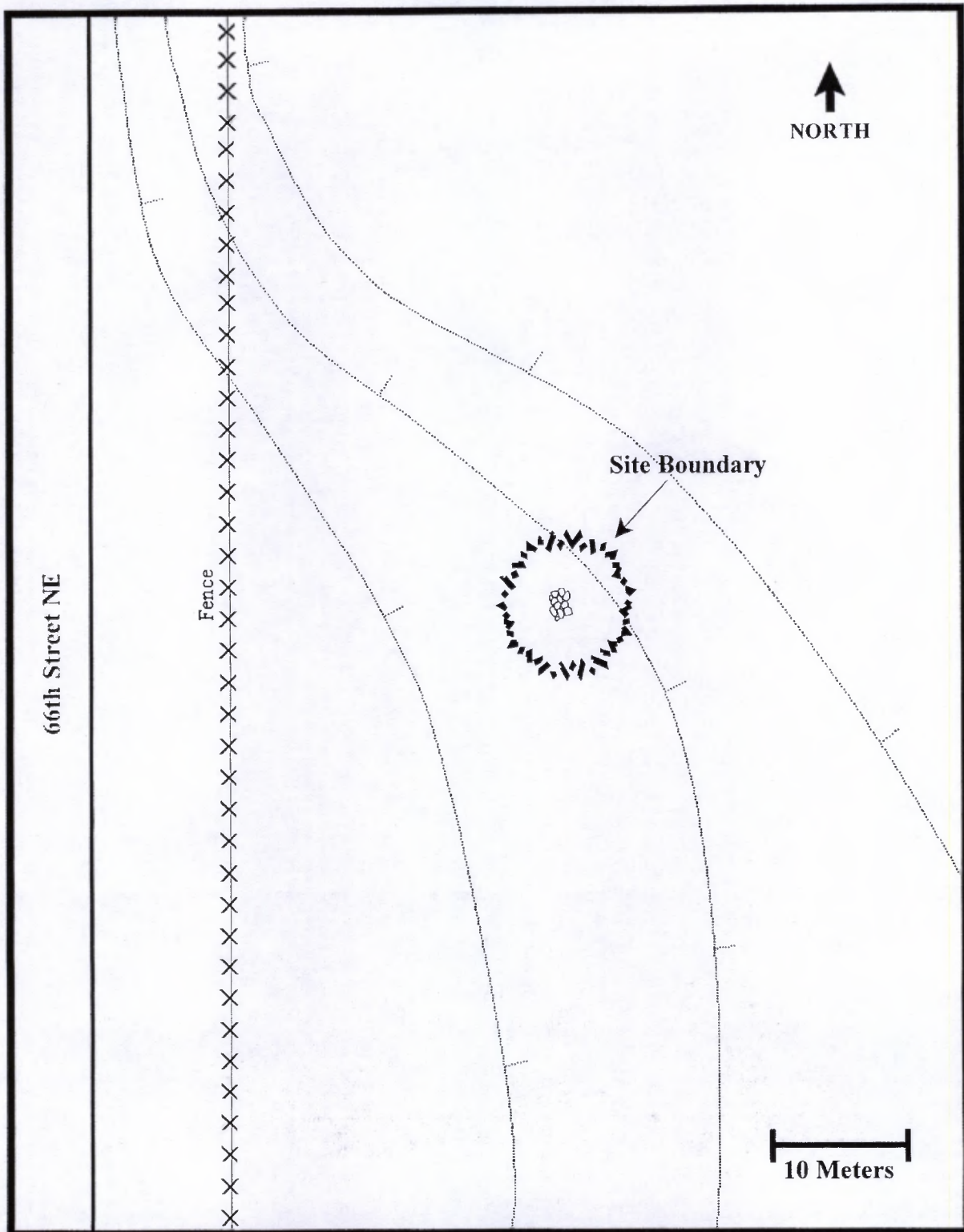


Figure 8: Sketch map of site 32BL653.

32BL656

Site 32BL656 is located in the NW/SW/SE of Section 34, T. 142 N., R. 79 W., in the western half of the block for Turbine wtg-44 (Map 3). The site consists of a collapsed rock cairn on the side slope of a slight draw/saddle between two prominent hills (Figures 9 and 10). The cairn measures approximately 2 meters north-south and 3 meters east-west and is comprised of over 30 granite rocks along with a rock or small boulder of Tongue River silicified sediment. Most of the rocks are embedded. The cairn probably is not a field clearing pile since the nearest field is over 200 meters away.

The survey data are insufficient to evaluate whether 32BL656 is eligible for inclusion in the NRHP. No artifacts were observed and the site's function is unknown. Cairns served a variety of functions including marking caches, trails and important locations and serving as burial caps and various domestic and ceremonial purposes. Although the site has not been evaluated, it may qualify as a property "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). Until the site is evaluated, it should be fenced off and avoided.



Figure 9: View to northeast over cairn at site 32BL656. (Image #10)

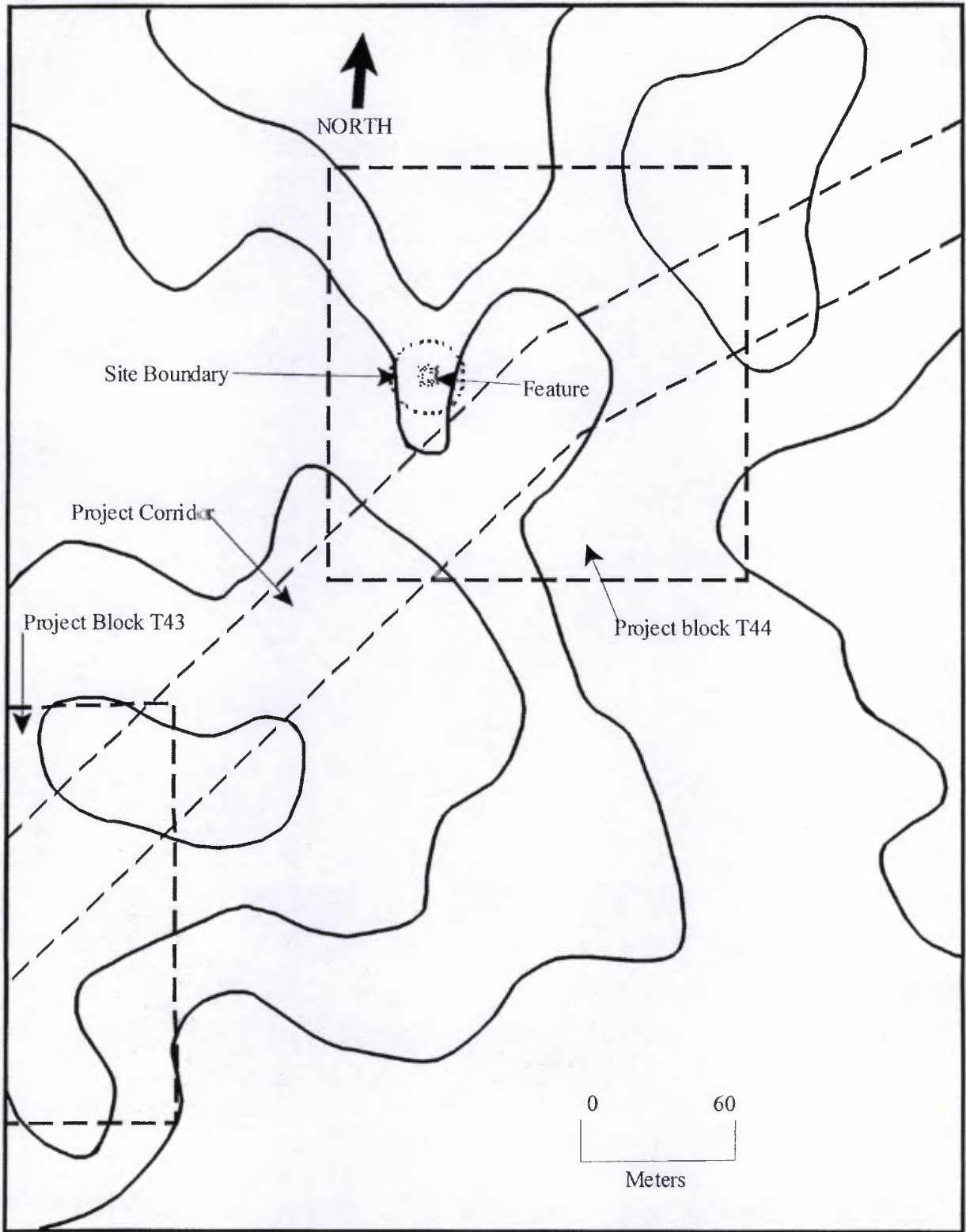


Figure 10: Sketch map of site 32BL656.

32BL657

Site 32BL657 is located in the SW/NE/SE of Section 34, T. 142 N., R. 79 W., along an east-west linear corridor 25 meters east of the block for Turbine wtg-45 (Map 3). The site consists of a cairn that is 3 meters in diameter, composed of over 25 rocks/small boulders that are each 40 to 50cm in diameter (Figures 11 and 12). All but one of the rocks is granite, the exception being a Tongue River silicified sediment boulder. The stones are only moderately embedded and limited probing with a wire pin-flag did not encounter any buried rocks.

The survey data are insufficient to evaluate whether 32BL657 is eligible for inclusion in the NRHP. No artifacts were observed and the site's function is unknown. Cairns served a variety of functions including marking caches, trails and important locations and serving as burial caps and various domestic and ceremonial purposes. Although the site has not been evaluated, it may qualify as a property "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). Until the site is evaluated, it should be fenced off and avoided.



Figure 11: View to the east over cairn at site 32BL657. (Image #11)

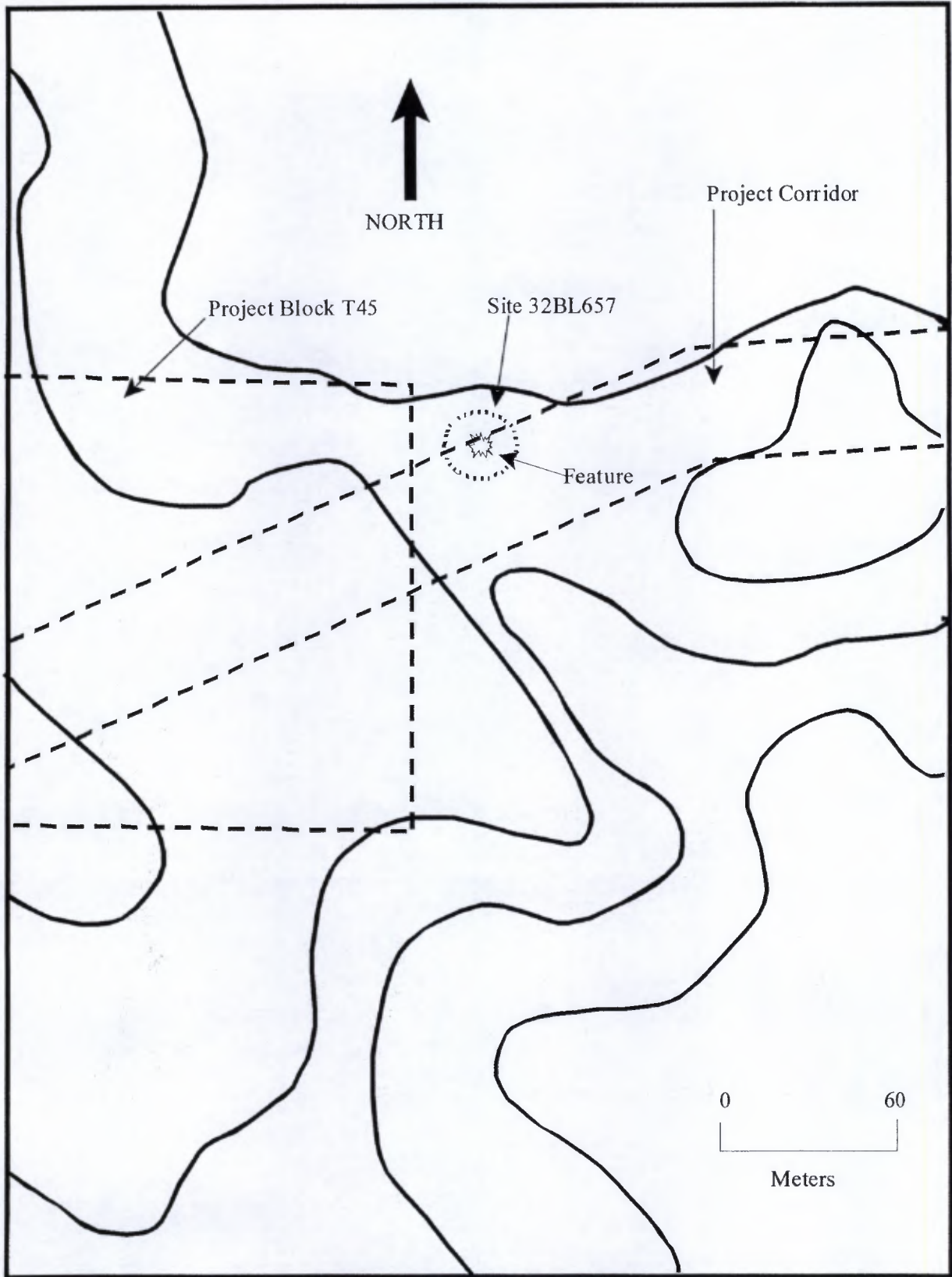


Figure 12: Sketch map of site 32BL657.

32BL658

Site 32BL658 is located in the NW/NW/SW of Section 35, T. 142 N., R. 79 W., in the north-central portion of the block for Turbine wtg-46 (Map 3). The site consists of a single slightly mounded cairn that is approximately 1 meter in diameter (Figures 13 and 14). The cairn is composed of ten visible rocks and an undetermined number of buried rocks. It is located on the northern edge of an elongated hill with a very good viewshed, particularly to the north and west.

The survey data are insufficient to evaluate whether site 32BL658 is eligible for inclusion in the NRHP. No artifacts were observed and the site's function is unknown. Cairns served a variety of functions including marking caches, trails and important locations and serving as burial caps and various domestic and ceremonial purposes. Although the site has not been evaluated, it may qualify as a property "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[1] [1]). Until the site is evaluated, it should be fenced off and avoided.



Figure 13: View to the south over 32BL658. (Image #16)

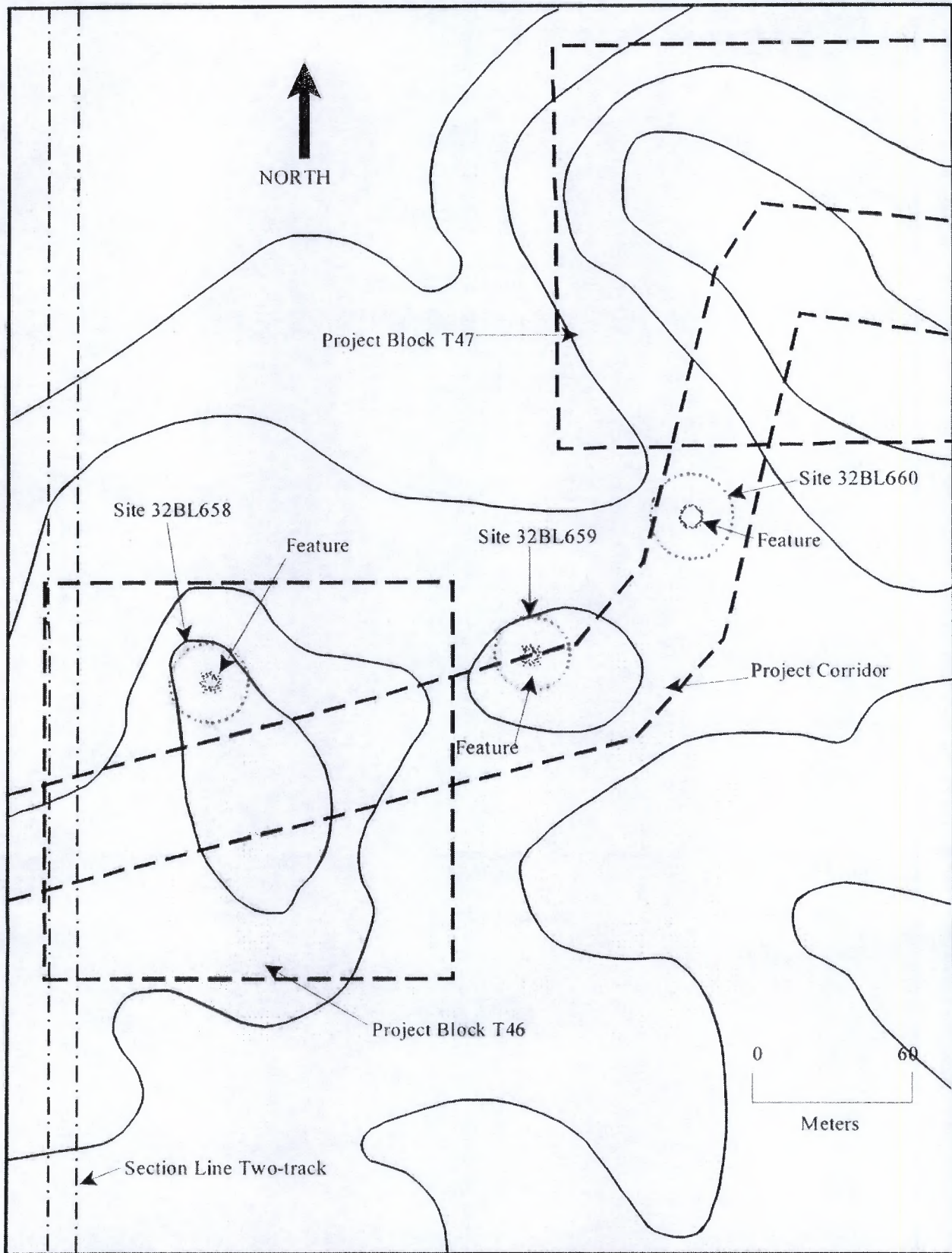


Figure 14: Sketch map for sites 32BL658, 32BL659 and 32BL660.
 Report Contains Site Location Information – Not For Public Distribution

32BL659

Site 32BL659 is located in the NE/NW/SW of Section 35, T. 142 N., R. 79 W., along an east-west running linear access road, 25 meters east of the block for Turbine wtg-46 (Map 3). The site consists of a mounded rock cairn on the crest of a hill (Figures 14 and 15). The cairn measures approximately 2 meters north-south and 1.5 meters east-west and is comprised of 12 readily visible rocks and an undetermined number of buried rocks. One of the rocks is a small boulder of Tongue River silicified sediment and the remainder is granite. The site has a good viewshed, particularly to the northwest and southeast.

The survey data are insufficient to evaluate whether 32BL659 is eligible for inclusion in the NRHP. No artifacts were observed and the site's function is unknown. Cairns served a variety of functions including marking caches, trails and important locations and serving as burial caps and various domestic and ceremonial purposes. Although the site has not been evaluated, it may qualify as a property "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). Until the site is evaluated, it should be fenced off and avoided.



Figure 15: View to the north over site 32BL659. (Image #14)

32BL660

Site 32BL660 is located in the NE/NW/SW of Section 35, T. 142 N., R. 79 W., along a north-south linear access road, 20 meters south of the block for Turbine wtg-47 (Map 3). The site consists of a stone circle that has an interior diameter of approximately 7 meters and is comprised of 50 embedded stones (Figures 14 and 16). The site is situated on a long ridge between two prominent hills with a fair viewshed to the northwest and southeast.

The survey data are insufficient to evaluate whether 32BL660 is eligible for inclusion in the NRHP. No artifacts were observed and the site's specific function is unknown as stone circles are known to have served a number of functions. They are most commonly viewed as having been used to hold down the flaps of tipis but other functions were associated with a variety of social/ceremonial activities. Some circles may represent effigies and often still hold significance for contemporary Native Americans. Although the site has not been evaluated, it may qualify as a property "... of traditional religious and cultural importance to an Indian tribe ... and that meet(s) the National Register criteria" (36 CFR 800.16[I] [1]). Until the site is evaluated, the site perimeter should be fenced and avoided by the current undertaking.



Figure 16: View to west over site 32BL660. (Image #13)

Isolated Finds

32BLx120

32BLx120 is a secondary Knife River flint flake lacking patina. It is located in the SE/NW/NW of Section 21, T. 142 N., R. 79 W., in the eastern portion of the block for proposed Turbine wtg-17 (Map 2). Isolated finds by their very nature are generally not considered eligible for inclusion in the NRHP and do not need to be avoided.

32BLx121

32BLx121 is the base of a side-notched projectile point that is stylistically suggestive of a Besant point (Figure 17). It is located in the SW/SE/SW of Section 19, T. 142 N., R. 79 W., to the south and outside of the block for proposed Turbine wtg-4 (Map 2). Isolated finds by their very nature are generally not considered eligible for inclusion in the NRHP and do not need to be avoided.



Figure 17: Isolated find 32BLx121. (Image #13)

32BLx134

32BLx134 is a secondary and a tertiary flake of Knife River flint, both lacking patina. They are located in the SE/NE/NE of Section 20, T. 142 N., R. 79 W., in the northeast corner of the block for proposed Turbine wtg-16's (Map 2). Isolated finds by their very nature are generally not considered eligible for inclusion in the NRHP and do not need to be avoided.

Chapter 6: Summary and Recommendations

Summary and Recommendations

Two architectural sites; 32BL654 and 32BL655, six archaeological sites, 32BL653, 32BL656, 32BL657, 32BL658, 32BL659, and 32BL660; and three prehistoric isolated finds, 32BLx120, 32BLx121 and 32BLx134; were identified during the inventory. Avoidance through site fencing during construction is recommended for all six archaeological sites. The archaeological sites are near, or fall within, the following list of turbine survey blocks. Site 32BL653 is outside of and to the west of the block for Turbine wtg-41. Site 32BL656 falls within the west-central block of Turbine wtg-44. Site 32BL657 is on the north edge of a linear corridor, outside of and to the northeast of the block for Turbine wtg-45. Site 32BL658 is within the north-central part of the block of Turbine wtg-46. Site 32BL659 is located on the north edge of a linear corridor, outside of and to the east of the block for Turbine wtg-46. Site 32BL660 is on the west edge of a linear corridor, outside of and to the south of the block for Turbine wtg-47.

Table 4 lists the recorded cultural resources, including their location, associated turbine, type, and management recommendation.

Table 4: Cultural Resource and Feature Data					
Site #	Site Center UTM (Zone 14, NAD 27)		Site Type	Management Recommendation	Associated Turbine (A/CL=Access/Collect or Line)
	Northing	Easting			
32BL653	5213641	372058	Archaeological Cairn	Fencing and avoidance.	Within A/CL corridor, west of wtg-41.
32BL654	5212483	372836	Architectural schoolhouse.	Not eligible. No avoidance.	Within A/CL corridor, northwest of alt-8
32BL655	5218102	370461	Architectural farmstead	Not eligible. No avoidance.	Within A/CL corridor on section line, 0.3 of a mile south of wtg-16.
32BL656	5214428	372920	Archaeological cairn	Fencing and avoidance.	wtg-44
32BL657	5214645	373419	Archaeological cairn	Fencing and avoidance.	Within A/CL corridor, east of wtg-45.
32BL658	5214739	373713	Archaeological cairn	Fencing and avoidance.	wtg-46
32BL659	5214747	373847	Archaeological cairn	Fencing and avoidance.	Within A/CL corridor, east of wtg-46.
32BL660	5214803	373909	Archaeological stone circle	Fencing and avoidance.	Within A/CL corridor, south of wtg-47.
32BLx120	5218641	370753	Isolated find, KRF flake	Not eligible. No avoidance	wtg-17
32BLx121	5217479	367836	Isolated find, projectile point base	Not eligible. No avoidance	South of wtg-4
32BLx134	5218698	370418	Isolated find, two KRF flakes	Not eligible. No avoidance	wtg-16

The historic architectural sites – 32BL654 and 32BL655 – are recommended as not eligible for inclusion in the NRHP for the reasons cited and do not need to be avoided. The survey data are insufficient to evaluate whether the archaeological sites – 32BL653, 32BL656, 32BL657, 32BL658, 32BL659, and 32BL660 – are eligible for inclusion in the NRHP. No artifacts were noted at any of these sites and the specific functions of the features – cairns and the stone ring – could not be determined. Because these sites have not been evaluated, it is recommended that they be avoided by erecting fences around them before the onset of construction. The sites are far enough from the proposed turbines and corridor centerlines that no turbine moves and only minor shifts within the 200 foot wide corridors would be needed to avoid the fenced sites.

Because of their intrinsic nature, the isolated finds are recommended as not eligible to the NRHP. They do not have to be avoided.

Provided that the archaeological sites – 32BL653, 32BL656, 32BL657, 32BL658, 32BL659, and 32BL660 – are fenced and avoided, a finding of *No Historic Properties Affected* is recommended for the proposed undertaking as surveyed, mapped and described herein.

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**Appendix A:
Site Forms
(Limited Distribution)**