
EXHIBIT 10
Technical Memorandum – Cultural Resources Investigation



July 3, 2013

Mr. Patrick Smith, Director of Environmental Planning
Geronimo Wind Energy
7650 Edinborough Way, Suite 725
Edina, Minnesota 55435

Subject: **Technical Memorandum – Cultural Resources Investigation**
Courtenay Wind Energy Project
Stutsman County, North Dakota

Dear Mr. Smith:

This memo presents the findings of a Class III Cultural Resource Inventory for the proposed 200 megawatt (MW) Courtenay Wind Energy Project (the Project) located 15 miles (mi) north of Jamestown in Stutsman County, North Dakota (see Figure 1). Work was performed by Tetra Tech under contract to Geronimo Energy (Geronimo). The Project includes the construction of between 100 and 133 turbines (dependent upon final turbine model selected) and associated access roads, electrical collection system, permanent meteorological towers, and substation. Tetra Tech's cultural resources investigation included a review of a Class I Literature Review conducted in February 2013 and the completion of a pedestrian survey based on the Project layout received June 5, 2013. The results of the aforementioned tasks and appropriate management recommendations for mitigation based on the resources' eligibility for listing in the National Register of Historic Places (NRHP) or cultural significance are summarized below.

FILE REVIEW

A Class I Cultural Resources Literature Search was conducted by Westwood Professional Services, Inc. (Westwood) at the North Dakota Heritage Center in October 2012. The results of this investigation were summarized in a Class I Cultural Resources Literature Search dated February 11, 2013. **No archaeological sites or architectural properties considered eligible for listing on the NRHP were identified within the Project area.**

SHPO CONSULTATION

On February 26 2013, Westwood received a response from Ms. Susan Quinnell, SHPO Review and Compliance Coordinator (ND SHPO REF: 13-0633), requesting:

- Agency consultation (Public Service Commission [PSC]);
- Consultation with tribal nations, North Dakota Indian Affairs, and the North Dakota Department of Transportation;
- Completion and submission of a Class II Reconnaissance Survey for standing structures in the Area of Potential Effects (APE) for visual effects;

- Completion and submission of a Class III Pedestrian Survey for all areas directly impacted by the project, including crane paths, service roads, transmission line, and turbine pads;
- Inclusion of tribal monitors during the Class III Pedestrian Survey; and
- Completion of site forms.

On June 6, 2013 Tetra Tech sent a letter to Ms. Quinnell requesting comments on the size of the APE for visual effects for the Project. Tetra Tech also requested that the SHPO identify those properties (inventoried or un-inventoried) that should be included within the Class II Reconnaissance Survey.

On June 6, 2013, Tetra Tech received a response from Ms. Quinnell (ND SHPO REF: 13-0633) requesting a Class II Reconnaissance Survey for 26 locations within a 1-mile radius of the proposed Project layout dated June 5, 2013. This will include photo-documenting the structures; confirming their presence/absence and determining if they are potentially over 50 years old. Ms. Quinnell indicated that site forms only needed to be filled out for potentially eligible structures/farmsteads. Copies of all correspondence are attached. The Class II Reconnaissance Survey was completed by Stark Preservation Planning LLC and summarized in a separate document.

FIELD SURVEY

From June 12, 2013 through June 21, 2013, Tetra Tech conducted a pedestrian survey of the proposed Project layout dated June 5, 2013. The proposed Project layout included:

- 140 wind turbine locations;
- approximately 33.3 mi of access roads;
- approximately 66.6 mi of the electrical collection system;
- a 12-acre substation; and
- 4 permanent meteorological towers.

The APE for direct effects (i.e., the extent of permanent and temporary ground disturbances) for these facilities includes a 135-foot (ft) radius centered on the proposed turbine locations, a 100-ft corridor for the access roads, a 120-ft corridor for the collection lines, which may also be used as crane paths, and a 10-ft radius centered on the permanent meteorological towers (Table 1). To allow for some flexibility in construction, Tetra Tech surveyed a 300-foot radius centered on the proposed turbine locations, a 250-ft corridor for the access roads, a 150-ft corridor for the collection lines, a 100-ft radius centered on the permanent meteorological towers, and a 12 acre area for the substation (collectively known as the survey corridor) (Table 1). The majority of the survey corridor consisted of agricultural cropland with 50 to 100 percent surface visibility.

Table 1. The APE for direct effects and the survey corridor for the Project facilities.

Facility	Permanent Impacts	Temporary Impacts	Survey Corridor
Turbine	21 ft radius	135 ft radius	300 ft radius
Access Road	18 ft corridor	100 ft corridor	250 ft corridor
Collection Line	None	120 ft corridor	150 ft corridor
Substation	6 acres	10 acres	12 acres
Meteorological Towers	4 ft radius	10 ft radius	100 ft radius

During this survey, Tetra Tech documented 11 previously unrecorded archaeological sites and 5 site leads¹ within the survey corridor. The five archaeological site leads (C_002, C_007, C_009, C_020, and C_030) consisted of temporally non-diagnostic Native American chipped stone isolated finds. All of the isolated finds were documented in agricultural cropland and do not appear to contain any intact archaeological material in the subsurface.

The 11 archaeological sites consist of Euro-American artifact scatters and features that appear to be associated with Euro-American farming and settlement activities in the Project area. Using General Land Office Plat Maps (1882 and 1884), historic plat maps (1911 and 1930), and United Geological Survey Bureau Topographic Quadrangles from the 1950s, 1980s, and 1990s, 8 of the 11 Euro-American sites (C_001, C_004, C_008, C_010, C_031, C_033, C_034, C_040) coincide with the locations of former farmsteads. All of these sites with the exception of the C_010 and C_034 consisted only of an artifact scatter. Site C_010 consisted of several depressions within a pasture area and C_034 consisted of an artifact scatter and a standing outbuilding. The standing outbuilding at C_034 was located outside of the survey corridor.

Two of the remaining three sites (C_005 and C_011) contain archaeological materials similar to those observed at known farmsteads including construction materials (i.e., brick, cement, window glass), dinnerware fragments, glass and ceramic container fragments, and parts from farm implements. These artifacts would suggest the site was associated with a former farmstead. While the age of these scatters cannot be confirmed from historical documents, the artifacts present at Sites C_005 and C_011 included both blown and machine manufactured glass containers as well as sun-colored amethyst glass suggesting these scatters may date around 1900. The absence of newer materials including plastics, rubber, and aluminum may indicate these farmsteads ceased to be in operation after the 1930s.

Site C_013 is a historic artifact scatter located south of Highway 9 west of the town of Courtenay. This artifact scatter does not appear to be associated with any historically documented structure. The materials observed on the surface included construction materials (brick, tile, and wood), dinnerware fragments, glass and ceramic container fragments, animal bone (likely bovine – some with cut marks), and miscellaneous metal artifacts (brass door bell, shovel handle, bolts, etc.). The presence of a wider variety of artifacts including ceramic tiles, animal bones with cut marks, brass door bells, etc. may indicate this is a dump historically utilized by the town of Courtenay. The artifacts present at Site C_013 included both blown and machine manufactured glass containers as well as sun-colored amethyst glass and the absence of modern refuse suggests this dump may have been used in the early 1900s.

¹ A site that has been incompletely recorded or reported by a non-professional is an unverified site and is considered a site lead. Isolated finds are also considered site leads.

RECOMMENDATIONS FOR PROJECT LAYOUT

Tetra Tech's recommendations for site avoidance are based on the type of site, the condition of the site, and the potential of the site to yield significant information regarding prehistoric and historic settlement in this region. Tetra Tech provided Geronimo with recommendations for site avoidance on June 24, 2013 and a revised Project layout was provided on June 24, 2013. Only the 10 archeological sites and 2 site leads located within the revised APE for direct effects (based on the June 24, 2013 Project layout) are discussed below. Sites and site leads located outside the revised APE for direct effects will not be impacted by the current Project layout.

Based on the revised layout, 10 historic scatters are located within the APE for direct effects. **Tetra Tech does not recommend avoidance for nine of these sites including C_001, C_004, C_005, C_008, C_011, C_031, C_033, C_034, and C_040** (Table 2). These sites have been significantly impacted by years of agricultural activities which have reduced the potential for these sites to yield significant information regarding Euro-American settlement of the area. While the potential exists these sites may contain buried features (e.g., foundations, outhouse, wells, etc.) below the plowzone, the general age of these sites (ca. 1900 to ca. 1950 and later) is relatively new and spans into the modern period. Archaeological features in this context would not likely yield significant information regarding early Euro-American settlement of the area.

Tetra Tech does recommend onsite monitoring for Site C_001 during construction activities (Table 2, row in yellow). Although this site has been disturbed through agricultural activities, historic documents indicate it was one of the earliest homesteads in the area. This homestead and several agricultural fields are present on the 1884 General Land Office Plat Map. There is the potential that intact archaeological features, if present, may be present from the early stages of the homestead which do have the potential to yield significant information regarding early Euro-American settlement of the area. The presence of an archaeological monitor during construction at Site C_001 would ensure that if archaeological features are encountered, they can be documented and evaluated to determine if they are significant archaeological resources.

Based on the revised layout, one potentially eligible historic scatter (Site C_013) is located within the APE for direct effects. **Tetra Tech does recommend avoidance of Site C_013 and its associated avoidance buffer** (see Table 2, row in orange). Site C_013 may be the location of an early (ca. 1900s) dump used by the town of Courtenay. Historic town dumps can be quite extensive and contain buried intact archaeological deposits that can provide significant information regarding the establishment of rural towns in the late nineteenth and early twentieth centuries. Tetra Tech recommends the use of horizontal directional drilling for collection line installation beneath the site and its avoidance buffer, and that construction vehicles avoid driving over this site.

Based on the revised layout, two site leads (C_009 and C_020) are located within the APE for direct effects. **Tetra Tech does not recommend avoidance for Site Leads C_009 and C_020** (Table 2). These site leads are isolated finds located in agricultural fields that have been disturbed through agricultural activities and have a low potential to yield any significant information about prehistoric activities in the area.

Table 2. Archaeological sites documented within the APE for direct effects.

Field No.	Affiliation & Site Type	Recommendation
C_001	Euro-American Artifact Scatter (Farmstead ca.1884 to 1950)	Avoidance is not recommended for this site. Onsite monitoring is recommended during construction.
C_004	Euro-American Artifact Scatter (Farmstead ca.1910 to 1930)	Avoidance is not recommended for this site.
C_005	Euro-American Artifact Scatter (Farmstead ca.1900) and Native American Isolated Find	Avoidance is not recommended for this site.
C_008	Euro-American Artifact Scatter (Farmstead ca.1910 to 1950)	Avoidance is not recommended for this site.
C_009	Native American Isolated Find	Avoidance is not recommended for this site.
C_011	Euro-American Artifact Scatter (Farmstead ca.1900)	Avoidance is not recommended for this site.
C_013	Euro-American Artifact Scatter (Possible Courtenay Town Dump, ca. 1900)	Avoidance is recommended in addition to a 50 ft buffer around the site. Tetra Tech recommends that directional drilling be utilized to avoid impacting the site and avoidance buffer.
C_020	Native American Isolated Find	Avoidance is not recommended for this site.
C_031	Euro-American Artifact Scatter (Farmstead ca.1910 to 1950)	Avoidance is not recommended for this site.
C_033	Euro-American Artifact Scatter (Farmstead ca.1950 to 1980)	Avoidance is not recommended for this site.
C_034	Euro-American Artifact Scatter and Standing Structure (Farmstead ca.1950 to 1980)	Avoidance is not recommended for this site.
C_040	Euro-American Artifact Scatter (Farmstead ca.1910 to 1980)	Avoidance is not recommended for this site.

ADDITIONAL CULTURAL RESOURCES ACTIVITIES TO BE CONDUCTED

Based on the revised Project layout dated June 24, 2013, portions of the APE for direct effects are located outside of the current survey corridor. These areas include new access road locations and minor shifts in turbine locations and access road and collection line routes. A review of previously inventoried archaeological sites did not reveal the presence of known sites in the vicinity of these reroutes. Given the number of historic artifact scatters documented during the pedestrian survey in June 2013, there is the potential that undocumented sites may be present within the unsurveyed portions of the APE for direct effects. Tetra Tech recommends the completion of Class III pedestrian survey for these portions of the

APE for direct effects. If sites are located within the APE for direct effects, then Tetra Tech will evaluate the site and determine if avoidance is necessary.

If you should have any questions or comments concerning this submittal, please feel free to contact our office at (612) 643-2224 or kim.gorman@tetrattech.com.

Sincerely,

TETRA TECH

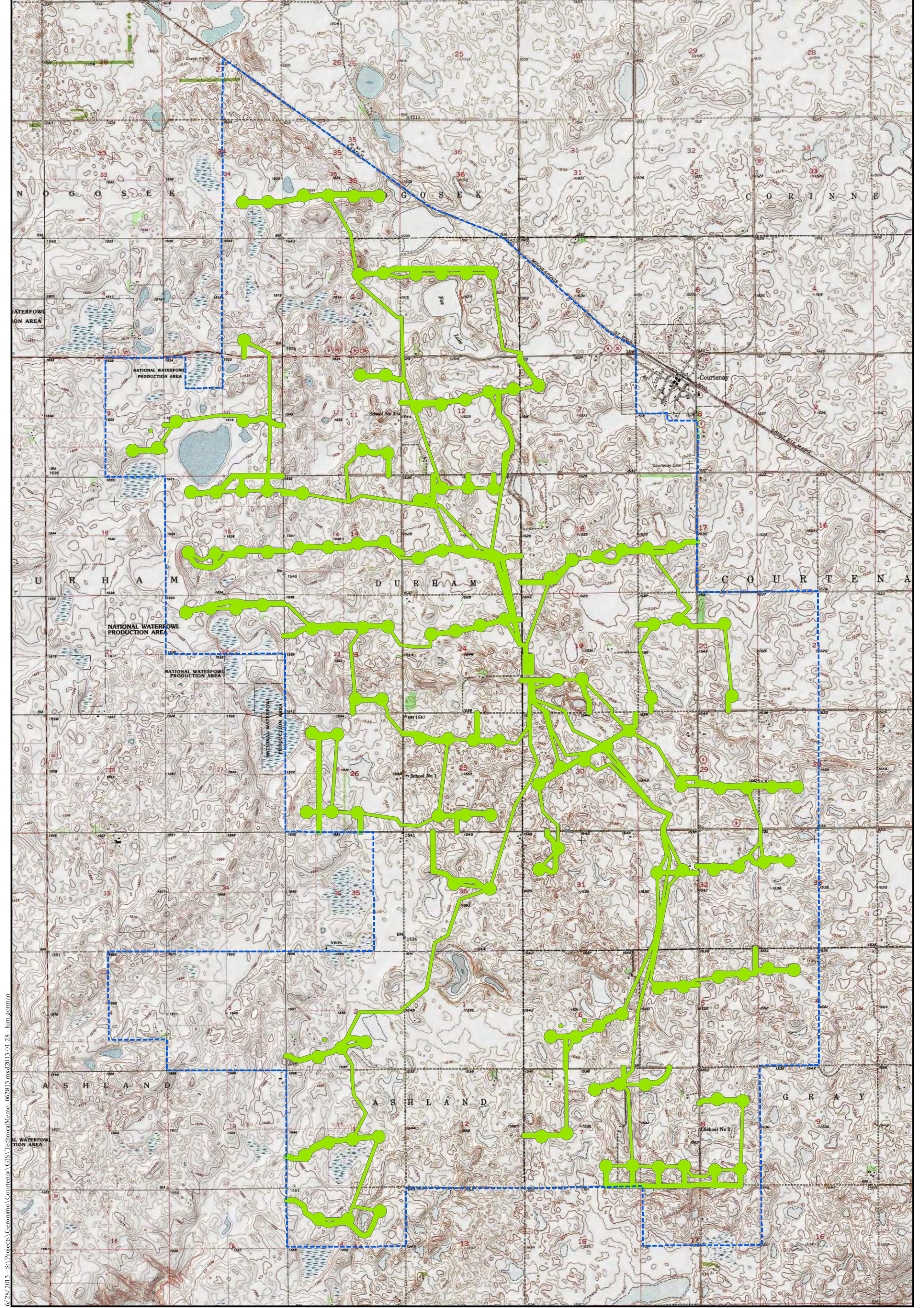


Adam C. Holven
Senior Archaeologist/Project Manager



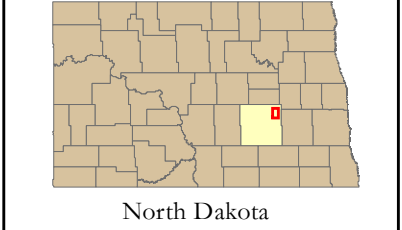
Kimberely Gorman
Senior Project Manager

Attachments: Figure
Correspondence



6/28/2013 - SA\Projects\Geronimo\Courtenay\GIS\TechnicalMemo_62813.mxd(2013-01-28 - kim.german)

Source: Map adapted from data provided by Arc GIS Online (USA Topos), and Project Area data provided by Geronimo Energy.



- Survey Corridor
 - Project Area
- Locations of archaeological sites have intentionally been omitted from this map.

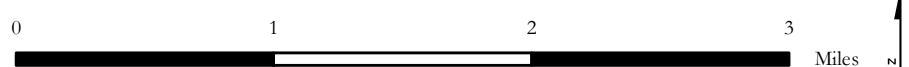


Figure 1 - Class III Survey Corridor
 Courtenay Wind Energy Project
 Stutsman County, North Dakota





**STATE
HISTORICAL
SOCIETY
OF NORTH DAKOTA**

Jack Dalrymple
Governor of North Dakota

North Dakota
State Historical Board

Gereld Gerntholz
Valley City - President

Calvin Grinnell
New Town - Vice President

A. Ruric Todd III
Jamestown - Secretary

Albert I. Berger
Grand Forks

Diane K. Larson
Bismarck

Chester E. Nelson, Jr.
Bismarck

Margaret Puetz
Bismarck

Sara Otte Coleman
*Director
Tourism Division*

Kelly Schmidt
State Treasurer

Alvin A. Jaeger
Secretary of State

Mark Zimmerman
*Director
Parks and Recreation
Department*

Grant Levi
*Acting Director
Department of Transportation*

Merlan E. Paaverud, Jr.
Director

Accredited by the
American Alliance
of Museums since 1989

February 26, 2013

Mr. Dean T. Sather
Westwood Professional Services
7699 Anagram Drive
Eden Prairie, MN 55344

ND SHPO REF: 13-0633 PSC PU-13-64 Geronimo Wind Energy, Courtenay Wind Farm, LLC, 200.5 MW Wind Energy Conversion Facility 58 - 120 turbines Stutsman County, North Dakota


Dear Mr. Sather,

We reviewed your very preliminary information on ND SHPO REF: 13-0633 PSC PU-13-64 Geronimo Wind Energy, Courtenay Wind Farm, LLC, 200.5 MW Wind Energy Conversion Facility Stutsman County, North Dakota. There is potential for unrecorded and recorded cultural resource properties in a variety of physiographic settings in the overall project area. If the project requires permits issued by a federal and/or state agency (e.g., WAPA, RUS, COE, USFWS, BOR, PSC) then the respective agencies are to be consulted regarding their recommendations on the project. As a potential federal undertaking, we encourage early agency consultation as part of the review process. Early consultation should also include tribal nations, North Dakota Indian Affairs, ND DOT regarding any Scenic Byways, and managers or owners of properties maintained for recreational or scenic value.

We recommend a Class II (reconnaissance) survey by a permitted architectural historian for standing structures in the visual Area of Potential Effect (APE), and Class III survey of those found to be fifty years of age or older by a permitted architectural historian. Class III (pedestrian) surveys will be warranted for all areas directly impacted by the project, including crane paths, access roads, transmissions lines and turbine pads. We encourage you to invite tribal monitors to survey the APE. As part of the Class III Inventory, NDCRS site updates should be submitted on all sites resurveyed. If the project APE changes, we will request additional Class I (Cultural Resource Literature Search) inventories and consultation.

Thank you for the opportunity to review this project to date. We look forward to further review of cultural resource surveys and site forms, and updates as the project siting occurs. If you have any questions please contact Paul Picha, Chief Archaeologist (701) 328-3574 or Susan Quinnell, Review and Compliance Coordinator at (701) 328-3576, e-mail squinnell@nd.gov

Sincerely,


Merlan E. Paaverud, Jr.
State Historic Preservation Officer (North Dakota) and
Director, State Historical Society of North Dakota

C: Patrick Fahn, PSC

Holven, Adam

From: Holven, Adam
Sent: Thursday, June 06, 2013 8:40 AM
To: Quinnell, Susan L. [squinnell@nd.gov] (squinnell@nd.gov)
Subject: Request for Comment_Courtenay Wind Energy Center (ND SHPO REF: 13-0633)

Hi Susan,

Please find attached a request for comment letter and associated maps for the Courtenay Wind Energy Center (SHPO Ref.: 13-0633) in Stutsman County. Typically, I would mail this into the SHPO, but we are under a little time crunch and I hope emailing you this letter is alright. I can also send a hard copy if you would like to see that as well. We would like to you to review the maps and determine which properties the SHPO would like to see in the Class II report.

I believe we looked at all the properties present on the topo map within 1-mile of the proposed turbines for the [REDACTED] that I am also working on and we were hoping to do something similar with this project. We were hoping you good provide the SHPO's comments by early next week; we need to get the field work started ASAP so we can have draft results and recommendations for a PSC hearing on July 2.

Thank you very much and please let me know if you have any questions,
Adam

Adam C. Holven | Senior Archaeologist/Project Manager
Direct: 612.643.2237 | Main: 612.643.2200 | Fax: 612.643.2201
adam.holven@tetrattech.com

Tetra Tech
2001 Killebrew Drive, Suite 141 | Bloomington, Minnesota 55425 | www.tetrattech.com

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TETRA TECH

June 6, 2013

Susan Quinnell
Review and Compliance Coordinator
North Dakota State Historic Preservation Office
612 East Boulevard Drive
Bismarck, North Dakota 58505

Subject: Request for Comment on the Area of Potential Effects for Visual Effects for the Courtenay Wind Energy Center (ND SHPO REF: 13-0633), Stutsman County, North Dakota.

Dear Ms. Quinnell:

On February 26, 2013, Courtenay Wind Farm, LLC received a letter from the State Historical Society of North Dakota (SHSND) indicating the agency's review of the Class I Cultural Resource Inventory (ND SHPO REF: 13-0633). In this letter, SHSND recommended the completion of a Class II Reconnaissance Survey for standing structures and a Class III Pedestrian Survey for areas to be directly impacted by the project. Tetra Tech will conduct a Class III Pedestrian Survey in June 2013.

In regards to the Class II Reconnaissance Survey for standing structures, Tetra Tech requests the SHPO's comments on the size of the area of potential effects (APE) for visual effects for the Courtenay Wind Energy Center. Tetra Tech also requests that the SHPO identify those properties (inventoried or un-inventoried) that should be included within the Class II Reconnaissance Survey. Tetra Tech has provided three maps (hard copy and electronic copy) of the proposed turbine layout dated June 5, 2013.

Please feel free to contact me by telephone (612-643-2237) or by email (adam.holven@tetrattech.com) if you have any questions concerning this request.

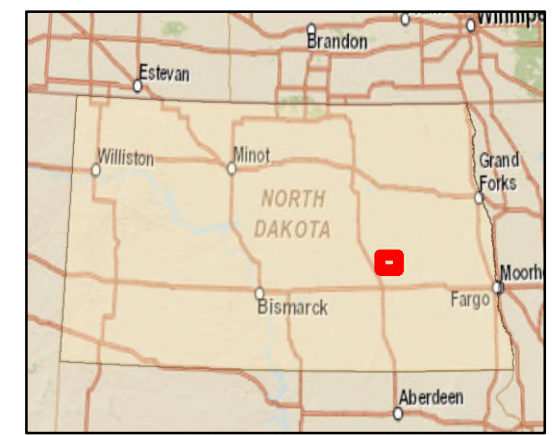
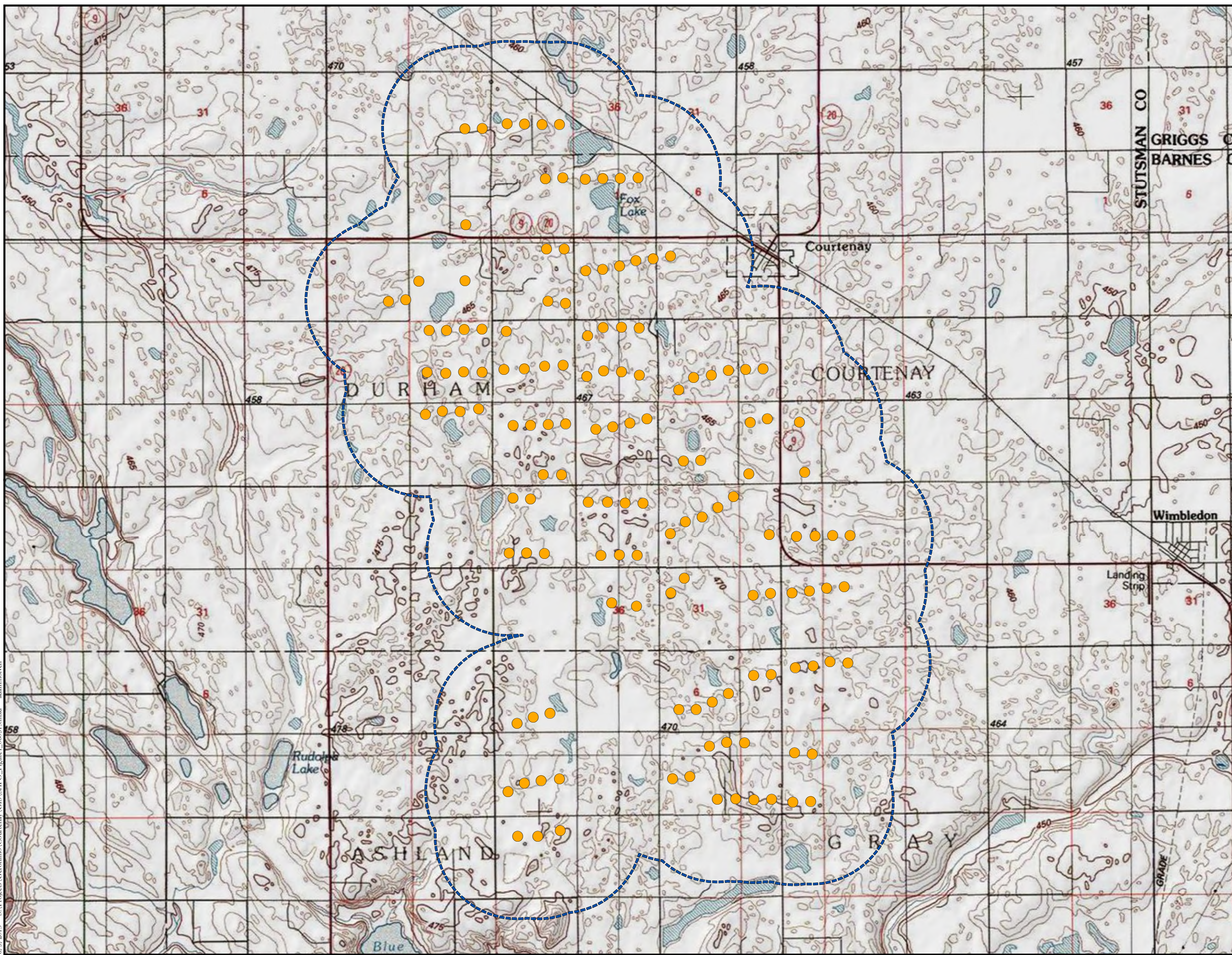
Sincerely,

Adam Holven
Senior Archaeologist/Project Manager

Enclosures

cc:

Mr. Patrick Smith, Geronimo Energy
Ms. Kimberely Gorman, Tetra Tech



Facility Layout 6/5/2013

- Proposed Turbine Location
- 1-mile Turbine Layout Buffer

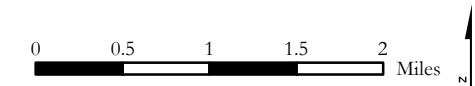
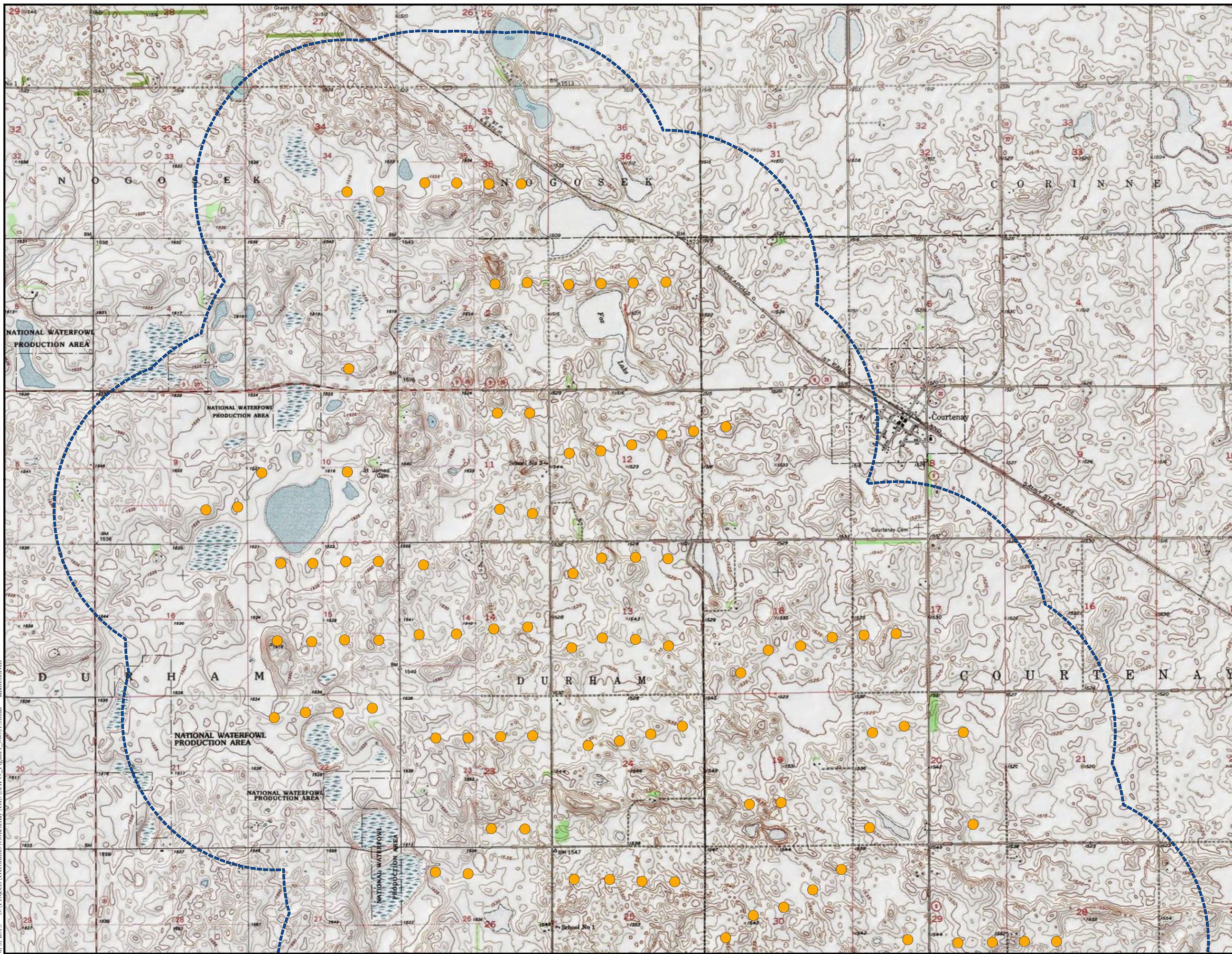


Figure 1:
Turbine Location
with 1-mile Buffer
Courtenay Wind Energy Center
Stutsman County, North Dakota



6/5/2013 S:\Projects\Geronimo\Courtenay\GIS\SHPO_Figure1_060513.mxd adam.holven

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Courtenay NW [1990], Courtenay [1951], Spintwood Lake [1951], and Fried [1990] ND); Geronimo Energy - Courtenay Wind Energy Center (turbines 6/5/13).



Facility Layout 6/5/2013

- Proposed Turbine Location
- ⊖ 1-mile Turbine Layout Buffer

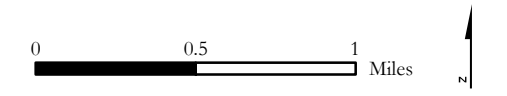
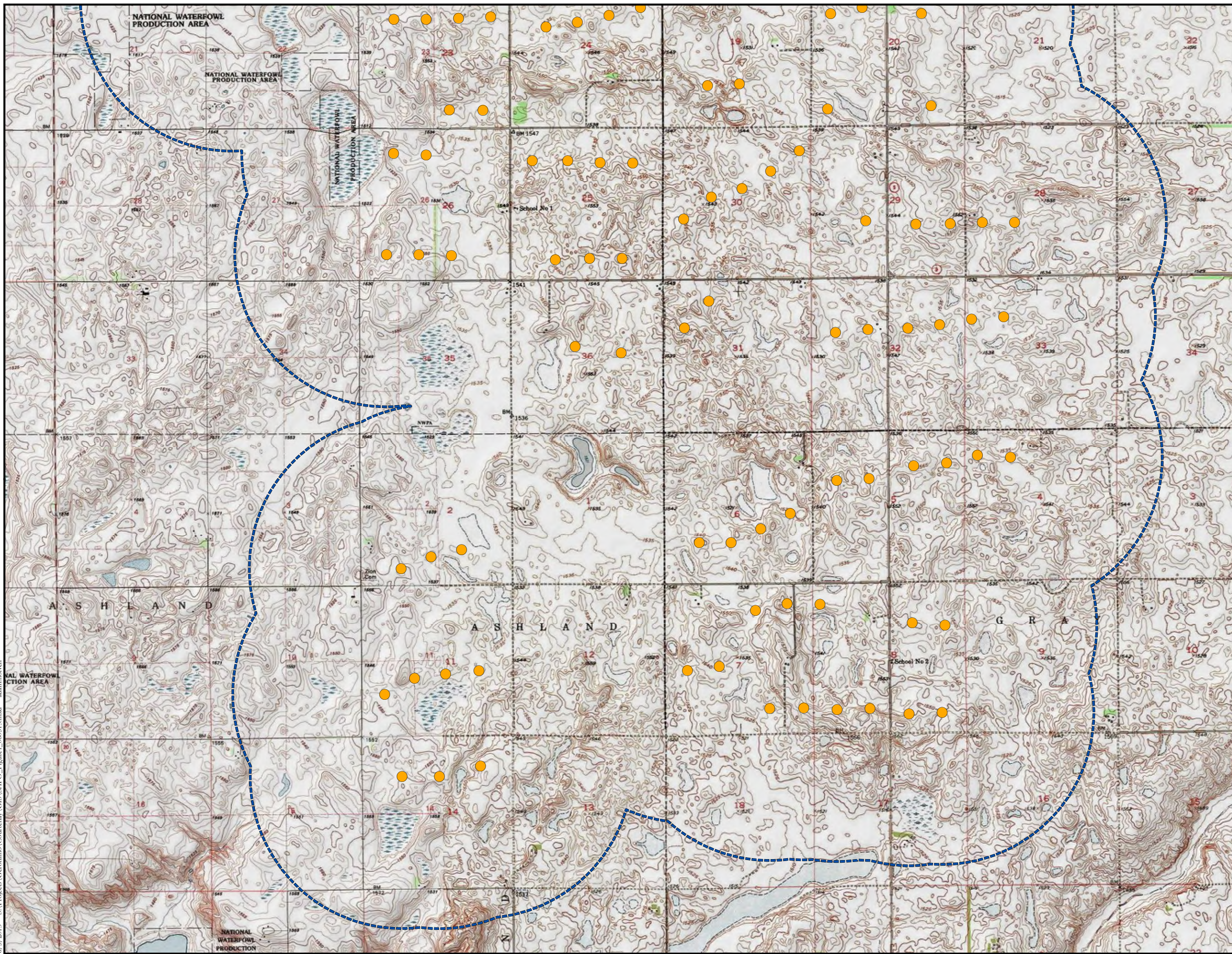


Figure 2a: North Half
Turbine Location
with 1-mile Buffer
Courtenay Wind Energy Center
Stutsman County, North Dakota



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Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Courtenay NW [1990], Courtenay [1951], Spiritwood Lake [1951], and Fried [1990] ND); Geronimo Energy - Courtenay Wind Energy Center (turbines 6/5/13).



- Facility Layout 6/5/2013**
- Proposed Turbine Location
 - 1-mile Turbine Layout Buffer

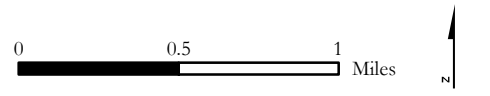


Figure 2b: South Half
Turbine Location
with 1-mile Buffer
Courtenay Wind Energy Center
Stutsman County, North Dakota



6/5/2013 S:\Projects\Geronimo\Courtenay\GIS\SHPO_Figure1_060513.mxd adam.holven

Source: Map adapted from ArcGIS Map Server USA Topos - 24k (Courtenay NW [1990], Courtenay [1951], Spintwood Lake [1951], and Fried [1990] ND); Geronimo Energy - Courtenay Wind Energy Center (turbines 6/5/13).

Holven, Adam

From: Quinnell, Susan L. <squinnell@nd.gov>
Sent: Thursday, June 06, 2013 2:39 PM
To: Holven, Adam
Subject: RE: Request for Comment_Courtenay Wind Energy Center (ND SHPO REF: 13-0633)
Attachments: doc07603420130606144412.pdf; doc07603020130606144213.pdf

Hi Adam,

Here are your maps back. I count 11 in the bottom half and 15 in the top half that you should drive by and provide photographs/ Just do site forms if something looks eligible.

Susan Quinnell
Review and Compliance Coordinator
ND State Historic Preservation Office
State Historical Society of North Dakota
North Dakota Heritage Center
612 East Boulevard Avenue
Bismarck ND 58505-0830

701-328-3576
701-328-3710 FAX

From: Holven, Adam [<mailto:adam.holven@tetrattech.com>]
Sent: Thursday, June 06, 2013 8:51 AM
To: Quinnell, Susan L.
Subject: RE: Request for Comment_Courtenay Wind Energy Center (ND SHPO REF: 13-0633)

Sorry

From: Quinnell, Susan L. [<mailto:squinnell@nd.gov>]
Sent: Thursday, June 06, 2013 8:50 AM
To: Holven, Adam
Subject: RE: Request for Comment_Courtenay Wind Energy Center (ND SHPO REF: 13-0633)

Hi Adam, I'd be happy to look at this, but there are no attachments.

Susan Quinnell
Review and Compliance Coordinator
ND State Historic Preservation Office
State Historical Society of North Dakota
North Dakota Heritage Center
612 East Boulevard Avenue
Bismarck ND 58505-0830

701-328-3576
701-328-3710 FAX

From: Holven, Adam [<mailto:adam.holven@tetrattech.com>]
Sent: Thursday, June 06, 2013 8:36 AM
To: Quinnell, Susan L.
Subject: Request for Comment_Courtenay Wind Energy Center (ND SHPO REF: 13-0633)

Hi Susan,

Please find attached a request for comment letter and associated maps for the Courtenay Wind Energy Center (SHPO Ref.: 13-0633) in Stutsman County. Typically, I would mail this into the SHPO, but we are under a little time crunch and I hope emailing you this letter is alright. I can also send a hard copy if you would like to see that as well. We would like to you to review the maps and determine which properties the SHPO would like to see in the Class II report.

I believe we looked at all the properties present on the topo map within 1-mile of the proposed turbines for the [REDACTED] [REDACTED] that I am also working on and we were hoping to do something similar with this project. We were hoping you good provide the SHPO's comments by early next week; we need to get the field work started ASAP so we can have draft results and recommendations for a PSC hearing on July 2.

Thank you very much and please let me know if you have any questions,
Adam

[Adam C. Holven](#) | Senior Archaeologist/Project Manager
Direct: 612.643.2237 | Main: 612.643.2200 | Fax: 612.643.2201
adam.holven@tetrattech.com

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2001 Killebrew Drive, Suite 141 | Bloomington, Minnesota 55425 | www.tetrattech.com

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