
EXHIBIT 12
Technical Memorandum – Wetlands and Waters Survey



July 2, 2013

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

Subject: **Technical Memorandum - Wetlands and Waters Survey**
Courtenay Wind Energy Project
Stutsman County, North Dakota

Dear Mr. Smith:

This memo presents the findings of the wetlands and waters survey of the proposed 200 megawatt (MW) Courtenay Wind Energy Project (the Project) located 15 miles north of Jamestown in Stutsman County, North Dakota. 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 wetlands and waters survey was completed based on the Project layout received June 5, 2013. The methods used to evaluate wetlands and waterbodies, and the survey results and recommendations are summarized below.

METHODS

The wetlands and waters survey reconnaissance was conducted from June 12, 2013 through June 18, 2013 for the complete Project layout including turbines, access roads, collection lines and permanent meteorological towers to determine the presence of potential wetlands or other waters of the U.S. To allow for some flexibility in construction, Tetra Tech surveyed a 300-foot radius centered on the proposed turbine locations, a 250-ft corridor along access roads, a 150-ft corridor along 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; Figure 1)

Boundaries for potential wetlands identified within the survey corridor were established based on desktop review information, including the National Wetlands Inventory (NWI) and recent aerial photography, and visual observations of hydrology, hydrophytic vegetation and topography. Observations for each potential wetland were documented in a field notebook that is on record at the Tetra Tech office in Bloomington, Minnesota and wetland boundaries were captured using a Trimble GeoExplorer 6000 Series hand-held GeoXH GPS with sub-meter accuracy.

USFWS CONSULTATION

The U.S. Fish and Wildlife Service (USFWS) Chase Lake Wetland Management District manages wetland easements on private lands in Stutsman County and Wells County in North Dakota. Wetlands within USFWS easements are held in perpetual easement under USFWS jurisdiction. The easements do not allow the burning, leveling, filling, and/or draining of easement wetlands. However, landowners are permitted to till and farm these areas when they are not wet.

The Project transects several USFWS wetland easement tracts and Geronimo is consulting with the USFWS regarding proposed Project facilities on easement tracts to ensure that no USFWS easement wetlands will be permanently impacted by the Project. On June 17, 2013, Tetra Tech Wetland Specialist Kathy Bellrichard met USFWS Refuge Manager Neil Shook at the Project site to review wetland identification methods in use in the wetlands and waters survey to ensure that they would adequately identify wetland basins on USFWS easement tracts. Mr. Shook was satisfied that the methods employed were similar to those implemented by the USFWS to identify wetlands and would be sufficient to identify wetlands on USFWS easement tracts (see attached correspondence).

Consultation between Geronimo and the USFWS is ongoing as of the date of this memo. Geronimo has provided the GIS shapefiles of the wetlands identified by Tetra Tech during the wetlands and waters survey to Mr. Shook for review and comment. Geronimo will continue to work with the USFWS to ensure that the Project will not permanently impact any wetlands on USFWS easement tracts.

RESULTS AND RECOMMENDATIONS

During the field survey, Tetra Tech identified a total of 323 hydrologic features within the survey corridor, including 319 wetlands (131 located on USFWS easement tracts), 3 drainage swales/ditches, and 1 pond (Figure 1). All of the documented wetland and water features appeared to be isolated basins that are not hydrologically connected to a Traditional Navigable Water (TNW) and are, therefore, not likely to fall under the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE). However, only the USACE can make a final determination on the jurisdiction of a wetland or water feature.

In order to determine the approximate potential permanent and temporary wetland impacts that may result from the Project, the following permanent and temporary impact areas were established:

Table 1: Permanent and Temporary Impacts and Survey Corridor for Project Facilities

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

Using data from the completed wetlands and waters survey, Geronimo redesigned the Project to minimize wetland impacts overall, and eliminate wetland impacts on USFWS wetland easement tracts. Based on the permanent and temporary impact areas established and the revised Project facility layout dated June 24, 2013, there are seven wetlands that may be permanently impacted, and 223 that may be temporarily impacted.

Many of the projected temporary impacts may be avoided during construction. Wetlands located on the fringe of access road or turbine pad construction areas may be able to be avoided completely during construction and collections lines transecting wetlands may be able to be installed using horizontal directional drilling methods to eliminate impacts.

The seven wetlands with projected permanent impacts are all located outside of USFWS easement tracts; and although they do not appear to meet the criteria for USACE jurisdiction, Tetra Tech recommends that a jurisdictional determination for each affected wetland be requested from the USACE prior to construction. Those wetlands that may be permanently impacted by the Project are described in detail below:

Table 2: Potential Permanent Wetland Impacts

Township/Range/ Section	Project Facility Impacting	Wetland ID	Potential Wetland Loss (acres)	Recommendations and Comments
T143N/R62W/ Sec 19	Substation	C065	0.63	Complete avoidance of impacts to this wetland may be achievable during construction without relocating the substation site.
T143N/R63W/ Sec 15	Access road between turbine 92 and turbine 95	C004	0.07	The access road transects a potential seasonally flooded basin connecting two shallow marsh wetlands. Significant road realignment would be required to avoid impacts.
T143N/R62W/ Sec 32	Access road between turbine 40 and turbine 41	C127	0.06	The access road transects a potential seasonally flooded basin connecting a deep marsh wetland to the north and a shallow marsh wetland to the south. Significant road realignment would be required to avoid impacts.
T143N/R63W/ Sec 15	Access road between turbine 107 and turbine 108	A065	0.04	The access road transects a potential seasonally flooded basin connecting a shallow open water wetland to the north and a shallow marsh wetland to the south. Significant road realignment would be required to avoid impacts.
T143N/R63W/ Sec 15	Access road between 19 th St. SE and turbine 20	A085	<0.01	The wetland is located at the edge of the impact corridor and complete avoidance of impacts to this wetland may be achievable during construction.
T143N/R63W/ Sec 10	Access road between 88 th Ave. SE and turbine 119	A056	<0.01	The access road transects a narrow gap between two shallow marsh wetlands (A056 and A057). Some minor permanent impacts may result.
T143N/R63W/ Sec 10	Access road between 88 th Ave. SE and turbine 119	A057	<0.01	The access road transects a narrow gap between two shallow marsh wetlands (A056 and A057). Some minor permanent impacts may result.
T143N/R62W/ Sec 32	Access road between turbine 38 and turbine 40	C126	n/a	This feature is a drainage swale linking two wetlands, but does not have wetland characteristics and impacting this feature would not require USACE notification.

ADDITIONAL WETLAND SURVEY ACTIVITIES TO BE CONDUCTED

Based on the revised Project layout dated June 24, 2013, portions of the Project impact areas (permanent and temporary) are located outside of the 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 the NWI and recent aerial photography did not indicate the presence of any additional wetlands that might be impacted in the vicinity of these reroutes. However, Tetra Tech recommends field verification in these areas to confirm the absence of wetlands.

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



Kathy Bellrichard
Environmental Scientist/Wetland Specialist



Kimberely Gorman
Senior Project Manager

Attachments: Figure 1
USFWS Correspondence

Bellrichard, Kathy

From: Shook, Neil <neil_shook@fws.gov>
Sent: Tuesday, June 18, 2013 7:06 AM
To: Gorman, Kim
Cc: Bellrichard, Kathy; Patrick Smith (Patrick@geronimoenergy.com); Paul Halko
Subject: Re: Courtenay - Field Meeting - Monday, June 17, 2013

Hi Kim

No need to thank me. I met with Kathy and another Tetra Tech employee on the NW1/4 of section 31, 143-62. Kathy demonstrated the methodology for identifying and marking wetlands within the project corridors. The methodology utilized is similar to what we use to identify wetlands for easement purposes. So I do feel quite comfortable with Tetra Tech utilizing this process. Once Tetra Tech has finished with this inventory, I will need a shapefile of the inventory identifying the possible wetlands that have been identified as well as the proposed tower locations, proposed access roads, proposed collection lines and the associated buffers. I will use this information to insure that all easement wetlands within the corridors have been identified. If I am remembering this correctly, Patrick has a deadline of the first of July for the tower locations. So the sooner I can get this information the sooner I can get it reviewed.

In regards to trenching the collection lines. The first option should always be avoiding trenching through any easement protected wetlands. If this option is not possible, I will need documentation as to why avoidance is not possible and what plans may be used to limit any impacts to easement protected wetlands to temporary impacts only. As I explained to Kathy, we have worked with other entities to install rural water lines, fiber optic cables, and similar structures through easement protected wetlands. However, there is a bit more administrative work associated with temporarily impacting easement protected wetlands. Prior to permitting temporary impacts, the proposed methods for installation and restoration resulting in no permanent impacts will have to be documented prior to any permit being issued. Again, avoidance is typically the most viable option.

I look forward to reviewing the inventory and keeping this project moving to completion. Feel free to email or call me with any questions/concerns.

Best regards,

Neil

On Mon, Jun 17, 2013 at 7:54 PM, Gorman, Kim <Kim.Gorman@tetrattech.com> wrote:

Neil,

Thank you for taking the time to meet with our staff in the field this afternoon.

Kathy indicated you will be providing an email summary of the meeting confirming you are in agreement with our methodology for the identification of wetlands within the USFWS easement parcels. Additionally she

mentioned your conversation about allowing trenching for collection lines within the USFWS easements. Would this be allowed?

We anticipate completion of our field effort this week and hope to compile the data for your review by early next week.

Thank you again for your guidance on this project.

Kind regards,

Kimberely

Kimberely Gorman, GISP | Senior Project Manager - GIS Specialist

Direct: 612.643.2224 | Main: 612.643.2200 | Fax: 612.643.2201

kim.gorman@tetrattech.com

Tetra Tech

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From: Gorman, Kim

Sent: Tuesday, June 11, 2013 3:46 PM

To: Neil_Shook@fws.gov

Cc: Bellrichard, Kathy; Patrick Smith (Patrick@geronimoenergy.com); Gorman, Kim

Subject: Courtenay - Field Meeting - Monday, June 17, 2013

Neil,

Thank you for taking the time to speak with us today. As discussed, we will plan to meet you at the Project area on Monday, June 17, 2013 around 10AM. If possible, please contact Kathy Bellrichard on her mobile phone at 651-324-7356 before that time to arrange for a meeting place. Please note that cellular coverage is not consistent throughout the project area but leave a message and Kathy will get back to you.

If you need to contact me directly, please feel free to call my mobile at 612-998-7468.

Kind regards,

Kimberely

Kimberely Gorman, GISP | Senior Project Manager - GIS Specialist

Direct: 612.643.2224 | Main: 612.643.2200 | Fax: 612.643.2201

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--

Neil Shook

Refuge Manager

Chase Lake NWR/WMD/PP

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Woodworth, ND 58496

701.752.4218x1

"Be the person that your dog thinks you are!"

*"Unless someone like you cares a whole lot,
nothing is going to get better. It's not!"-The Lorax*