

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

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In the Matter of the Application by Crowned  
Ridge Wind, LLC for Facility Permit to  
Construct a 230kV Transmission Line and  
Associated Facilities From Codington  
County to Big Stone South Substation

EL-17-50

**APPLICANT'S RESPONSES TO  
STAFF'S FIRST SET OF DATA  
REQUESTS TO CROWNED RIDGE  
WIND, LLC**

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Attached, please find Applicant's Responses to Staff's First Set of Data Requests  
to Crowned Ridge Wind, LLC ("Crowned Ridge" or "Company").

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- 1-1) At the public input meeting, Crowned Ridge indicated that 99% of the transmission route is under easement. Please explain and describe the 1% of transmission route that is not under easement, and when Crowned Ridge anticipates obtaining the easement.

**Response:**

Crowned Ridge has successfully acquired the necessary 150 foot wide easements to accommodate the 34-mile transmission line (transmission conductor and poles) from the Project's collector substation to the Big Stone South Substation.

The 1% that is not under easement includes approximately 4 easements to accommodate locations where the project may span a property corner or where a slight shift in alignment may be necessary. These easements are a result of the Applicant's efforts to accommodate alignment changes/requests where possible.

Crowned Ridge is in advanced discussions with the few remaining landowners where such easements are needed and anticipates obtaining these easements by March 30, 2018.

**Respondent:** Jason Utton, Executive Director – Business Development

- 1-2 Please provide the estimated useful life of the two 300 MW wind projects, and the estimated useful life for the 230 kV transmission line. If the wind projects' useful lives are shorter than the associated transmission line, will the transmission line be decommissioned at the same time as the wind projects? Please explain.

**Response:**

Crowned Ridge Wind (CRW) has executed a 25 year power purchase agreement (PPA) with Northern States Power (NSP) to sell NSP the full output of CRW. The useful life of CRW is 25 years, unless the PPA is extended or CRW secures another agreement. If a PPA extension was executed, it is likely CRW would be repowered to extend its useful life, but at this time there is no way to determine the length of the extended useful life.

CRW has also entered into a purchase and sale agreement (PSA) with NSP under which CRW will permit and construct Crowned Ridge Wind II, and, thereafter, transfer the plant to NSP at the commercial operations date. CRW expects that useful life of the NSP-owned CRW II would be similar to that of wind plant that provides power to a customer under a PPA.

The transmission line, with steel structures and steel davit arms, could last between 50-70 years. If the wind farms are decommissioned after the PPA period is complete, CRW will work with NSP to determine if a sale of the transmission line is warranted or if decommissioning will be undertaken.

**Respondent:** Dan Mayers, Director of Transmission Engineering

1-3 Regarding the transmission line and aerial sprays:

- a) Please explain how the transmission line will impact aerial spraying in the project area.
- b) Has the transmission line been planned to allow aerial spraying in the project area? Please explain.
- c) Will the transmission line project affect aerial spraying for landowners adjacent to the transmission line? Please explain.

**Response:**

- a. The transmission line is not anticipated to materially impact aerial spraying in the project area.
- b. Yes, the transmission line was routed such that the line traverses along half-section lines, property division lines of land where practical and reasonable, along existing right-of-way and along or parallel to roads. The transmission line minimizes the crossing of properties diagonally. Having the line routed in this manner should allow for continued operations during aerial spraying and provide various flight routes to apply the requested product without having to get too close to the transmission line. Also, there are already other transmission and distribution lines in the area thereby requiring pilot diligence while spraying today.
- c. See response to 1-3 (b).

**Respondent:** Dan Mayers, Director of Transmission Engineering

- 1-4 Refer to Page 1 of the Application. Please provide an update on the dockets before the North Dakota Public Service Commission regarding NSP's PPA with CRW and the associated acquisition of CRW II. Are these projects contingent upon the approval of the North Dakota PSC? Please explain.

**Response:**

In the North Dakota PSC Docket No. PU-17-120, which involves Xcel's request for an advance prudence determination by the PSC for its 1,550 MW wind portfolio to be added to the integrated Xcel system, Xcel and PSC Staff filed a settlement agreement on September 19, 2017. The PSC has not acted on Xcel's request or on the settlement.

Yes, both the CRW (Power Purchase Agreement) and CRW II (Purchase and Sale Agreement) projects are contingent upon the approval of the North Dakota PSC pursuant to a condition precedent in the Purchase and Sale Agreement.

**Respondent:** Jason Utton, Executive Director - Business Development

1-5 Refer to Page 9 of the Application. Crowned Ridge states “the Applicant will make the appropriate filing for any deviation outside the 1-mile corridor.”

- a) Explain why the Applicant selected outside the 1-mile corridor as the basis for requiring additional filings.
- b) Has the South Dakota PUC allowed deviations within a 1-mile transmission line corridor to occur without requiring additional filings? If yes, please provide the specific docket with orders and other supporting documentation.
- c) In Docket EL14-061, the Applicant agreed to the following condition:

*If it becomes necessary to materially deviate from the described centerline to accommodate engineering and applicable safety and construction requirements based upon actual conditions encountered during construction, all landowners affected by the material deviation and the Commission must be notified in writing at least five business days before the material deviation may occur. The Commission must approve all material deviations from the described centerline. For purposes of this paragraph, the term "material deviation" shall mean any action or activity outside the reasonable parameters of the Permit.*

- i. Explain why the proposed centerline should not be used as the basis for which deviations are described.
- ii. Would the Applicant be willing to agree to this condition? If no, please explain.

**Response:**

- a. It is the Applicant’s understanding that deviations outside the 1-mile corridor require additional filings.
- b. It is the Applicant’s understanding that deviations from the approved centerline must be approved by the Commission. The Applicant is not aware of deviations within a 1-mile transmission line corridor occurring without additional filings.
- c. (i) The centerline in the Application is being optimized within the 1 mile corridor based on landowner preferences, for example, and, therefore, the Applicant requests that the approved centerline be the one updated as a result of the optimization of the line. The Applicant expects to file the updated centerline in April. The optimization of the centerline is particularly relevant in that the Applicant does not have the authority to use eminent domain.
- c. (ii) Yes, the Applicant is willing to agree to this condition.

**Respondent:** Jason Utton, Executive Director – Business Development

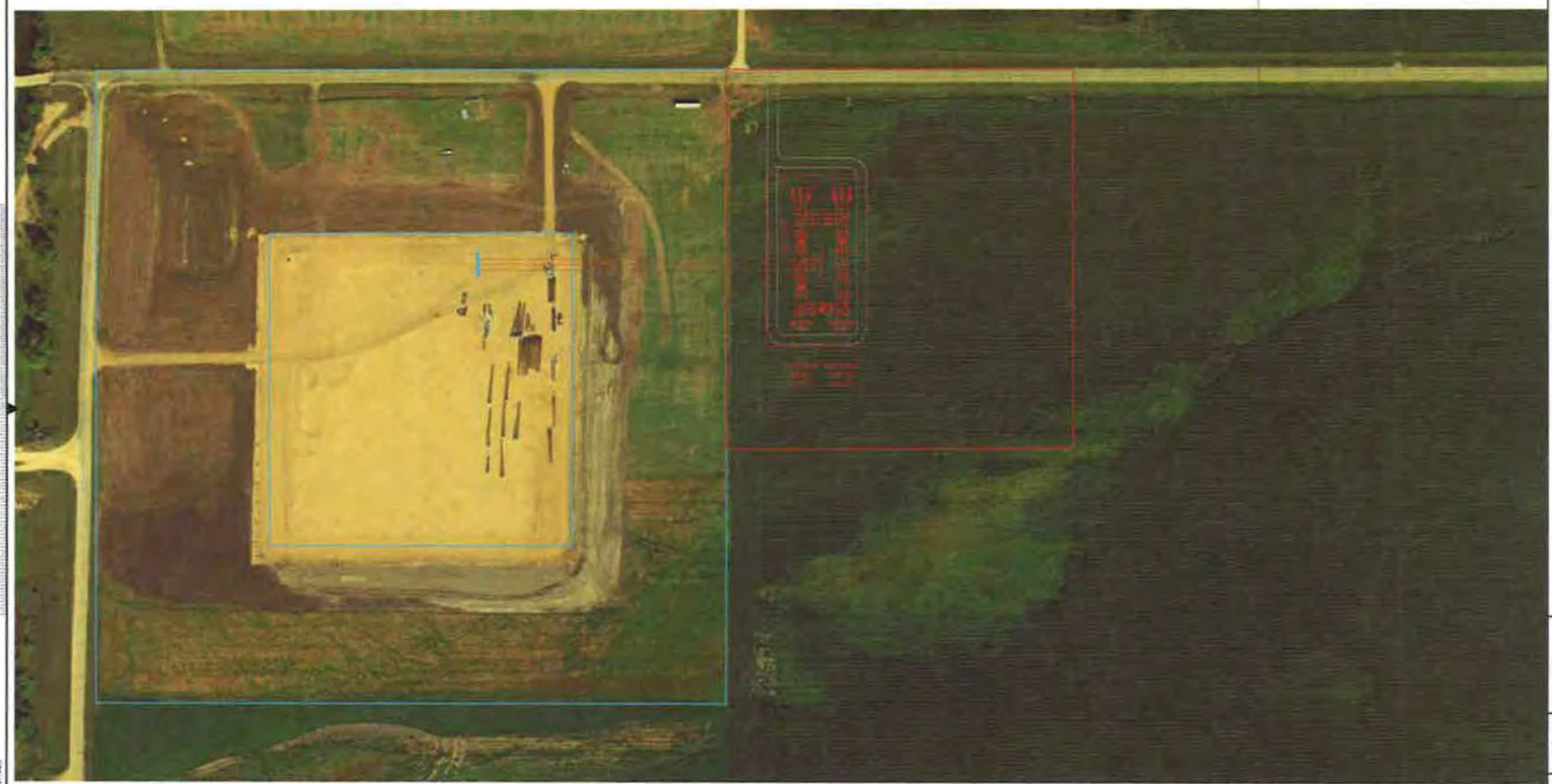
- 1-6 Refer to Page 9 of the Application. Crowned Ridge states the reactive power compensation substation will require approximately 12 acres of land. Provide a general layout map of the reactive power compensation substation on the referenced acreage. Compare and contrast the relative size of the reactive power compensation substation to the Big Stone South Substation.

**Response:**

Although Crowned Ridge purchased 12 acres for the reactive compensation substation site, only 1.93 acres will be permanently impacted. A representative layout map of the reactive power compensation substation on the referenced acreage is attached as Attachment 1, Staff DR 1-6. The dimensions of the reactive power compensation substation are approximately 225 feet x 375 feet or 1.93 acres compared to the dimensions of the Big Stone South Substation, which are approximately 650 feet x 670 feet or 10 acres. Thus, the reactive compensation substation is approximately 20% the size of the Big Stone South Substation.

**Respondent:** Dan Mayers, Director of Transmission Engineering

1 2 3 4 5 6 7 8 9 10 11 12 13 14



REV	DATE	BY	CHKD	DESCRIPTION
A	03/06/18	BKY	FRK	PRELIMINARY

A  
B  
C  
D  
E  
F  
G

**BURNS  
MEDONNELL**  
8400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-233-9400

date	03/06/18	detailed	B. YORK
designed	B. YORK	checked	M. ROWLAND

CROWNED RIDGE WIND, LLC  
700 UNIVERSITY BLVD.  
JUNO BEACH, FL 33408

CROWNED RIDGE WIND PROJECT REACTIVE COMPENSATION STATION EXHIBIT DRAWING SITE AND VICINITY MAP	
project	101537
drawing	NEW
<b>SITE PLAN</b>	
REV.	<b>A</b>
SITE PLAN	

**LEGEND:**  
■ CROWNED RIDGE WIND  
■ OTHER TAIL POWER ASSETS

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- 1-7 Refer to Page 10 of the Application. Provide the status of the 3<sup>rd</sup> 200 MW interconnection request.

**Response:**

The status of the third 200MW interconnection request is that Crowned Ridge Wind anticipates receiving its final system impact study in March 2019 and executing a Generator Interconnection Agreement during the third quarter of 2019. The Applicant will take the necessary steps to ensure that the needed transmission upgrades are completed so the transmission line may be connected to the Big Stone South Substation before the Project's commercial operation date in December 2019.

**Respondent:** Jason Utton, Executive Director – Business Development

- 1-8 Refer to Page 11 of the Application. Provide the property taxes specifically associated with the transmission line rather than the entire Project. Also, provide the sales/use tax associated with specifically the transmission line.

**Response:**

The Applicant does not expect that there will be property taxes directly attributable to the transmission line, but, rather, the owners of the entire project (subsidiaries of NSP and NEER) will pay property taxes based on production and name plate capacity of the CRW and CRW II projects which total 600 MWs. Therefore, when considering the entire project (600 MWs + both transmission lines) \$110,000/year in property tax can be inferred to the transmission line.

The sales tax associated with the transmission line is \$1 million.

**Respondent:** Jason Utton, Executive Director - Business Development

- 1-9 Pursuant to ARSD 20:10:22:12, please provide a discussion of the extent to which reliance upon eminent domain powers could be reduced by use of an alternative site.

**Response:**

The Applicant is not relying on the use of eminent domain. All necessary land rights will be voluntarily contracted for with landowners.

**Respondent:** Jason Utton, Executive Director – Business Development

- 1-10 Refer to Page 13 of the Application and ARSD 20:10:22:12(1). Explain how the criteria were weighed in selecting the propose transmission site.

**Response:**

All the criteria set forth on page 13 of the Application were valued when selecting the proposed transmission site, with the following criteria receiving the primary attention: (1) the closest point of interconnection that had sufficient transmission capacity to reliably interconnect 600 megawatts of the wind generation; and (2) choosing the shortest route from the wind generation to the point of interconnection in which landowners were willing to provide the Applicant land rights, while at the same time minimizing the impact of the route on humans and the environment to the extent possible.

Applying the criteria during the initial evaluation and routing stages resulted in the selection of the Big Stone South Substation as the point of interconnection. After that selection, the Applicant worked with willing landowners in a manner that allowed the Applicant to use the shortest route from the wind generation to the point of interconnection, while minimizing the impact on humans and the environment. This process also involved close consultation with the willing landowners on the placement of poles so not to disrupt their current land use. Working with willing landowners and Codington and Grant counties also resulted in optimization of the route such that it is as close as possible to existing County rights-of-way (ROW) while also allowing the line to parallel property boundaries and linear facilities as much as possible thereby reducing impacts to farming operations.

By identifying existing ROW, and utilizing the lands of participating landowners, the Applicant was able to identify the general alignment of the transmission line and avoid close proximity to homes and avoid environmental/cultural sensitivities.

**Respondent:** Dan Mayers, Director of Transmission

- 1-11 Refer to ARSD 20:10:22:13. Are any irreversible changes identified to remain beyond the operating lifetime of the facility? Explain.

**Response:**

The Applicant anticipates that the Project will result in only minor irreversible changes expected to remain beyond the operating lifetime of the facility in the form of soil removal for structure placement. Other potential impacts, including those to farmlands (10.2.2), wetlands (11.2.2), and land use (14.1.2) are not expected to result in irreversible changes beyond the operating lifetime of the Project.

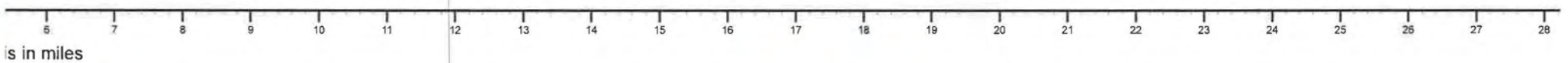
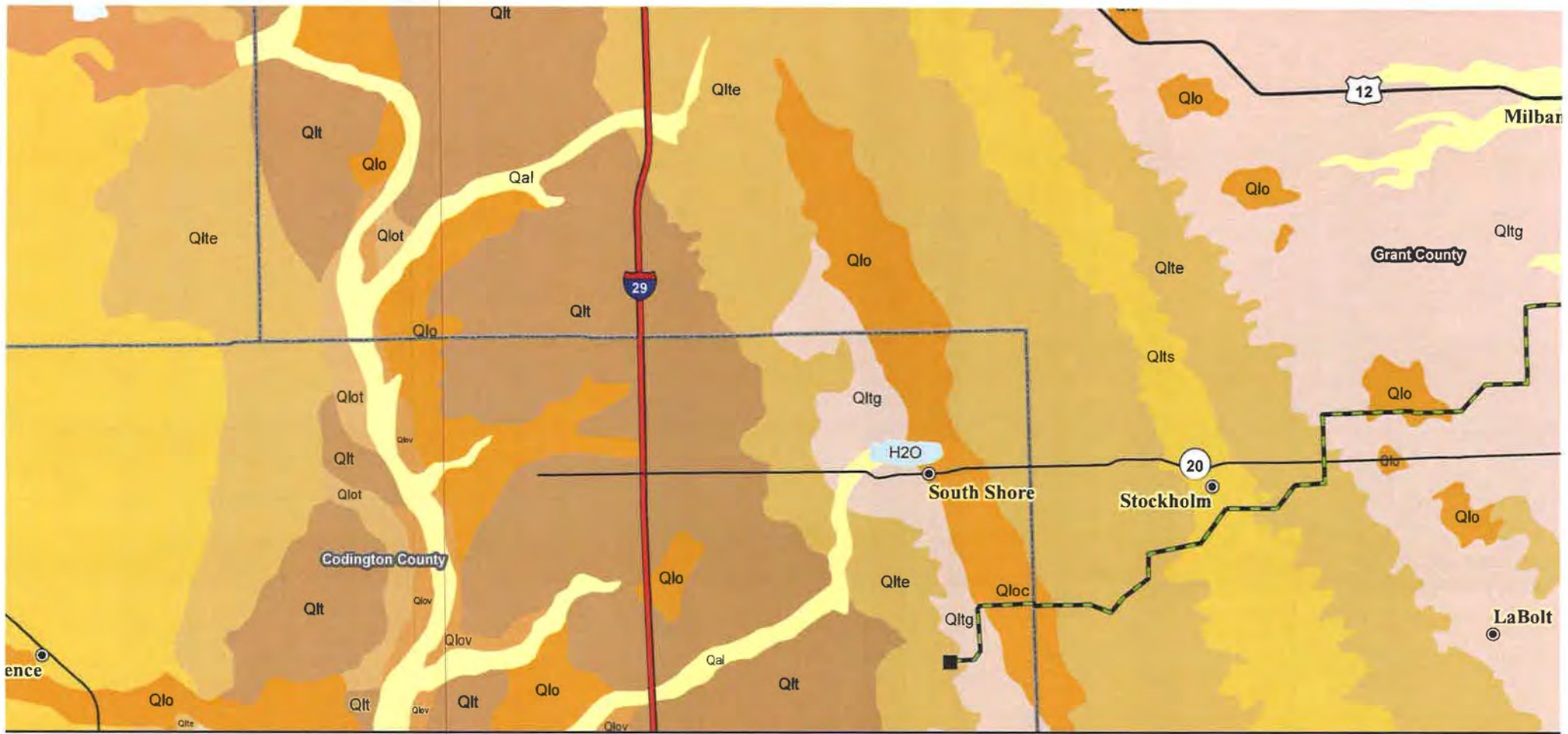
**Respondent:** Jason Utton, Executive Director - Business Development

- 1-12 Pursuant to ARSD 20:10:22:14(3), please provide a map showing "...sufficient cross-sections to depict the major subsurface variations in the siting area."

**Response:**

Attached as Attachment 1 to Staff DR 1-12 is a map showing "...sufficient cross-sections to depict the major subsurface variations in the siting area."

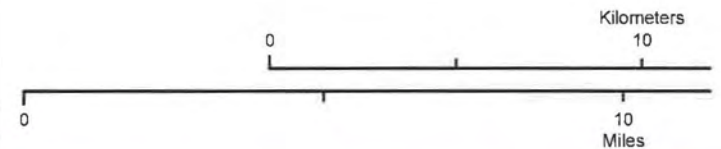
**Respondent:** Jason Utton, Executive Director – Business Development



- Qlov (Outwash, valley train)
- Qlt (Till, moraine)
- Qlte (Till, end moraine)
- Qltg (Till, ground moraine)

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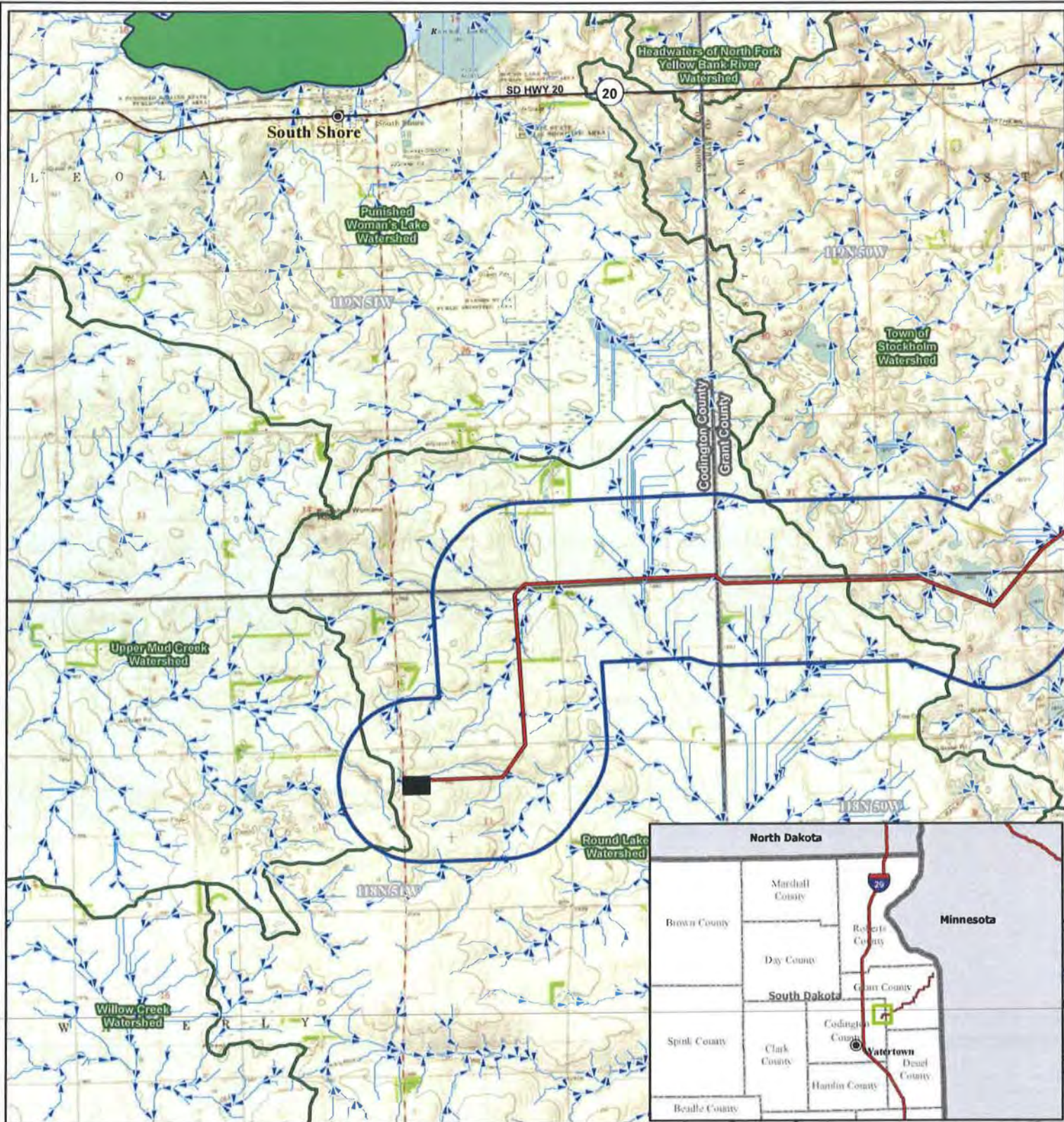
- 1-13 Refer to ARSD 20:10:22:15 regarding surface water drainage patterns. Provide a map drawn to scale of the transmission site showing surface water drainage patterns before and anticipated patterns after construction of the facility.

**Response:**

Attached as Attachment 1 to Staff DR 1-13 is a map drawn to scale of the transmission site showing surface water drainage patterns before construction of the facility. The Applicant intends to restore all temporary impacts as close as possible to the original contours and consistent with storm water permits.

**Respondent:** Jason Utton, Executive Director – Business Development





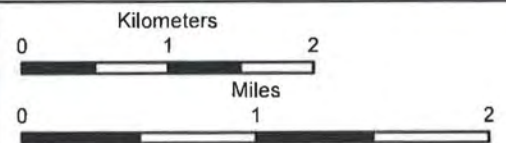
**Crowned Ridge Transmission Line**

- City
- Proposed Transmission Line
- Flow Direction
- State Highway
- Proposed Substation
- Project Study Area (1 mile)
- South Dakota Beneficial Use Lake
- Watershed Boundary (HUC12)
- Township/Range Boundary
- County Boundary
- State Boundary



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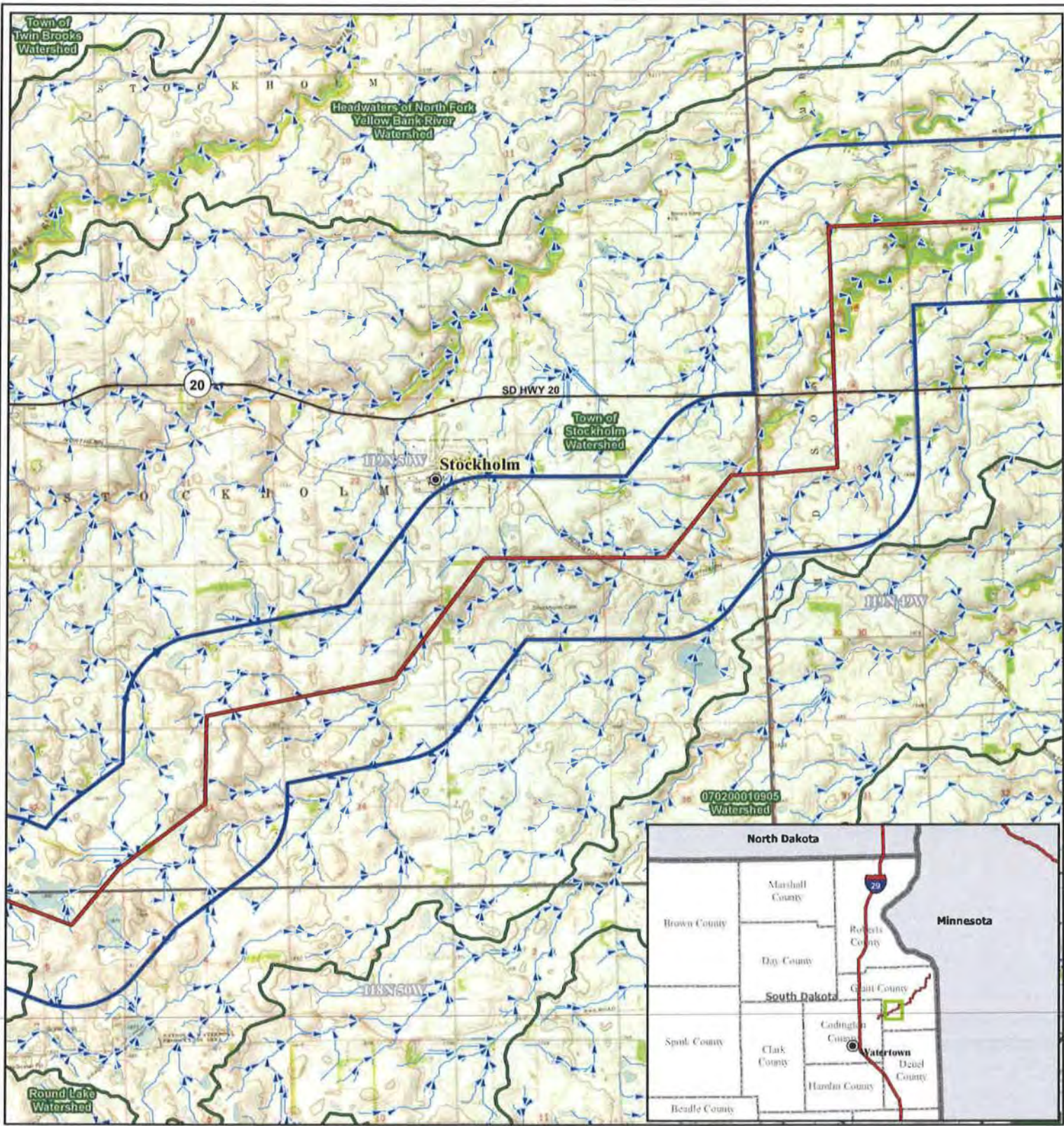
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Page 1 of 5



Base Map: USGS 7.5' Topographic Map  
Source: Copyright: ©2014 National Geographic Society, i-cubed  
Quadrangle: South Shore (1973),  
Stockholm (1973)  
Township/Range: T. 118N, R. 51W &  
T. 119N, R. 51W & T. 119N, R. 50W  
Codington and Grant Counties, South Dakota

Projection: NAD 1983 UTM Zone 14N





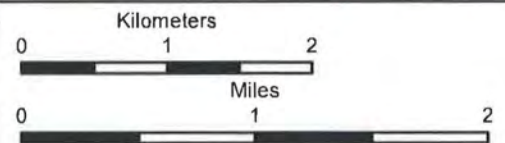
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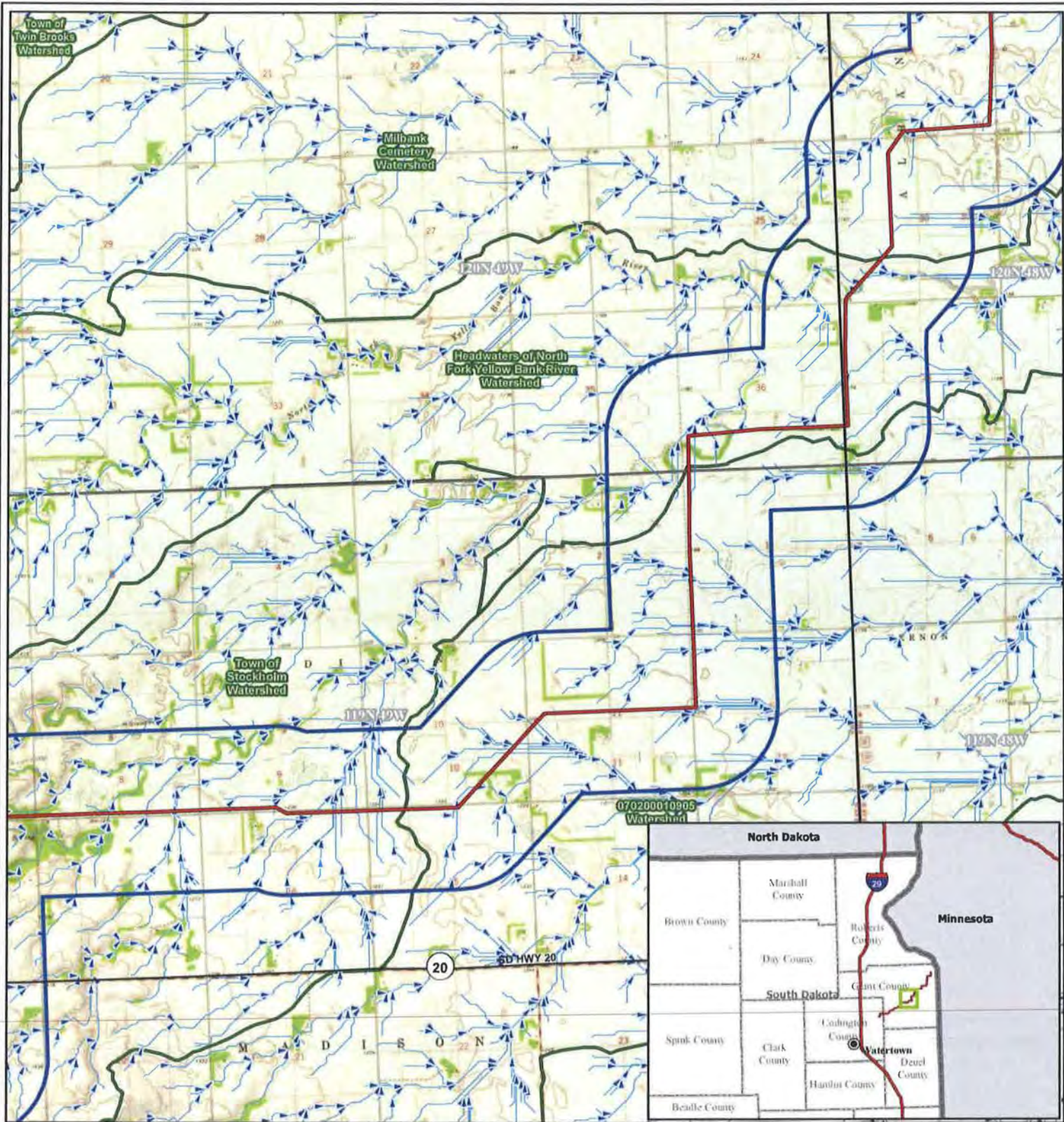
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Base Map: USGS 7.5' Topographic Map  
Source: Copyright: ©2014 National Geographic Society, i-cubed  
Quadrangle: Stockholm (1973),  
La Bolt (1973)  
Township/Range: T. 119N, R. 50W &  
T. 119N, R. 49W  
Grant County, South Dakota

Projection: NAD 1983 UTM Zone 14N





**Crowned Ridge Transmission Line**

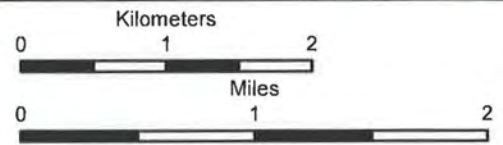
-  Proposed Transmission Line
-  Flow Direction
-  State Highway
-  Project Study Area (1 mile)
-  Watershed Boundary (HUC12)
-  Township/Range Boundary
-  County Boundary
-  State Boundary



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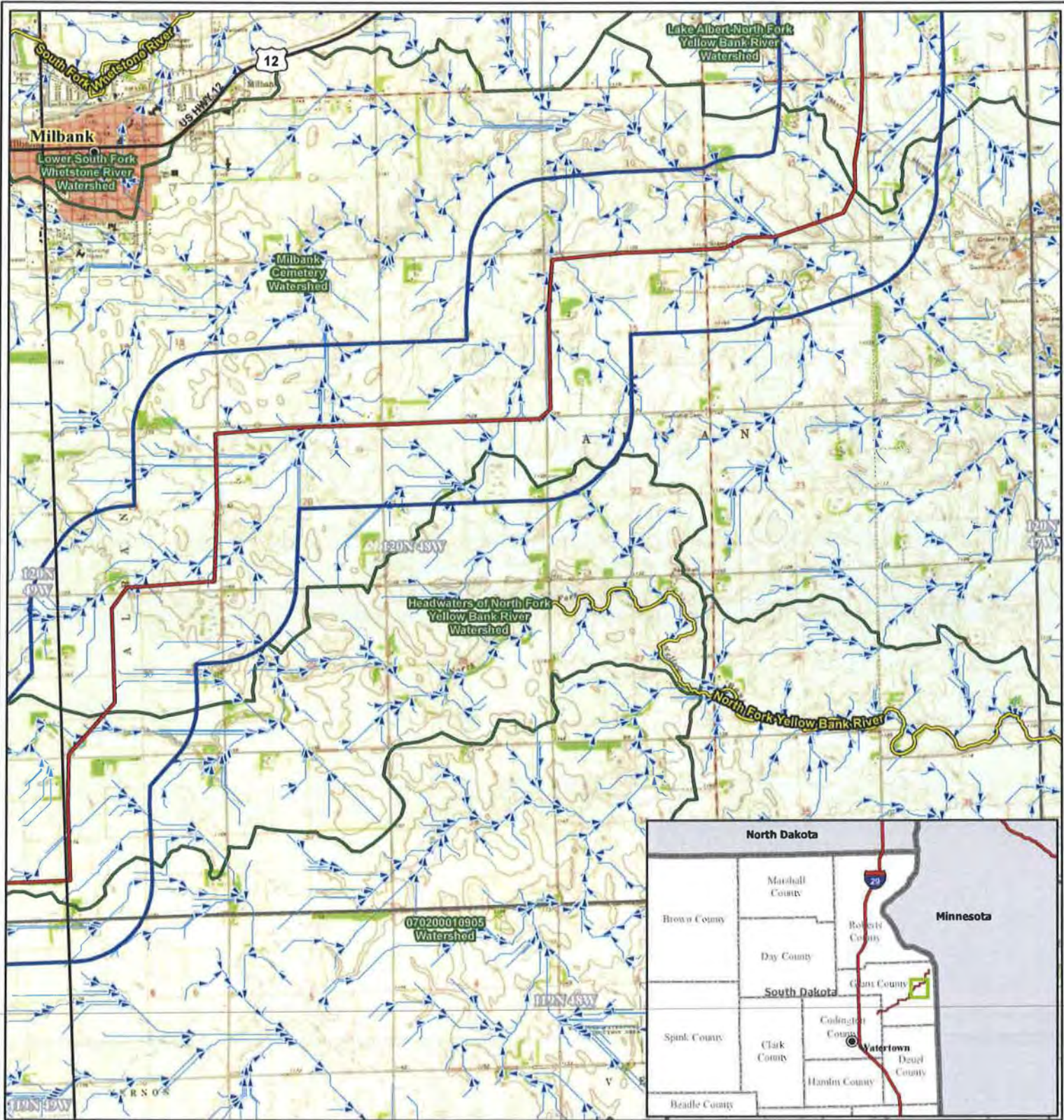
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Base Map: USGS 7.5' Topographic Map  
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Quadrangle: La Bolt (1973),  
Milbank West (1973), Milbank East (1973)  
Township/Range: T. 119N, R. 49W &  
T. 120N, R. 49W & T. 120N, R. 48W  
Grant County, South Dakota

Projection: NAD 1983 UTM Zone 14N





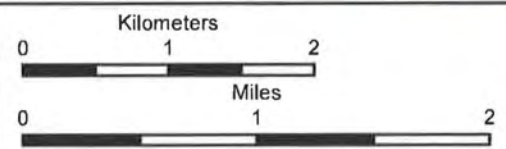
- Crowned Ridge Transmission Line**
- City
  - Proposed Transmission Line
  - Flow Direction
  - South Dakota Beneficial Use Stream
  - U.S. Highway
  - State Highway
  - ▭ Project Study Area (1 mile)
  - ▭ Watershed Boundary (HUC12)
  - ▭ Township/Range Boundary
  - ▭ County Boundary
  - ▭ State Boundary

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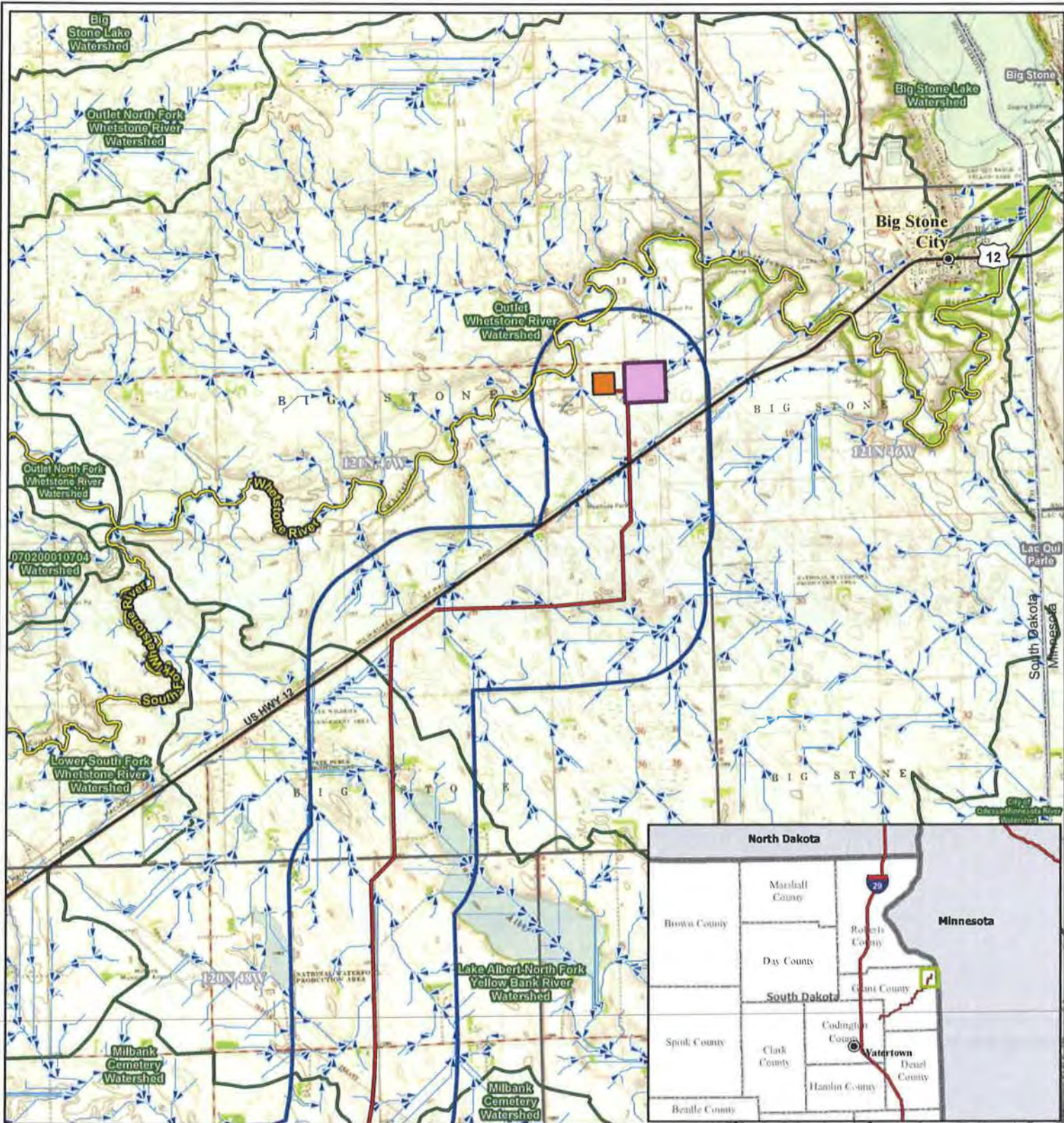
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 Milbank East (1973)  
 Township/Range: T. 120N, R. 49W &  
 T. 120N, R. 48W  
 Grant County, South Dakota





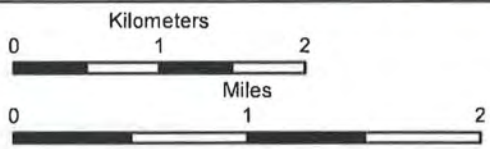
**Crowned Ridge Transmission Line**

- City
- Proposed Transmission Line
- Flow Direction
- South Dakota Beneficial Use Stream
- U.S. Highway
- Existing POI Substation
- Land Parcel Containing 12-acre Reactor Station
- Project Study Area (1 mile)
- Watershed Boundary (HUC12)
- Township/Range Boundary
- County Boundary
- State Boundary



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Base Map: USGS 7.5' Topographic Map  
Source: Copyright: ©2014 National Geographic Society, i-cubed  
Quadrangle: Milbank East (1973),  
Big Stone Lake SE (1971)  
Township/Range: T. 120N, R. 48W &  
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Grant County, South Dakota

Projection: NAD 1983 UTM Zone 14N



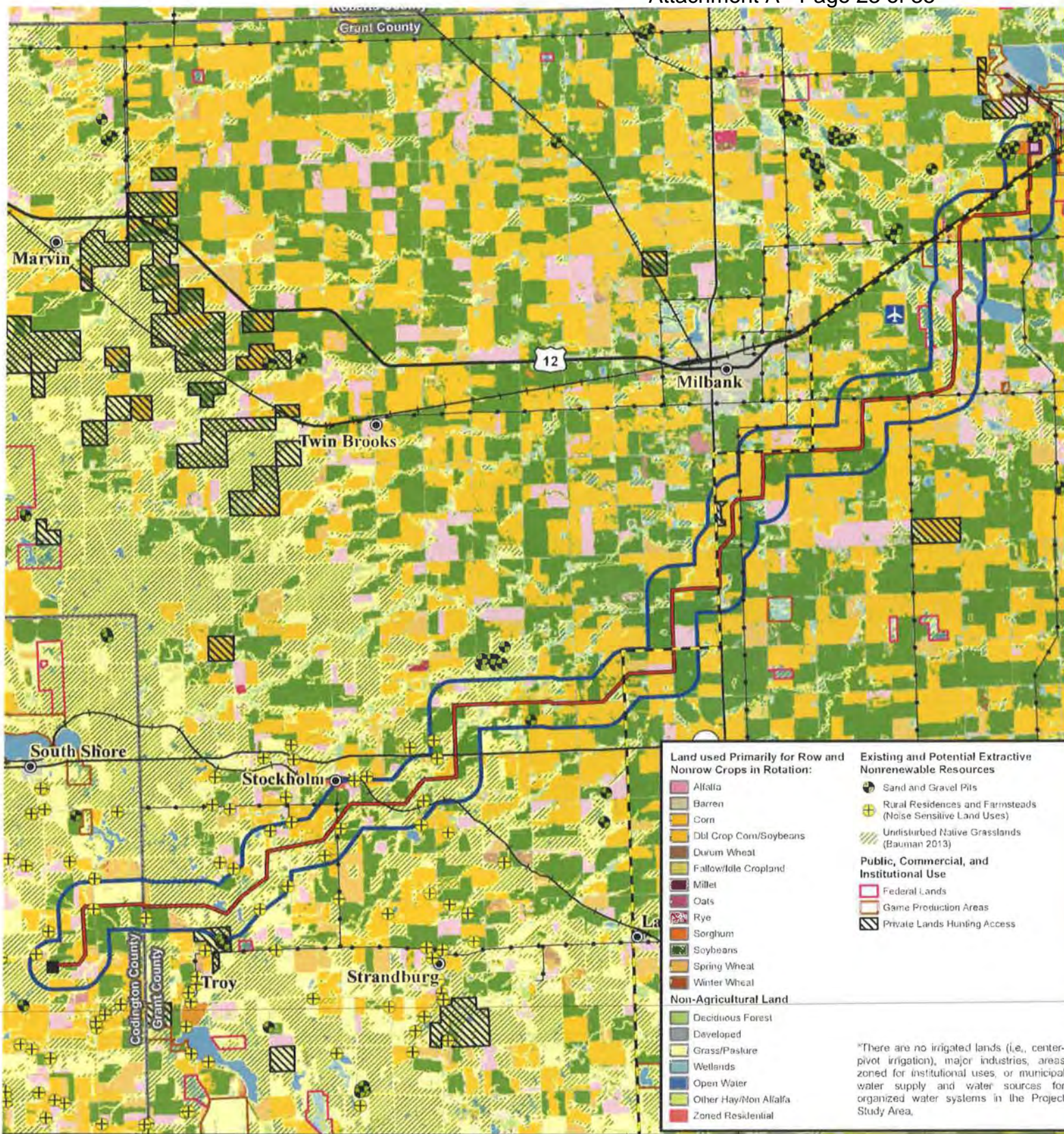
- 1-14 Refer to Exhibit 10 and ARSD 20:10:22:18(1). Submit a map that complies with the classification system described in administrative rule. Indicate the land uses described in (a) through (l) that are not present in the Project Area.

**Response:**

Attached as Attachment 1 to Staff DR-1-14 is a map that complies with the classification system described in administrative rule, indicating the land uses described in (a) through (l) that are not present in the Project Area.

Please note that the Application at Section 14.2, third paragraph, page 43, which was based on South Dakota's available Geographic Information System data, formerly stated that there are 80 residences in the Project Study Area and 7 occupied rural residential structures or farmsteads in the Construction Easement. In preparing the requested map, and while utilizing more accurate, field-verified data, the Applicant confirmed that there are 88 residences in the Project Study Area and 8 occupied rural residential structures or farmsteads in the Construction Easement.

**Respondent:** Jason Utton, Executive Director – Business Development



### Crowned Ridge Transmission Line

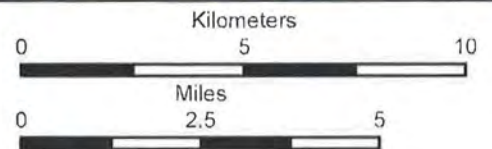
- City
- Proposed Substation
- Existing POI Substation
- ✈ Airport
- Proposed Transmission Line
- Electrical Line
- Natural Gas Line
- Unknown Utility Line
- Railroad
- U.S. Highway
- State Highway
- Land Parcel Containing 12-acre Reactor Station
- Project Study Area (1 mile)
- County Boundary



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Base Map: 2017 South Dakota Cropland Data Layer | NASS/USDA  
Source: United States Department of Agriculture (USDA), National Agricultural Statistics Service (NASS), Research and Development Division (RDD), Geospatial Information Branch (GIB), Spatial Analysis Research Section (SARS), 2017 Edition Codrington County, South Dakota

Projection: NAD 1983 UTM Zone 14N



- 1-15 Refer to Page 55 of the Application. The Applicant states “the project is expected to have a negligible effect, if any, on the assessed values of private property and, therefore, on property taxes.” Please define negligible, and provide any studies conducted in South Dakota to support this conclusion.

**Response:**

The Applicant’s intention was to indicate that the Project is not expected to have an impact on the assessed values of private property or property taxes, and, if so, the effects are expected to be “negligible.” As mentioned in the Application, the area surrounding the Project Construction Area is used primarily for agricultural production, and is expected to continue as such, following the construction and operation of the Project. When considering the current use of the private properties, the project rarely, if at all, is sited in a manner that impacts current land use. Project anticipates constructing approximately 7 or 8 monopoles per mile with a span of 600-1,000 feet between poles. The permanent impact is less than 3 acres of the approximately 700 acres temporarily and permanently affected by the Project.

**Respondent:** Jason Utton, Executive Director – Business Development



- 1-16 Refer to Page 63 of the Application and ARSD 20:10:22:24. Provide the description of job classifications, together with the estimated annual employment expenditures of the applicants, the contractors, and the subcontractors during the construction phase of the transmission facility. In a separate tabulation, provide the same data with respect to the operating life of the transmission facility, to be made for the first ten years of commercial operation in one-year intervals. Provide the estimated percentage of labor that will remain within the county and the township in which the facility is located after construction is completed.

**Response:**

During the construction phase (approximately 6 – 8 months) of the project, the Applicant currently forecasts approximately 50-60 workers consisting of approximately 5 supervisors, 10 equipment operators, 5 masons, 5 carpenters, 15-20 journeyman linemen and 10-15 laborers. The approximate labor cost for the 50-60 workers for 6-8 months is \$7.5 Million. The Applicant anticipates one or two technicians will be hired and retained at the job site for the operating life of the transmission facility with an annual salary of \$75,000 - \$150,000 per year. Also, a high voltage technician, who may be assigned to multiple projects in the region, will be routinely available for investigation, troubleshooting and maintenance issues as needed. The high voltage technician would spend about a quarter of his time to this specific project costing approximately \$50,000 per year to the project.

More specific employment information for the construction phase (including general contractor and subcontractors) and operations phase of the Project will be solidified in the summer of 2018 once the construction project is awarded.

**Respondent:** Jason Utton, Executive Director - Business Development

- 1-17 Per ARSD 20:10:22:34, provide a description of plans for stabilization and weed control within the ROW.

**Response:**

Crowned Ridge Wind (CRW) will ensure the following plans for stabilization and weed control are followed by the awarded transmission line contractor. The contractor shall be responsible to install and maintain all Best Management Practices (BMPs) as per the Storm Water Pollution Prevention Plan (SWPPP) and applicable codes, rules and regulations.

**Erosion Control**

- Contractor shall provide equipment, material and labor to install and maintain erosion control devices in accordance with all applicable codes, regulations and the SWPPP.
- CRW will administer the SWPPP. CRW will perform all inspections on erosion control devices on a weekly basis and provide the contractor with a copy of the inspection reports so that maintenance if required can be performed.
- Silt fence material shall be wire backed material.
- Rip rap material shall be installed on geotextile fabric.
- Hay bales shall be certified to be noxious weed free.
- Staking material used to anchor erosion control devices shall be designed in a manner to prevent livestock injury.
- Contractor shall be diligent with maintenance activities and all maintenance work shall be performed in accordance with the SWPPP and all applicable regulations and codes.

**Restoration and Reclamation**

- Contractor shall provide all equipment, labor, and material to restore properties to the original contours and grades, except when necessary to establish an appropriate right of way, to establish for maintenance of the transmission line, and to establish set-up sites for maintenance of the transmission line.
- Contractor shall re-vegetate the areas with native species and in accordance with county extension agency recommendations and landowner preference.
- Contractor shall reseed in a manner that will provide firm contact between soil and seed.
- In highly erodible areas Contractor shall install temporary and/or permanent stabilization measures to enhance vegetation re-growth.
- Permanent erosion controls shall be left in place. Prior to final acceptance temporary erosion controls shall be removed by the

contractor if and when vegetation reaches 70% re-growth in the particular location of the erosion control devices.

- Upon completion of re-seeding and as a provision of final acceptance the contractor shall refurbish all remaining erosion control devices so that they are in compliance with the SWPPP, at which time the maintenance and/or removal of the remaining erosion control devices shall become the responsibility of CRW.

#### **Maintenance/Weed Control**

- Trees to be trimmed or removed on an annual basis to ensure proper clearance from the transmission line.
- Grasses, brush, and weeds around transmission poles and guy wires will be mowed as needed.
- Crops will be the responsibility of the land owner. Land owner will be compensated for crop damage in the event of CRW utilizing equipment on farm land.
- Gravel and herbicide should be sufficient to control growth at the substation.
- All maintenance activities and all maintenance work shall be performed in accordance with the SWPPP and all applicable regulations and codes for the life of the transmission line.
- CRW will use appropriately labeled herbicides for habitats present by licensed applicators in compliance with state and federal laws.
- CRW will use Environmental Protection Agency registered and approved herbicides. Application of herbicides must be registered and approved for use in South Dakota based on the site that is being treated (i.e., aquatics for wetlands, range and pasture, etc.).

#### **Resource Protection**

- Implement technology based effluent limitations: use the lowest effective amount of pesticide/herbicide, application of optimal dose of pesticide herbicide, performance of maintenance activities on application equipment to reduce possibility of leaks or spills, and calibration and cleaning of equipment to ensure effective application. These activities are to minimize the excessive discharge of pesticide/herbicides by controlling the amount applied and avoiding leaks or spills.
- Adhere to monitoring provisions: visual monitoring of the application area to look for adverse effects to non-target species and disruption to the function of the larger landscape.
- Take corrective action: if a spill or leak occurs, non-target organisms are impacted; maintenance activities are not being conducted, and if

other best management practices are not being met the methods and control measures must be revised.

- Adverse incident notification and reporting: if there is a spill or leak that discharges to surface waters, if a person or non-target organism is exposed or suffers a toxic effect, or there is a visible distress which includes mass kill of aquatic organisms the state will be notified immediately if the discharge is in excess of 25 gallons of a regulated substance to be followed by a written report submitted within 30 days of the incident.
- Record maintenance: if an adverse incident report is filed or any corrective actions are needed the documentation must be retained.

Labels for all chemicals that the supplier proposes to use shall be provided to CRW. A written record of chemical mixes and rates of application will be maintained and provided to CRW on a weekly basis for the duration of work assigned. Care must be taken to prevent off-site damage. The supplier shall be responsible for all damage to timber and/or vegetation outside the right-of-way. Restricted use herbicides will require prior written approval from CRW.

**Respondent:** Dan Mayers, Director of Transmission

1-18 Referring to table 11.1.2, please identify which columns are for the project study area and which columns are for the construction easement.

**Response:**

The second and third columns relate to the Project Study Area, and the fourth and fifth columns relate to the project Construction Easement. The same table, with revised headers, is provided below for clarity.

**Table 11.1.2 NWI-Mapped Wetlands Identified within Project Study Area and the Project Construction Easement**

<b>NWI Wetland Type</b>	<b>NWI-mapped Wetland Area within the Project Study Area (Acres)</b>	<b>Percent of Project Study Area Containing Wetlands</b>	<b>NWI-mapped Wetland Area within Project Construction Easement (Acres)</b>	<b>Percent of Project Construction Easement Containing Wetlands</b>
Lake	53.98	4.92	0	0
Freshwater Emergent Wetland	815.28	74.38	21.206	82.22
Freshwater Forested/Shrub Wetland	72.61	6.62	2.458	9.53
Freshwater Pond	152.4	13.9	2.128	8.25
Riverine	1.87	0.18	0	0
<b>Total</b>	<b>1,096.14</b>	<b>100.00</b>	<b>25.792</b>	<b>100.00</b>

**Respondent:** Jason Utton, Executive Director – Business Development

1-19 Will any structures be sited in wetlands/waterbodies? If so, what construction practices will be used to minimize impacts to those wetlands/waterbodies and the aquatic environment?

**Response:**

Although the vast majority of the project spans wetlands/waterbodies, the project currently contains three structures that are sited in wetlands. The Applicant is currently working to secure additional land rights through landowner discussions and leasing efforts to avoid these impacts. In the event that the Applicant cannot shift the structures to avoid siting within the wetlands, the following construction practices will be utilized to minimize impacts to the aquatic environment:

- Limits of construction will be clearly marked on construction plans. Critical areas in the field will be fenced-off with high visibility fencing;
- Construction staging and stockpiling of materials will be kept out of wetlands and their buffers;
- Machinery will be restricted to as few areas of the site as possible to reduce soil compaction;
- Removable crane mats will be used instead of building construction pads;
- Movable equipment that must be used in the wetland or buffer will not be left in such areas over night or on weekends;
- Fuel will not be stored and moveable equipment will not be refueled in a wetland or its buffer. Best management practices will be followed when refueling equipment that is not readily movable (i.e., cranes), for temporary spill prevention, control, and containment; and
- Concrete will not be mixed, tested, stored, or disposed of within a wetland or its buffer.

**Respondent:** Dan Mayers, Director of Transmission

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- 1-20 Referring to section 17.3, what NAAQS standards and state standards or regulations are required to be followed for the Project? Are any permits needed for compliance with these standards?

**Response:**

Grant and Codington Counties are currently listed as attainment for all criteria pollutants. The Applicant understands that no air permit is required because a concrete batch plant for transmission pole structures is not planned. Concrete will come from existing concrete batch plants via truck or utilize the batch plants on the wind farms. As a result, the Applicant understands no air permits are required to comply with these standards.

**Respondent:** Jason Utton, Executive Director - Business Development

- 1-21 Referring to section 22.4, please identify the NERC Reliability Standards applicable to the project.

**Response:**

The transmission line and reactive power substation connecting the wind project to its Point of Interconnection are considered to be part of the generation site. In this context, the following North American Electric Reliability Corporation Reliability Standards are applicable to the gen-tie transmission line and reactive power substation:

- 1) Emergency Operations
  - EOP-004
- 2) Facility Interconnection and Ratings
  - FAC-001
  - FAC-008
- 3) Vegetation Management
  - FAC-003
- 4) Interchange
  - IRO-010
- 5) Modeling Data
  - MOD-032
- 6) Protection System Testing and Maintenance
  - PRC-002
  - PRC-004
  - PRC-005
  - PRC-015
  - PRC-016
  - PRC-017
  - PRC-018
  - PRC-019
  - PRC-023
  - PRC-025
- 7) Transmission Operations
  - TOP-003

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**Respondent:** Dan Mayers, Director of Transmission



- 1-22 Referring to Table 24, please identify what “C” represents in the status column. Further, if “C” represents completed, please identify if the FAA Form 7460-2: Notice of Actual Construction or Alteration has actually been completed.

**Response:**

The Applicant inadvertently added this item to Table 24 in the application. The Applicant has not completed the form and is inquiring whether such a form is required for the construction and operation of the project. In the event that the Applicant is required to complete FAA Form 7460-2: Notice of Actual Construction or Alteration for the project, the Applicant will complete and submit the form.

**Respondent:** Jason Utton, Executive Director - Business Development

1-23 Please provide a list of any known private landowner concerns and the Applicant's plan to address those concerns.

**Response:**

<b>DR 1-23 - Private Landowner Concerns / Mitigation Strategies</b>		
<b>General Private Landowner Concerns</b>		<b>Applicant's Mitigation Strategy</b>
Concern #1	The Project's potential impacts to farming operations during the construction of the Project	The Applicant plans to begin construction activities in December 2018 when the vast majority of farming operations are not in process and activity on private lands is fairly low. This will minimize the possible impacts on farming operations that commonly occur from construction traffic and the delivery/storing of materials.
Concern #2	The Project's potential permanent impacts to farming operations associated with the Applicant's proposed locations for transmission infrastructure	The Applicant has sited transmission structures with near proximity to section lines, quarter section lines and existing right of way as much as possible. The Applicant also plans to utilize self-supporting structures where possible to eliminate the need for guy wires/anchors. This allows the private landowners to utilize more ground for farming operations. The Applicant also plans to utilize a helicopter where possible during the stringing of the conductor. The Applicant is committed to repair the landowners property after construction is complete.
Concern #3	Restoration and clean up after the construction of the Project	The Applicant has agreed to restore and reclaim, and debris removal/disposal, dismantling of all temporary facilities, and controlling erosion.
Concern #4	The Project's potential impacts to aerial spraying	See response to Staff DR1-3.
Concern #5	The Project's potential impacts on future planned transmission projects	The Applicant has designed the Project with consideration of known future development plans for transmission projects. The Applicant also successfully worked with Grant County to ensure that the project would complement the future development of known projects.

Concern #6	Repair and replacement of fences/gates from the construction and maintenance of the Project	The Applicant will work with all potentially affected landowners in advance to understand any sensitivities and particular requests for fence/gate care to avoid and minimize any impacts on livestock operations and repair any impacts from construction. The Applicant plans to have additional landowner events prior to construction where the specific details for an on-site construction contact will be shared to address any issues that arise during the construction process.
Concern #7	The compensation for damaged crops during the construction and/or maintenance of the Project	Per the requirements under the executed lease agreements between the Applicant and the landowners, the Applicant will work with any affected landowner to document any crop damage and compensate for crop damage at fair market value.
Concern #8	Proper grounding of the Project	All electrical equipment will be grounded to ensure compliance with the standards set forth under the National Electric Safety Code. Landowner fences and gates will be appropriately grounded by the Applicant if deemed necessary.
Concern #9	The Project's potential impacts to existing utilities	The Applicant's surveying efforts are intended to identify where existing utilities are located so the Applicant can successfully locate and avoid all potential existing utilities, or work with the owner to mitigate any potential impacts prior to construction.
Concern #10	Private landowners ability to use/access the Project's easement area	The Applicant works with each potentially affected landowner during the land leasing process to understand any particular sensitivities or requests that could be affected by construction or operation. In the event that temporary modifications for access are needed for safety during construction, the Applicant will work with all affected landowners to notify them and minimize potential impacts to best extent possible.
Concern #11	The Applicant's abandonment of the Project	At the end of the Project's useful life, the Applicant will coordinate with NSP to determine if a sale of the transmission line is warranted or if decommissioning of the Project will be undertaken. If decommissioning is to take place, the Applicant will restore the land to as close to its original condition as practical.
Concern #12	The Project's proximity to neighboring landowners	The Applicant sited the proposed Project to balance all required and internal setbacks and standards along landowner requests. If a neighboring landowner concern is identified, the Applicant will meet with the landowner to discuss potential options to minimize impacts/address concerns where feasible.

**Respondent:** Jason Utton, Executive Director – Business Development