

Figure 3. Project Map
Crowned Ridge Wind Farm

- MET Tower
 - Turbine
 - City
 - Access Road
 - Collector Line
 - Crane Path
 - Railroad
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - O&M Facility/ Substation
 - Town Boundary
 - Project Boundary
- Lease Status**
- Leased, Signed
 - Pending Approval



Kilometers
0 2.5 5

Miles
0 2.5 5

Base Map: World Light Gray Canvas Base
Sources: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Codington and Grant Counties, South Dakota
Page 000001
016080 SWCA
Projection: NAD 1983 UTM Zone 14N

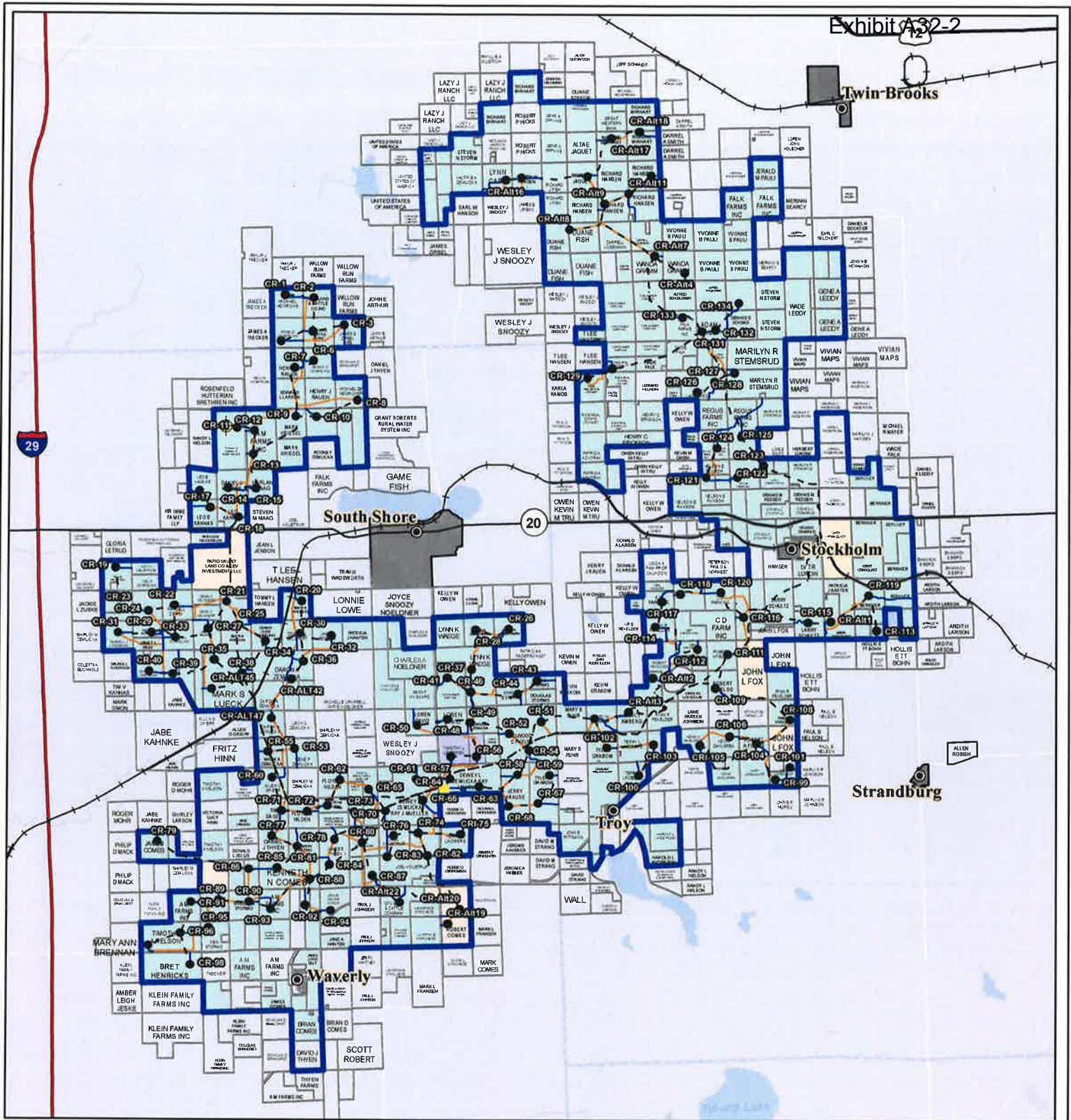
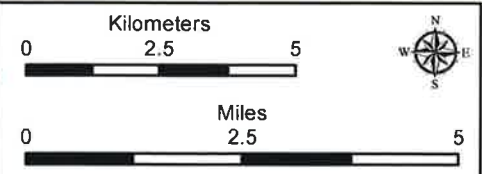


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 Codington and Grant Counties, South Dakota

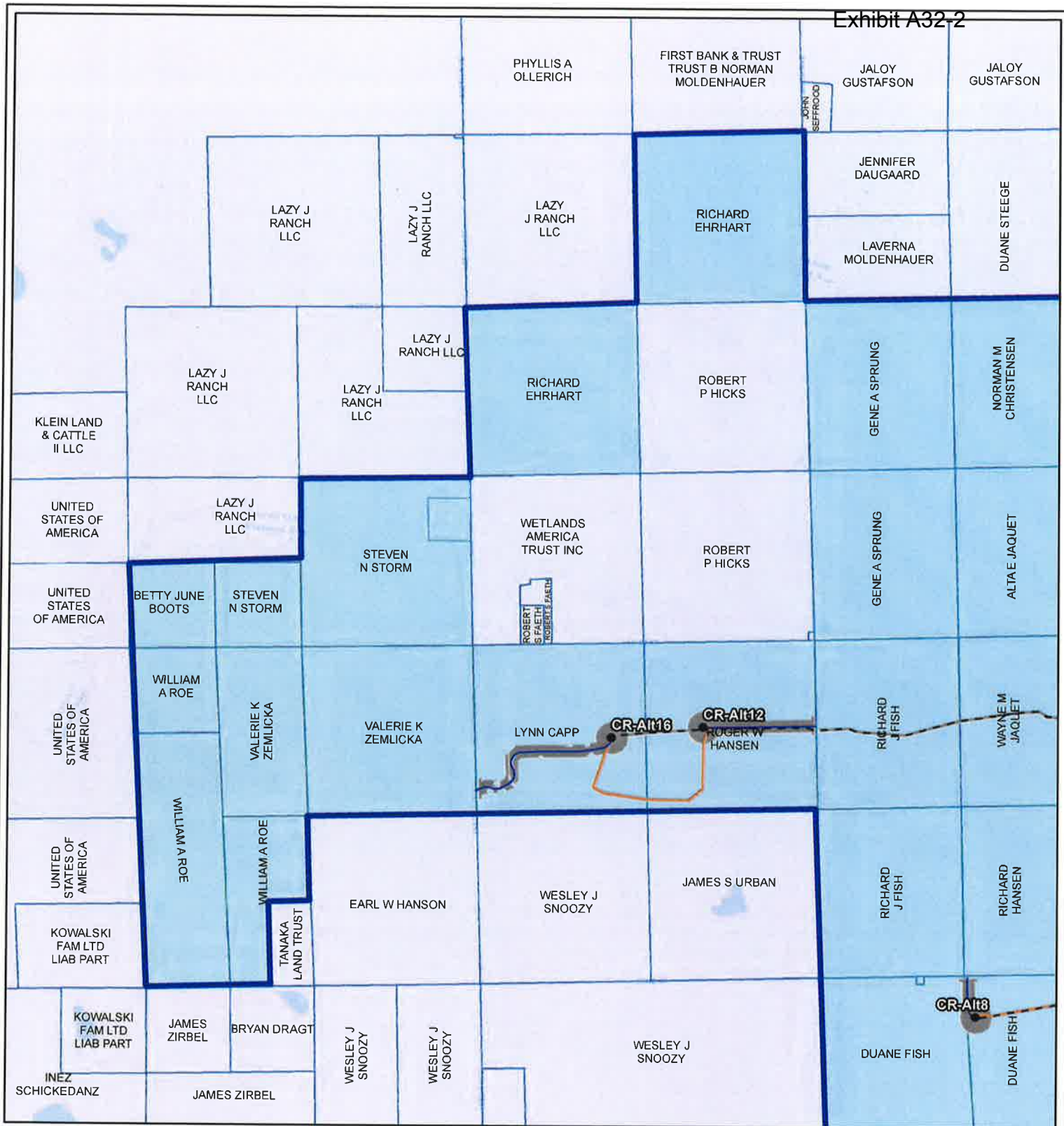
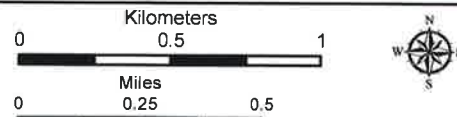


Figure 3a. Project Map
Crowned Ridge Wind Farm

- | | |
|----------------------------|--|
| ● Turbine | ▬ Construction Easement |
| ⊕ MFT Tower | ▬ Parcel Boundary |
| ● City | ▬ Project Boundary |
| — Access Road | ▬ County Boundary |
| - - - Collector Line | Lease Status |
| — Crane Path | ▬ Leased, Signed |
| — Railroad | ▬ Pending |
| ■ O&M Facility/ Substation | ▬ Under Option but Likely to Expire/Not Resign |
| ■ Batch Plant | |
| ■ Laydown Yard | |



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 Quadrangle: Antelope Valley (1973), Twin Brooks (1973)
 Township/Range: T120N, R51W, T120N, R50W
 Grant County, South Dakota

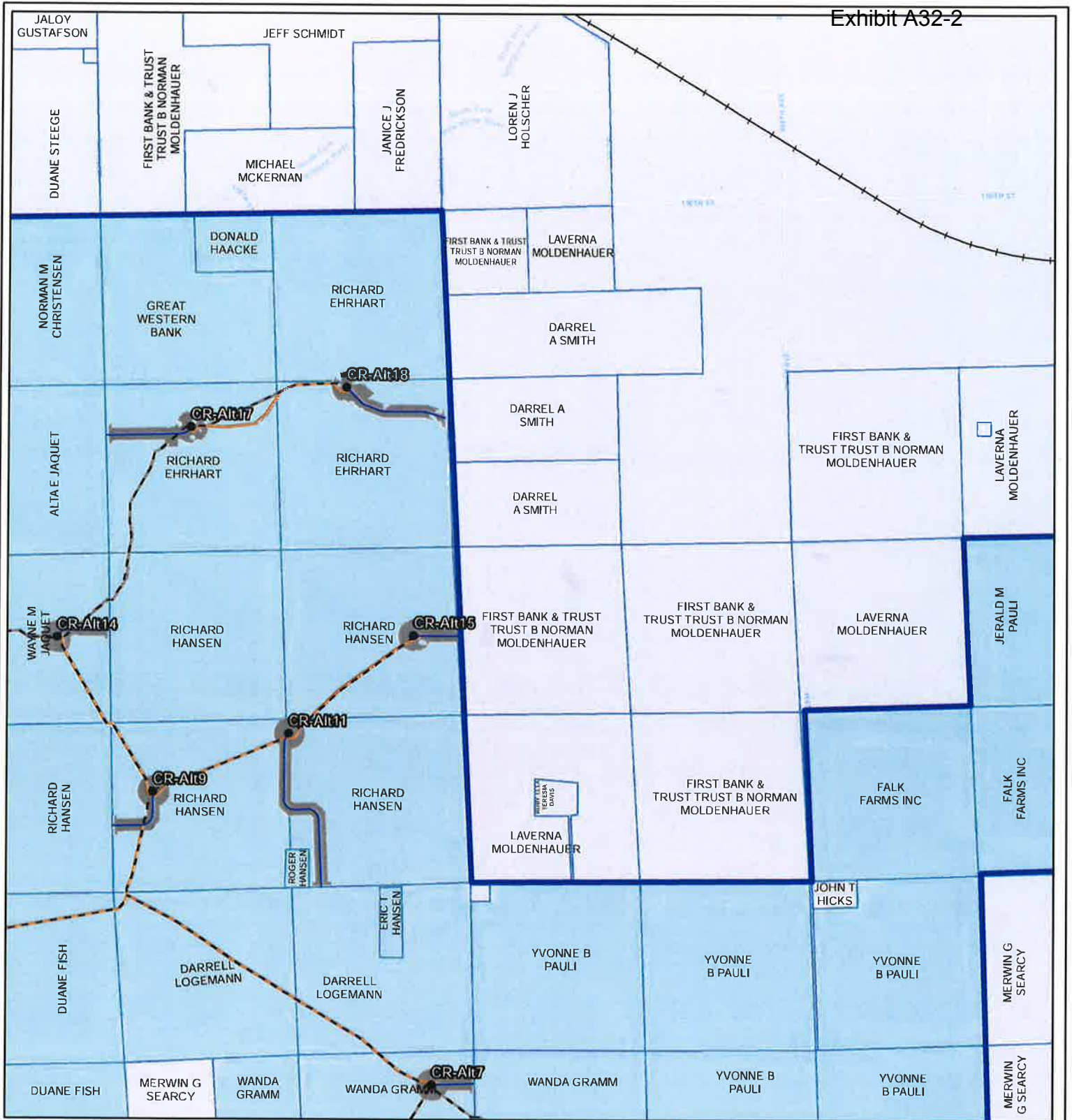
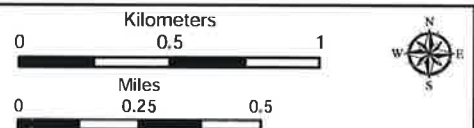


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Township/Range: T120N, R50W
Grant County, South Dakota

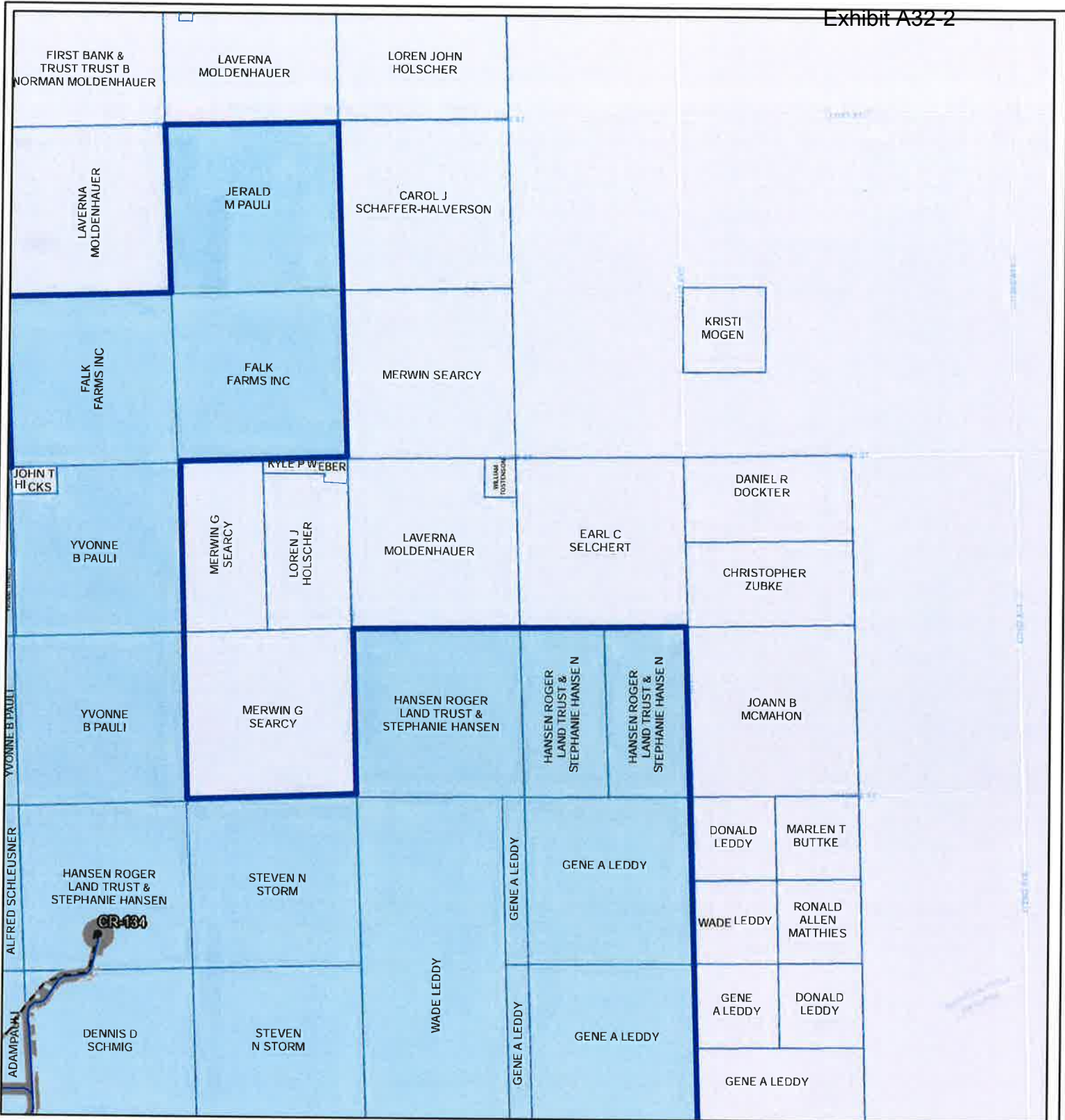


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0 0.5 1
Kilometers

0 0.25 0.5
Miles

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Township/Range: T120N, R50W
Grant County, South Dakota

Page 000005
Projection: NAD 1983 UTM Zone 14N

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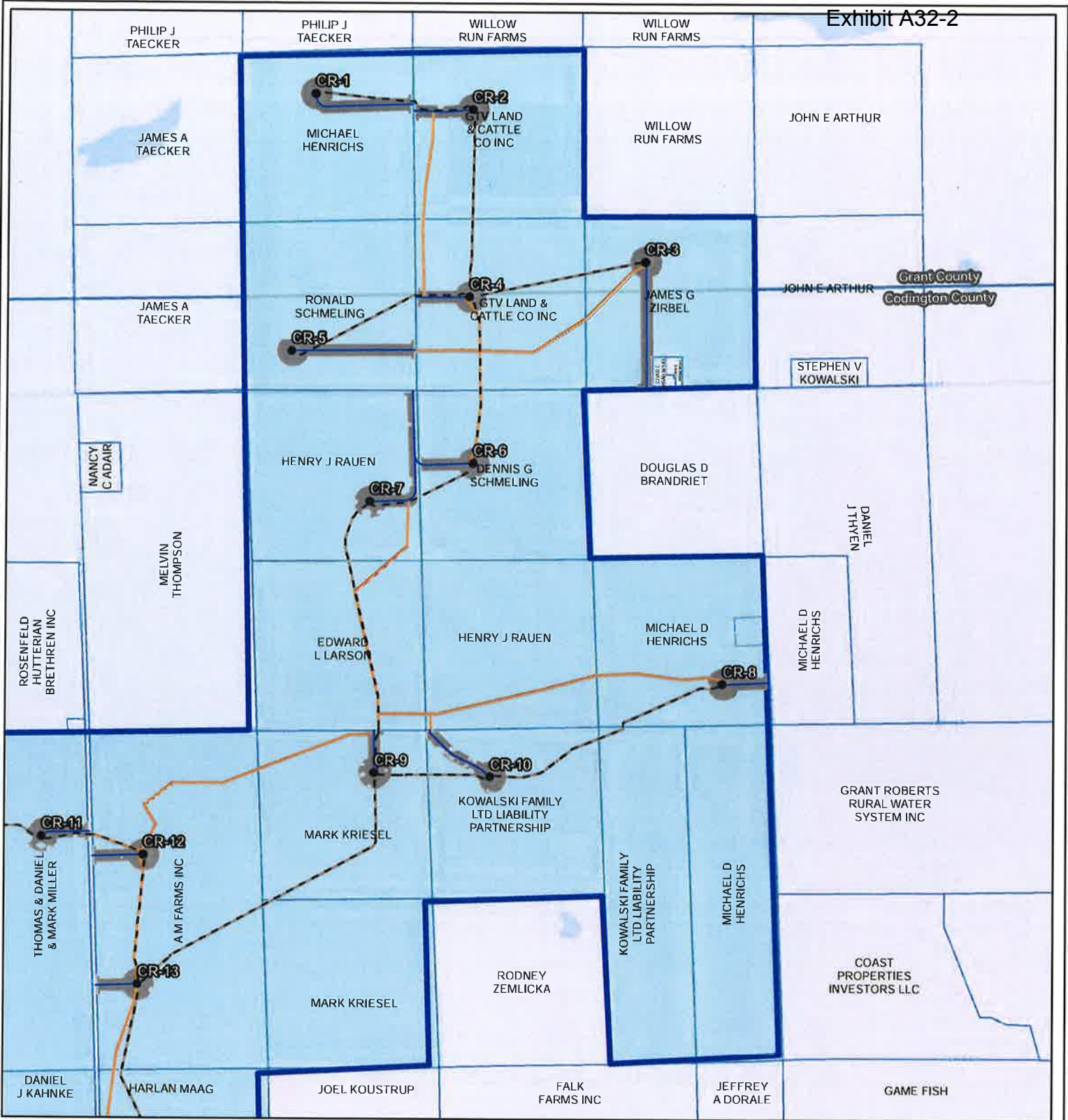
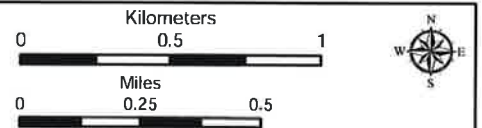


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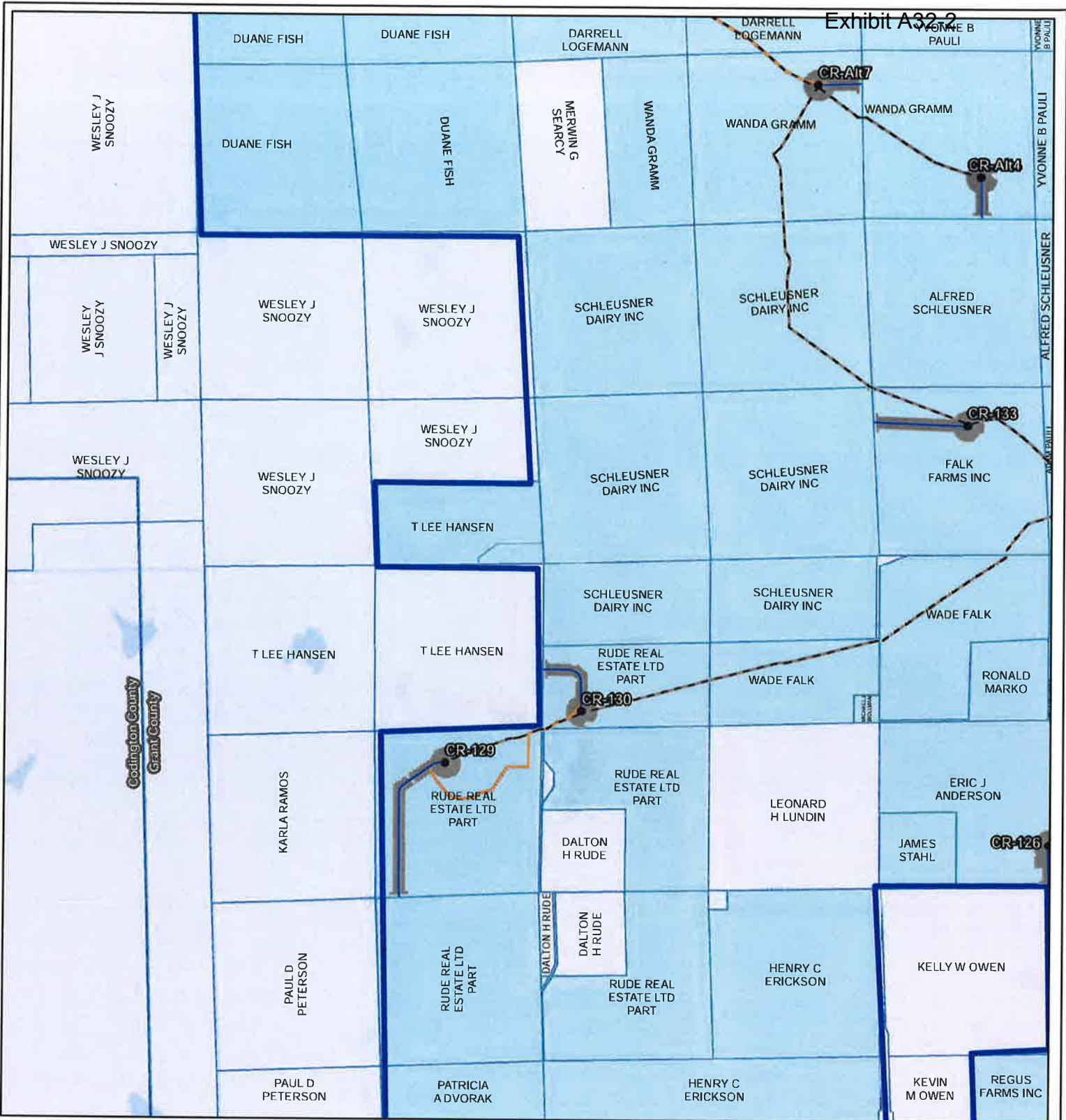
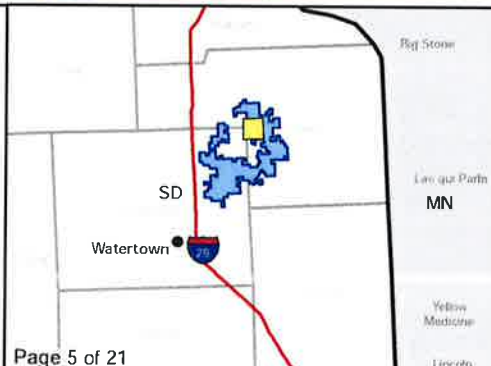


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 Codington and Grant Counties, South Dakota

Projection: NAD 1983 UTM Zone 14N

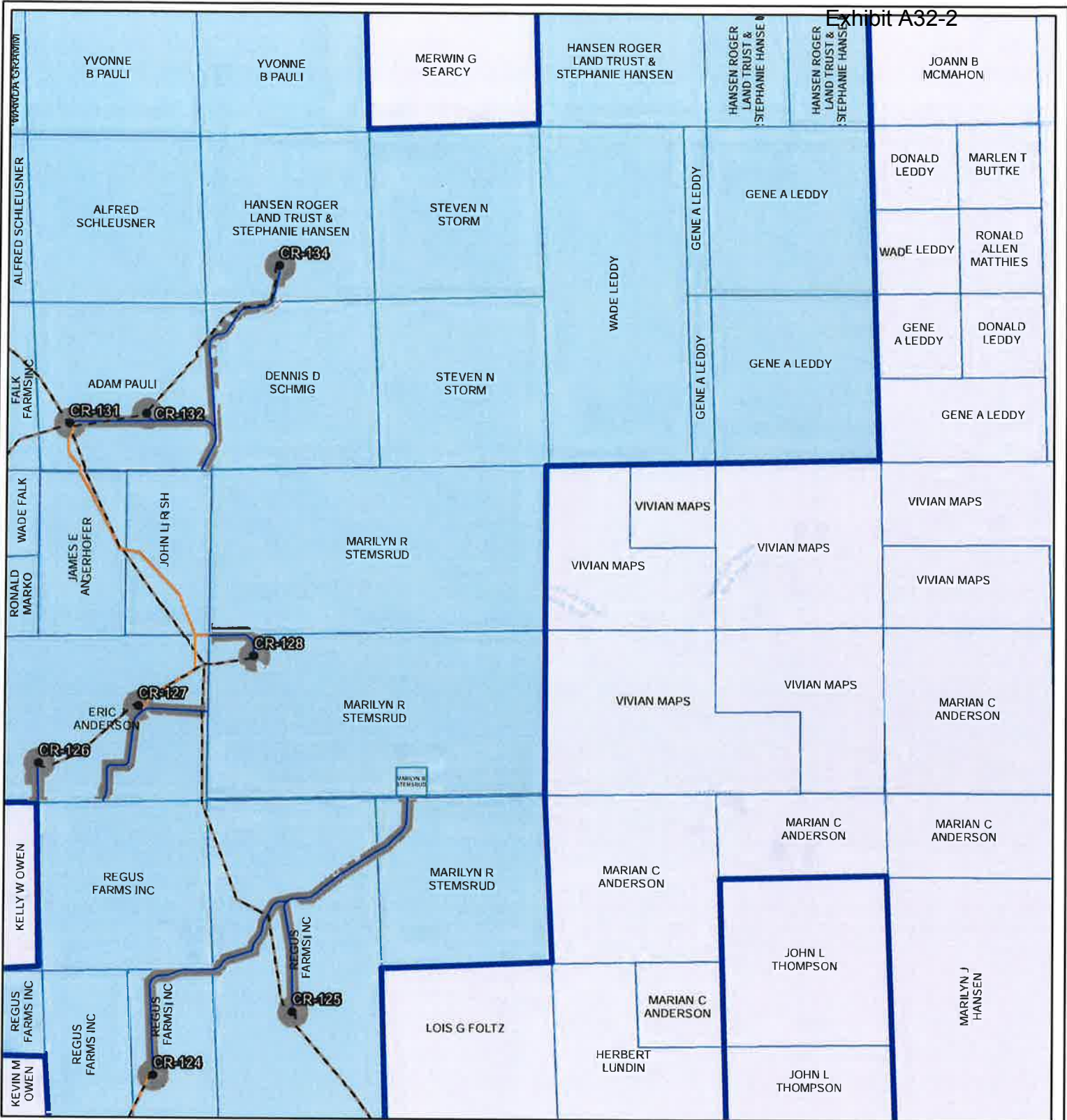
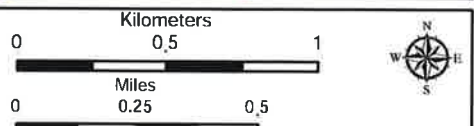
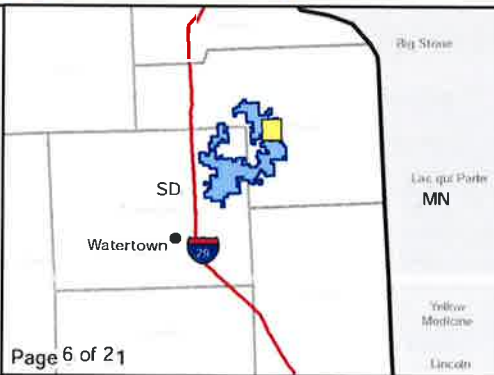


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Quadrangle: Twin Brooks (1973),
Stockholm (1973)
Township/Range: T120N, R50W,
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Grant County, South Dakota

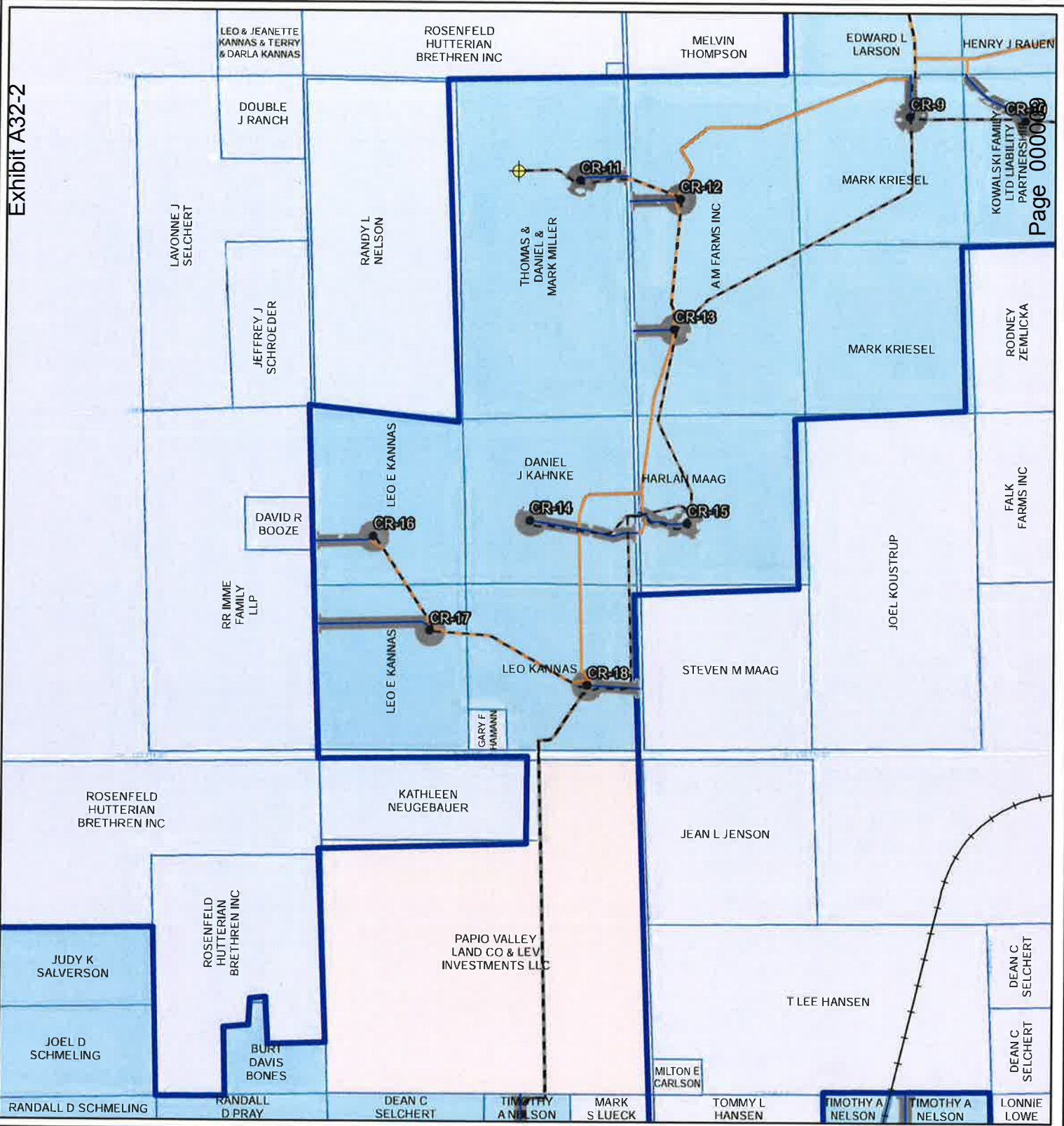
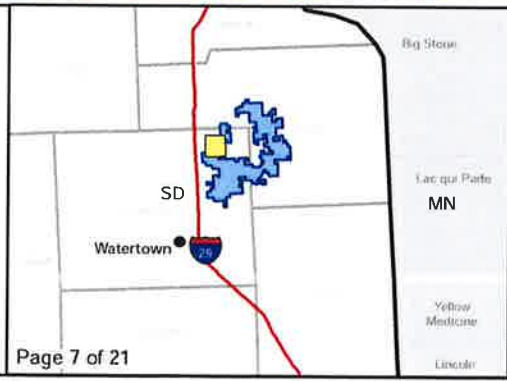


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0 0.5 1
Kilometers

0 0.25 0.5
Miles

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 Quadrangle: Still Lake NE (1970), Antelope Valley (1973), Still Lake SE (1970), South Shore (1973)
 Township/Range: T119N, R52W, T119N, R51W
 Codington County, South Dakota

Projection: NAD 1983 UTM Zone 14N

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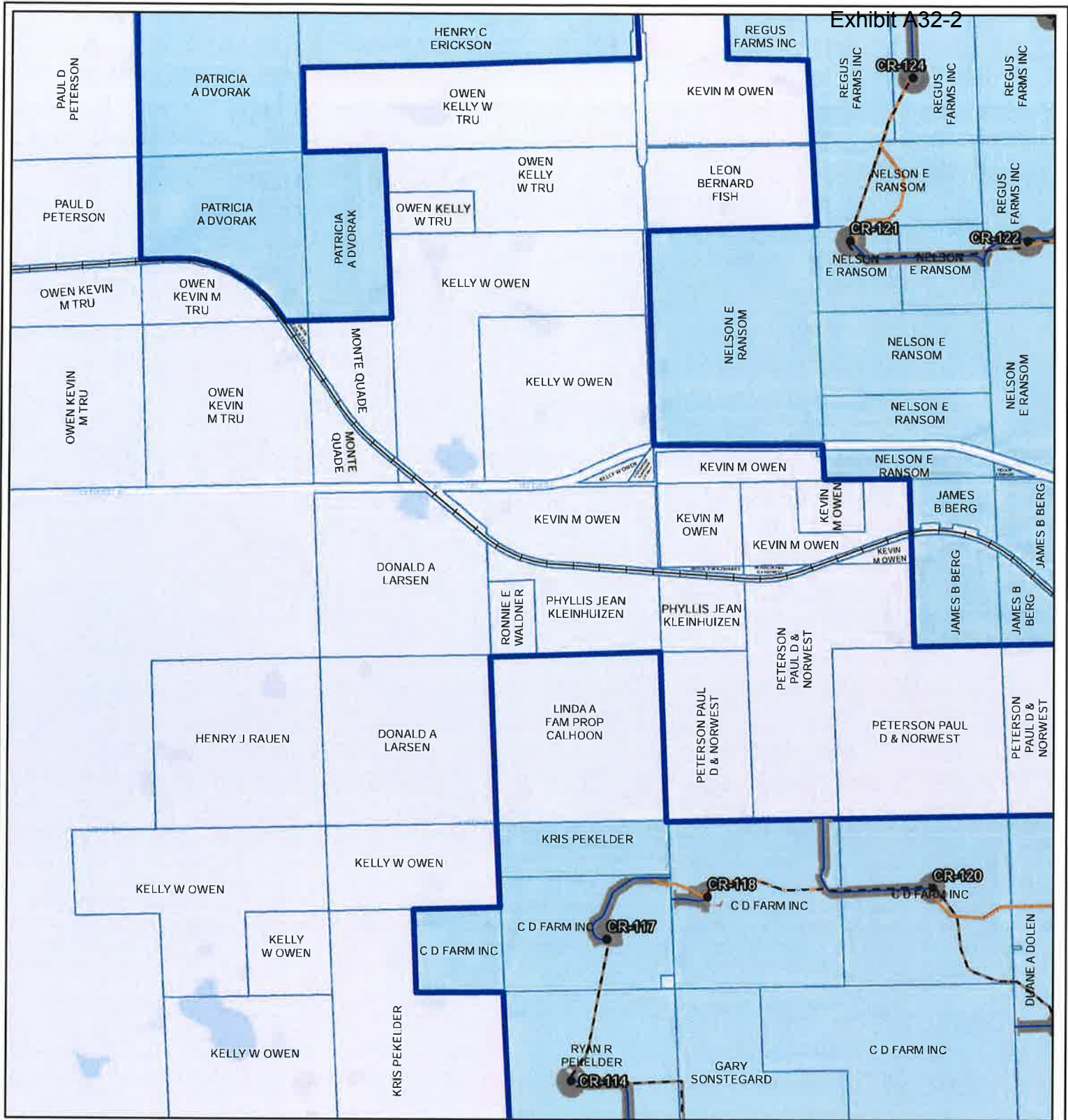
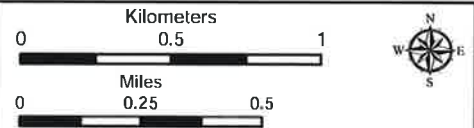
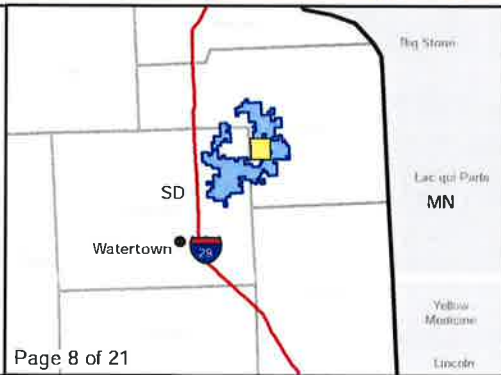


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 Quadrangle: Stockholm (1973), Antelope Valley (1973), Twin Brooks (1973), South Shore (1973)
 Township/Range: T119N, R50W

Grant County, South Dakota

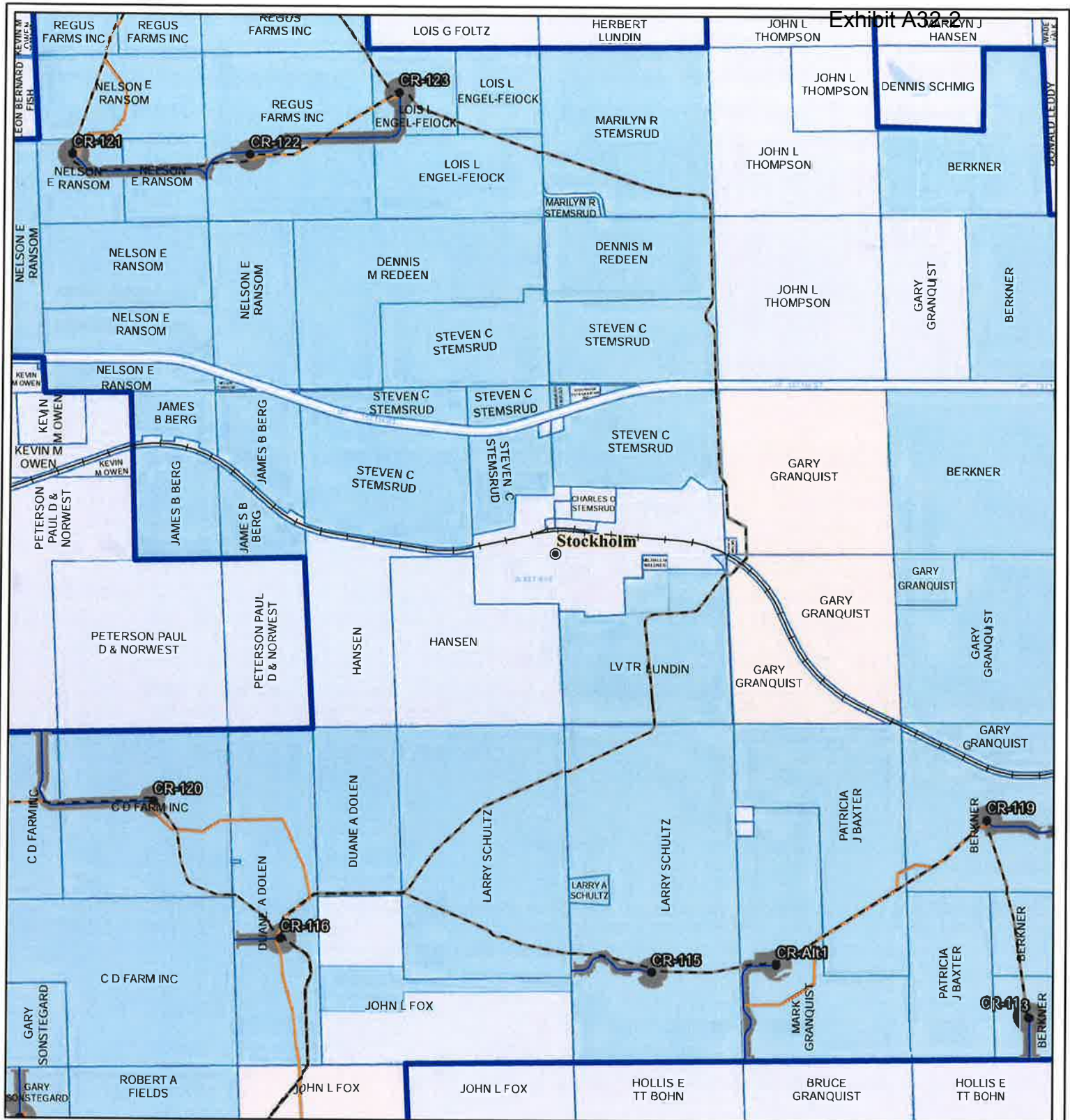
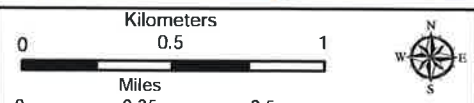


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Quadrangle: Stockholm (1973)
Township/Range: T119N, R50W
Grant County, South Dakota

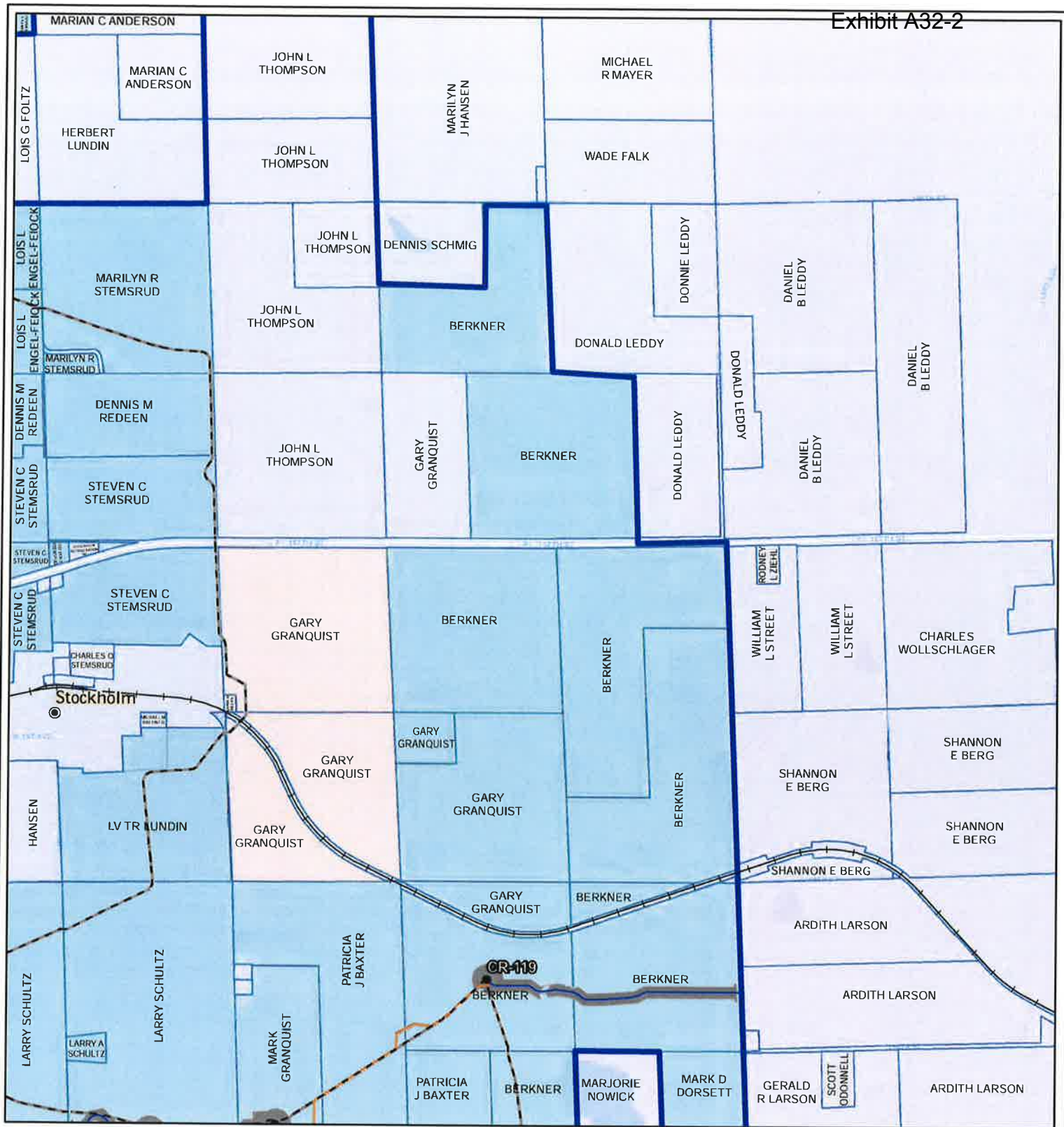
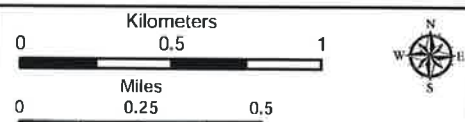


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Stockholm (1973)
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T119N, R49W
Grant County, South Dakota

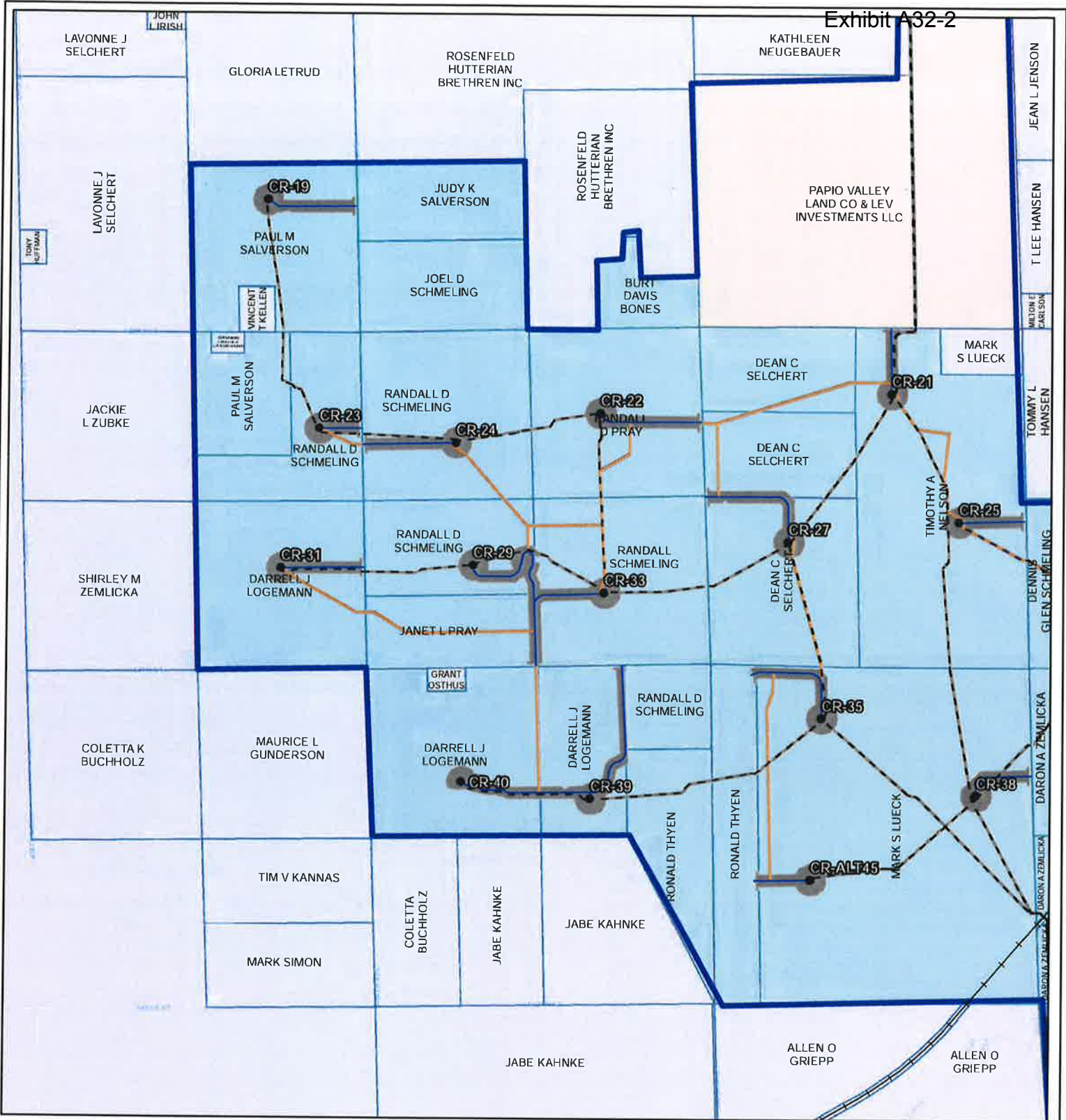
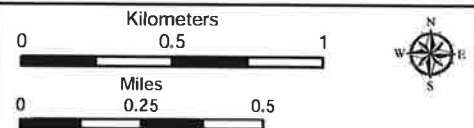


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Quadrangle: Still Lake SE (1970),
South Shore (1973)
Township/Range: T119N, R52W, T119N, R51W,
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Codington County, South Dakota

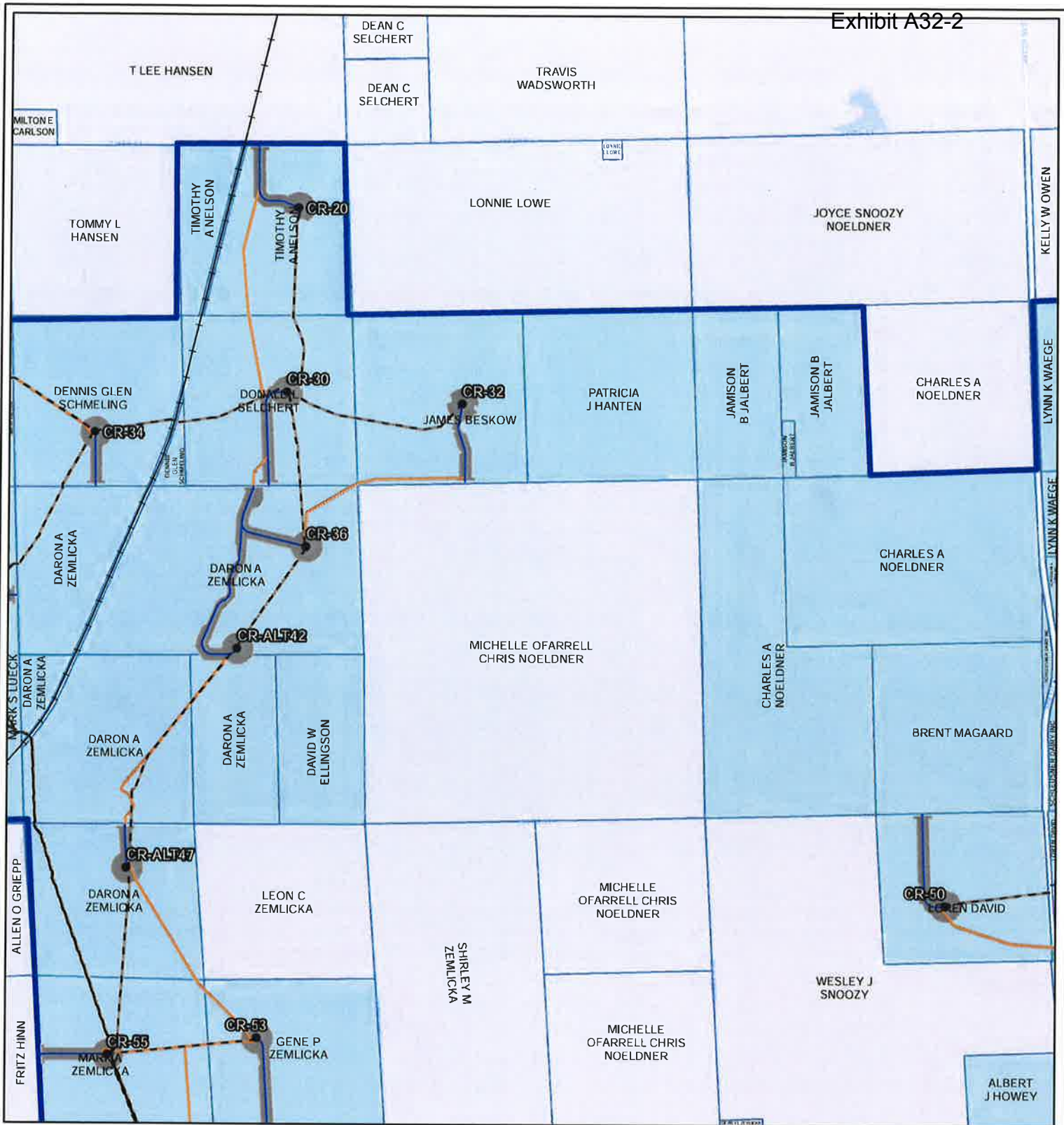
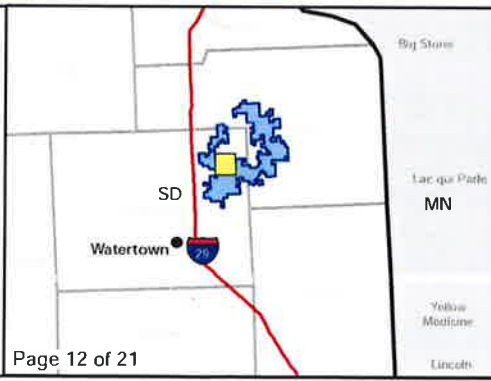


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0 0.5 1
Kilometers

0 0.25 0.5
Miles

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Quadrangle: South Shore (1973)

Township/Range: T119N, R51W, T118N, R51W
Codington County, South Dakota

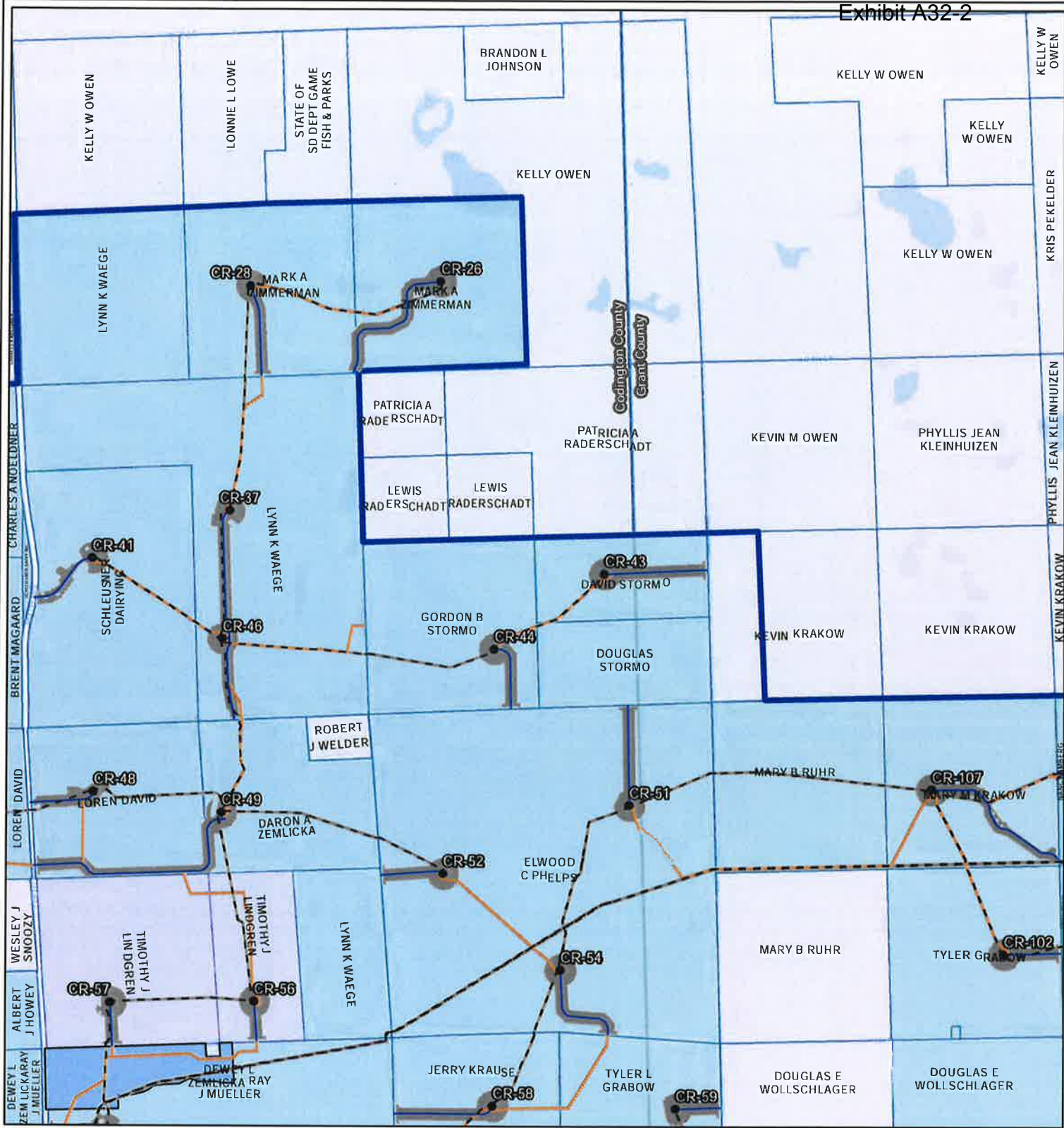
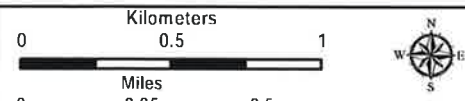


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 Township/Range: T119N, R51W, T119N, R50W, T118N, R51W, T118N, R50W
 Codrington and Grant Counties, South Dakota

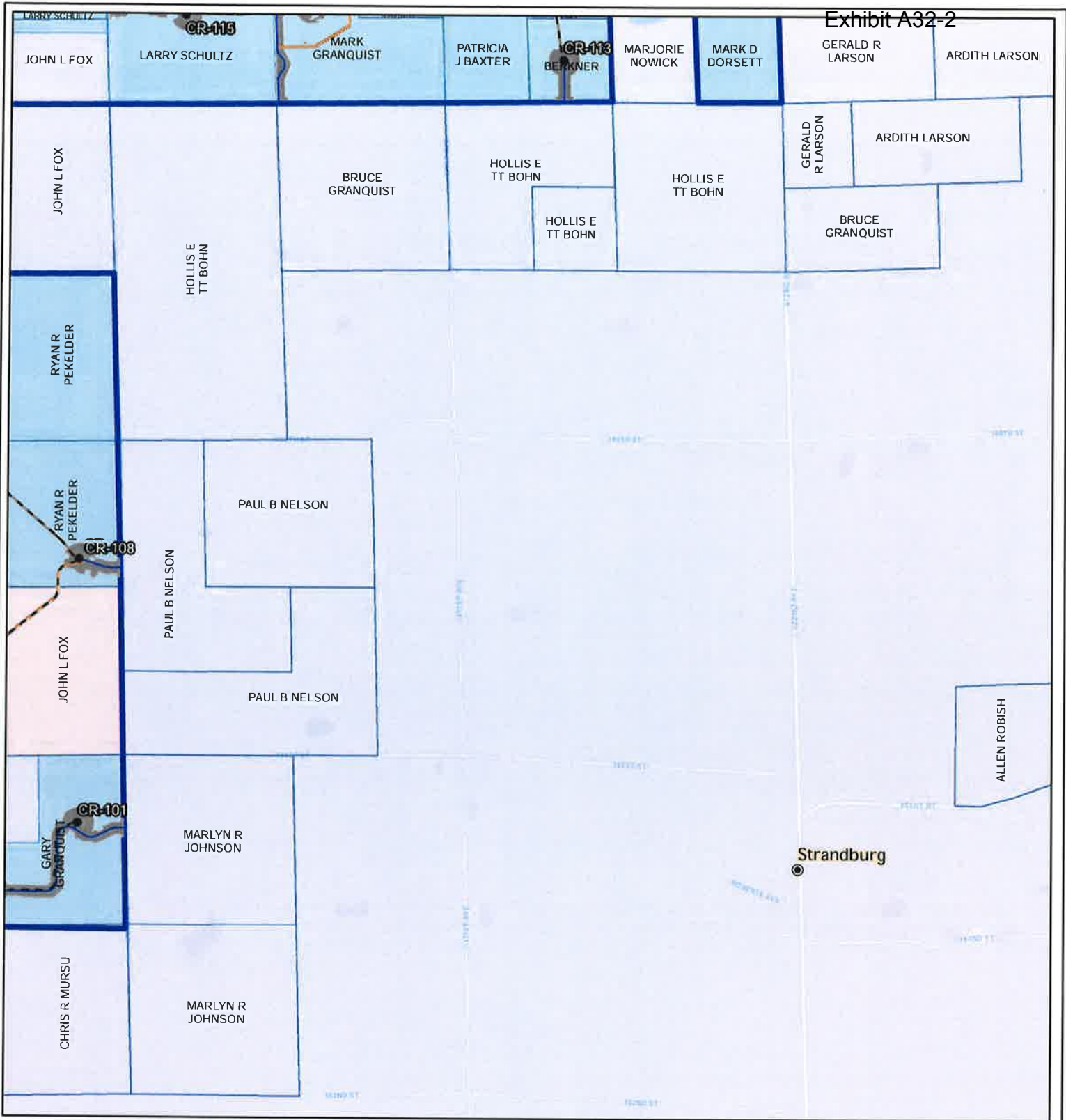
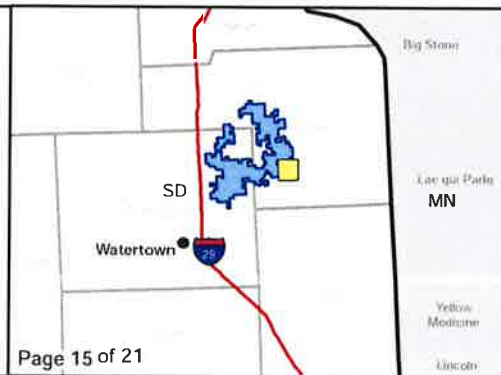


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Kilometers

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Township/Range: T119N, R50W, T118N, R50W
Grant County, South Dakota

Projection: NAD 1983 UTM Zone 14N

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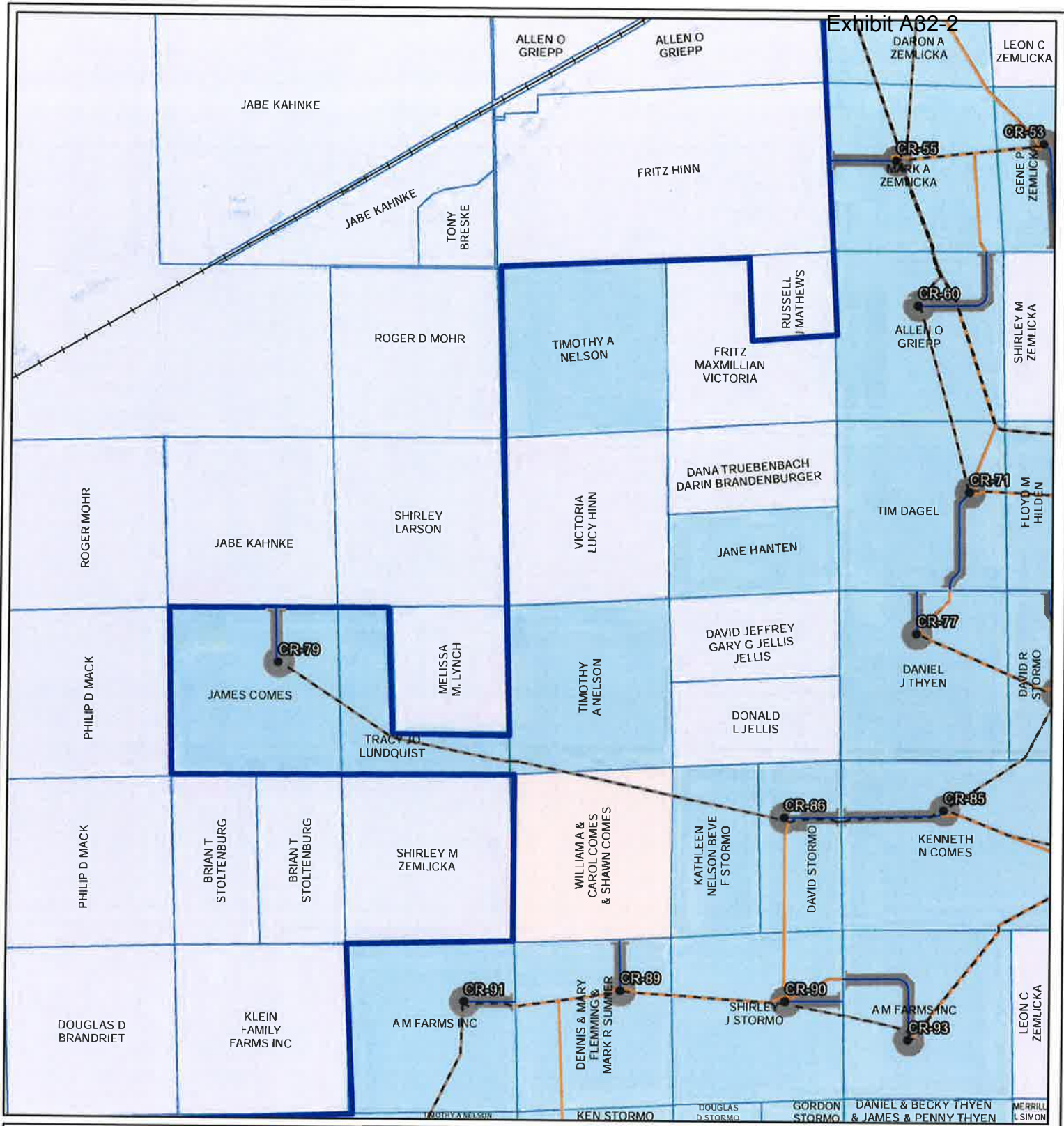
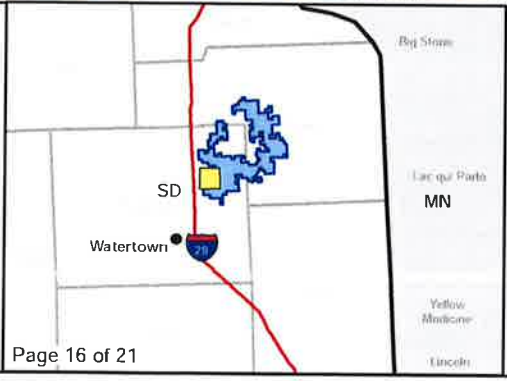


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 Codrington County, South Dakota

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Projection: NAD 1983 UTM ZONE 14N

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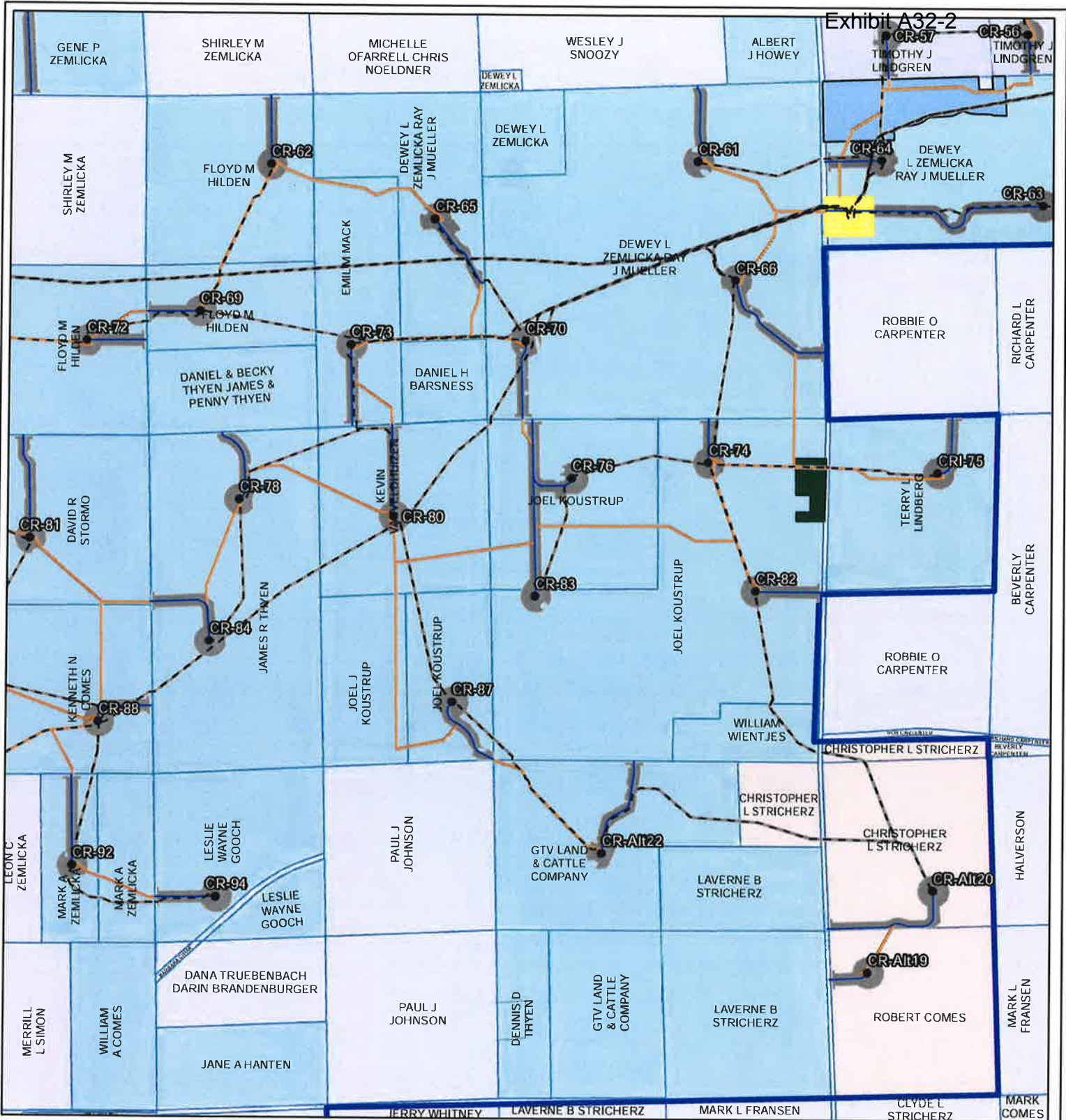


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Quadrangle: South Shore (1973)

Township/Range: T118N, R51W

Codington County, South Dakota

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Projection: NAD 1983 UTM Zone 14N

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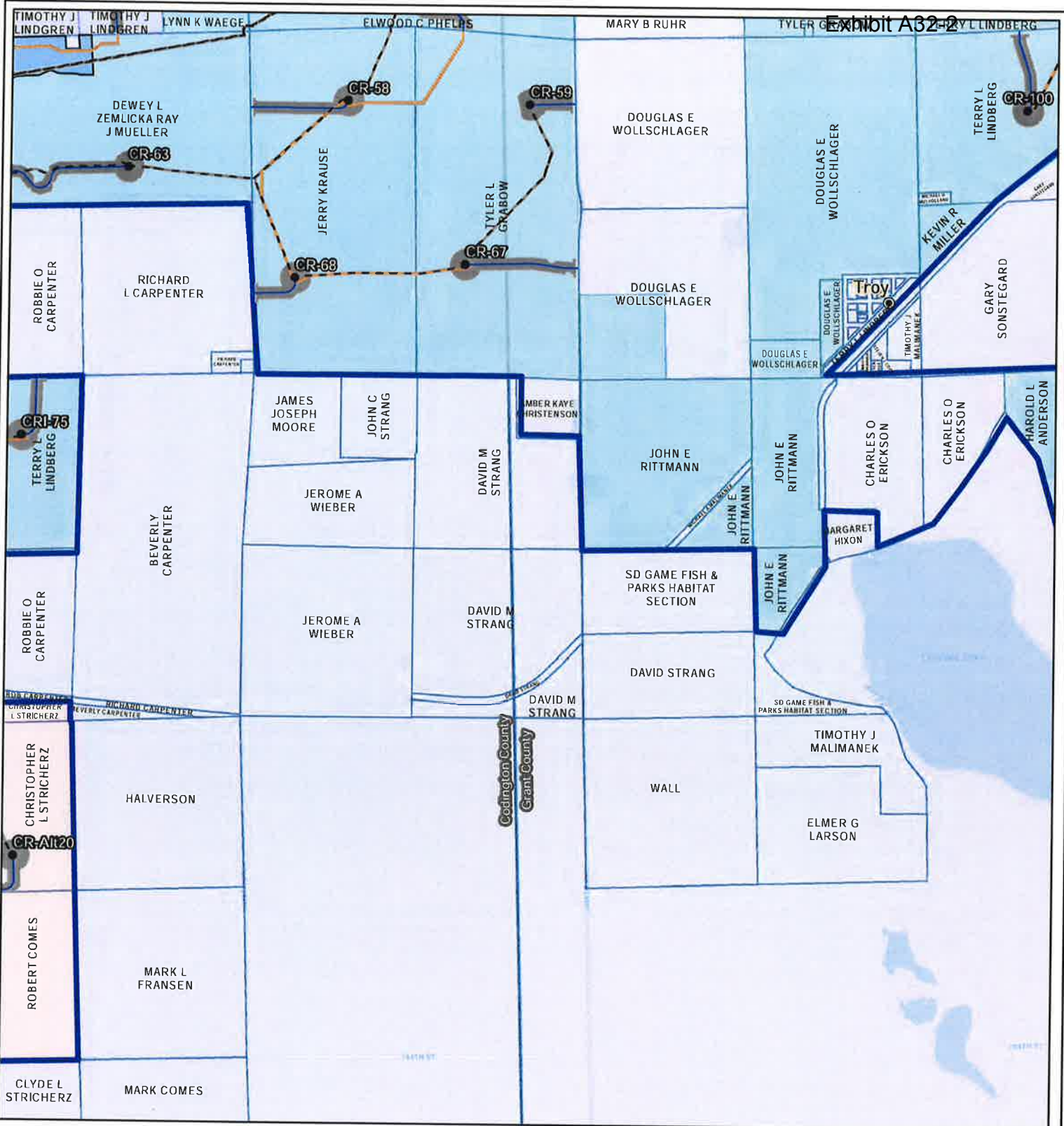


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Projection: NAD 1983 UTM Zone 14N

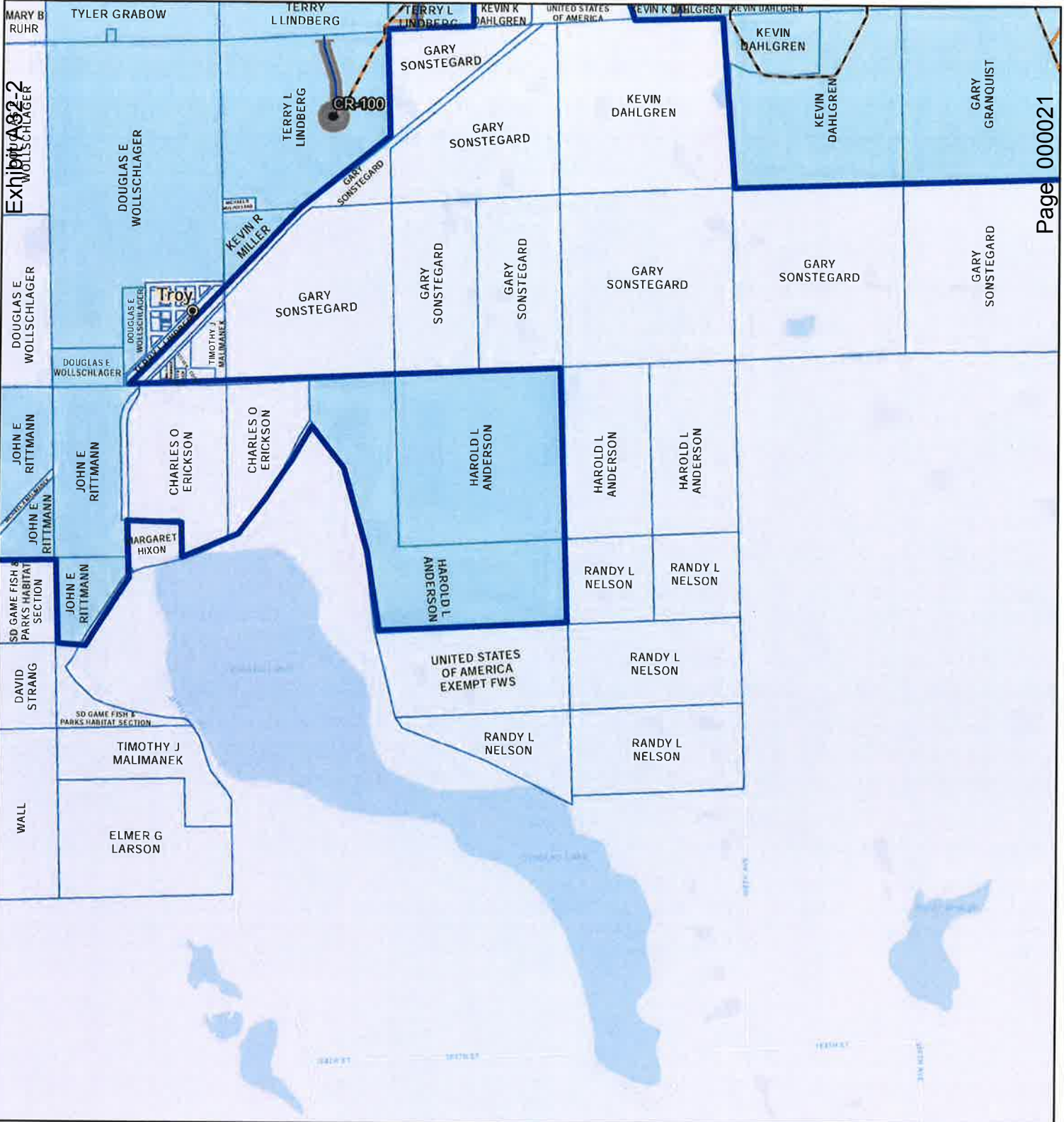


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Grant County, South Dakota

Projection: NAD 1983 UTM Zone 14N

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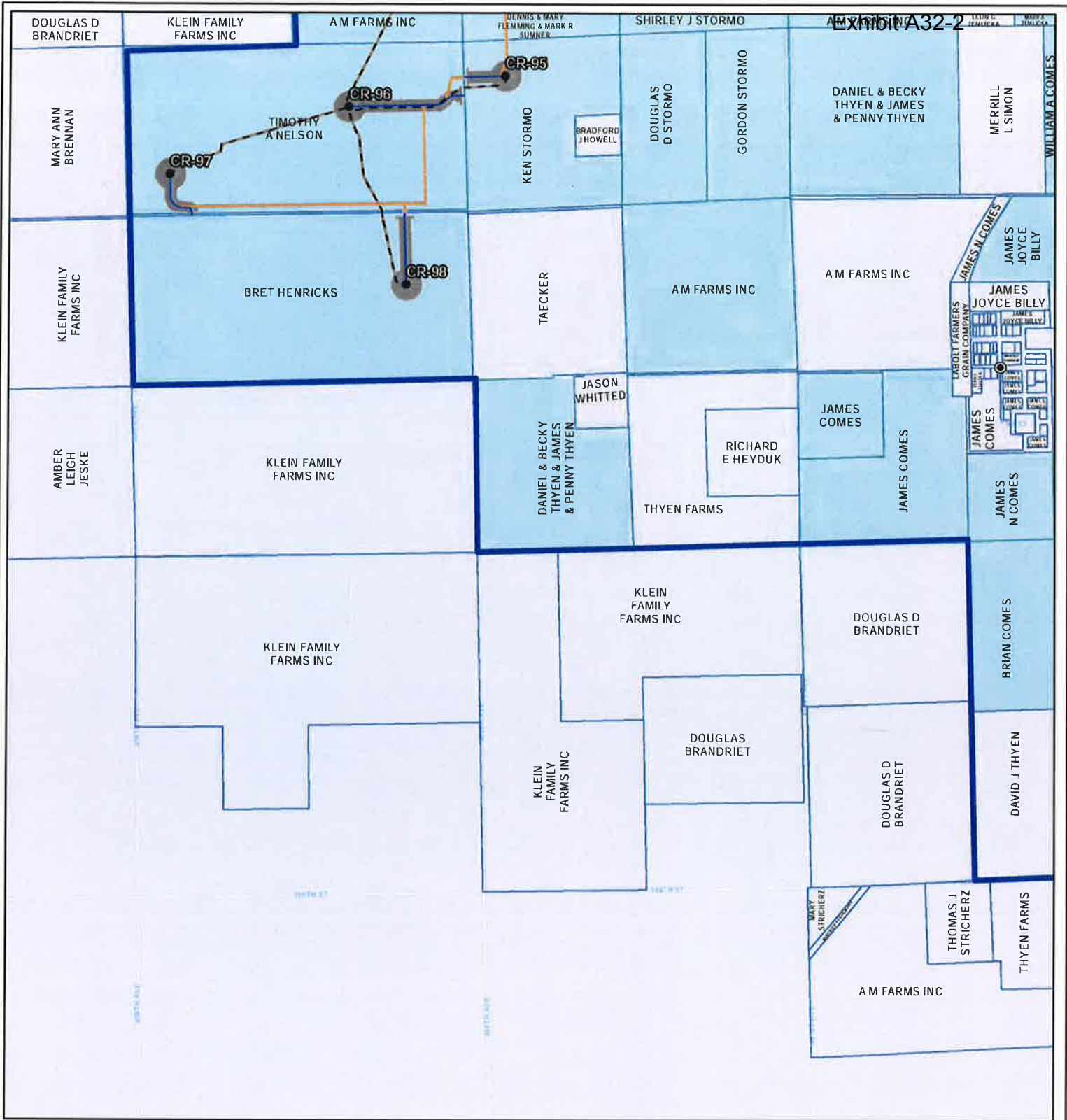
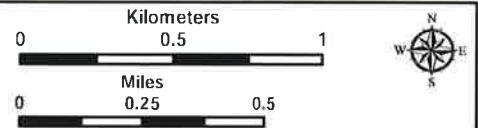


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- O&M Facility/ Substation
- Batch Plant
- Laydown Yard
- ▬ Construction Easement
- ▬ Parcel Boundary
- ▬ Project Boundary
- ▬ County Boundary
- ▬ Lease Status
- ▬ Leased, Signed
- ▬ Pending
- ▬ Under Option but Likely to Expire/Not Resign



Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Still Lake SE (1970), Watertown East (1969), South Shore (1973), Kranzburg (1970)
 Township/Range: T118N, R52W, T118N, R51W, T117N, R52W, T117N, R51W
 Codington County, South Dakota

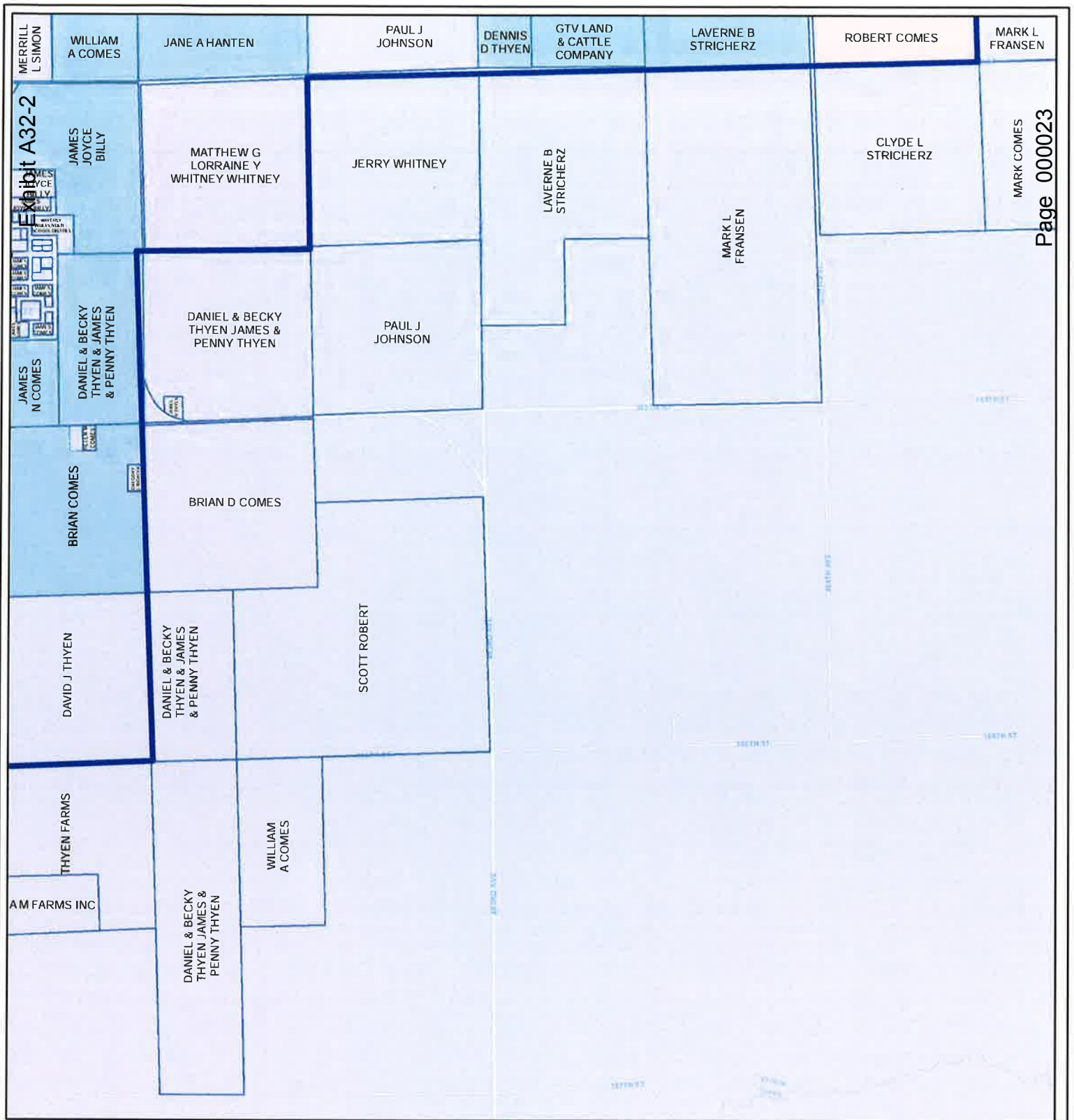


Exhibit A32-2

Page 000023

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
- ⊕ MET Tower
- City
- Access Road
- - - Collector Line
- Crane Path
- Railroad
- O&M Facility/ Substation
- Batch Plant
- Laydown Yard
- Construction Easement
- ▭ Parcel Boundary
- ▭ Project Boundary
- ▭ County Boundary
- ▭ Lease Status
- ▭ Leased, Signed
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- ▭ Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin,
© OpenStreetMap contributors, and the GIS user
community
Quadrangle: South Shore (1973),
Kranzburg (1970)
Township/Range: T118N, R51W,
T117N, R51W
Codington County, South Dakota

SWCA
ENVIRONMENTAL CONSULTANTS

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

IN THE MATTER OF THE APPLICATION)
BY CROWNED RIDGE WIND, LLC FOR A) EL19-003
PERMIT OF A WIND ENERGY FACILITY)
IN GRANT AND CODINGTON COUNTIES) **APPLICANT'S RESPONSES**
) **TO INTERVENOR'S THIRD**
) **SET OF DATA REQUESTS TO**
) **CROWNED RIDGE WIND, LLC**

Attached, please find Applicant's Responses to Intervenor's Third Set of Data
Requests to Crowned Ridge Wind, LLC.

Dated this 23rd day of May, 2019.



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

- 3-1) Regarding any affiliated companies or corporations (in this discovery also described as “company” or companies”) of the Applicant identified in the Application or any amendment to the Application, as identified in testimony or provided in disclosure and discovery, please describe any affiliated company’s legal relationship with the Applicant.

Response:

Please see the Amendment to the Application Section 3.0 filed on May 15, 2019. The legal relationship between the companies described in the Amendment to Crowned Ridge Wind, LLC is that of an affiliate.

Also, as originally set forth in the Application in Section 3.0, Crowned Ridge Wind, LLC is a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC.

Respondent: Sam Massey, Director of Renewable Development

- 3-2) Describe any affiliated company’s business relationship with the Applicant regarding the Project (by way of examples only: a relationship under a service agreement, as a vendor, as a service provider, as a contractor, as a consultant, as a participant in a joint operating agreement).

Response:

Yes, Crowned Ridge Wind, LLC will enter into an operation and maintenance agreement with NextEra Energy Operating Services, LLC and an administrative services agreement with NextEra Energy Resources, LLC.

Respondent: Sam Massey, Director of Renewable Development

- 3-3) Having any entities, parties or persons, whether or not participants, waived or agreed to a modification of any of the facility siting requirements identified in the statutes and rules described on Table 1.2 of the Application under agreement or agreements held by the Applicant or any of its affiliates? If so, provide documentation, including any agreements.

Response:

Please see the following provision in the easement agreements: Crowned Ridge Wind, LLC (Section 11.4.), which is Confidential Attachment 1 to Crowned Ridge Wind’s response to Staff 1-7. The Boulevard Associates, LLC easement agreements contain the same provision. In the Cattle Ridge Wind Farm, LLC (Section 5.4), which is Confidential Attachment 2 to Crowned Ridge Wind’s response to Staff 1-7.

Respondent: Tyler Wilhelm, Project Manager

- 3-4) Have any entities, parties or persons, whether or not participants, waived or agreed to a modification of any local rules or ordinances which relate to this facility siting application under an agreement with the Applicant or with an affiliate of the Applicant?

If so provide documentation, including any agreements.

Response:

Please see response to 3-3.

Respondent: Tyler Wilhelm, Project Manager

- 3-5) Have any entities, parties or persons, whether or not participants, with whom the Applicant has entered into, itself or by way of an affiliate, an option, lease or easement agreement by giving the option of withdrawal from any such agreement? If so, provide documentation, including any agreements.

Response: No.

Respondent: Tyler Wilhelm, Project Manager

- 3-6) Have any entities, parties or persons, whether or not participants, with whom the Applicant has entered into, itself or by way of an affiliate, an option, lease or easement agreement, waived any audio, visual, view, light, shadow flicker, vibration, air turbulence, wake, electromagnetic, ice, or other weather created hazards or events resulting directly or indirectly regarding the operation of Applicants proposed Project under safety, regulatory or environmental standards as those are described in the Application. If so, provide documentation, including any agreements.

Response:

Please see the following provision in the easement agreements: Crowned Ridge Wind, LLC (Section 5.2), which is Confidential Attachment 1 to Crowned Ridge Wind's response to Staff 1-7. The Boulevard Associates, LLC easement agreements contain the same provision.

Respondent: Tyler Wilhelm, Project Manager

- 3-7) Have any entities, parties or persons, whether or not participants, with whom the Applicant has entered into, itself or by way of an affiliate, an option, lease or easement agreement, waived any audio, visual, view, light, shadow flicker, vibration, air turbulence, wake, electromagnetic, ice, or other weather created hazards or events resulting directly or indirectly regarding the operation of Applicants proposed Project as those standards are designated by federal, state or local law related to the siting of a wind energy facility? If so, provide documentation, including any agreements.

Response:

Please see response to 3-6.

Respondent: Tyler Wilhelm, Project Manager

- 3-8) Have any entities, parties or persons, whether or not participants, with whom the Applicant has entered into, itself or by way of an affiliate, an option, lease or easement agreement, waived any audio, visual, view, light, shadow flicker, vibration, air turbulence, wake, electromagnetic, ice, or other weather created hazards or events resulting directly or indirectly from the operation of Applicants propose project? If so, provide documentation, including any agreements.

Response:

Please see response to 3-6.

Respondent: Tyler Wilhelm, Project Manager

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

IN THE MATTER OF THE APPLICATION)	
BY CROWNED RIDGE WIND, LLC FOR A)	EL19-003
PERMIT OF A WIND ENERGY FACILITY)	
IN GRANT AND CODINGTON COUNTIES)	APPLICANT'S RESPONSES
)	TO INTERVENOR'S SECOND
)	SET OF DATA REQUESTS TO
)	CROWNED RIDGE WIND, LLC

Attached, please find Applicant's Responses to Intervenor's Second Set of Data Requests to Crowned Ridge Wind, LLC.

Dated this 23rd day of May, 2019.



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

- 2-1) Is there is a currently enforceable, in place, agreement regarding any of the following described categories for the tan-colored parcel (identified as "pending approval" on the legend) found in Applicant's Figure 3a in favor of the Applicant whether held in the name of Applicant or an affiliate of the Applicant which relates to the subject Project?: a Collection Easement; Access Easement; Construction Easement; Wind Farm Easement Agreement; or Right of Entry Agreement. Provide meanings of the acronyms used in the application.

Response:

There is no enforceable agreement in place on the tan-colored parcel (identified as "pending approval" on the legend). A collection easement agreement has been drafted and is under consideration by the landowner at this time.

Respondent: Tyler Wilhelm, Project Manager

- 2-2) Are all property rights necessary for the Project obtained?

Response:

At this time, the Applicant has not obtained all necessary property rights for the Project.

Respondent: Tyler Wilhelm, Project Manager

- 2-3) If all property rights necessary for the Project are not obtained, please describe and identify what property rights need to be obtained.

Response:

Crowned Ridge Wind will need to obtain the following additional property rights:

- (2) easement option agreements to support underground collection and temporary construction access;
- (3) easement option agreements to support underground collection; and
- (2) easement option agreements to support alternate turbine locations and associated facilities (underground collection, turbine access road and temporary construction access etc.)

Respondent: Tyler Wilhelm, Project Manager
Sioux Falls, SD 57104

LAW OFFICES

Lynn, Jackson, Shultz & Lebrun, P.C.

LAWYERS ALSO ADMITTED IN MINNESOTA, IOWA, NORTH DAKOTA, AND WYOMING

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110 N. MINNESOTA AVENUE
SUITE 400
SIOUX FALLS, SD 57104
605-332-5999
FAX 605-332-4249

135 E. COLORADO BOULEVARD
SPEARFISH, SD 57783-2755
605-722-9000
FAX 605-722-9001

909 ST. JOSEPH STREET
SUITE 800
RAPID CITY, SD 57701
605-342-2592
FAX 605-342-5185

REPLY TO: Sioux Falls 605-332-5999

From the office of Miles F. Schumacher

e-mail address: mschumacher@lynnjackson.com

May 23, 2019

Via Electronic Filing

Ms. Patricia Van Gerpen, Executive Director
South Dakota Public Utilities Commission
Capitol Building, 1st Floor
500 East Capitol Avenue
Pierre, SD 57501-5070

Re: Docket #EL19-003
In the Matter of the Application by Crowned Ridge Wind, LLC
for an Energy Facility Permit of a Wind Energy Facility in
Grant and Codington Counties, South Dakota for Crowned Ridge
Wind Farm

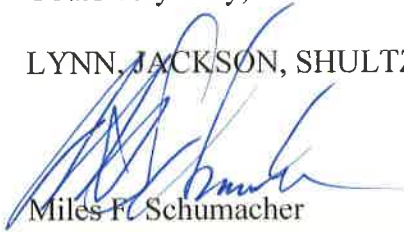
Dear Ms. Van Gerpen:

In connection with the above captioned matter, Crowned Ridge Wind, LLC (Crowned Ridge Wind) is submitting updated maps. The maps show removal of the Thompsons as participants, recognize that the one current participant will not likely renew when their option agreement expires, and make minor adjustments to infrastructure that move the collector line off of the Thompson's properties and also for participant land owner preferences. This minor adjustment can be seen at (1) the proposed shifts to access roads for turbines CR-122 through CR-126 at the requests of landowners; (2) minor revisions to collection routing were made on properties, which include collection routing identified at met towner SM01, turbine CR-105, between turbines CR-112 and CR-114, CR-115, CR-116, CR-163, CR-ALT7 and between CR-ALT20 and CR-ALT22.

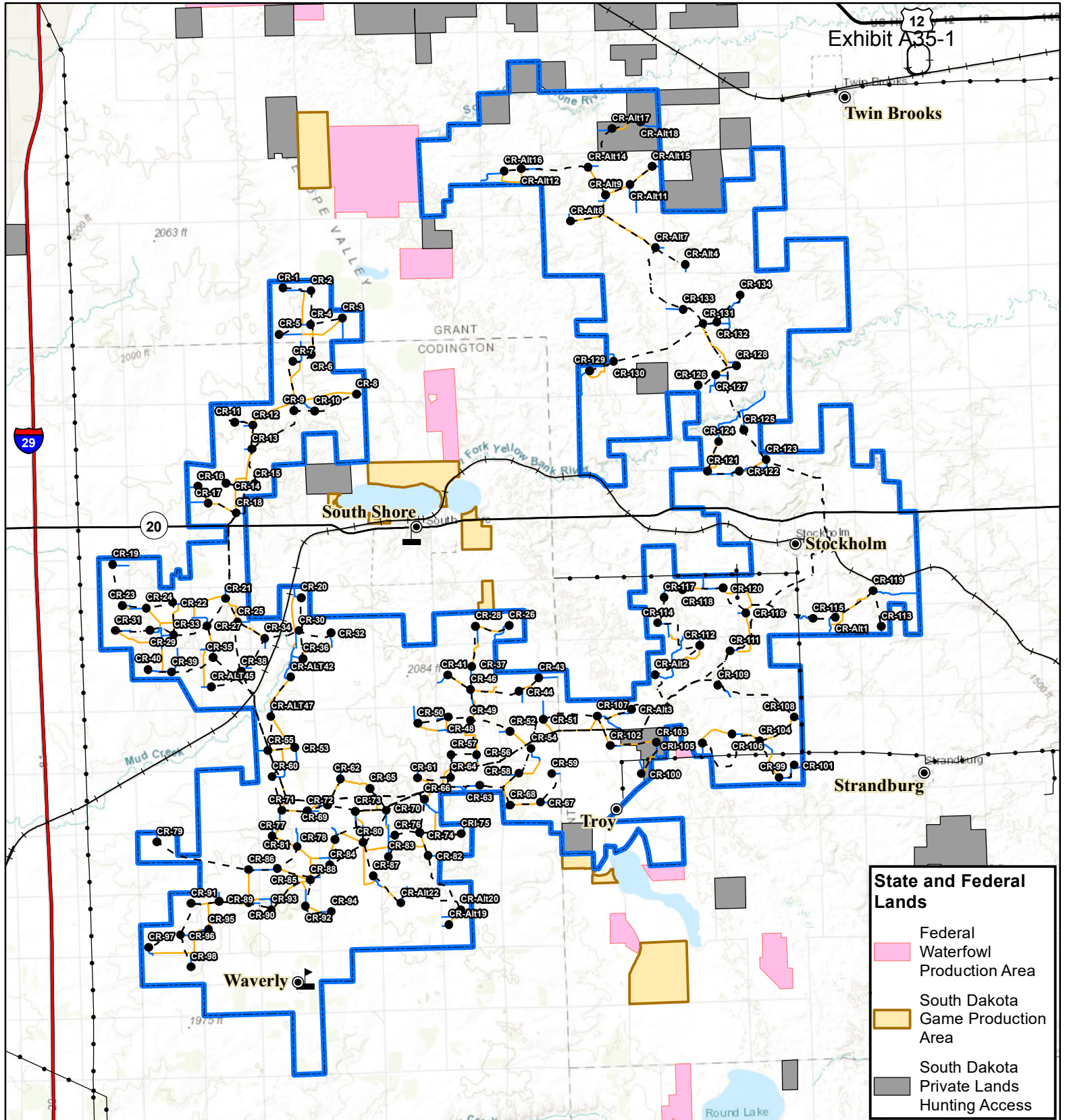
Ms. Patricia Van Gerpen, Executive Director
May 23, 2019
Page 2

Yours very truly,

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.



Miles F. Schumacher
MFS:alf

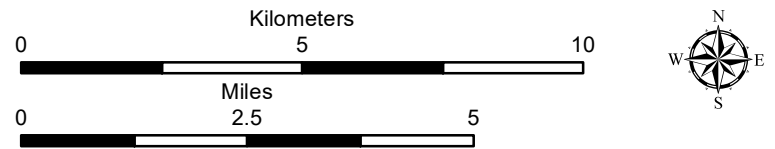


State and Federal Lands

- Federal Waterfowl Production Area
- South Dakota Game Production Area
- South Dakota Private Lands Hunting Access

Figure 2. Public Land and Facilities

- Crowned Ridge Wind Farm
- City
 - Turbine
 - School
 - Collector Line
 - Access Road
 - Crane Path
 - Electrical Line
 - Railroad
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - Project Boundary



Base Map: World Topographic Map
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
 Codington and Grant Counties, South Dakota

016111

Page 000001 **SWCA**
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Projection: NAD 1983 UTM Zone 14N

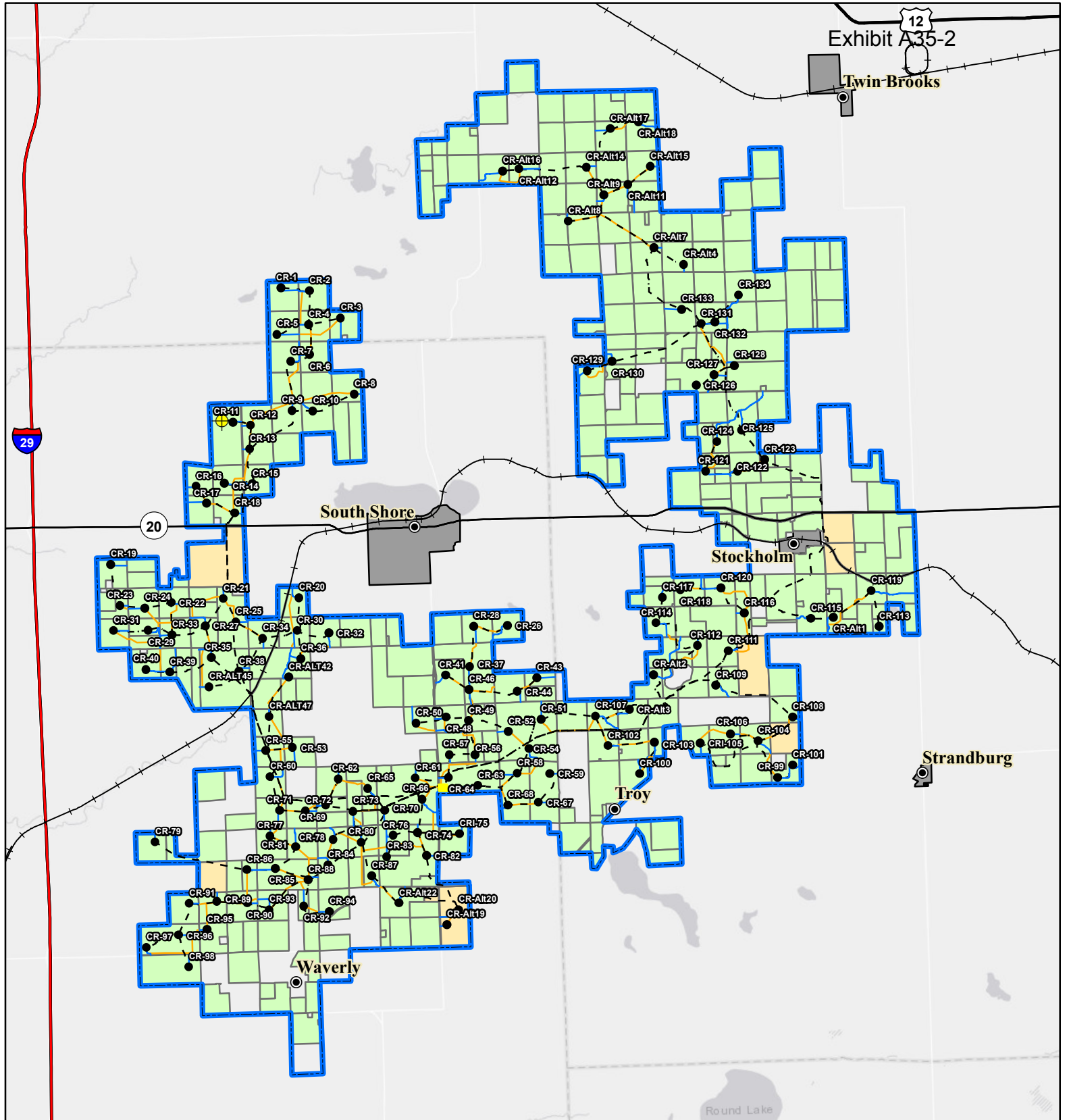
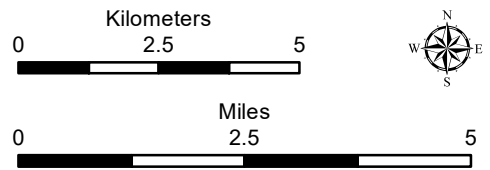
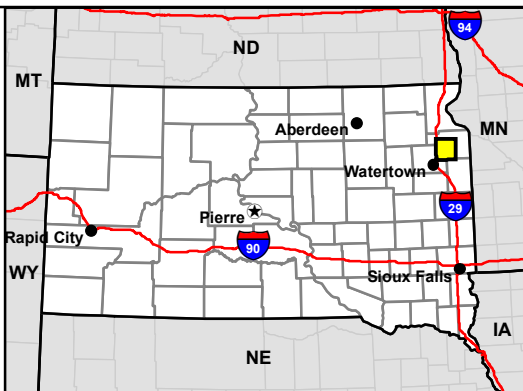


Figure 3. Project Map
Crowned Ridge Wind Farm

- MET Tower
- Turbine
- City
- Access Road
- Collector Line
- Crane Path
- Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- O&M Facility/
Substation
- Town Boundary
- Project Boundary
- Lease Status**
- Leased, Signed
- Pending Approval



Base Map: World Light Gray Canvas Base
Sources: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Codington and Grant Counties, South Dakota

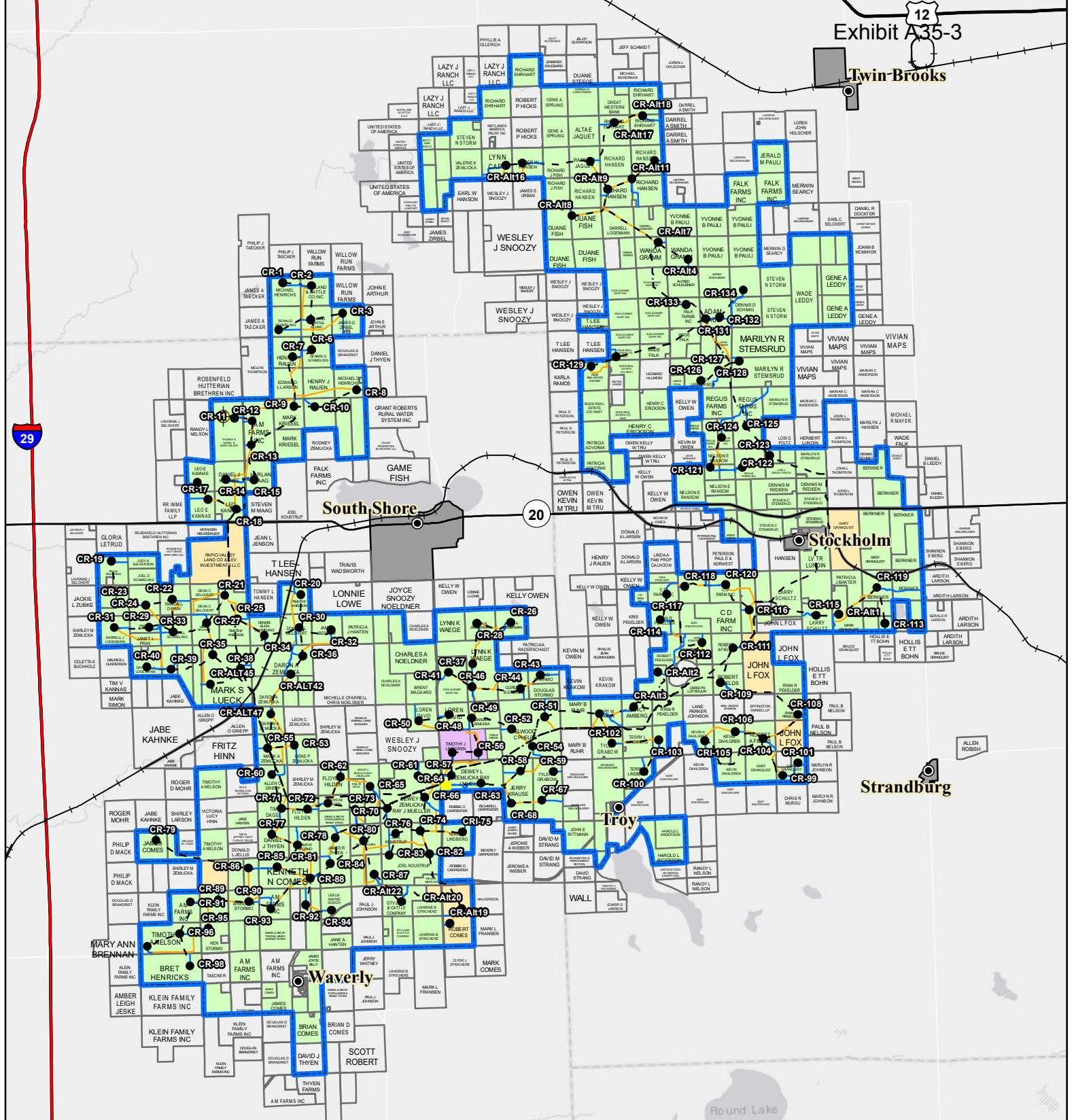
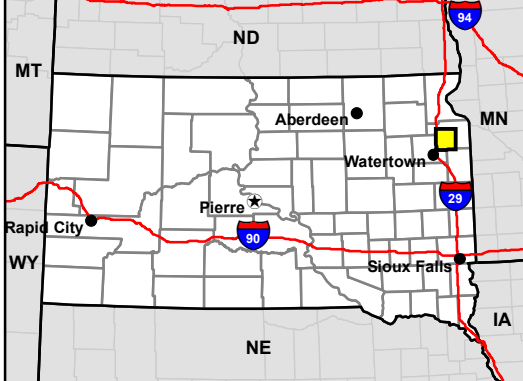


Figure 3a. Project Map
Crowned Ridge Wind Farm

- MET Tower
 - Turbine
 - City
 - Access Road
 - Collector Line
 - Crane Path
 - Railroad
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - O&M Facility/ Substation
 - Town Boundary
 - Project Boundary
 - Parcel Boundary
- Lease Status**
- Leased, Signed
 - Pending Approval
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 2.5 5

Miles
0 2.5 5

Base Map: World Light Gray Canvas Base
Sources: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Codington and Grant Counties, South Dakota

016113 Page 000001 **SWCA**
ENVIRONMENTAL CONSULTANTS

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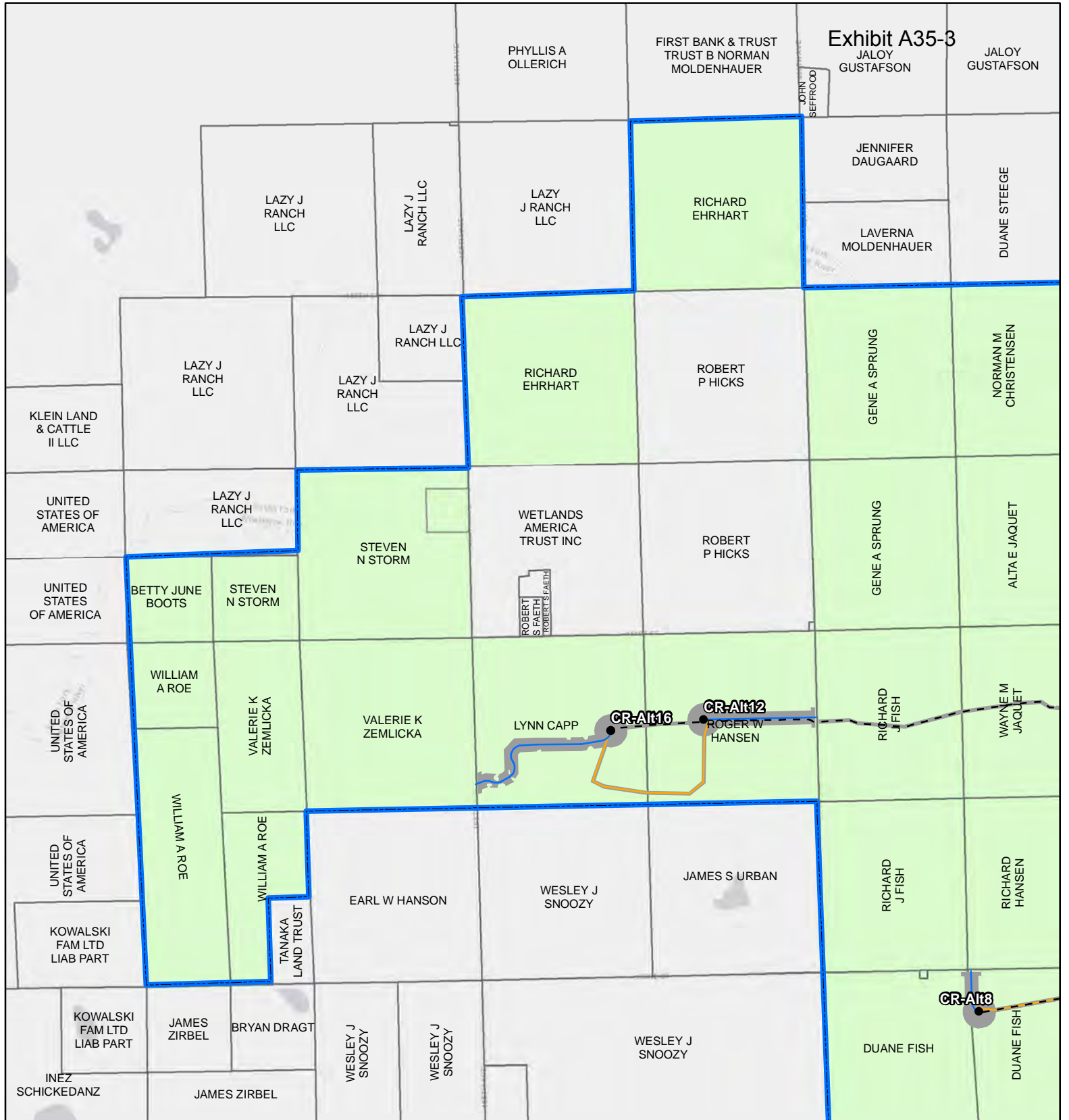
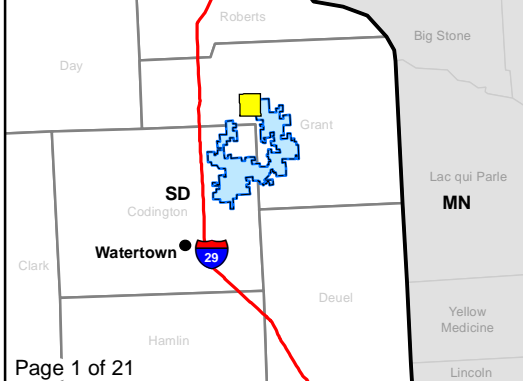


Exhibit A35-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Antelope Valley (1973), Twin Brooks (1973)
 Township/Range: T120N, R51W, T120N, R50W
 Grant County, South Dakota

016114 Page 000002 **SWCA**
 ENVIRONMENTAL CONSULTANTS

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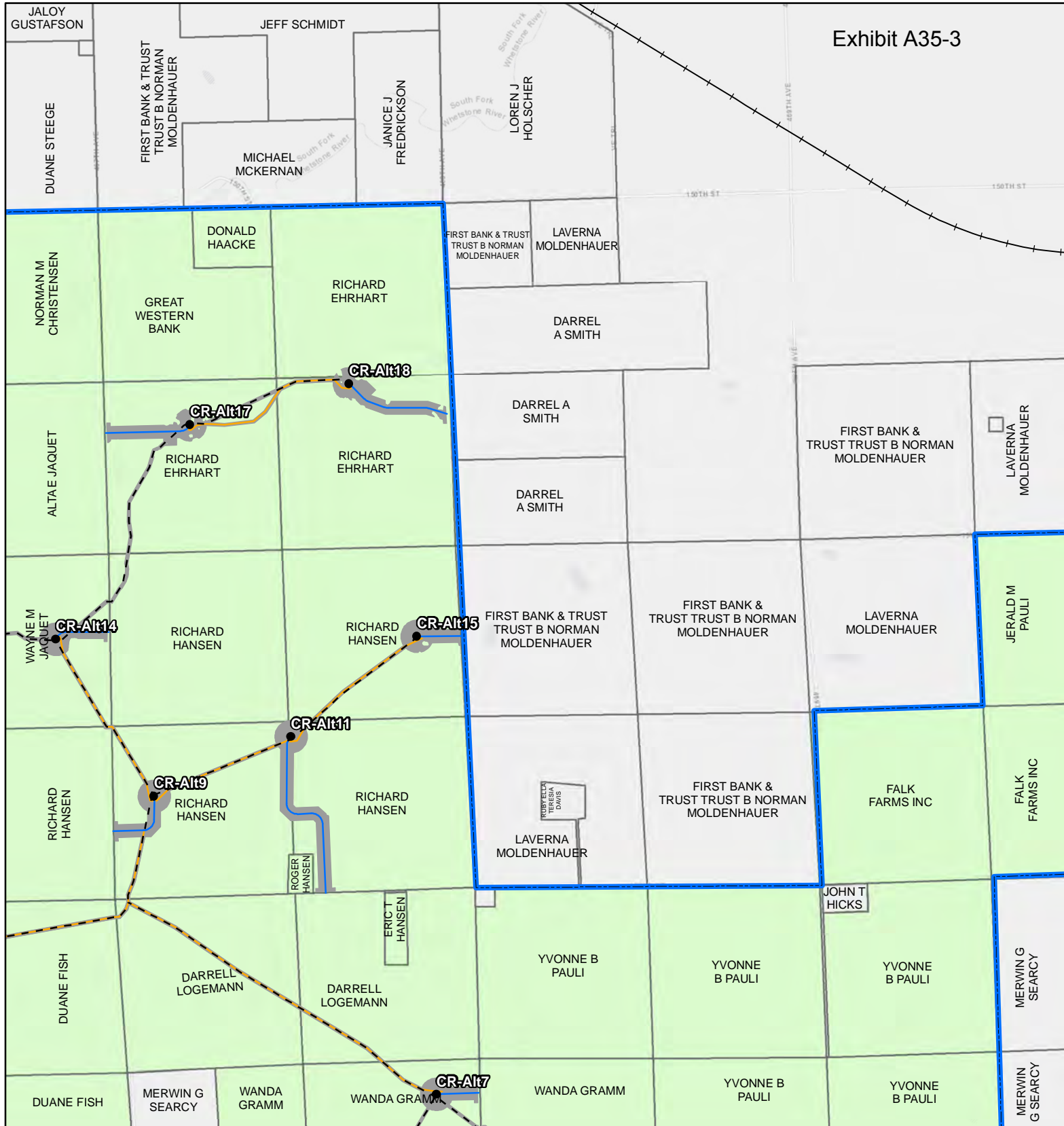
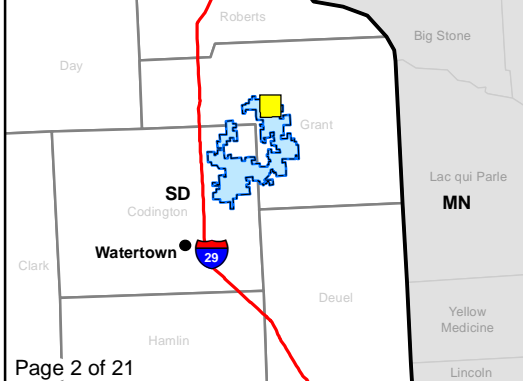


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
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 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
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 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Twin Brooks (1973)

Township/Range: T120N, R50W

Grant County, South Dakota

016115

Page 000003

Projection: NAD 1983 UTM Zone 14N

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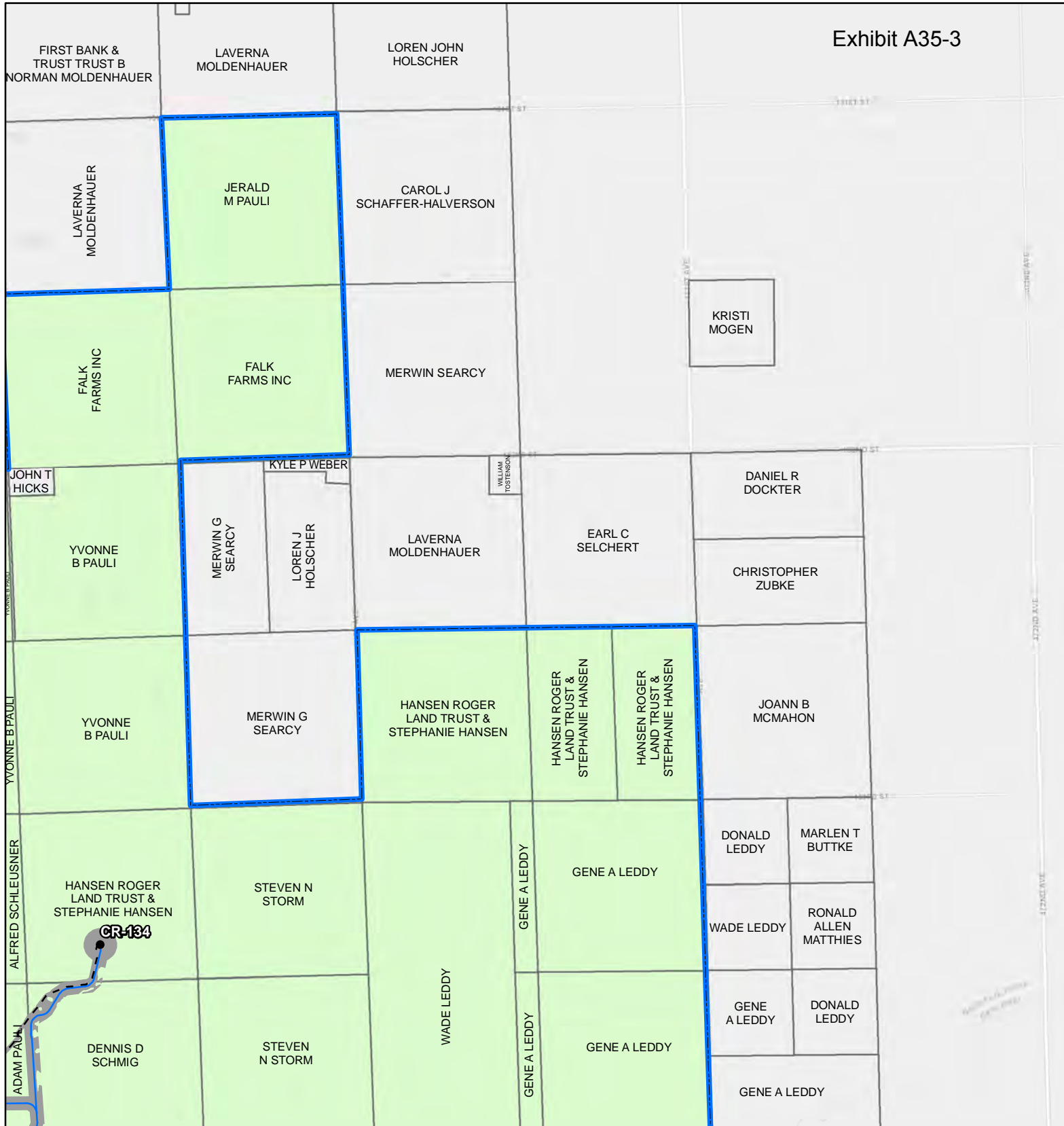


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
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 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Twin Brooks (1973)

Township/Range: T120N, R50W

Grant County, South Dakota

016116

Page 000004

Projection: NAD 1983 UTM Zone 14N

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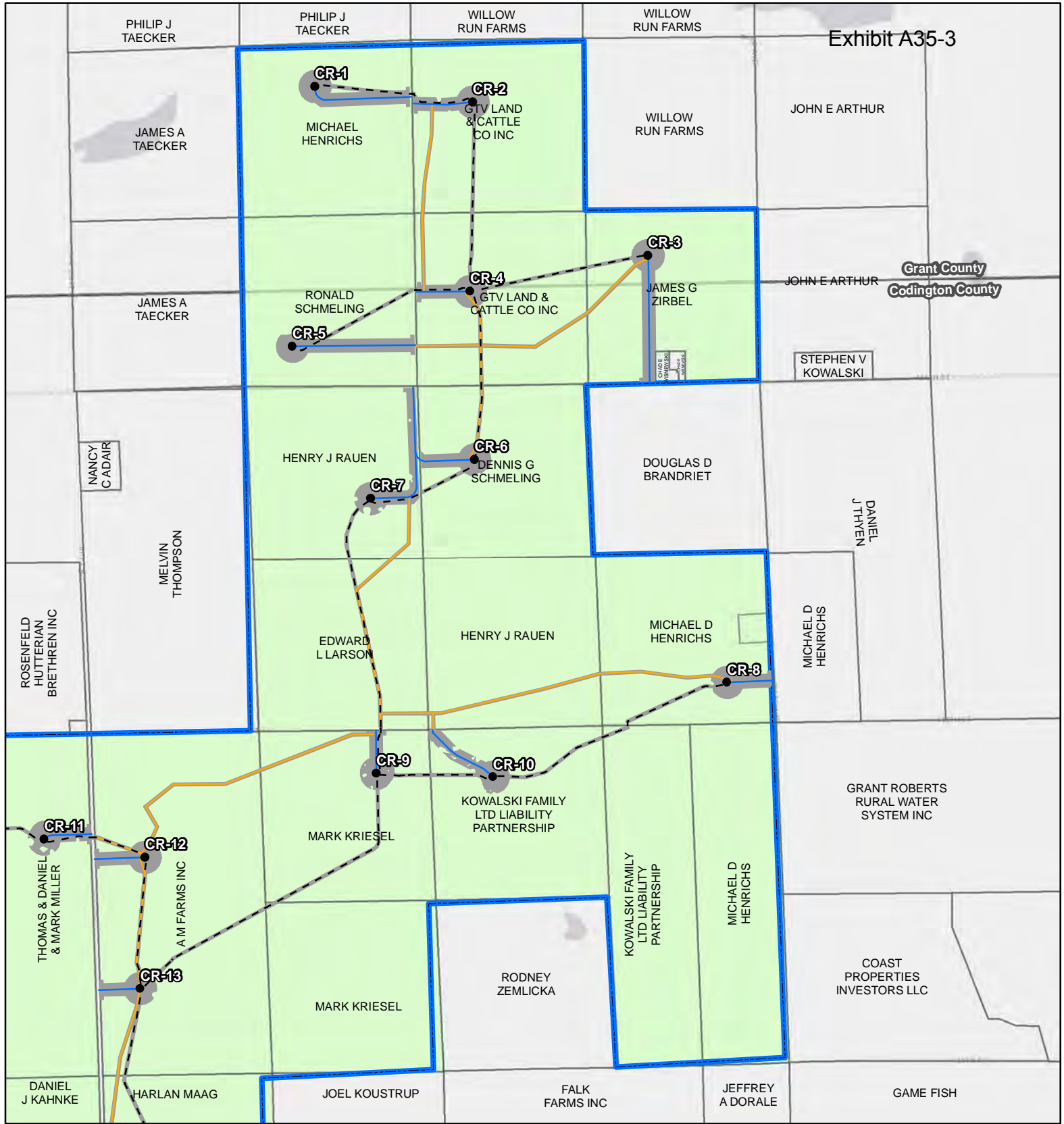


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
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 - Railroad
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0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Antelope Valley (1973), South Shore (1973)
 Township/Range: T120N, R51W, **016117**
 T119N, R51W,
 Codington and Grant Counties, South Dakota

Page 000005 **SWCA**
 ENVIRONMENTAL CONSULTANTS

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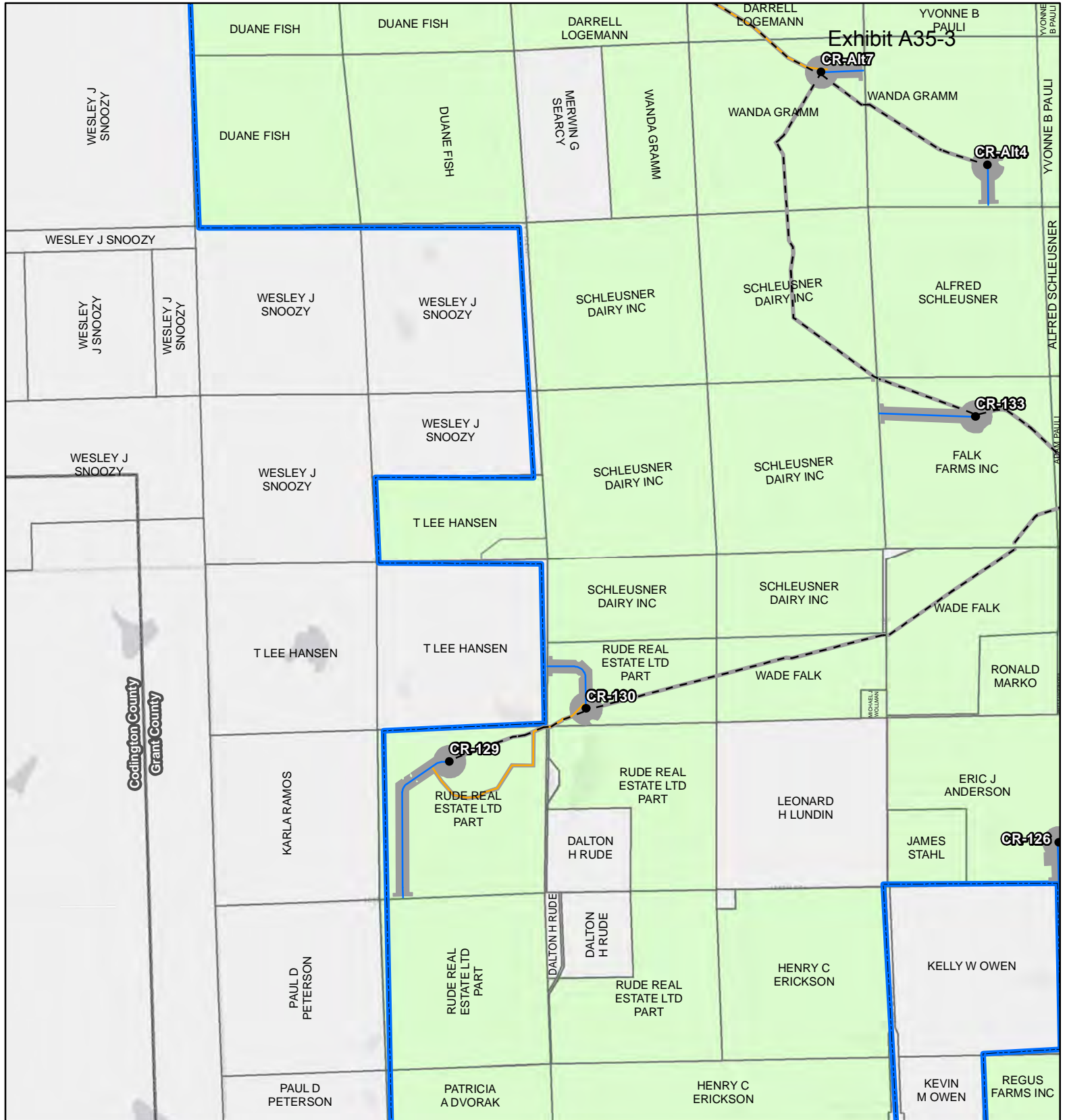


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
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- Lease Status**
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Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Antelope Valley (1973), Twin Brooks (1973)
 Township/Range: T120N, R51W, T120N, R50W, T119N, R51W, T119N, R50W
 Codrington and Grant Counties, South Dakota

016118 Page 000006 **SWCA**
 ENVIRONMENTAL CONSULTANTS

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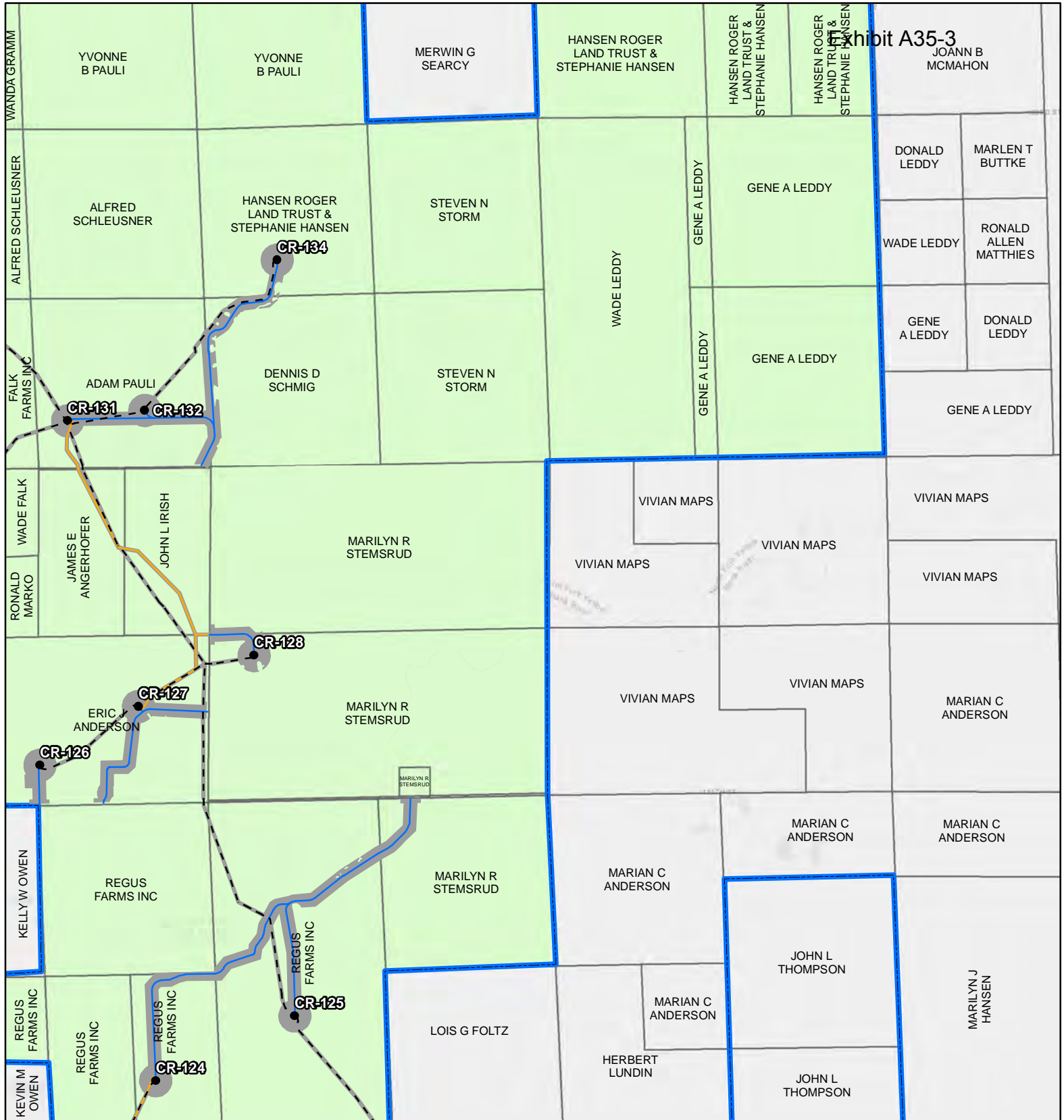
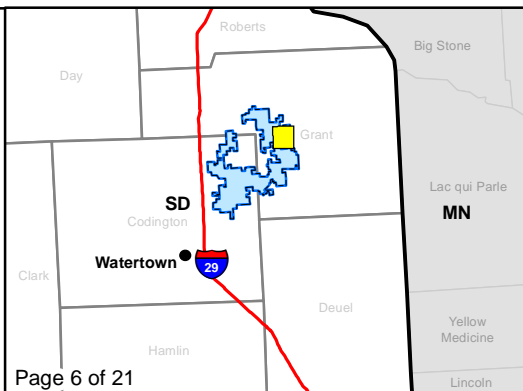


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
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 - Access Road
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 - O&M Facility/ Substation
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- Lease Status**
- Leased, Signed
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0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Twin Brooks (1973), Stockholm (1973)
Township/Range: T120N, R50W, T119N, R50W
Grant County, South Dakota

016119

Page 000007 **SWCA**
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Projection: NAD 1983 UTM Zone 14N

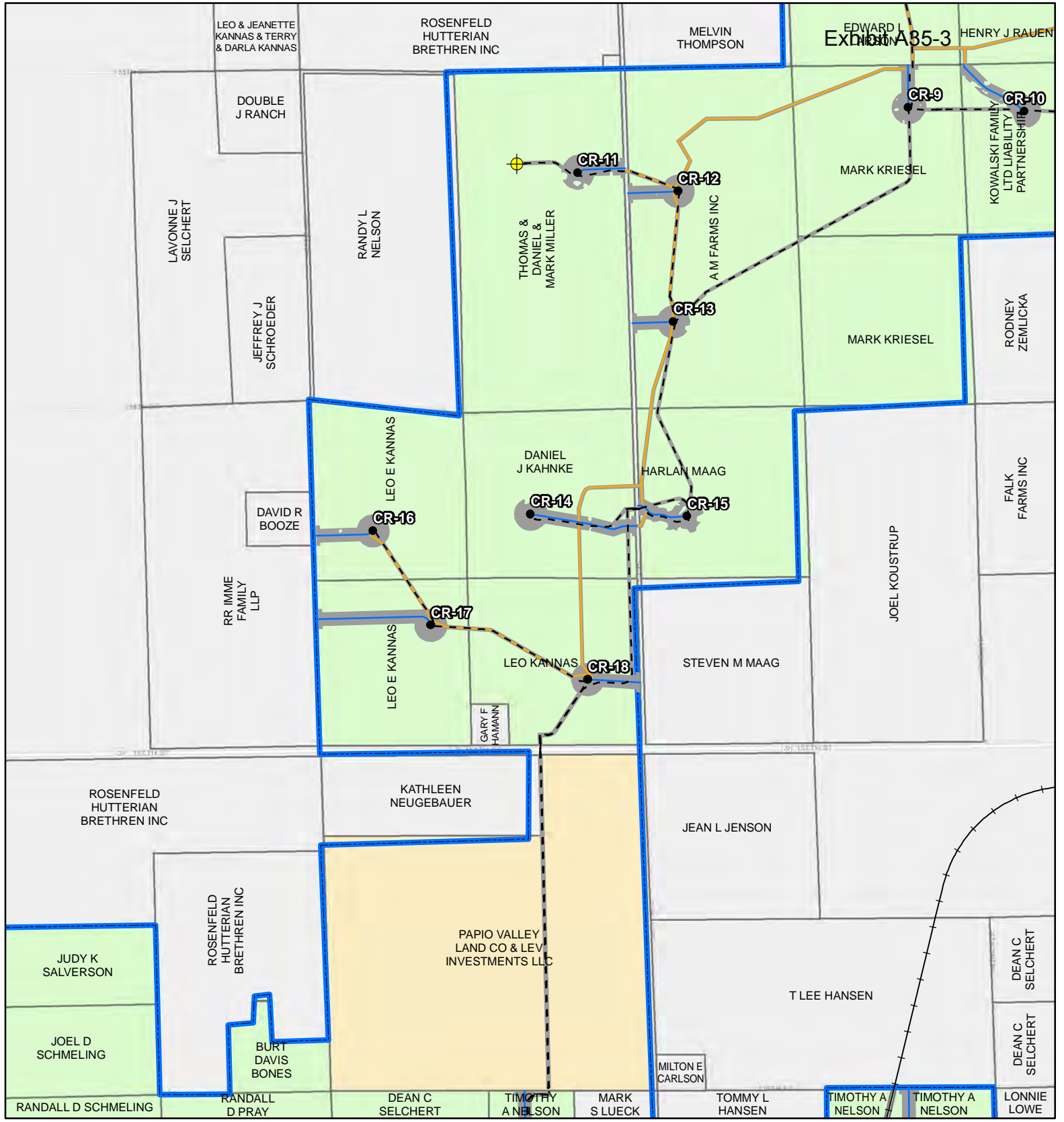


Exhibit A85-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
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 - Construction Easement
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Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Still Lake NE (1970), Antelope Valley (1973), Still Lake SE (1970), South Shore (1973)
Township/Range: T119N, R52W, T119N, R51W
Codington County, South Dakota

016120
Page 000008
SWCA ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

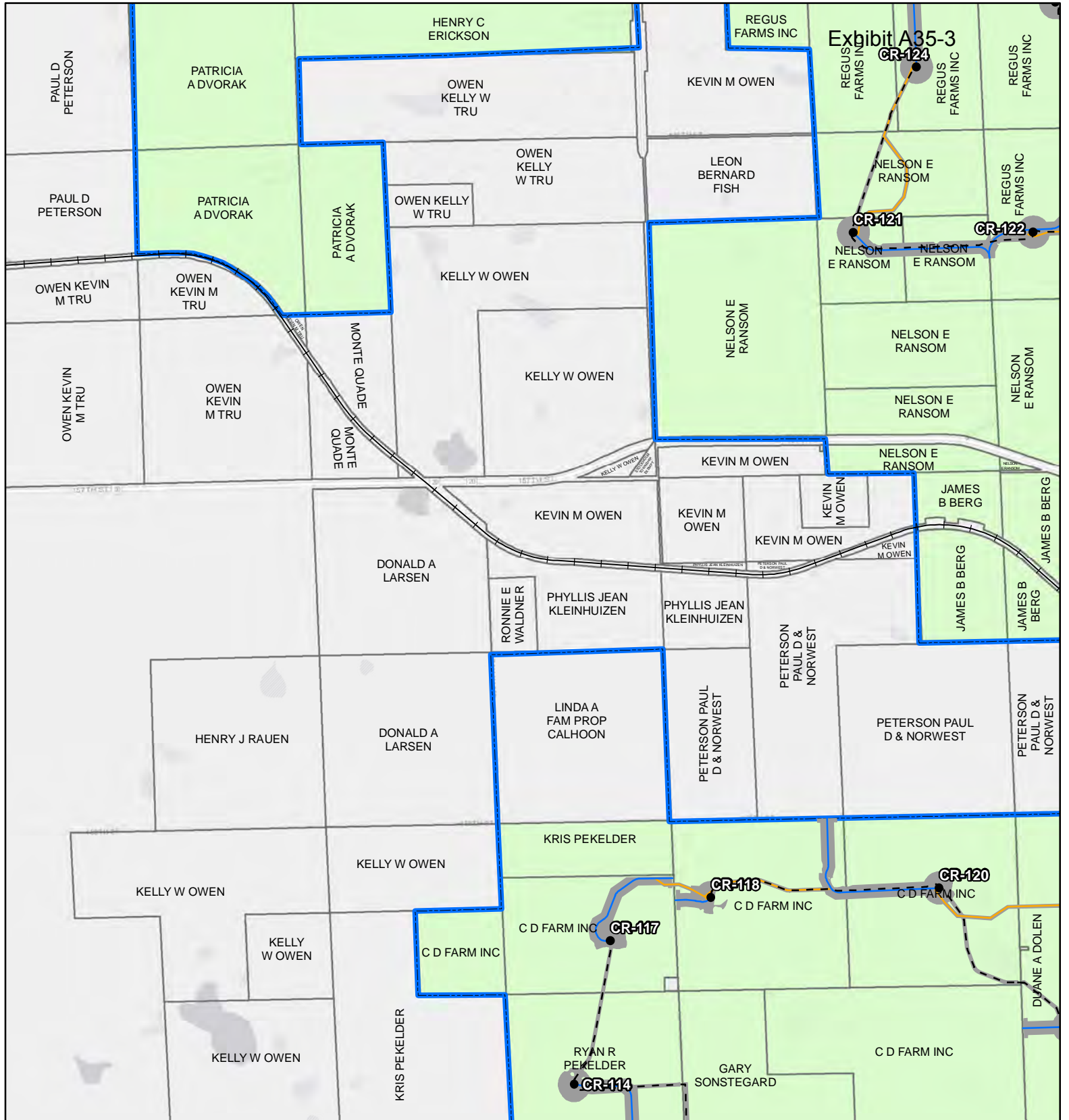
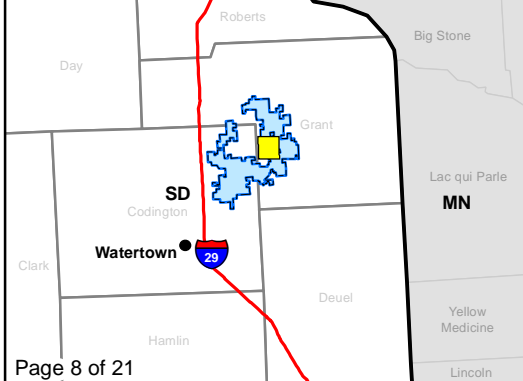


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
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Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973), Antelope Valley (1973), Twin Brooks (1973), South Shore (1973)
Township/Range: T119N, R50W

Grant County, South Dakota 016121
Page 000009 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

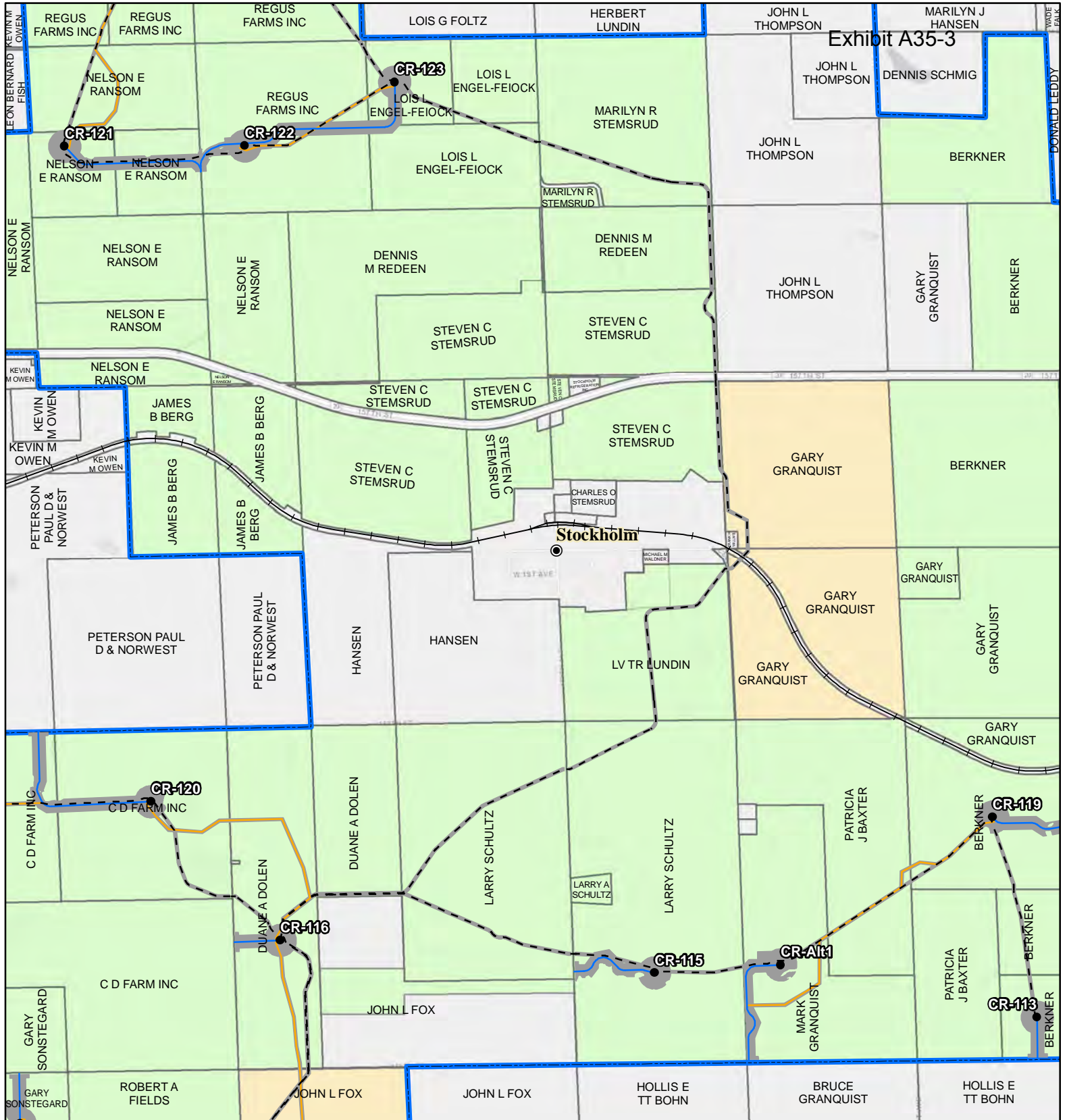
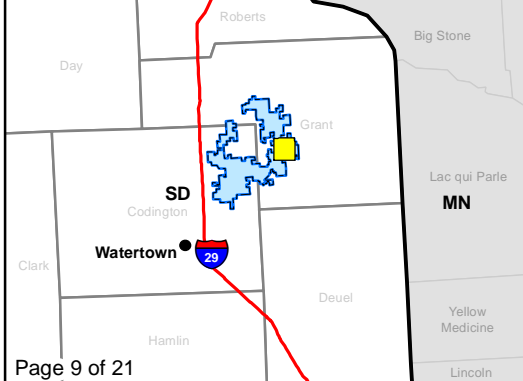


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
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- Lease Status**
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 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973)

Township/Range: T119N, R50W

Grant County, South Dakota

016122

Page 000010

Projection: NAD 1983 UTM Zone 14N

SWCA
ENVIRONMENTAL CONSULTANTS

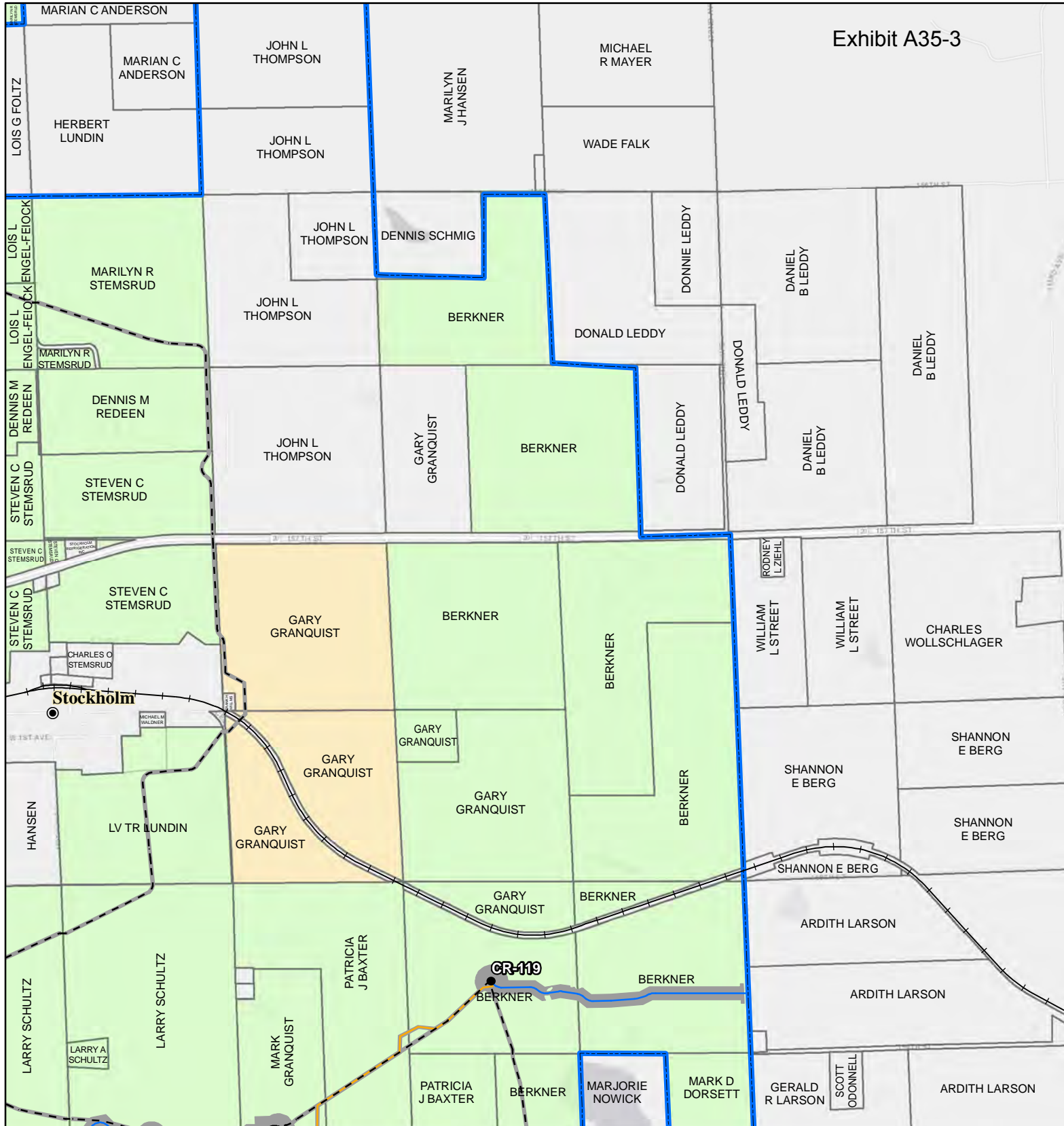
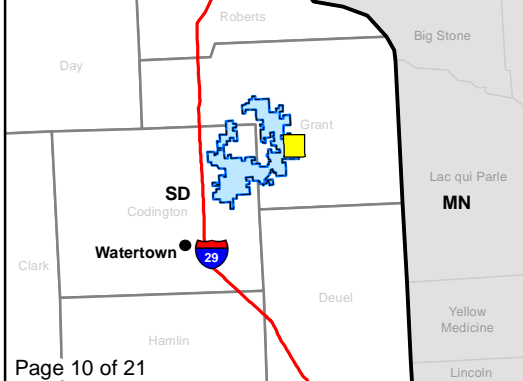


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - MET Tower
 - City
 - Access Road
 - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - Parcel Boundary
 - Project Boundary
 - County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Twin Brooks (1973), Stockholm (1973)
 Township/Range: T119N, R50W, T119N, R49W
 Grant County, South Dakota

016123

Page 000011 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

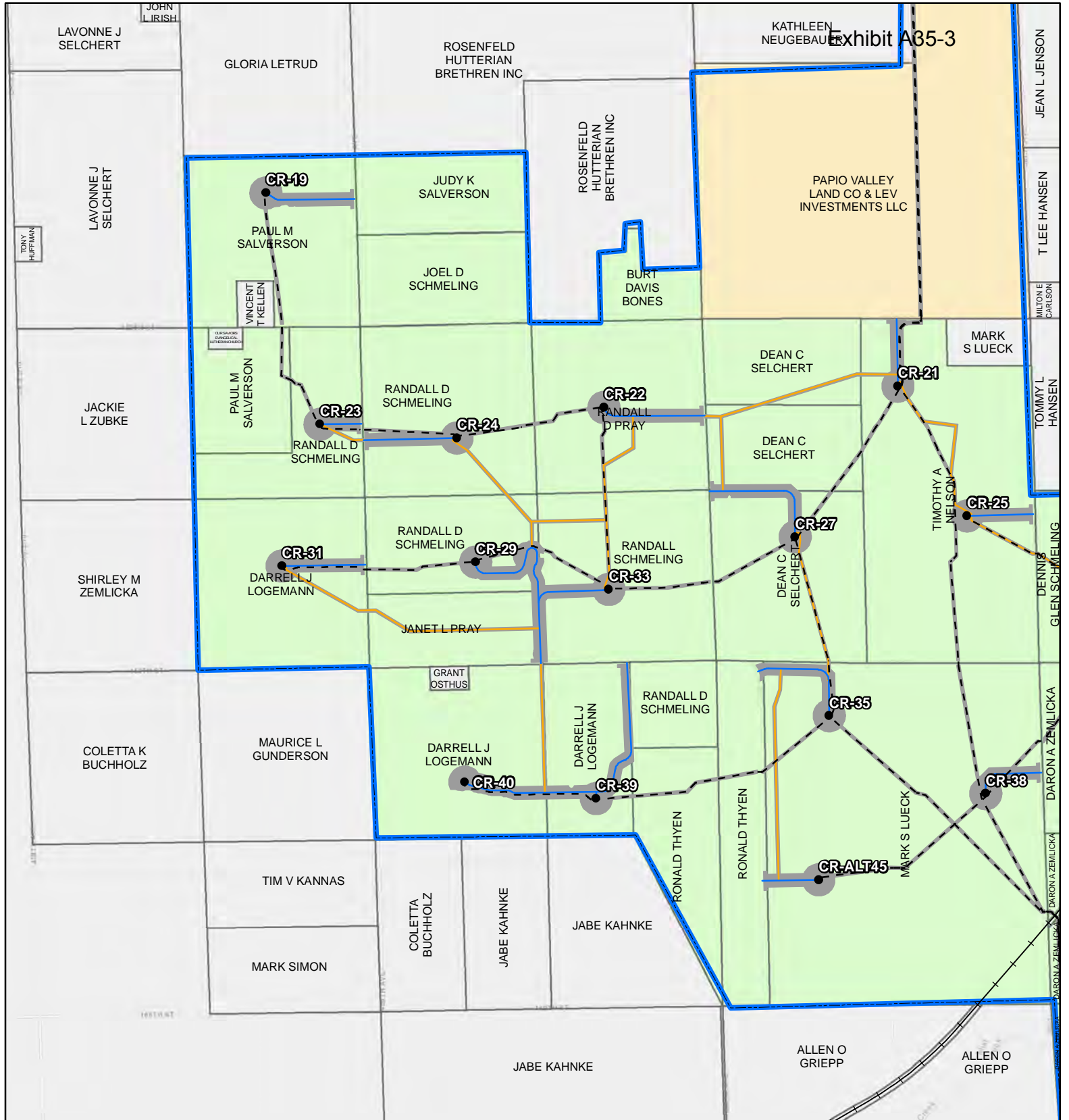
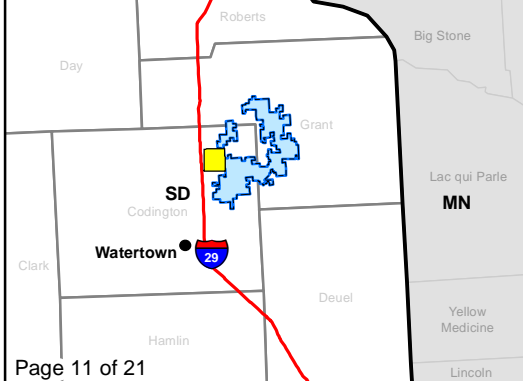


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Still Lake SE (1970), South Shore (1973)
Township/Range: T119N, R52W, T119N, R51W, T118N, R52W, T118N, R51W
Codington County, South Dakota **016124**

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ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

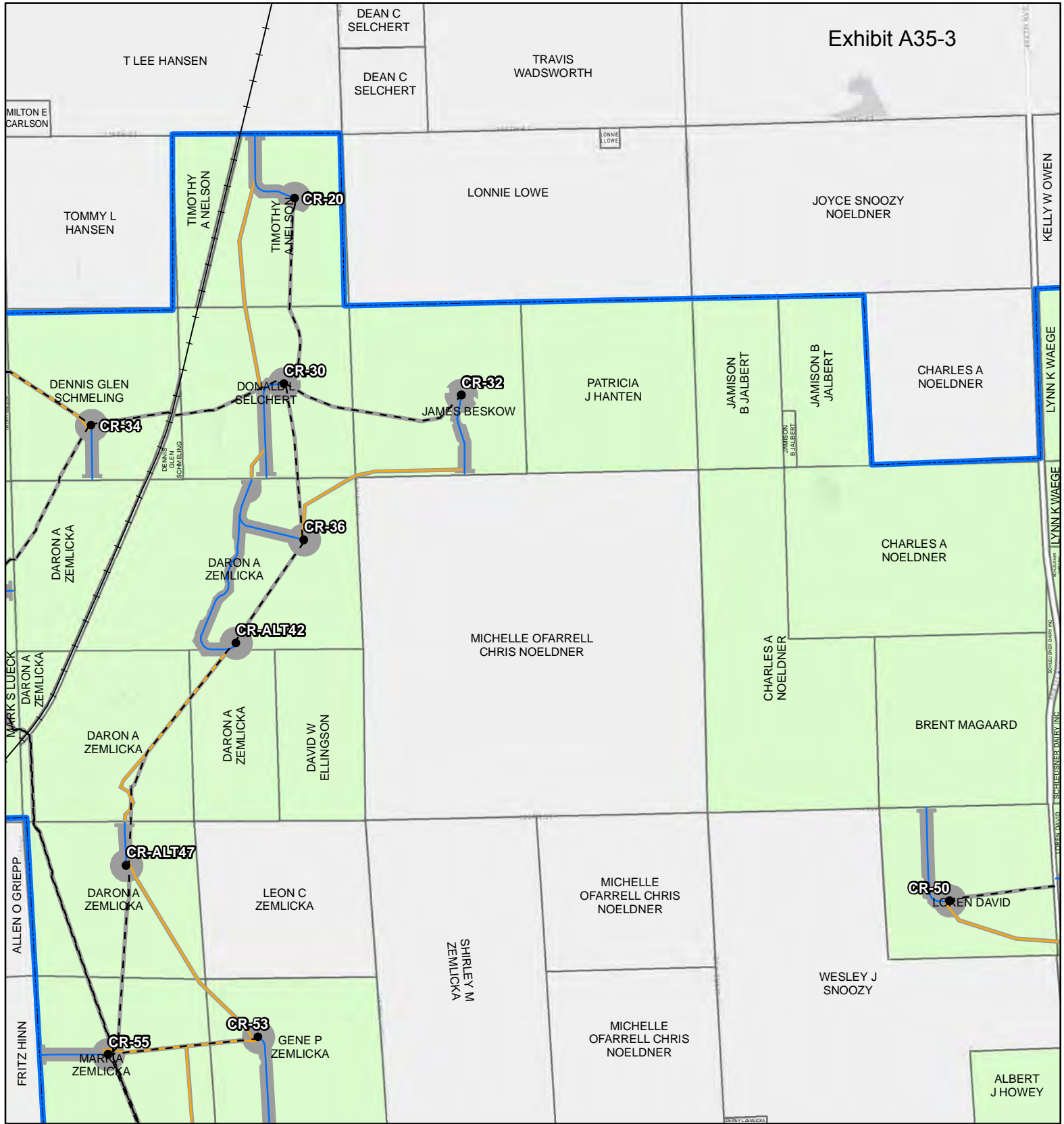
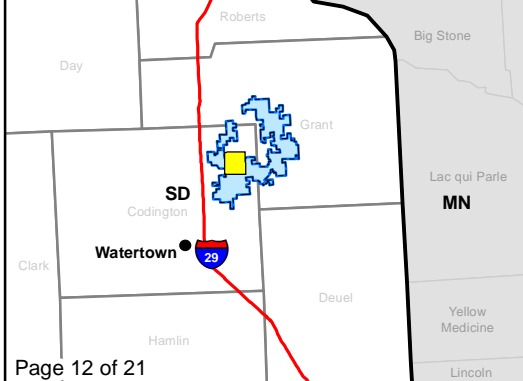


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: South Shore (1973)

Township/Range: T119N, R51W, T118N, R51W
Codington County, South Dakota

016125

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Projection: NAD 1983 UTM Zone 14N

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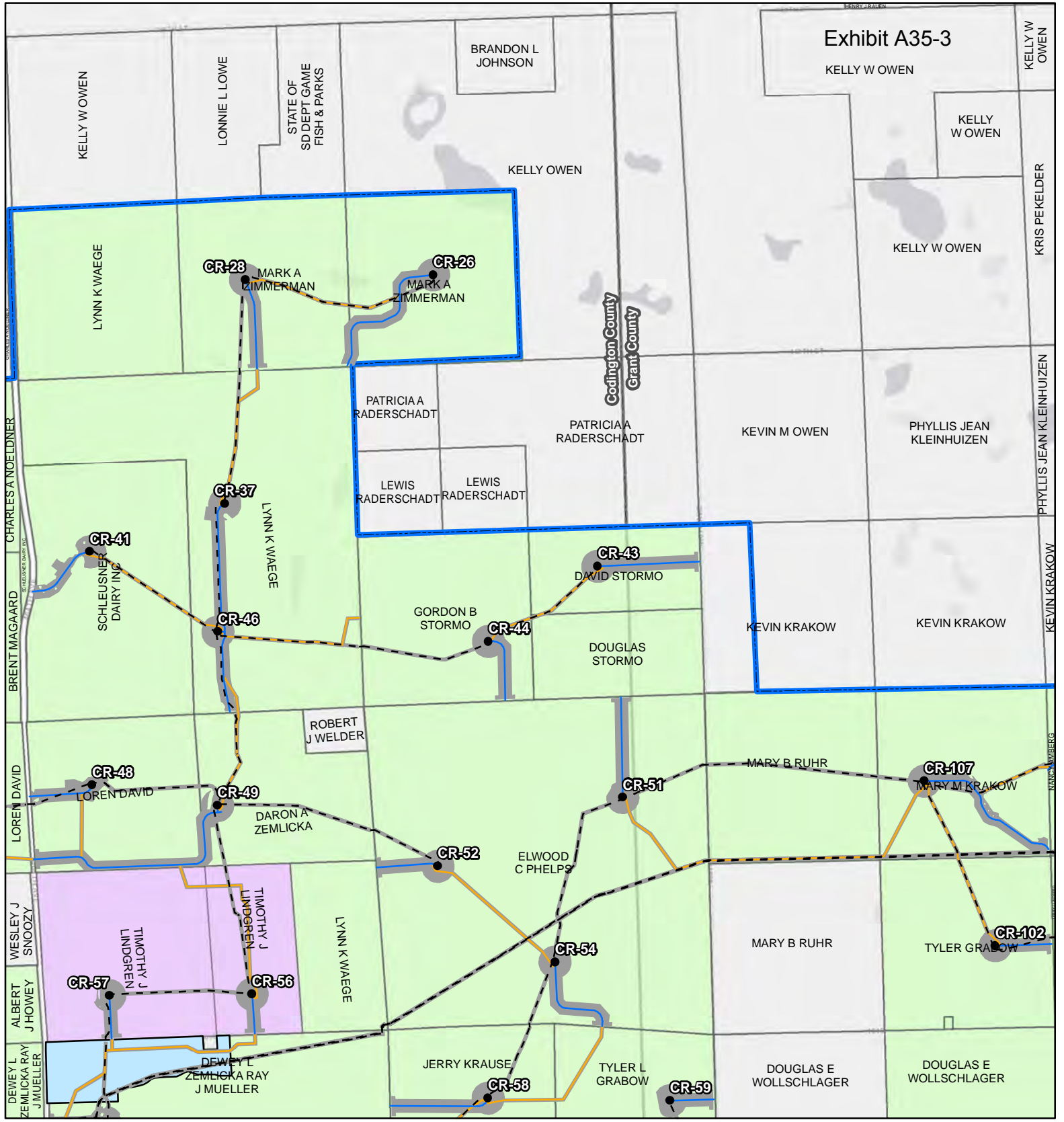
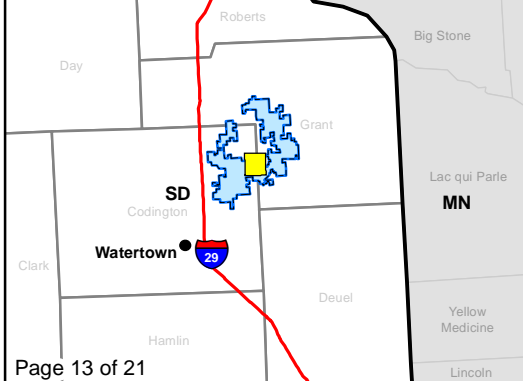


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
 0 0.5 1
 Miles
 0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Stockholm (1973)
 Township/Range: T119N, R51W, T119N, R50W, T118N, R51W, T118N, R50W
 Codrington and Grant Counties, South Dakota
016126 Page 000014 **SWCA**
 ENVIRONMENTAL CONSULTANTS
 Projection: NAD 1983 UTM Zone 14N

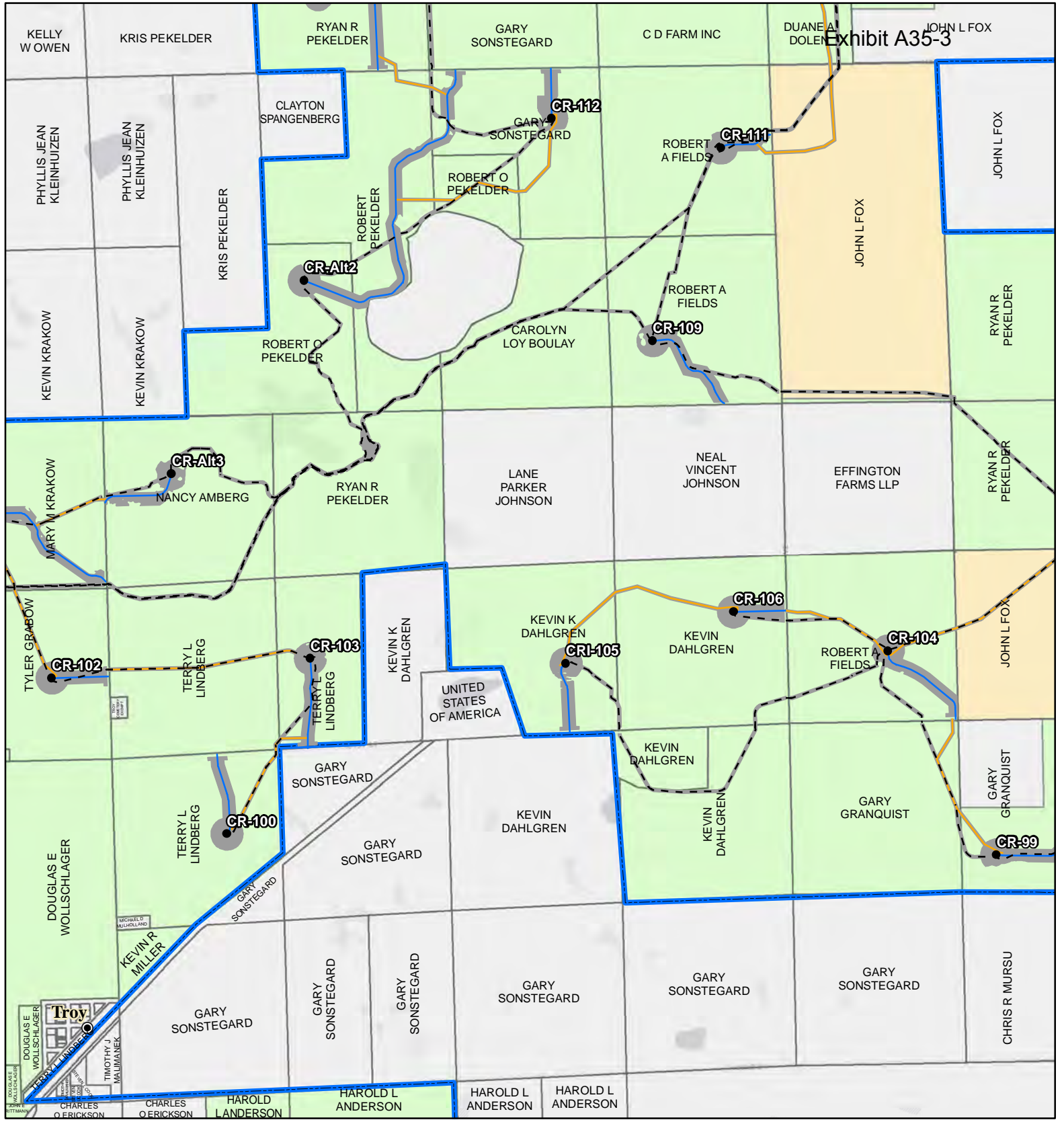
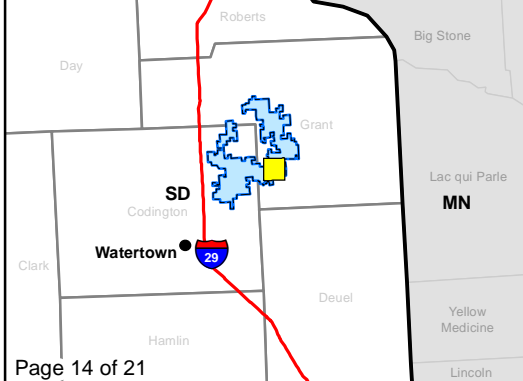


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973)

Township/Range: T119N, R50W, **016127**
T118N, R50W
Grant County, South Dakota

Page 000015 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

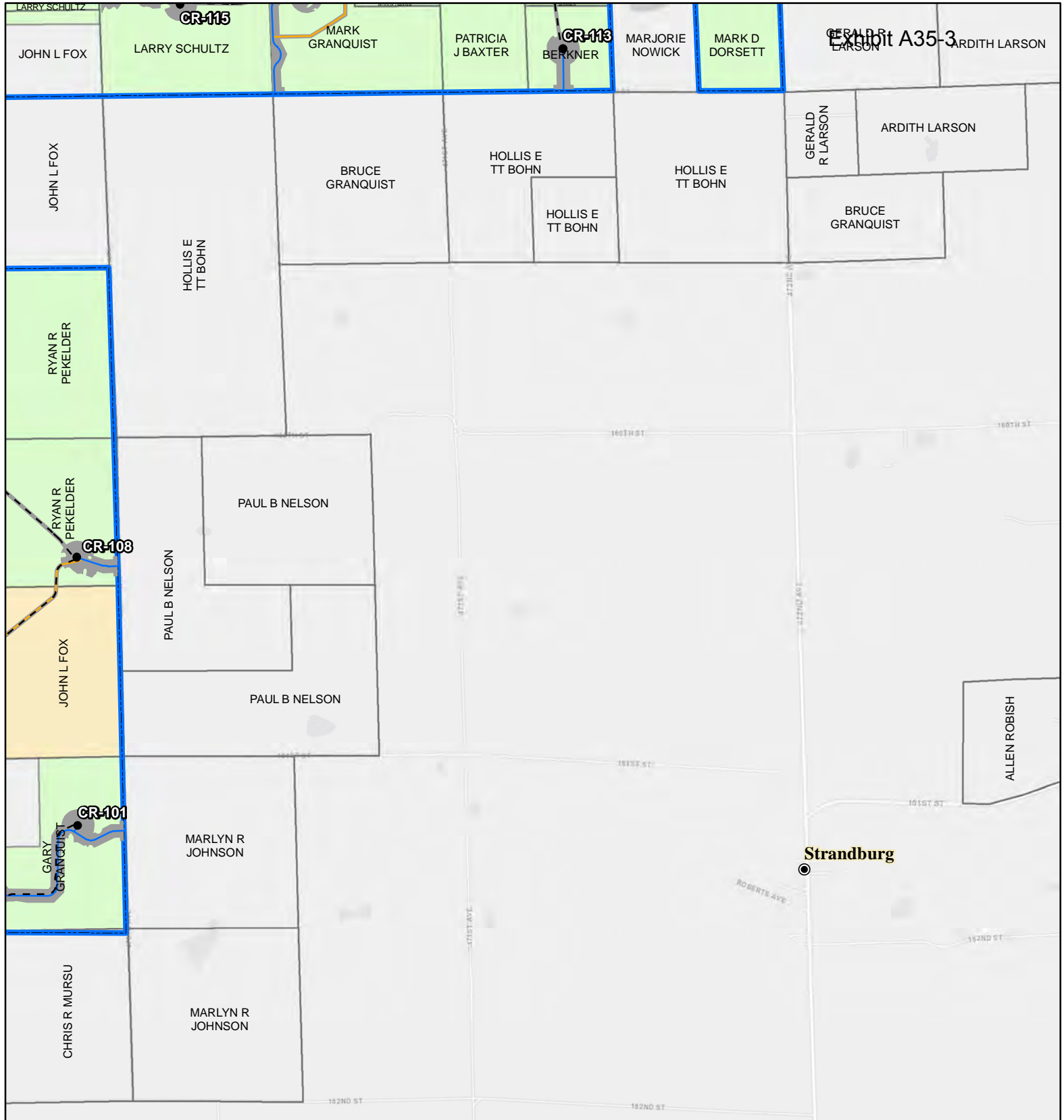


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973)

Township/Range: T119N, R50W, T118N, R50W
Grant County, South Dakota

016128

Page 000016

Projection: NAD 1983 UTM Zone 14N

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ENVIRONMENTAL CONSULTANTS

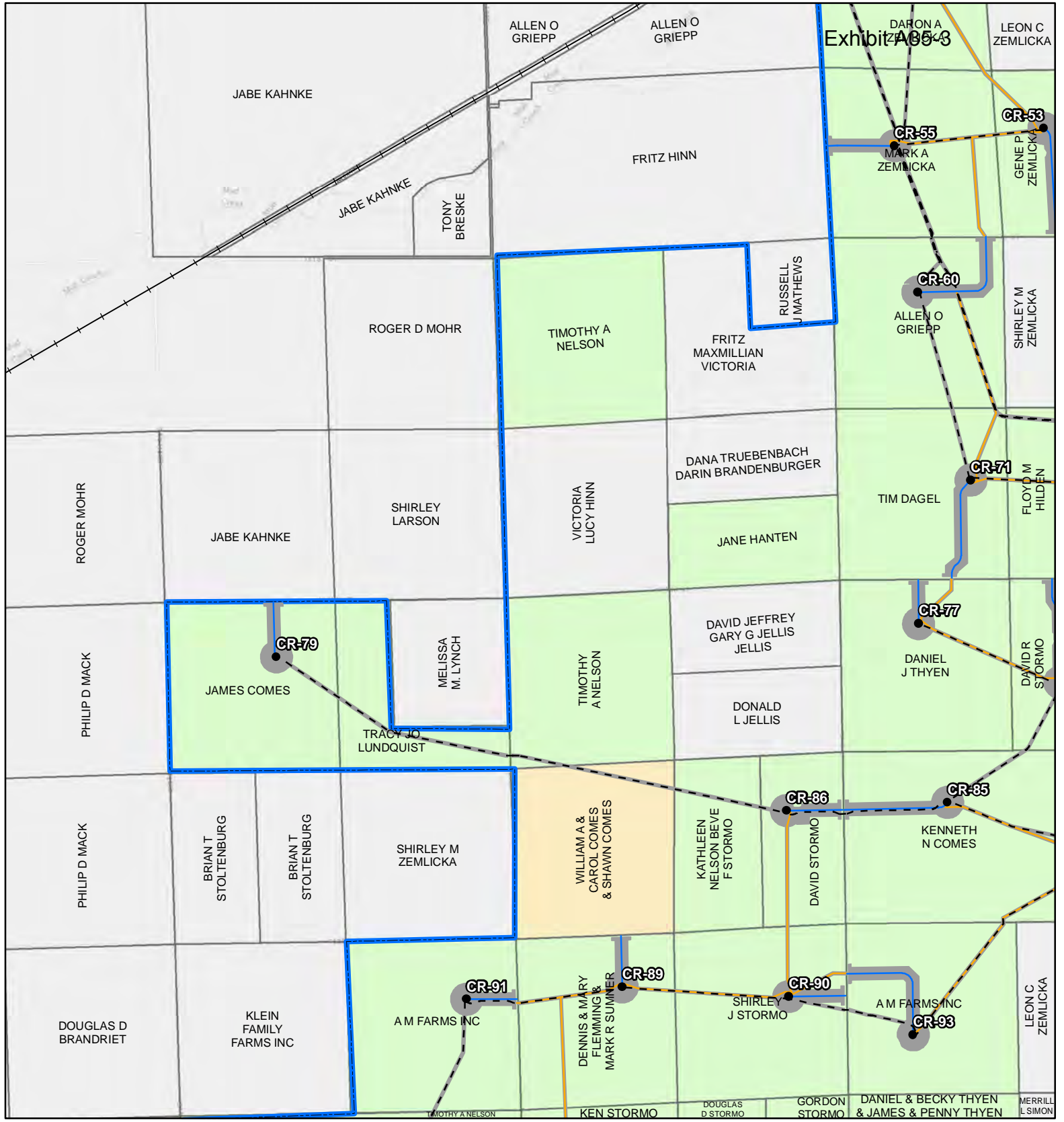


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Still Lake SE (1970), South Shore (1973)
Township/Range: T118N, R52W, T118N, R51W
Codington County, South Dakota

016129

Page 000017 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

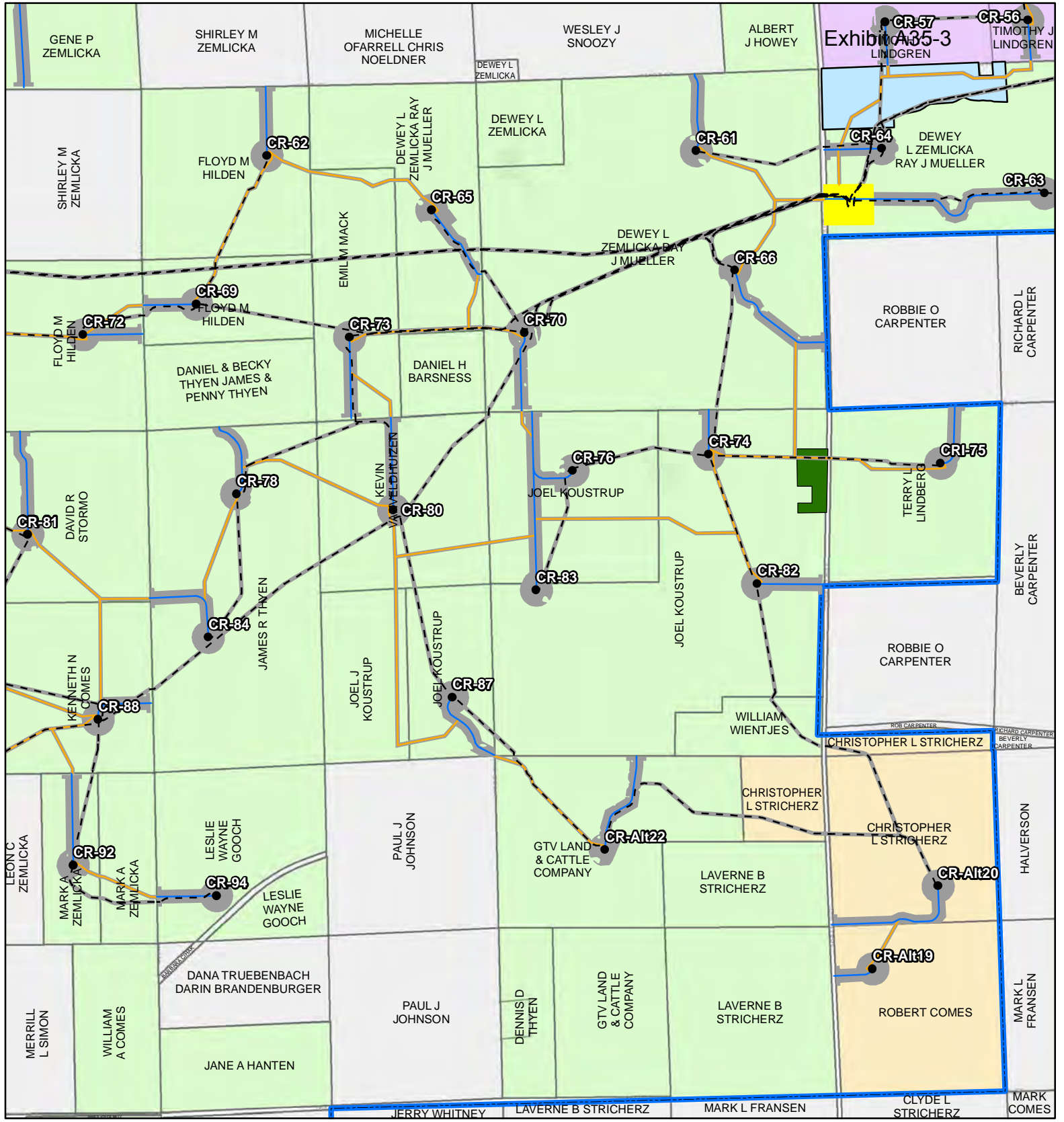
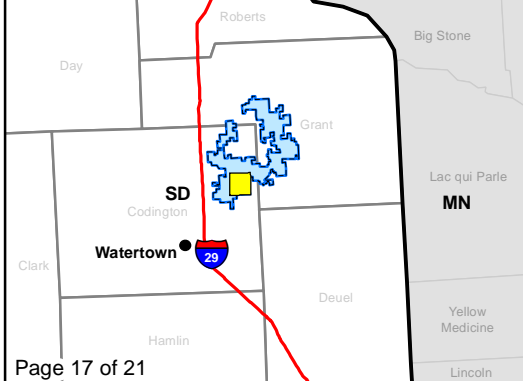


Exhibit A35-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: South Shore (1973)

Township/Range: T118N, R51W 016130

Codington County, South Dakota

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Projection: NAD 1983 UTM Zone 14N

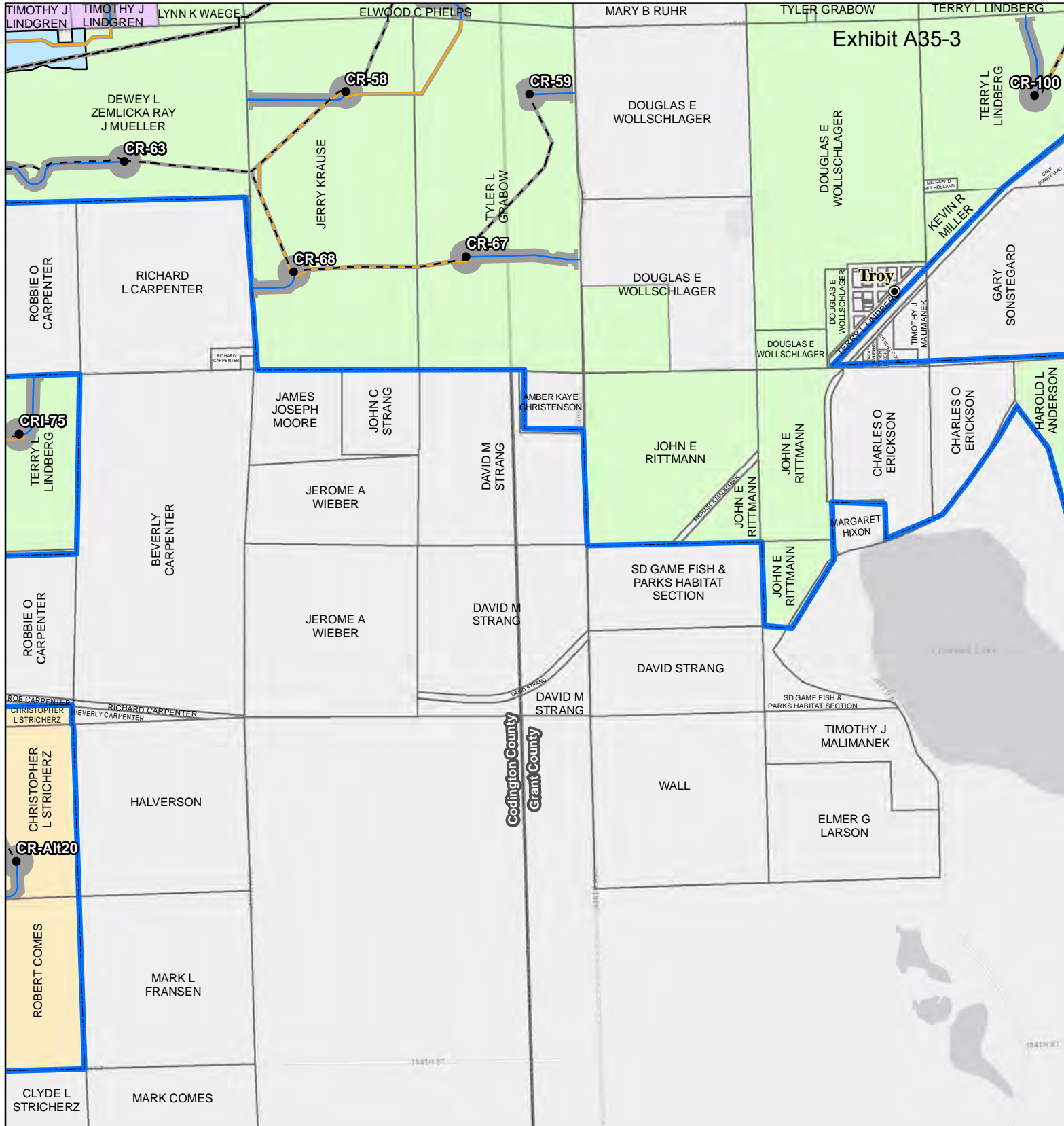


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - ▭ Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Stockholm (1973)
 Township/Range: T118N, R51W, **016131**
 T118N, R50W
 Codrington and Grant Counties, South Dakota

Page 000019 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

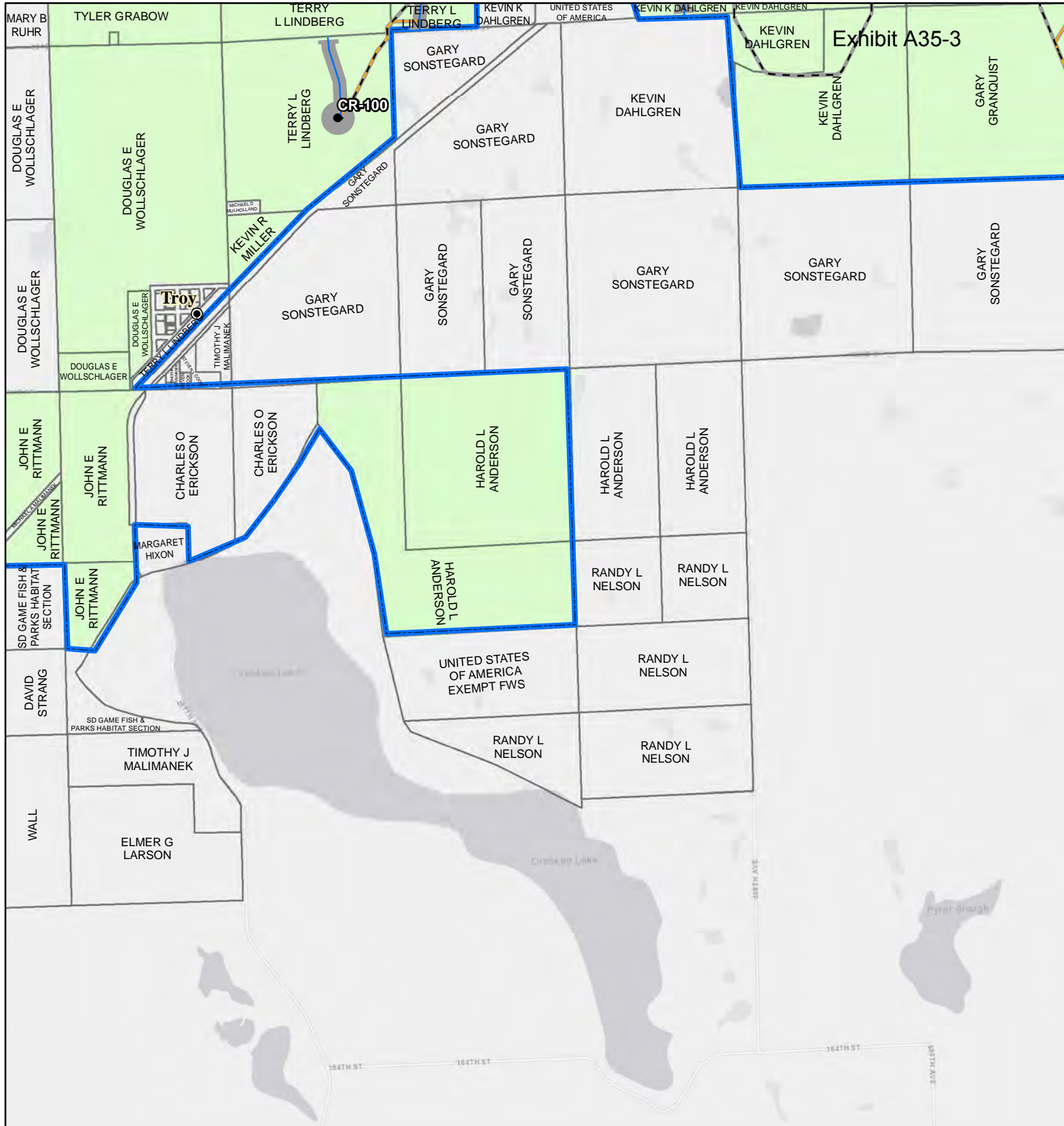


Exhibit A35-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: South Shore (1973), Stockholm (1973)
Township/Range: T118N, R50W

Grant County, South Dakota
016132
Page 000020
Projection: NAD 1983 UTM Zone 14N

SWCA
ENVIRONMENTAL CONSULTANTS

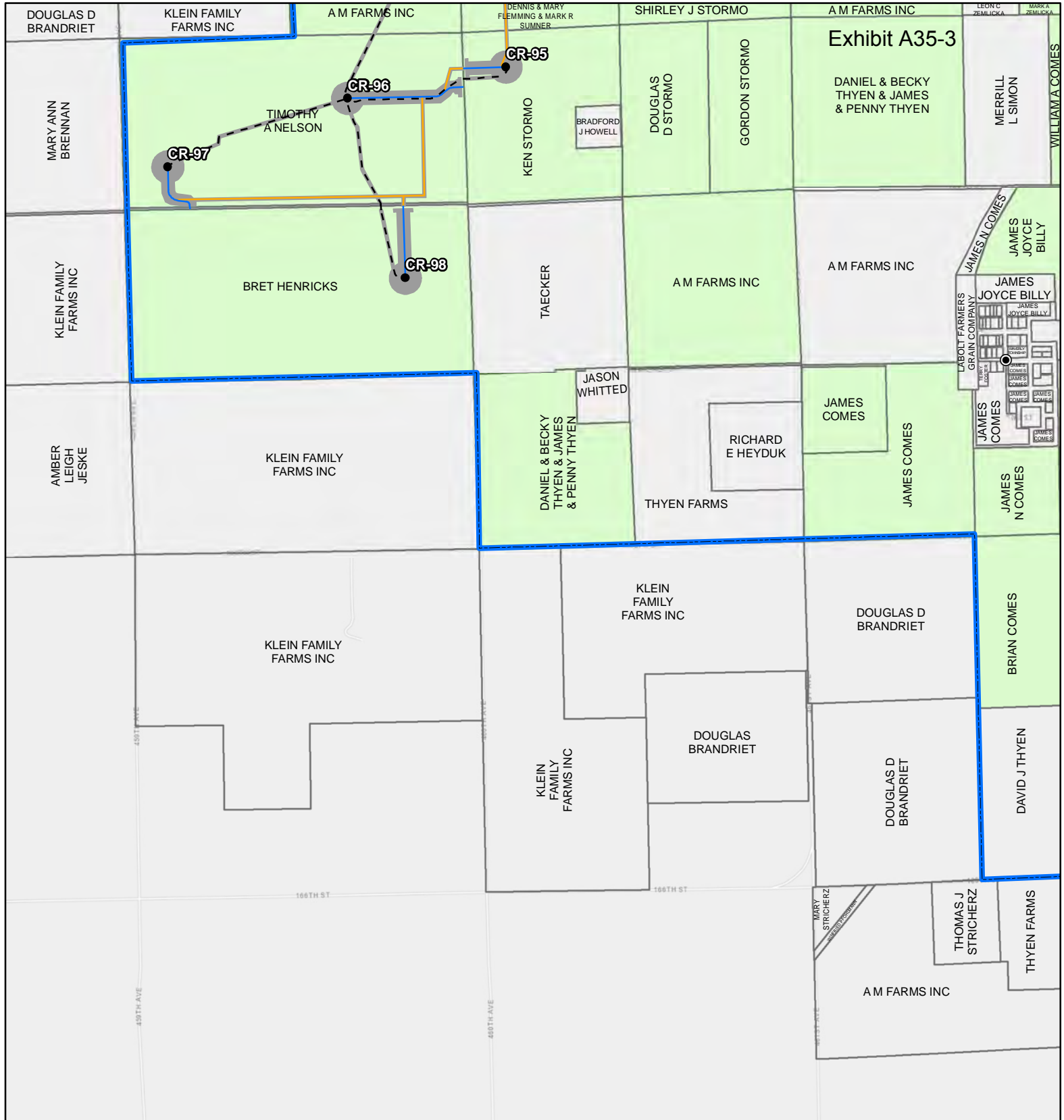
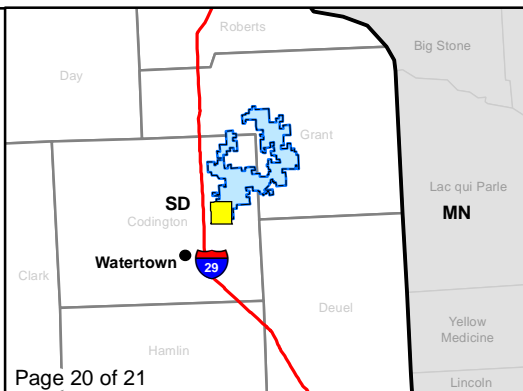


Exhibit A35-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Still Lake SE (1970), Watertown East (1969), South Shore (1973), Kranzburg (1970)
 Township/Range: T118N, R52W, T118N, R51W, T117N, R52W, T117N, R51W
 Codington County, South Dakota
016133 Page 000021 **SWCA**
 ENVIRONMENTAL CONSULTANTS
 Projection: NAD 1983 UTM Zone 14N

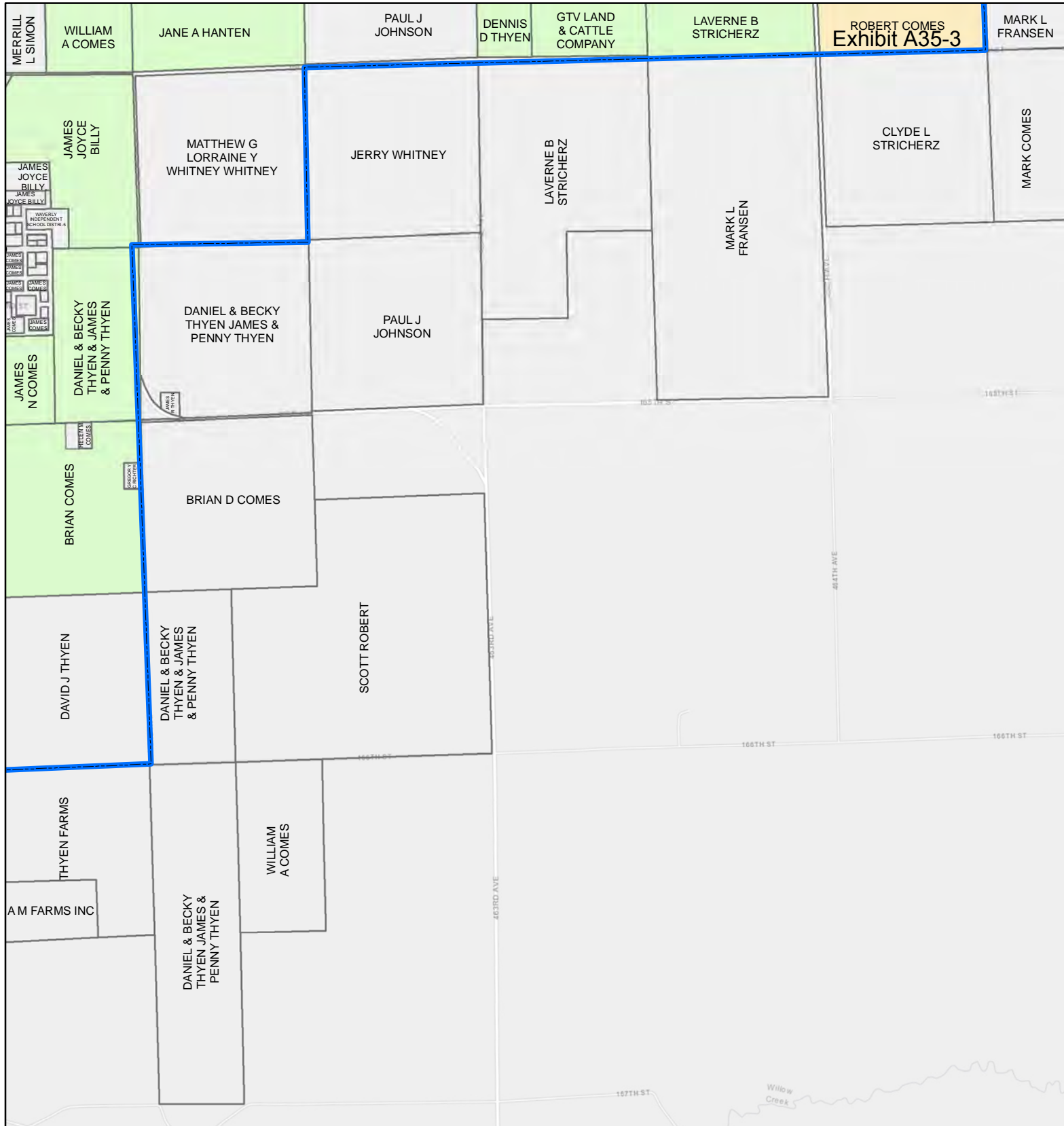
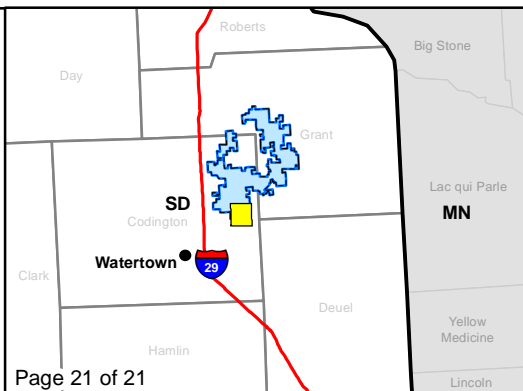


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Kranzburg (1970)
 Township/Range: T118N, R51W, T117N, R51W
 Codington County, South Dakota

016134

Page 000022 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

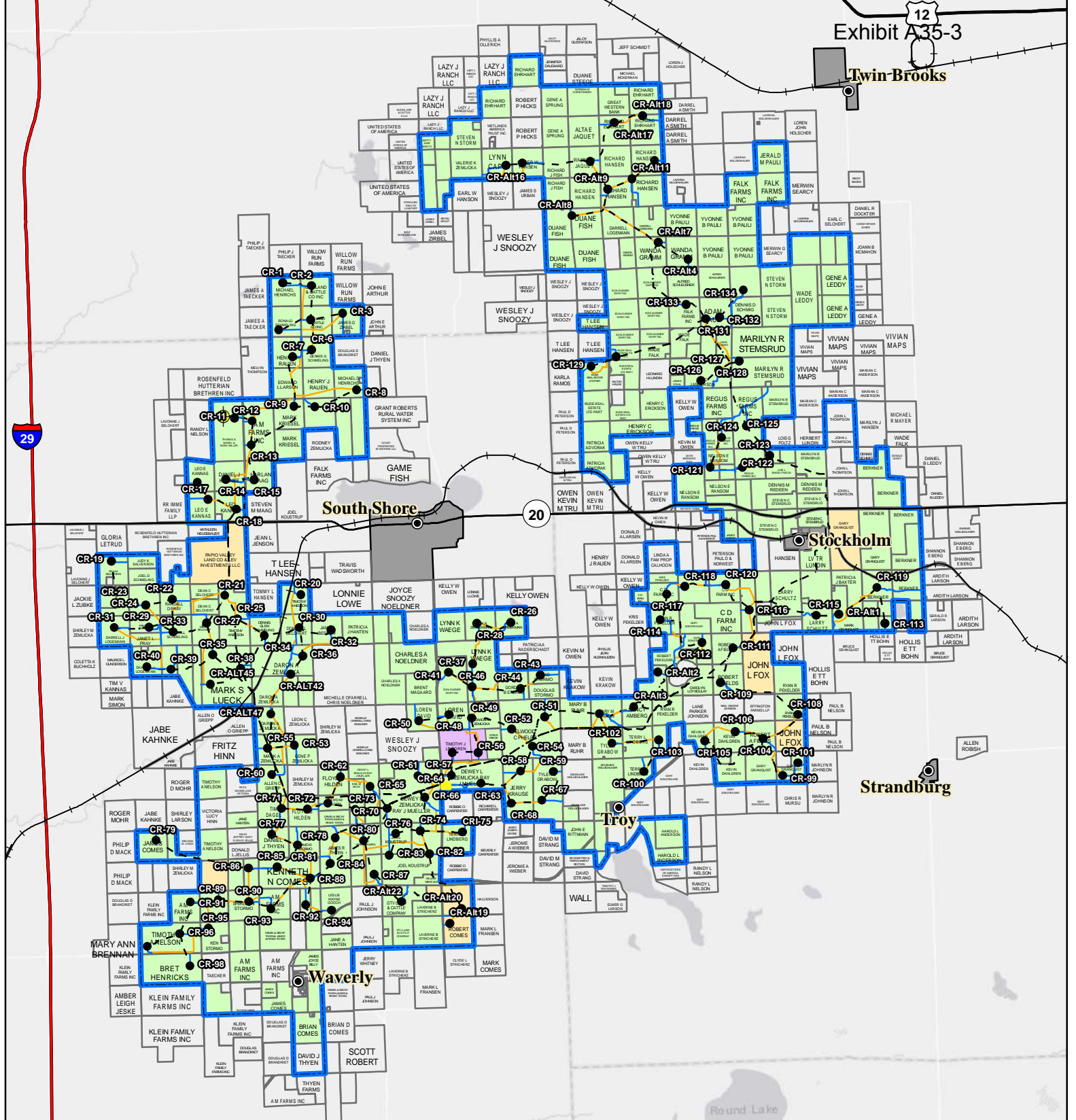
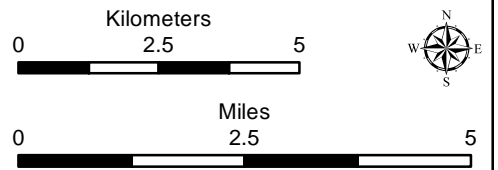
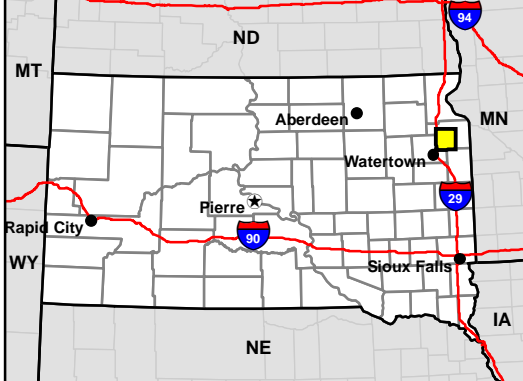


Figure 3a. Project Map
Crowned Ridge Wind Farm

- MET Tower
 - Turbine
 - City
 - Access Road
 - Collector Line
 - Crane Path
 - Railroad
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - O&M Facility/ Substation
 - Town Boundary
 - Project Boundary
 - Parcel Boundary
- Lease Status**
- Leased, Signed
 - Pending Approval
 - Under Option but Likely to Expire/Not Resign



Base Map: World Light Gray Canvas Base
Sources: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Codington and Grant Counties, South Dakota
016135 Page 000023 SWCA ENVIRONMENTAL CONSULTANTS
Projection: NAD 1983 UTM Zone 14N

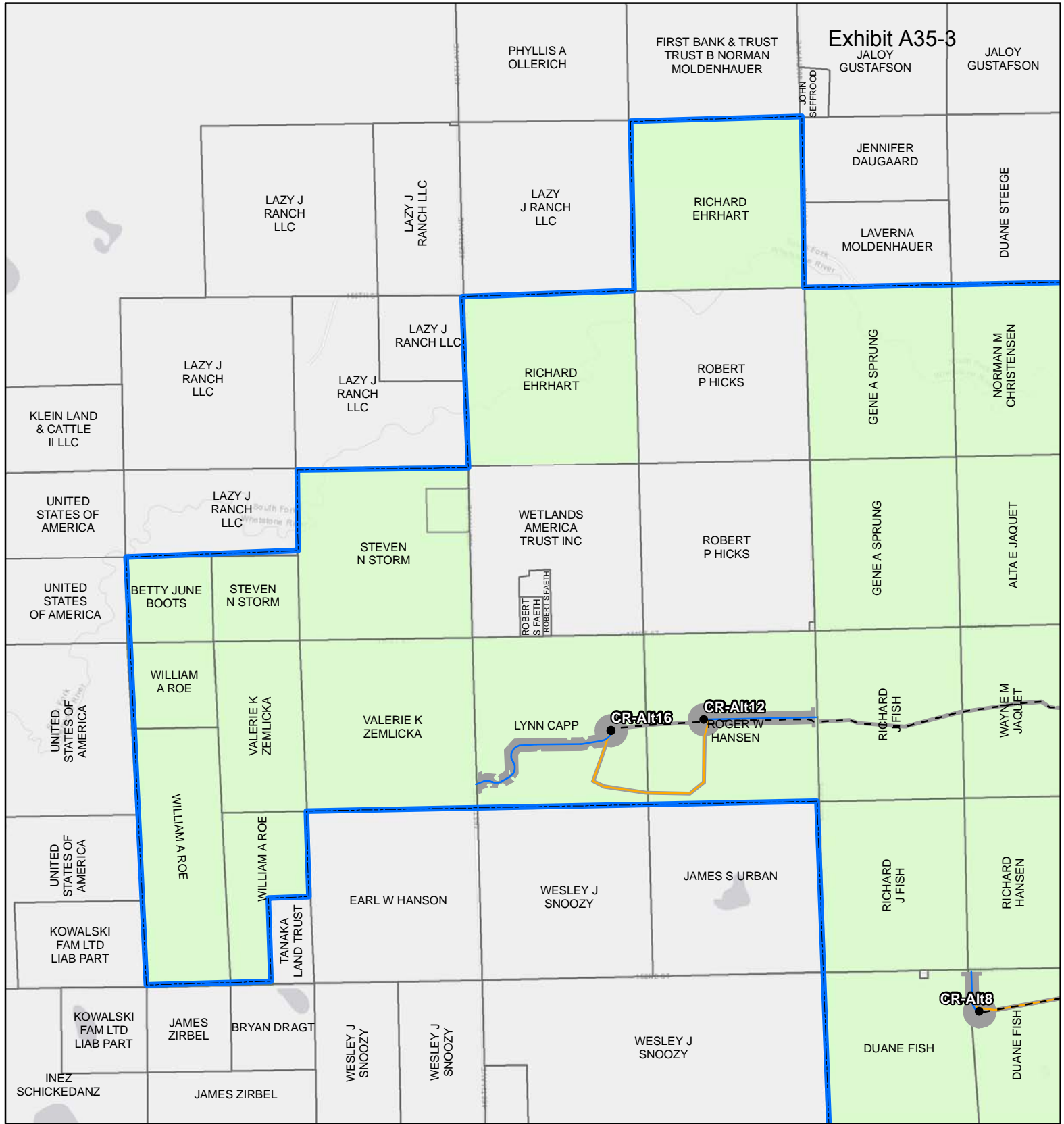
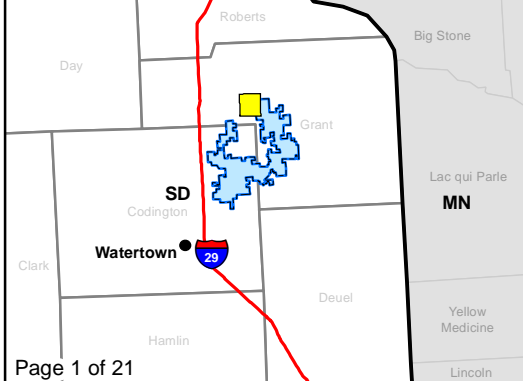


Exhibit A35-3
JALOY GUSTAFSON

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Antelope Valley (1973), Twin Brooks (1973)
 Township/Range: T120N, R51W, T120N, R50W
 Grant County, South Dakota

016136

Page 000024 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

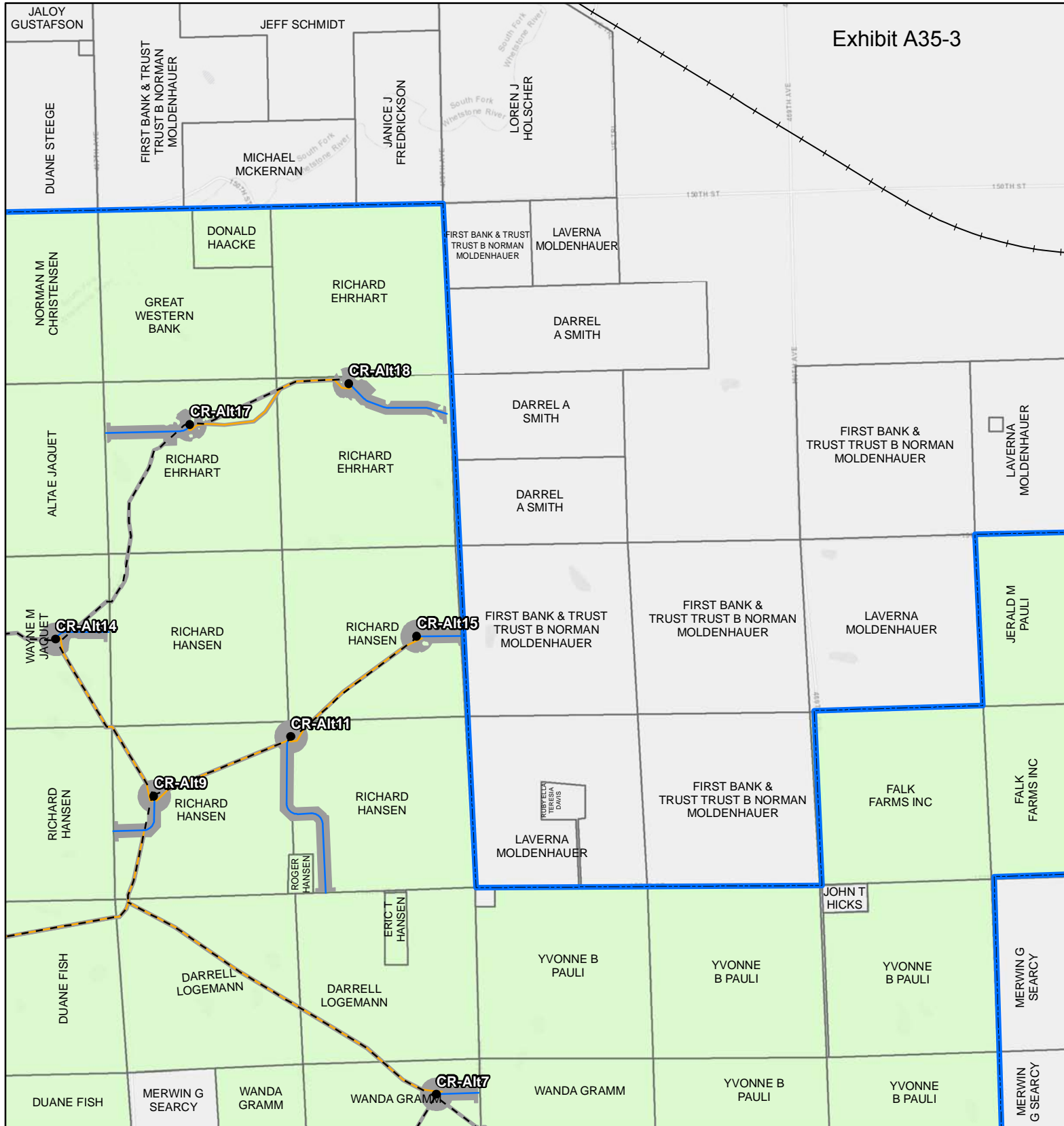
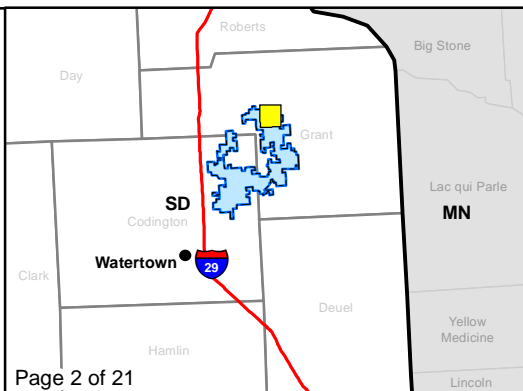


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Twin Brooks (1973)

Township/Range: T120N, R50W

Grant County, South Dakota 016137

Page 000025 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

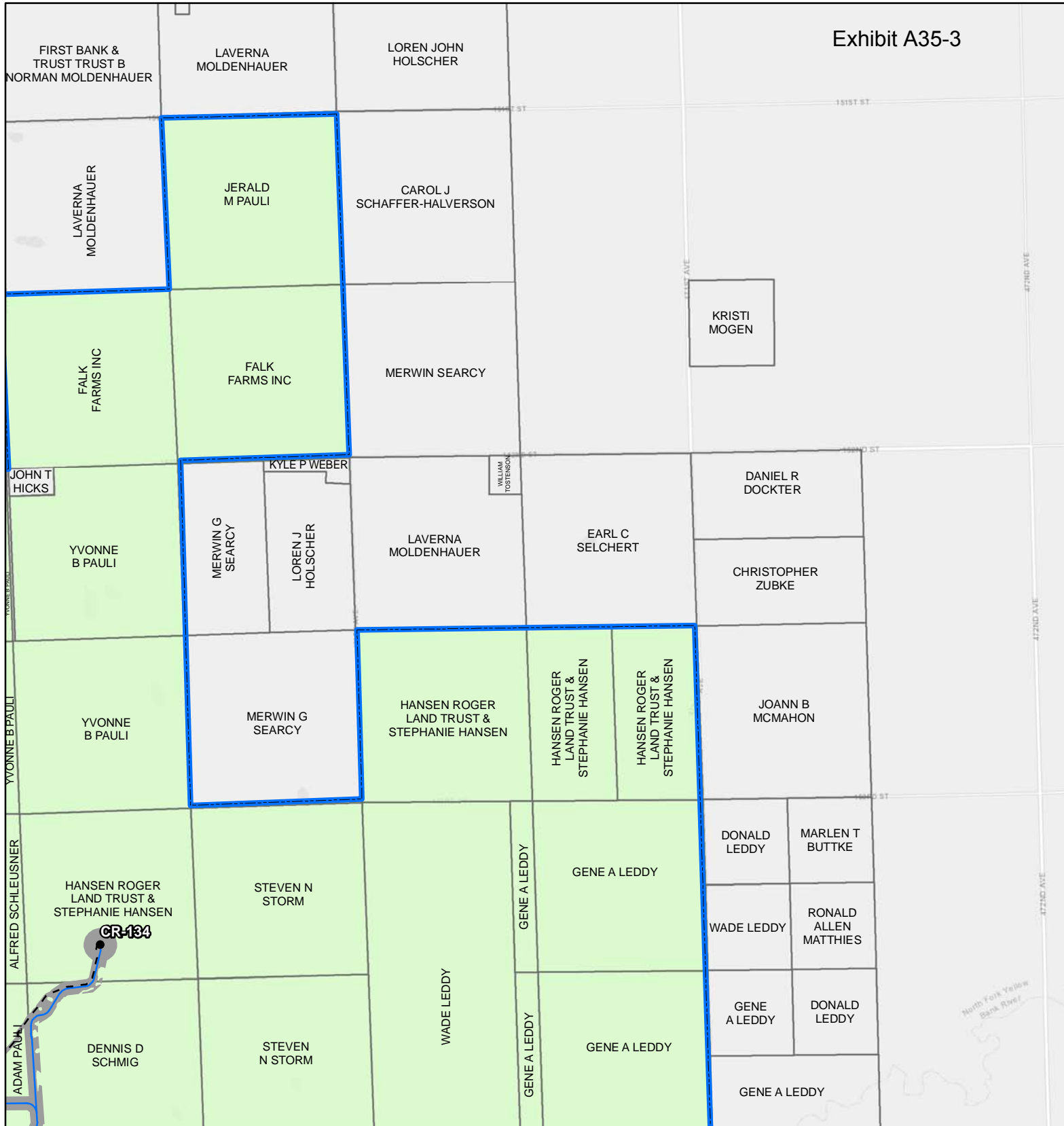


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Twin Brooks (1973)

Township/Range: T120N, R50W

Grant County, South Dakota **016138**

Page 000026 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

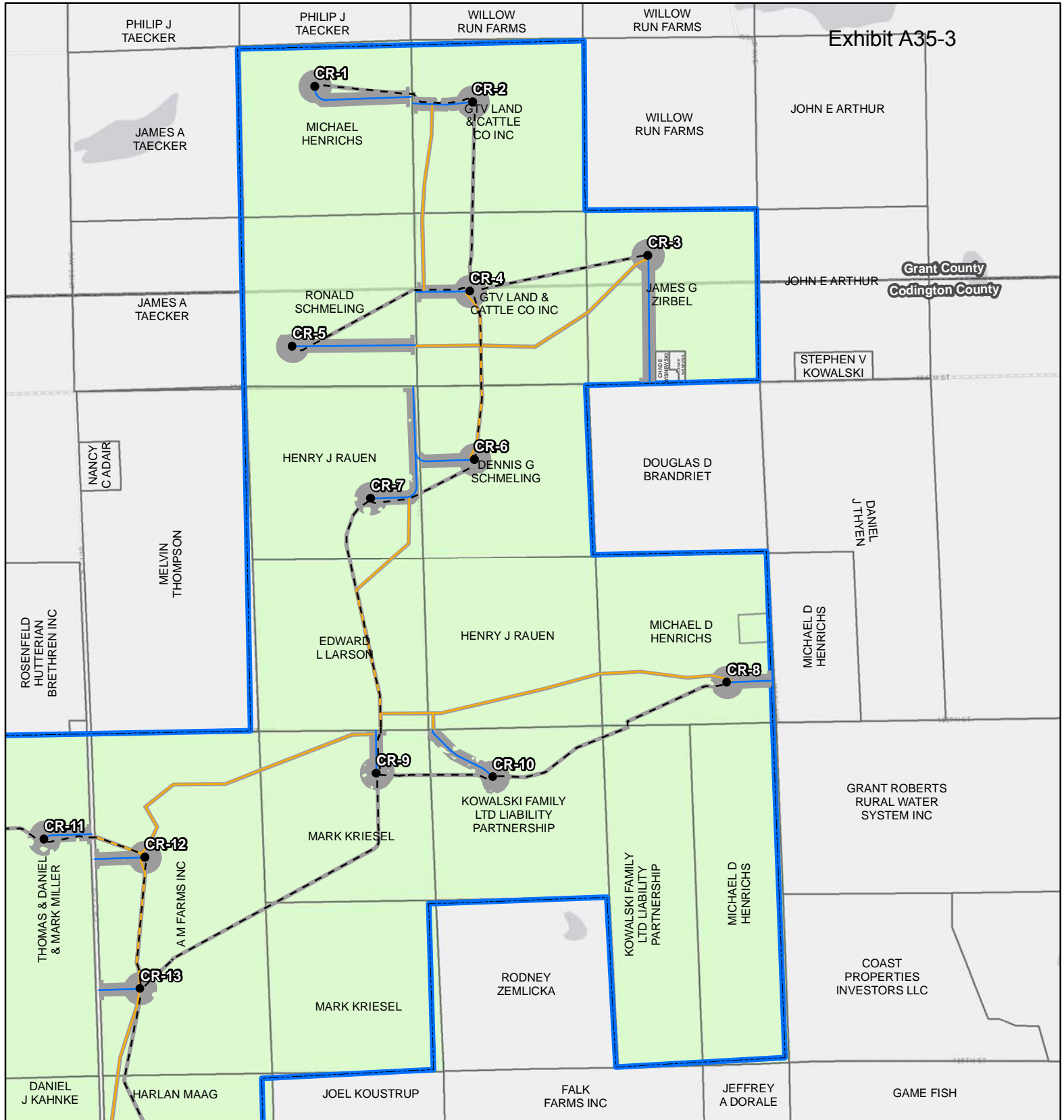
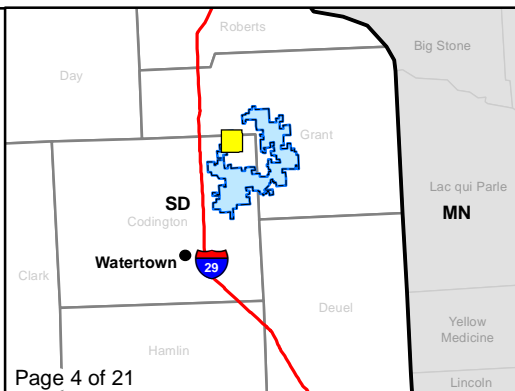


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Antelope Valley (1973), South Shore (1973)
 Township/Range: T120N, R51W, T119N, R51W,
 Codington and Grant Counties, South Dakota
016139 Page 000027 **SWCA**
 ENVIRONMENTAL CONSULTANTS
 Projection: NAD 1983 UTM Zone 14N

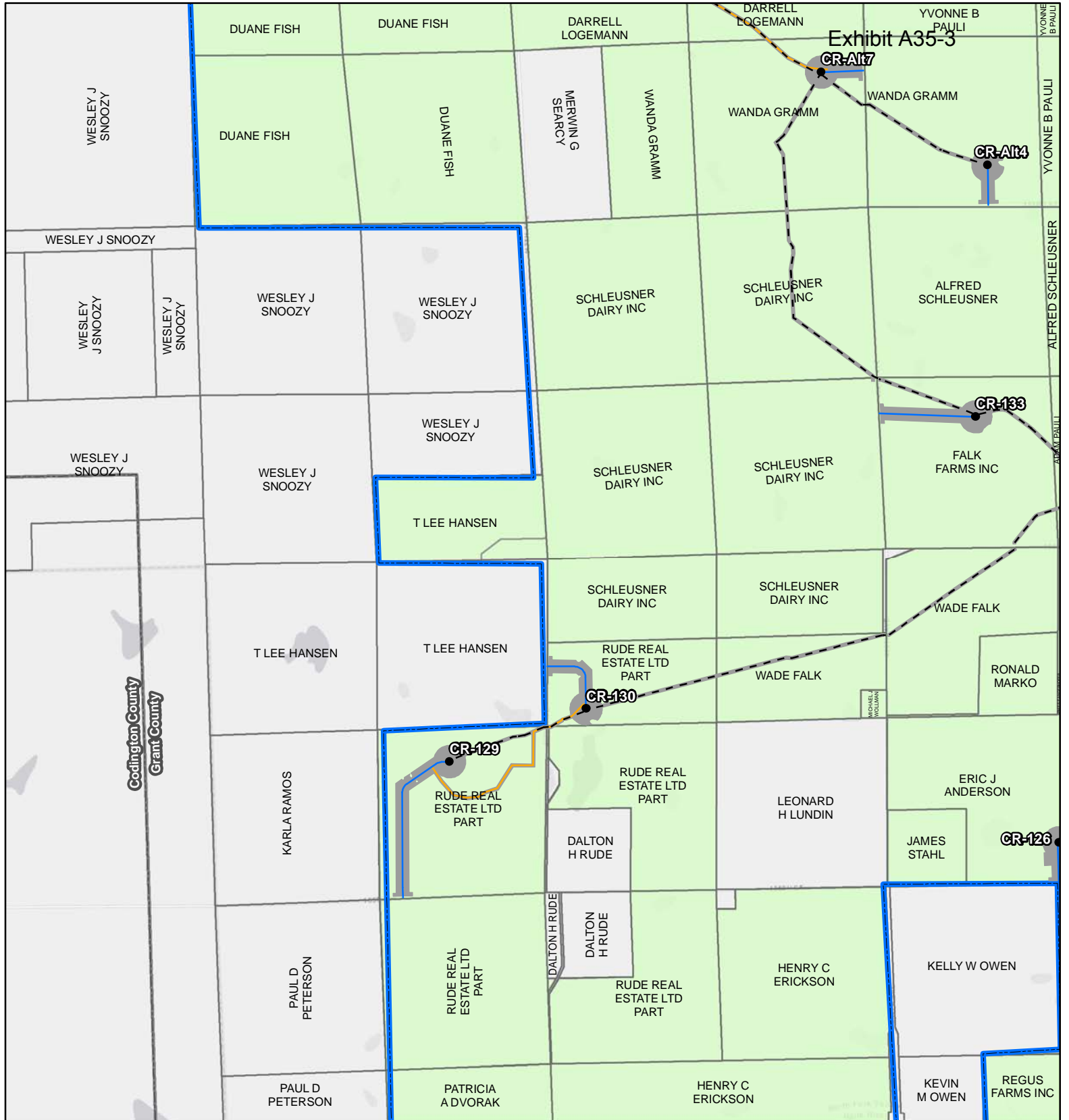


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Antelope Valley (1973), Twin Brooks (1973)
 Township/Range: T120N, R51W, T120N, R50W, T119N, R51W, T119N, R50W
 Codrington and Grant Counties, South Dakota

016140 Page 000028 **SWCA**
ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

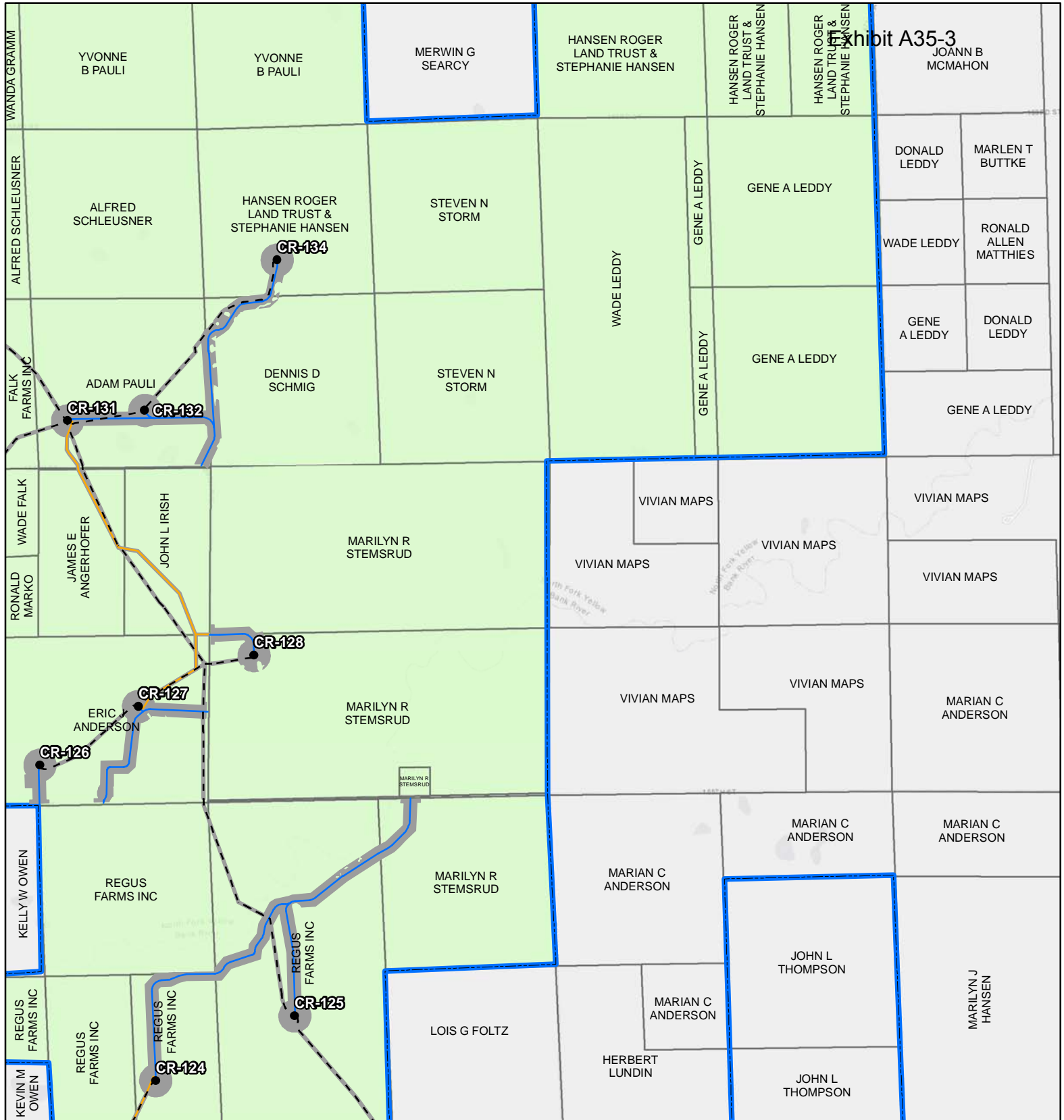
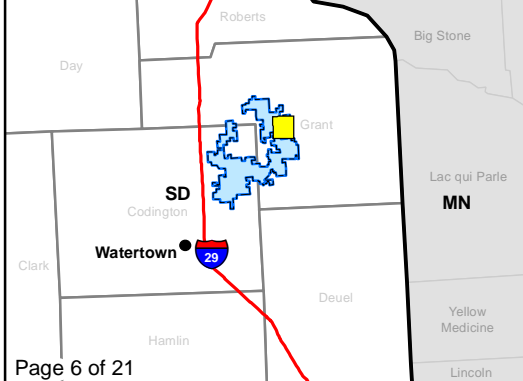


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - ▭ Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Twin Brooks (1973), Stockholm (1973)
 Township/Range: T120N, R50W, T119N, R50W
 Grant County, South Dakota **016141**

Page 000029 **SWCA**
 ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

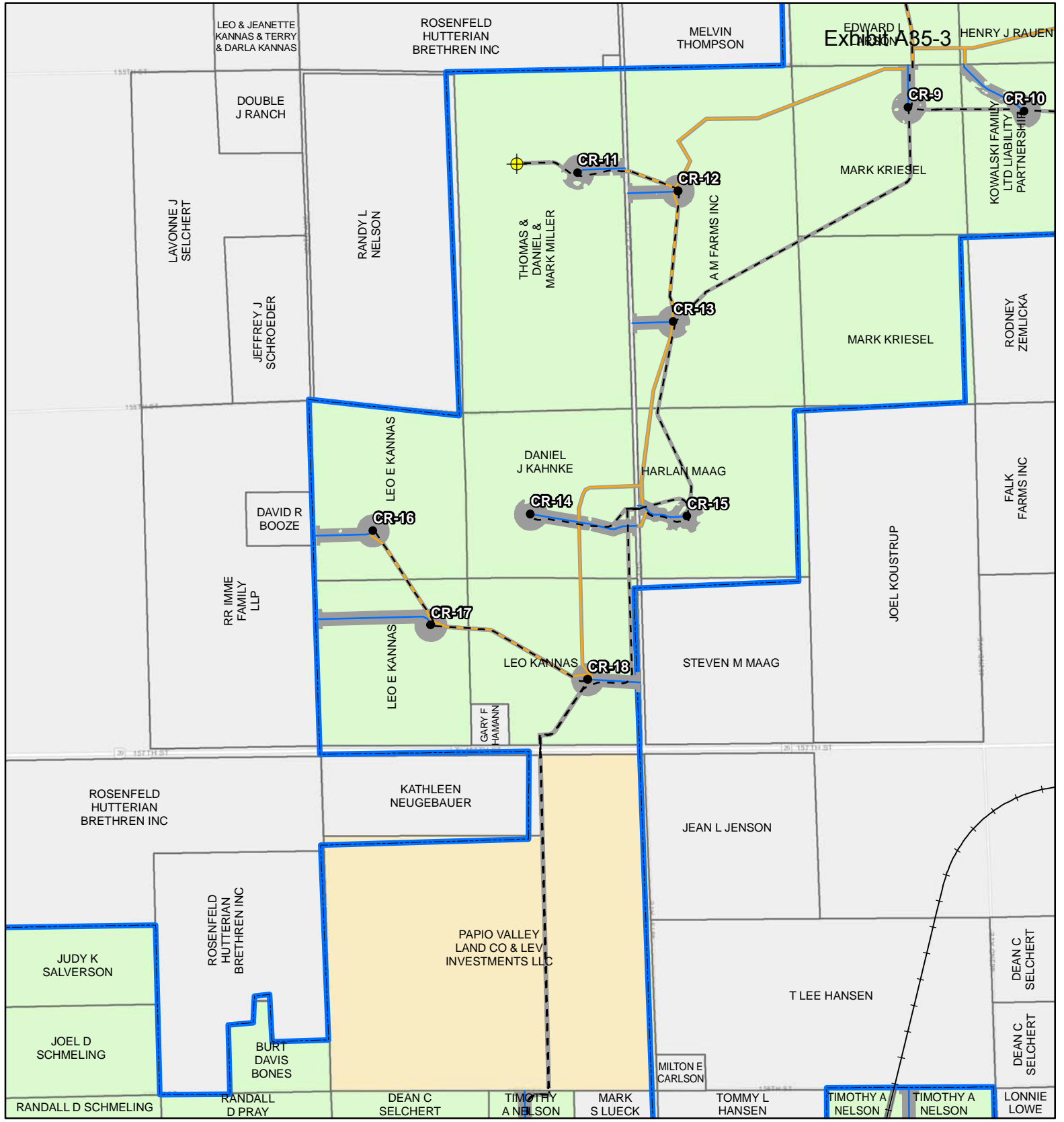
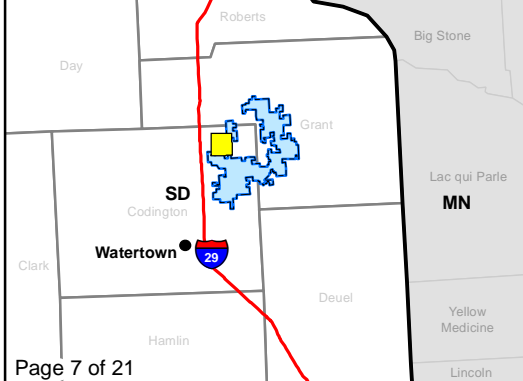


Exhibit A85-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Still Lake NE (1970), Antelope Valley (1973), Still Lake SE (1970), South Shore (1973)
 Township/Range: T119N, R52W, T119N, R51W
 Codington County, South Dakota

016142
 Page 000030
 SWCA ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

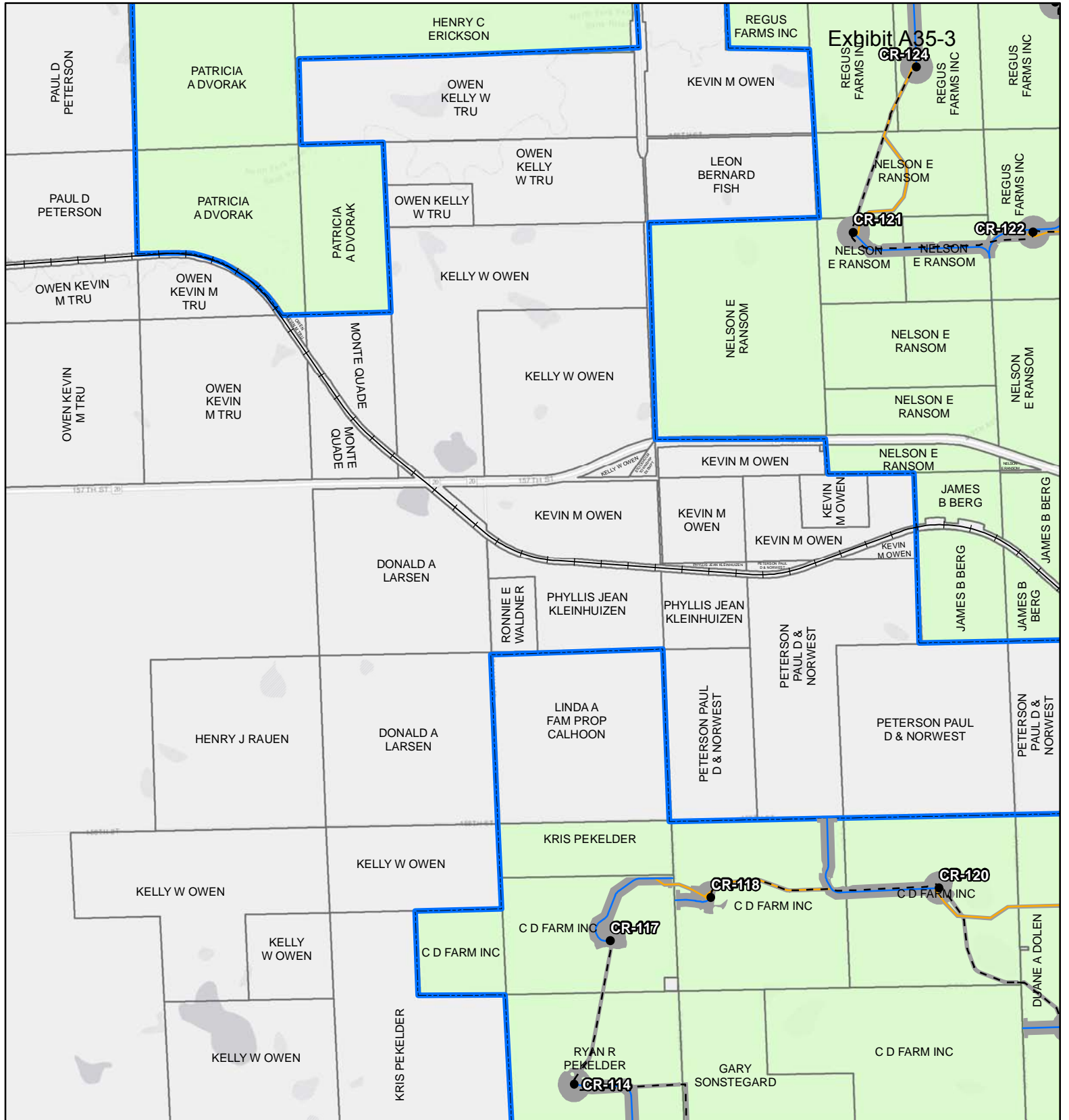
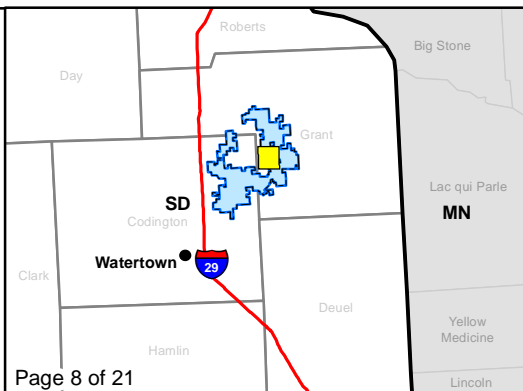


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
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 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973), Antelope Valley (1973), Twin Brooks (1973), South Shore (1973)
Township/Range: T119N, R50W

Grant County, South Dakota 016143
Page 000031 **SWCA**
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Projection: NAD 1983 UTM Zone 14N

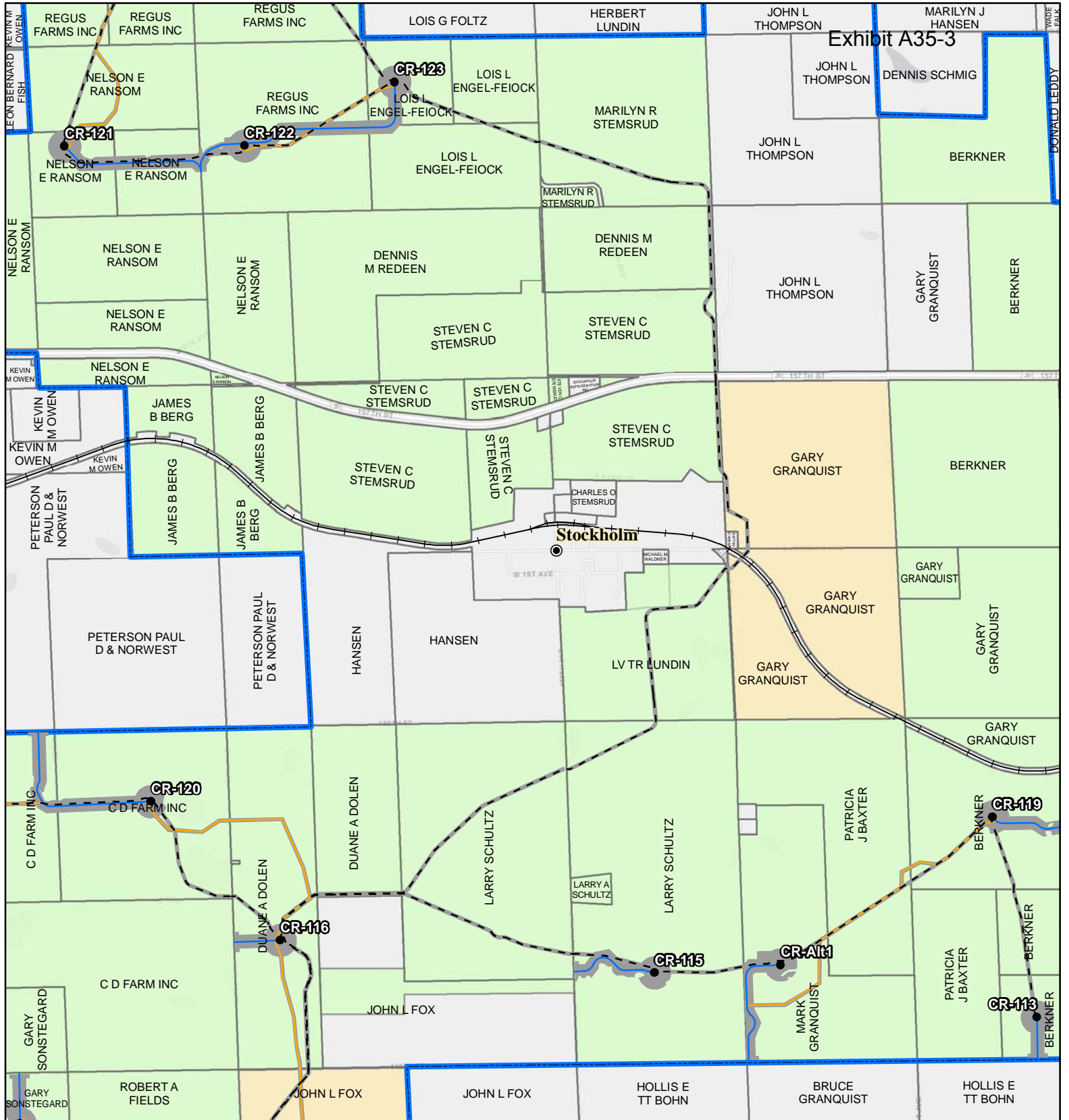
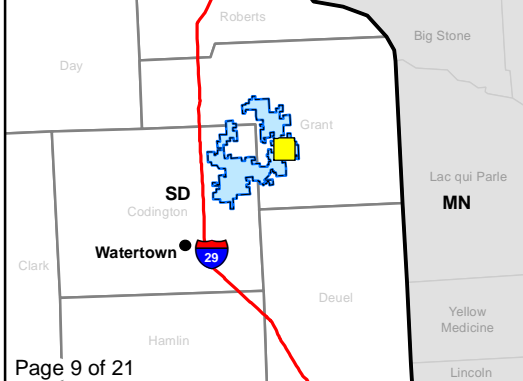


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973)

Township/Range: T119N, R50W **016144**

Grant County, South Dakota
Page 000032

Projection: NAD 1983 UTM Zone 14N

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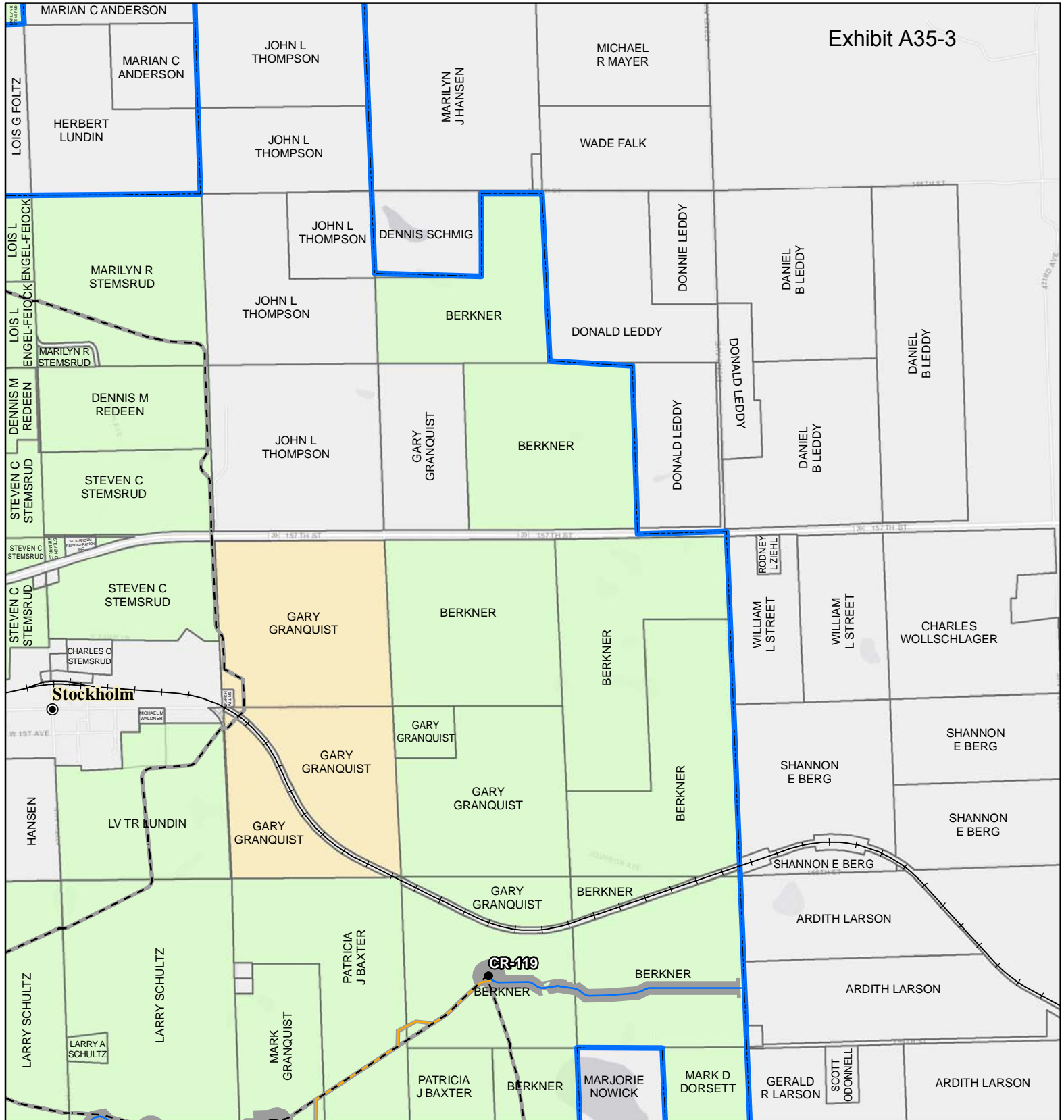
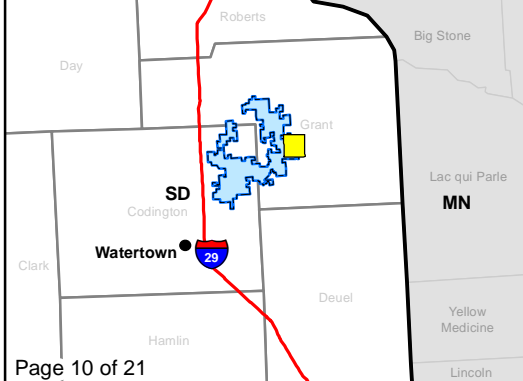


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Twin Brooks (1973), Stockholm (1973)
 Township/Range: T119N, R50W, T119N, R49W
 Grant County, South Dakota

016145

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ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

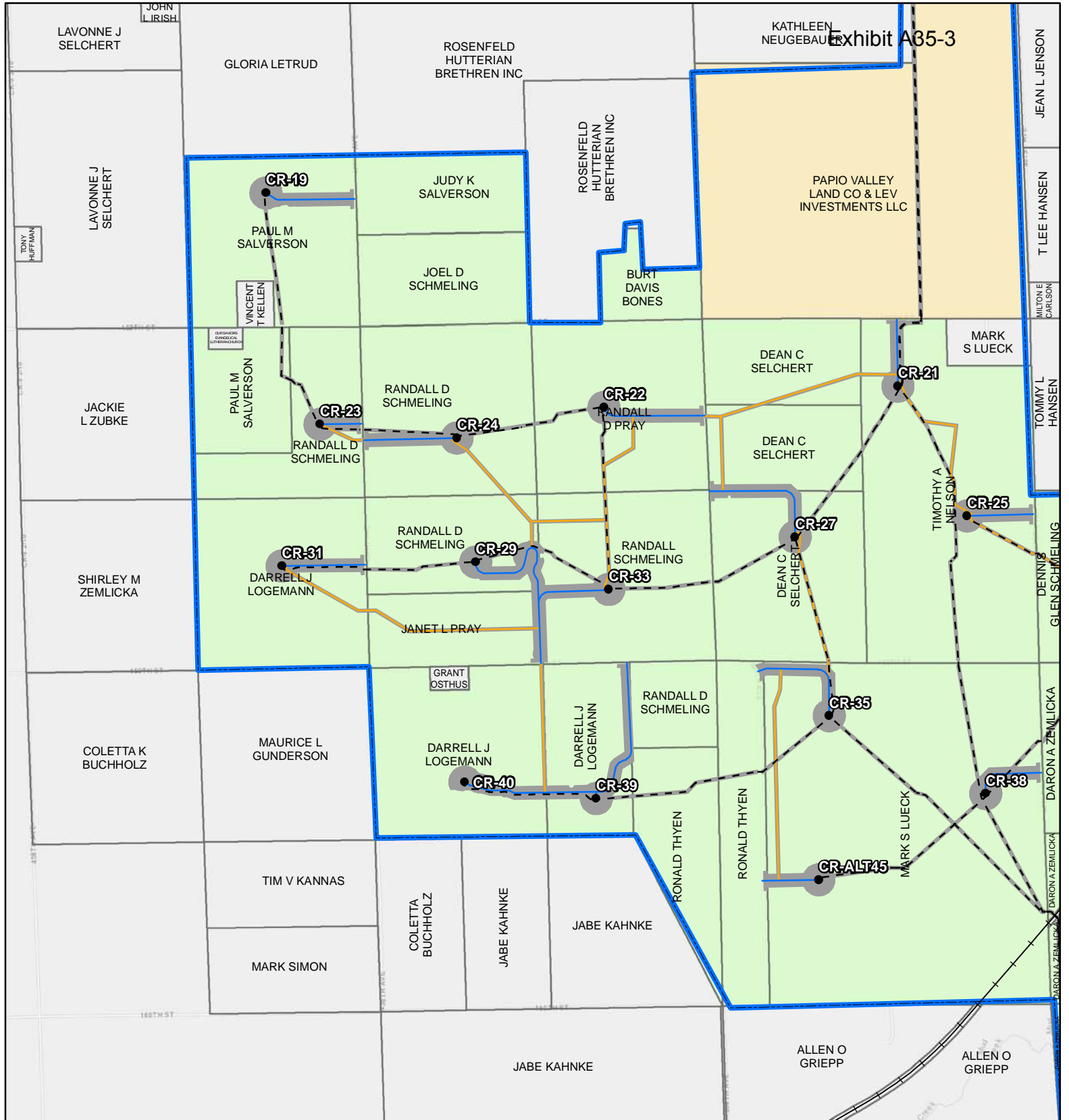
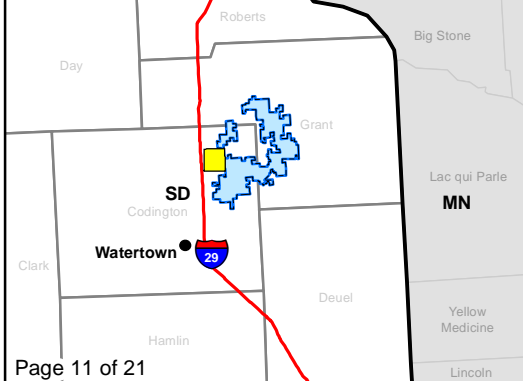


Exhibit A85-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: Still Lake SE (1970), South Shore (1973)
 Township/Range: T119N, R52W, T119N, R51W, T118N, R52W, T118N, R51W
 Codington County, South Dakota **016146**

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ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

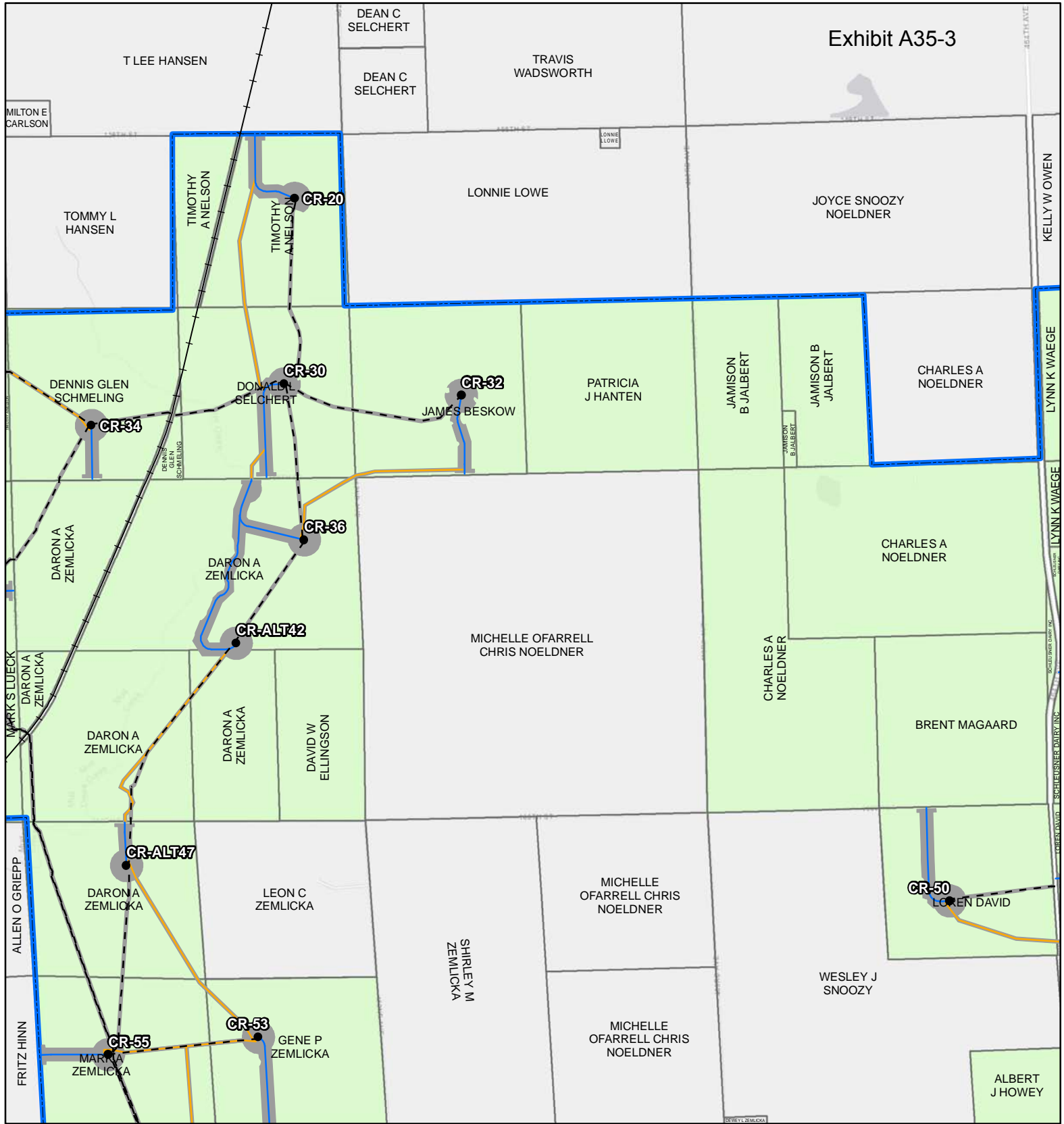
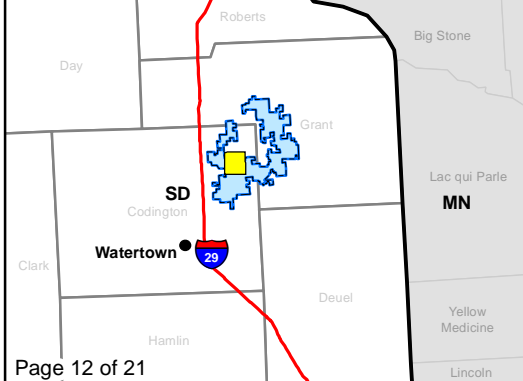


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: South Shore (1973)

Township/Range: T119N, R51W, T118N, R51W
Codington County, South Dakota

016147

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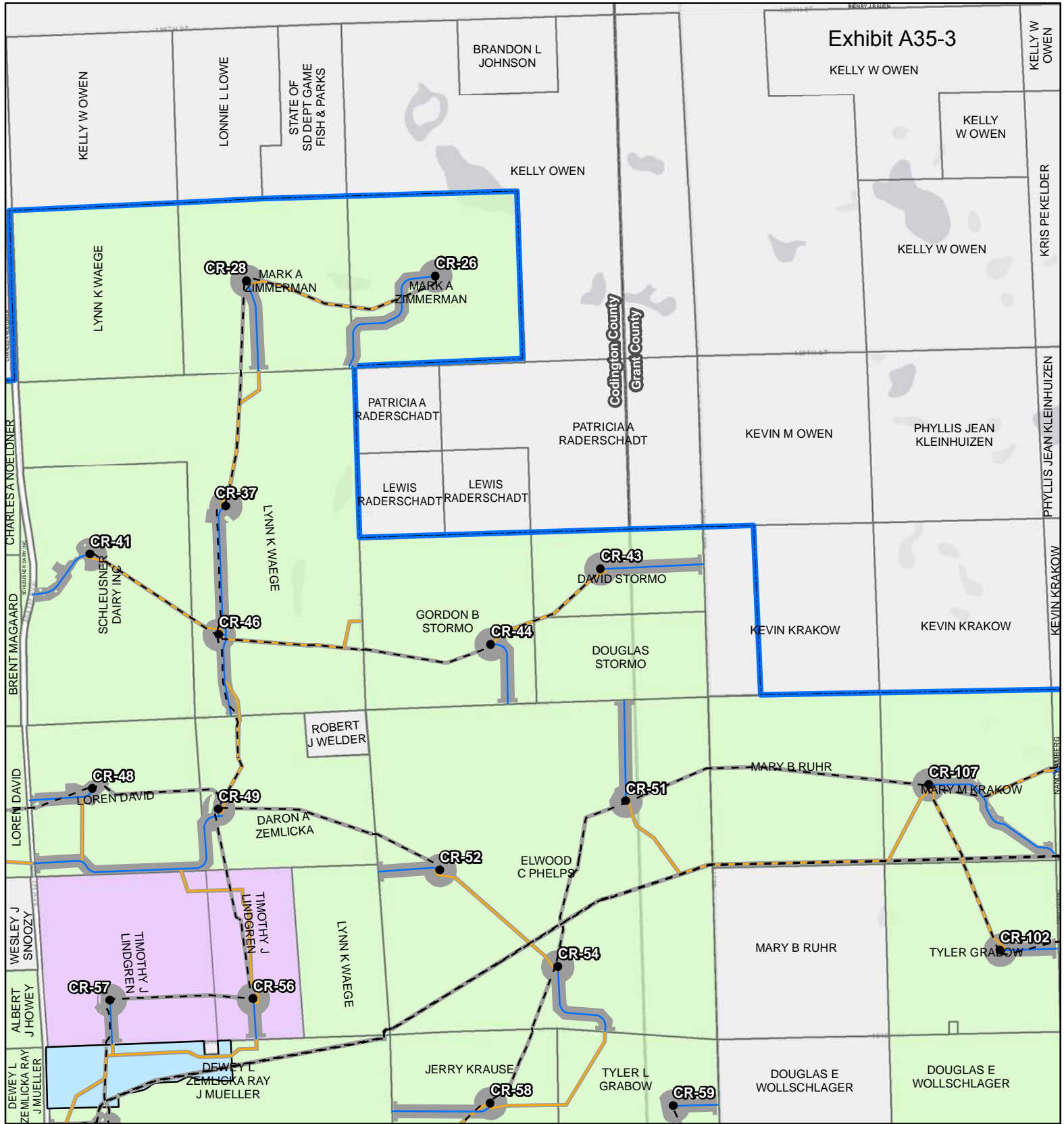
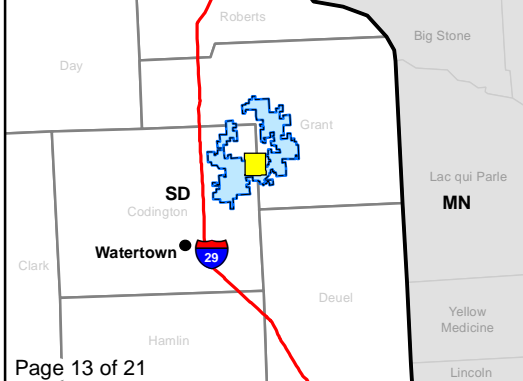


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - ▭ Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Stockholm (1973)
 Township/Range: T119N, R51W, T119N, R50W, T118N, R51W, T118N, R50W
 Codington and Grant Counties, South Dakota

016148 Page 000036 **SWCA**
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Projection: NAD 1983 UTM Zone 14N

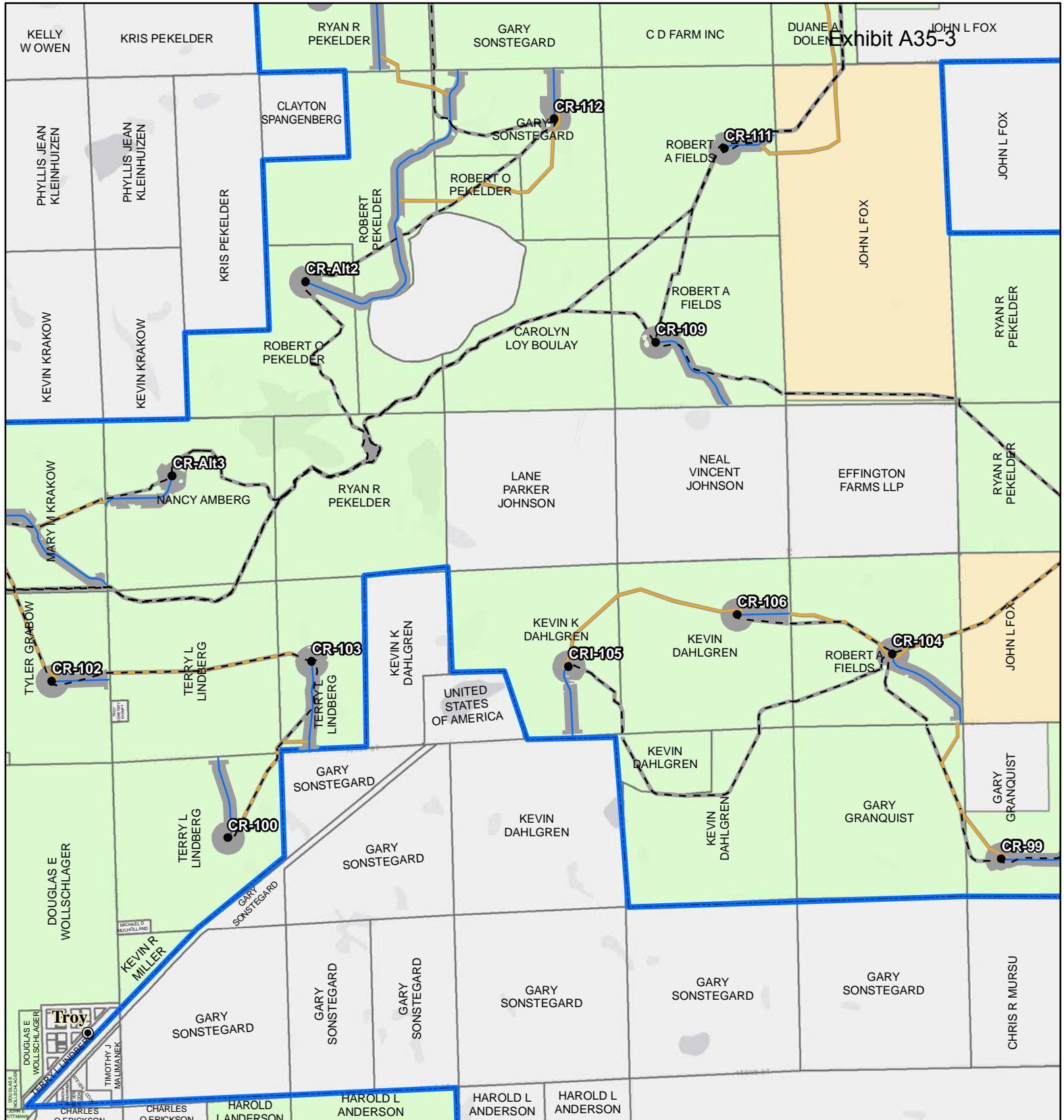
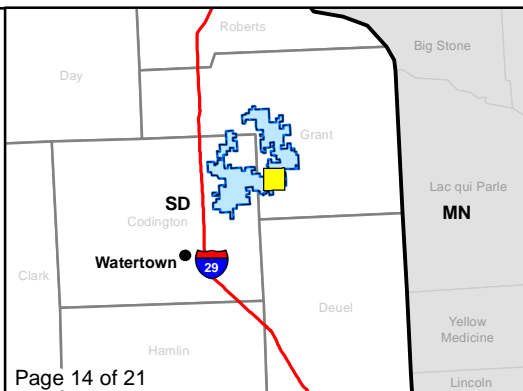


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973)

Township/Range: T119N, R50W, T118N, R50W
Grant County, South Dakota

016149

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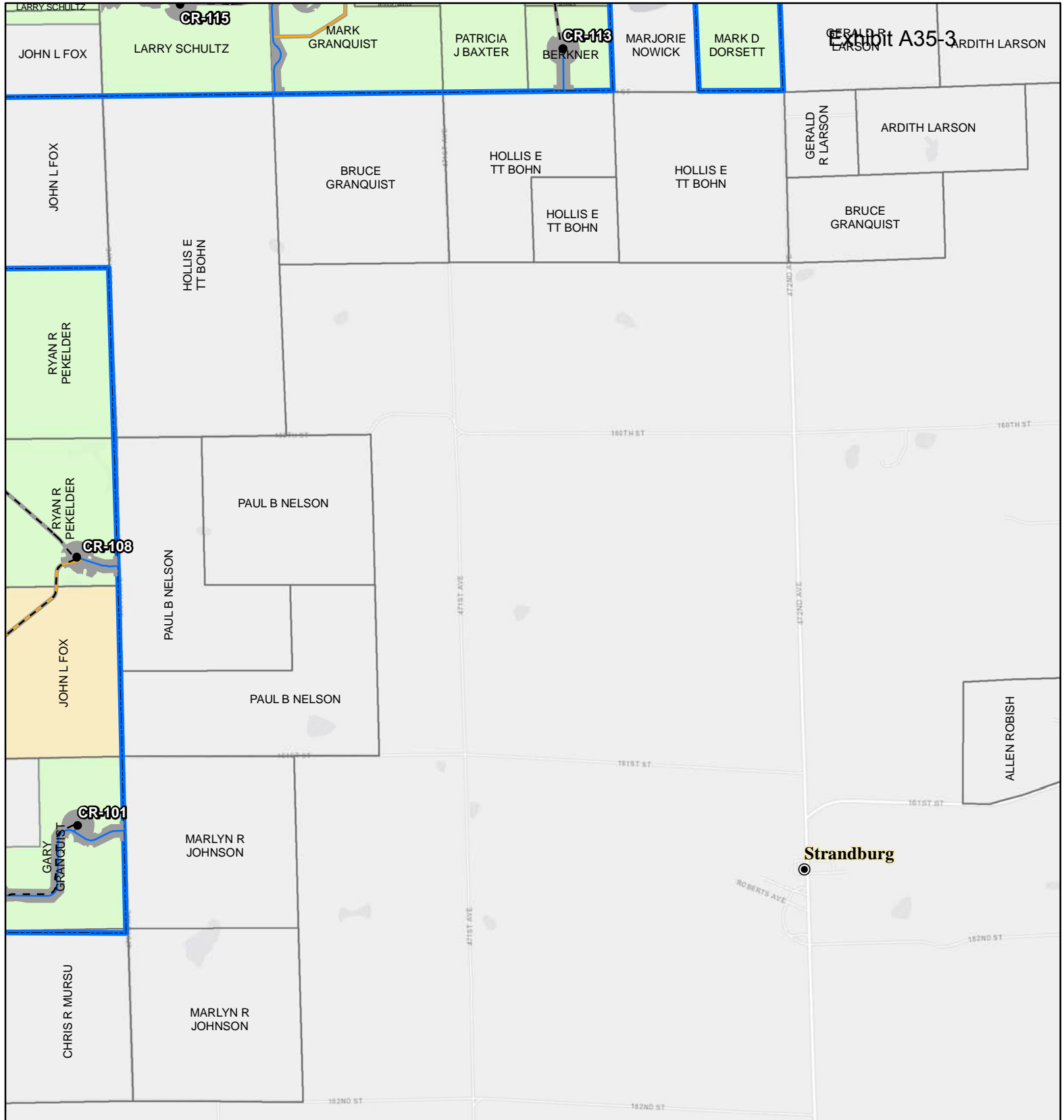
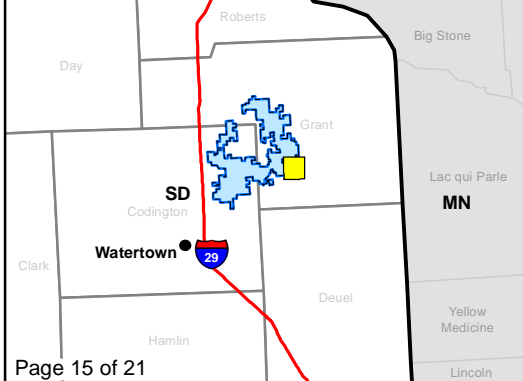


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Stockholm (1973)

Township/Range: T119N, R50W, T118N, R50W
Grant County, South Dakota

016150

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Projection: NAD 1983 UTM Zone 14N

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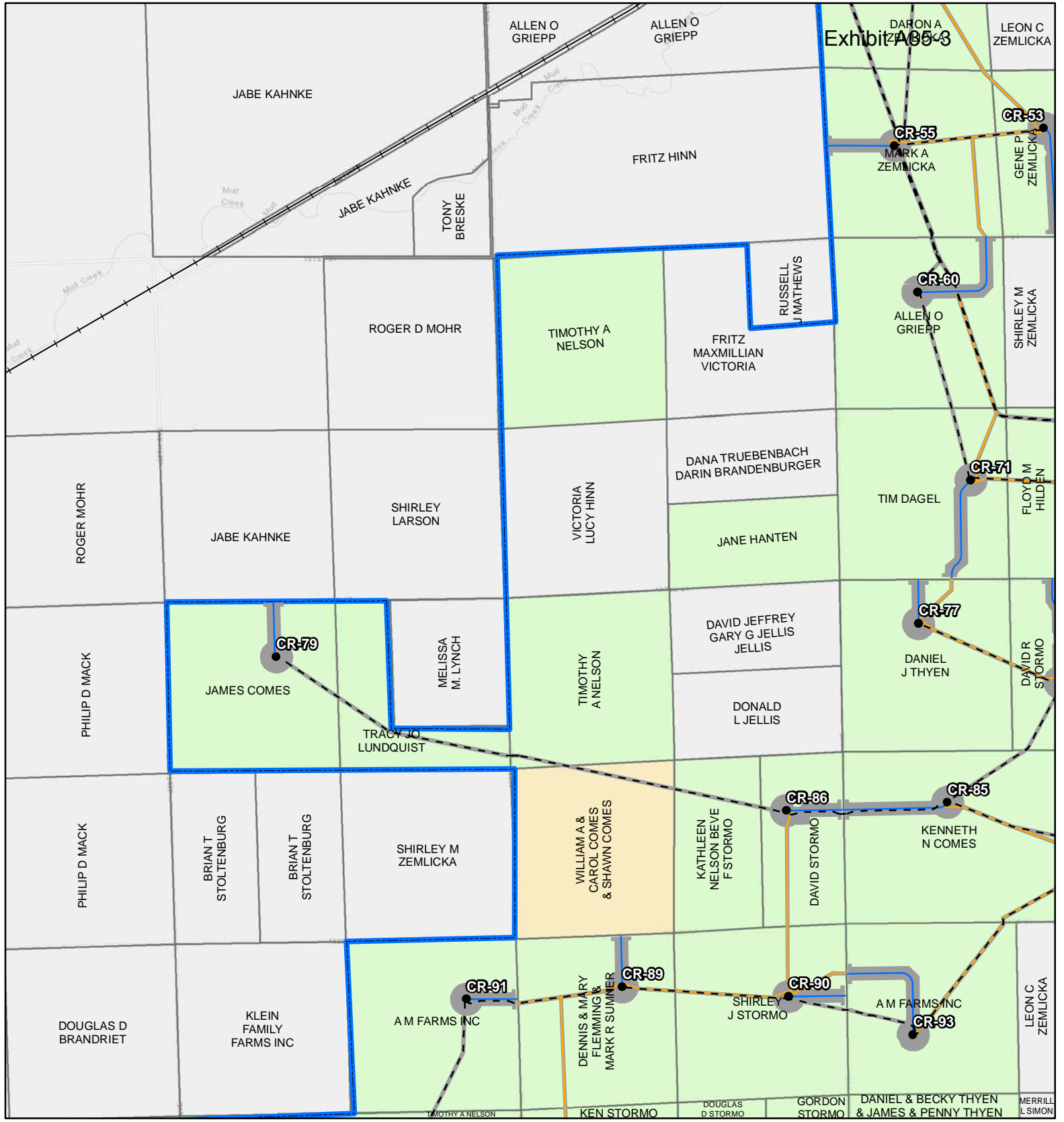


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: Still Lake SE (1970), South Shore (1973)
Township/Range: T118N, R52W, T118N, R51W
Codington County, South Dakota

016151

Page 000039

Projection: NAD 1983 UTM Zone 14N

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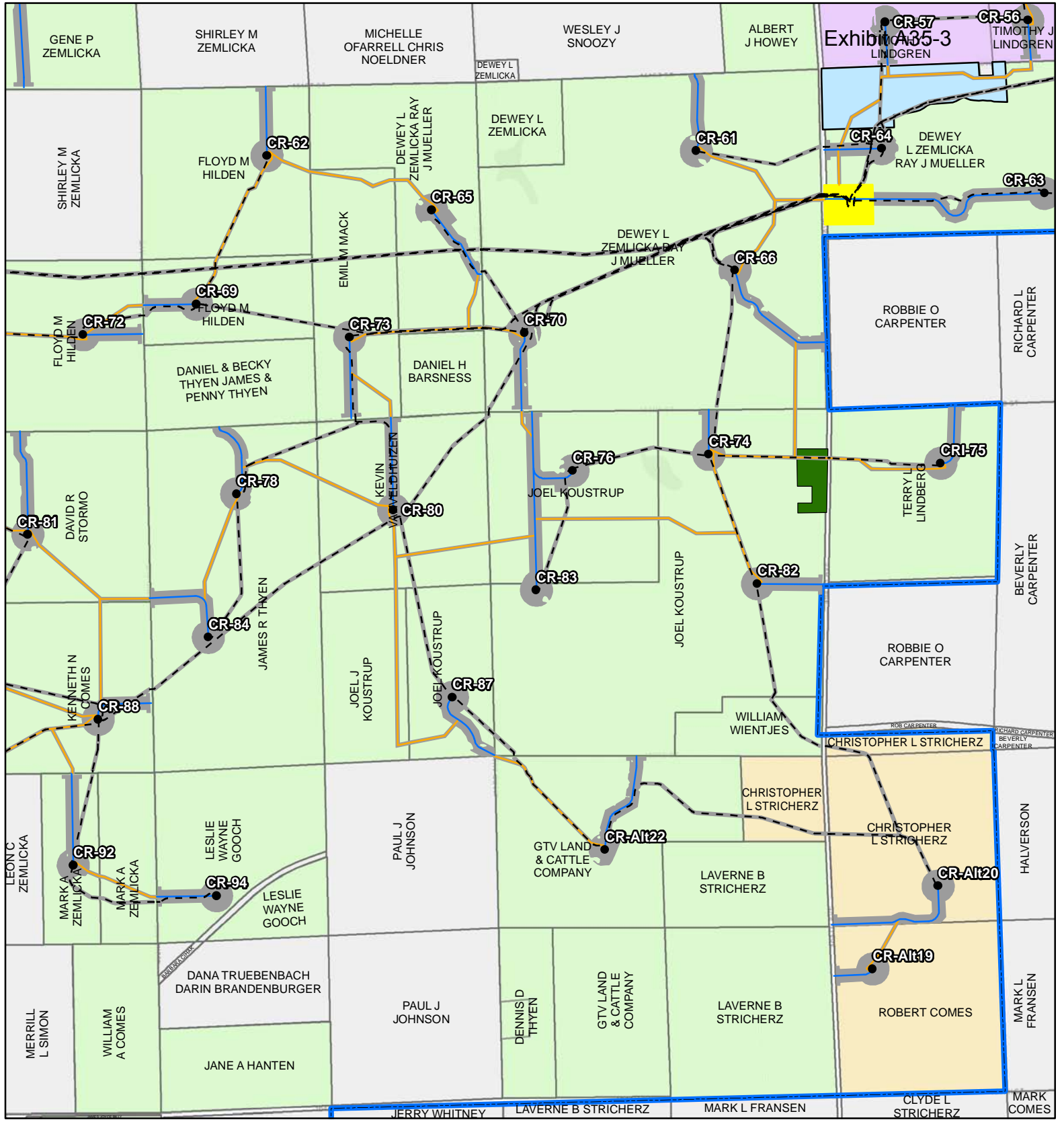


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Quadrangle: South Shore (1973)

Township/Range: T118N, R51W **016152**

Codington County, South Dakota
Page 000040

Projection: NAD 1983 UTM Zone 14N

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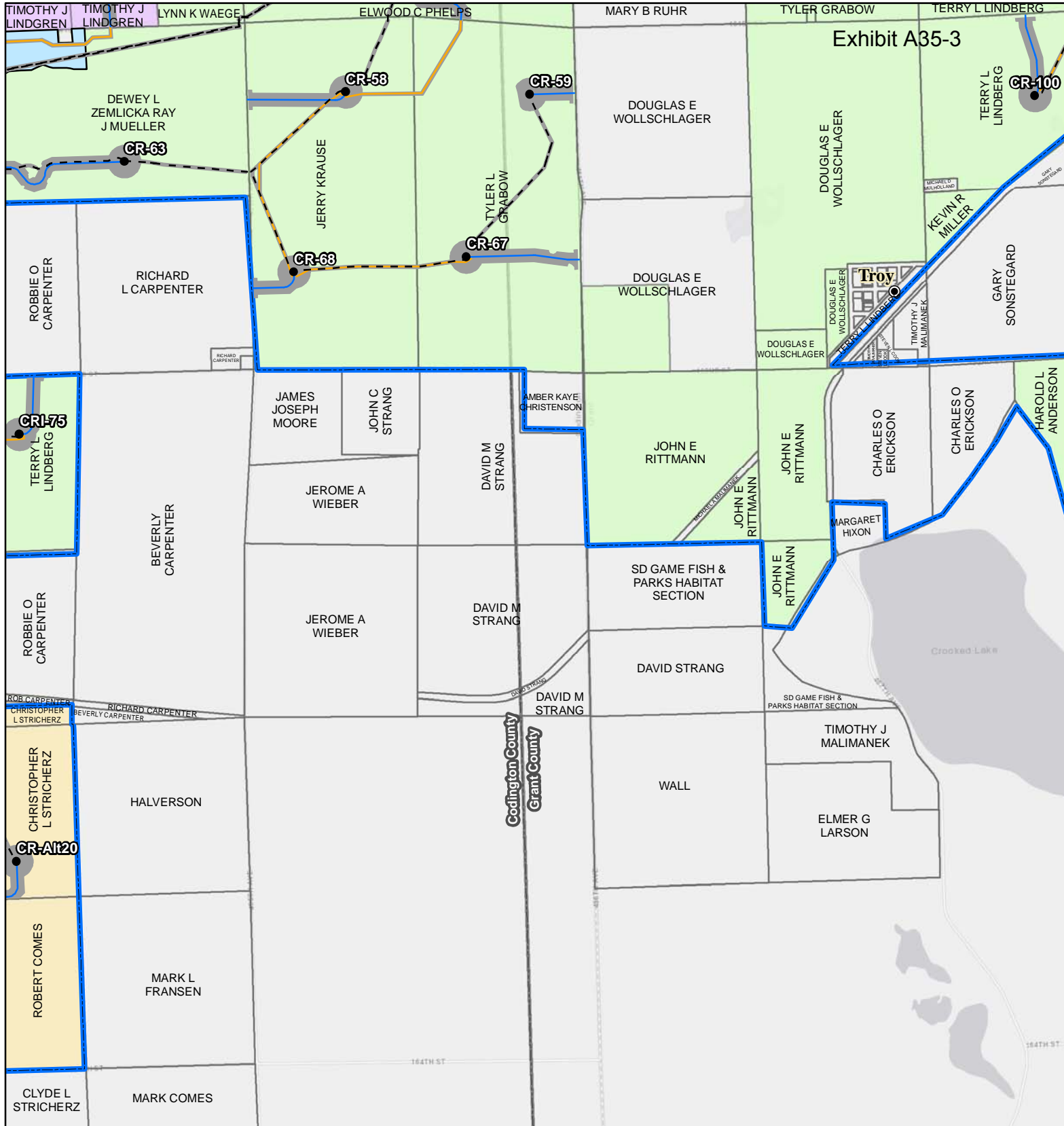
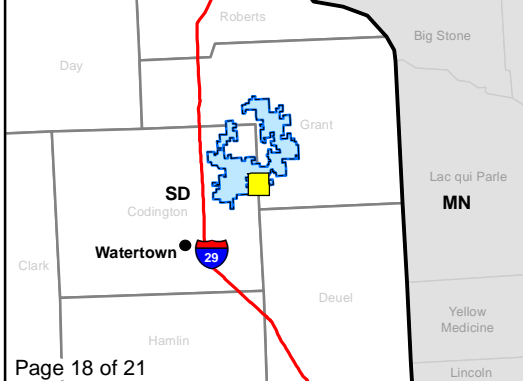


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - ▭ Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Stockholm (1973)
 Township/Range: T118N, R51W, **016153**
 T118N, R50W
 Codington and Grant Counties, South Dakota

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Projection: NAD 1983 UTM Zone 14N

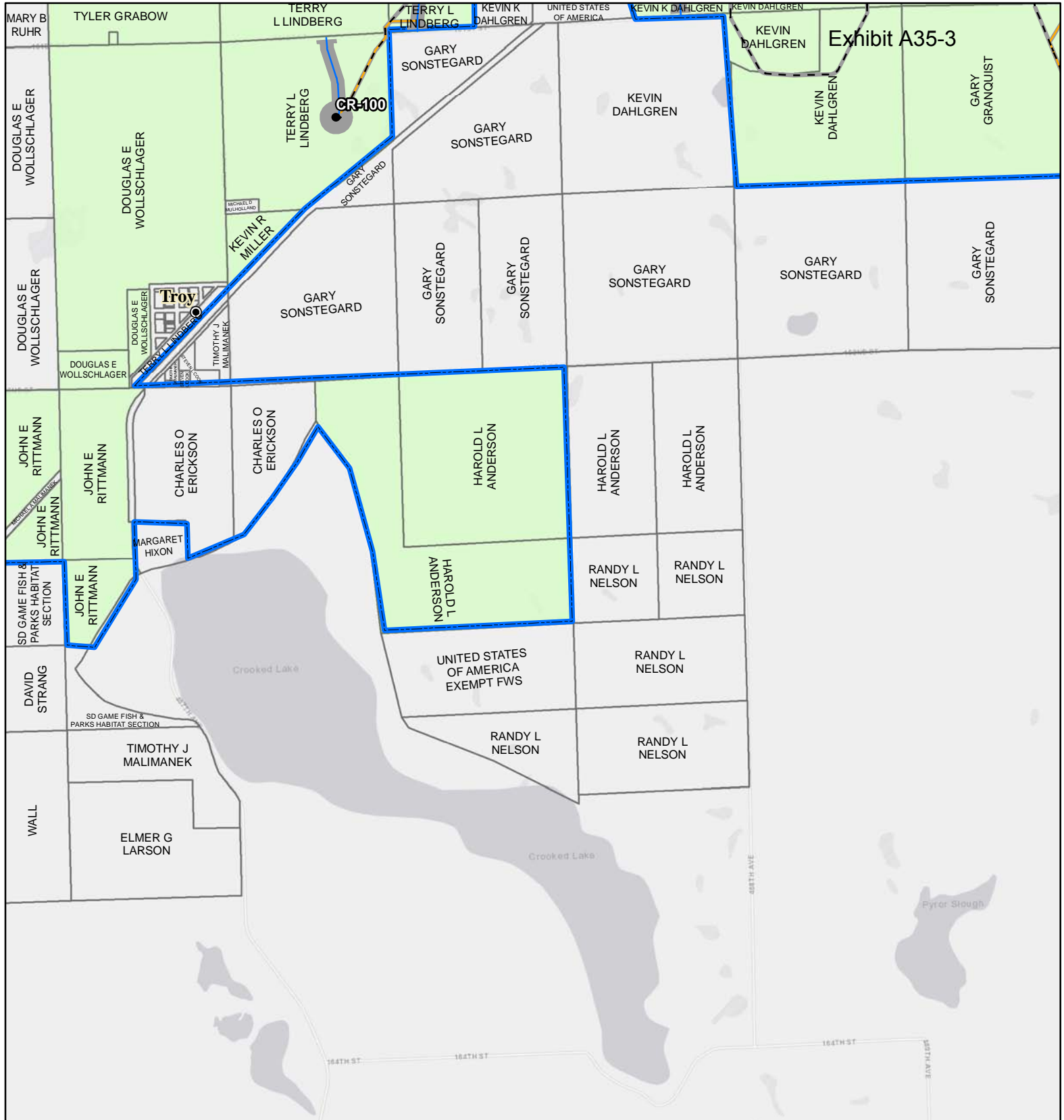


Exhibit A35-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/ Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Stockholm (1973)
 Township/Range: T118N, R50W

Grant County, South Dakota **016154**

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ENVIRONMENTAL CONSULTANTS

Projection: NAD 1983 UTM Zone 14N

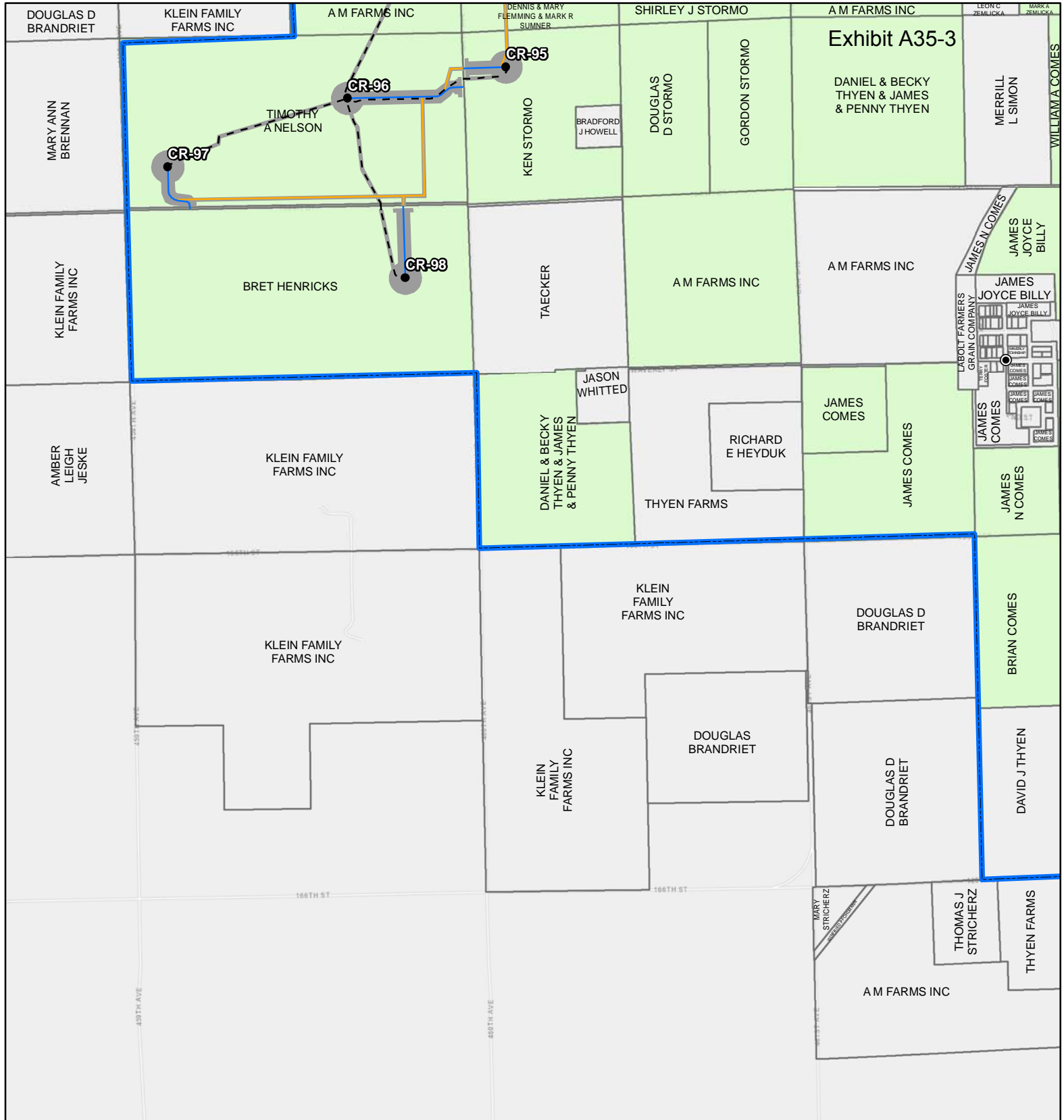
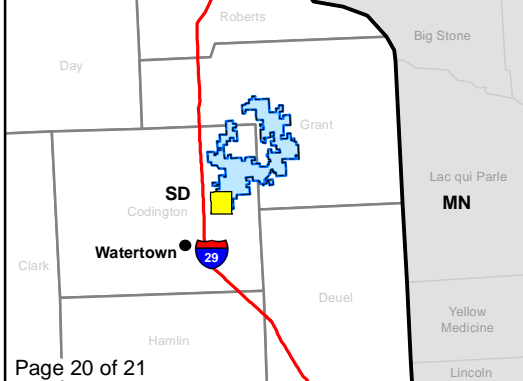


Exhibit A35-3

Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



0 0.5 1
Kilometers

0 0.25 0.5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Quadrangle: Still Lake SE (1970), Watertown East (1969), South Shore (1973), Kranzburg (1970)

Township/Range: T118N, R52W, T118N, R51W, T117N, R52W, T117N, R51W

Codington County, South Dakota

016155

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Projection: NAD 1983 UTM Zone 14N

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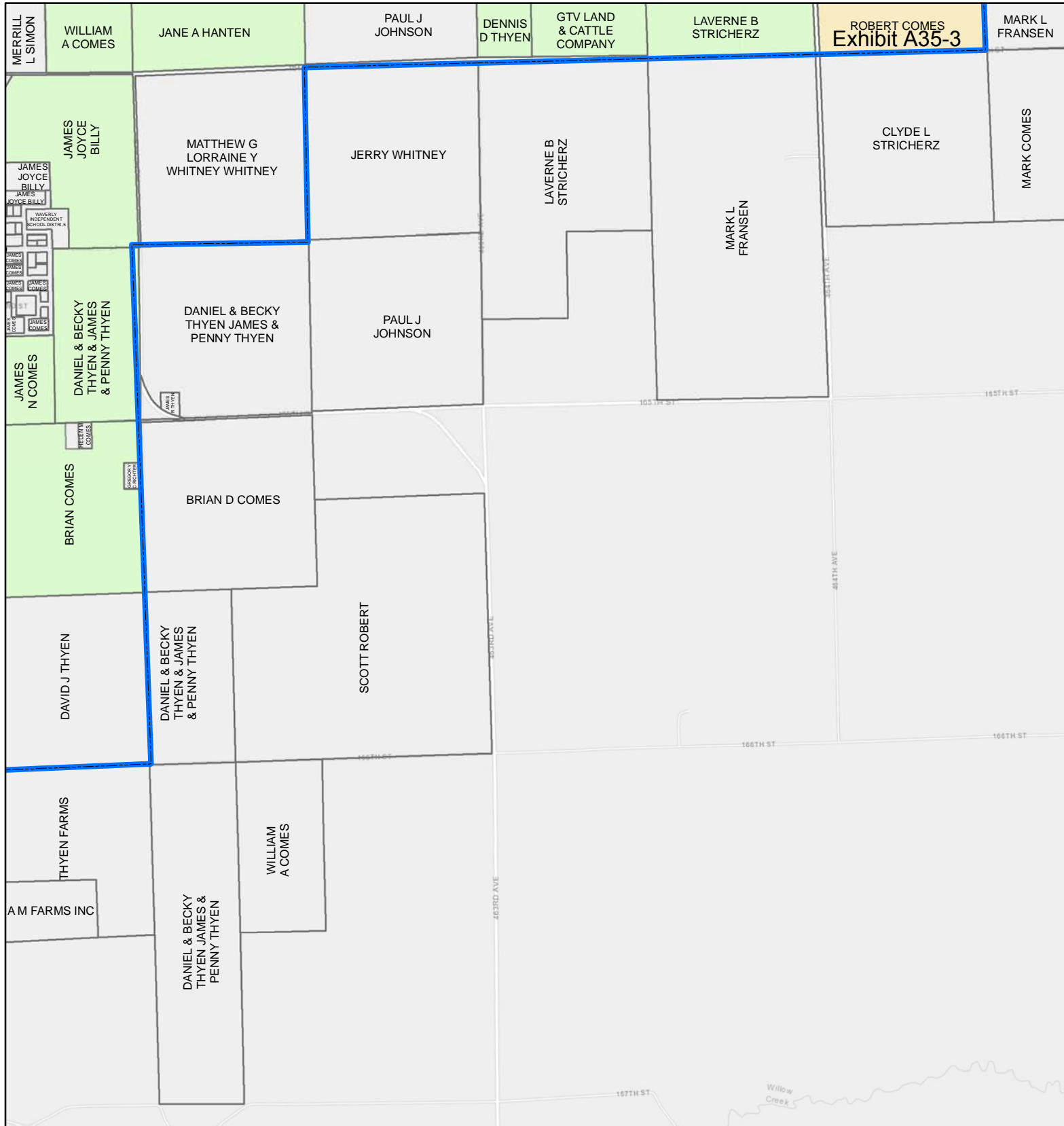
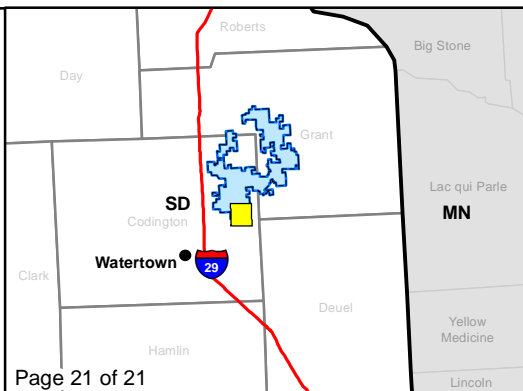


Figure 3a. Project Map
Crowned Ridge Wind Farm

- Turbine
 - ⊕ MET Tower
 - City
 - Access Road
 - - - Collector Line
 - Crane Path
 - Railroad
 - O&M Facility/Substation
 - Batch Plant
 - Laydown Yard
 - Construction Easement
 - ▭ Parcel Boundary
 - ▭ Project Boundary
 - ▭ County Boundary
- Lease Status**
- Leased, Signed
 - Pending
 - Under Option but Likely to Expire/Not Resign



Kilometers
0 0.5 1

Miles
0 0.25 0.5

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Quadrangle: South Shore (1973), Kranzburg (1970)
 Township/Range: T118N, R51W, T117N, R51W
 Codington County, South Dakota

016156

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Projection: NAD 1983 UTM Zone 14N

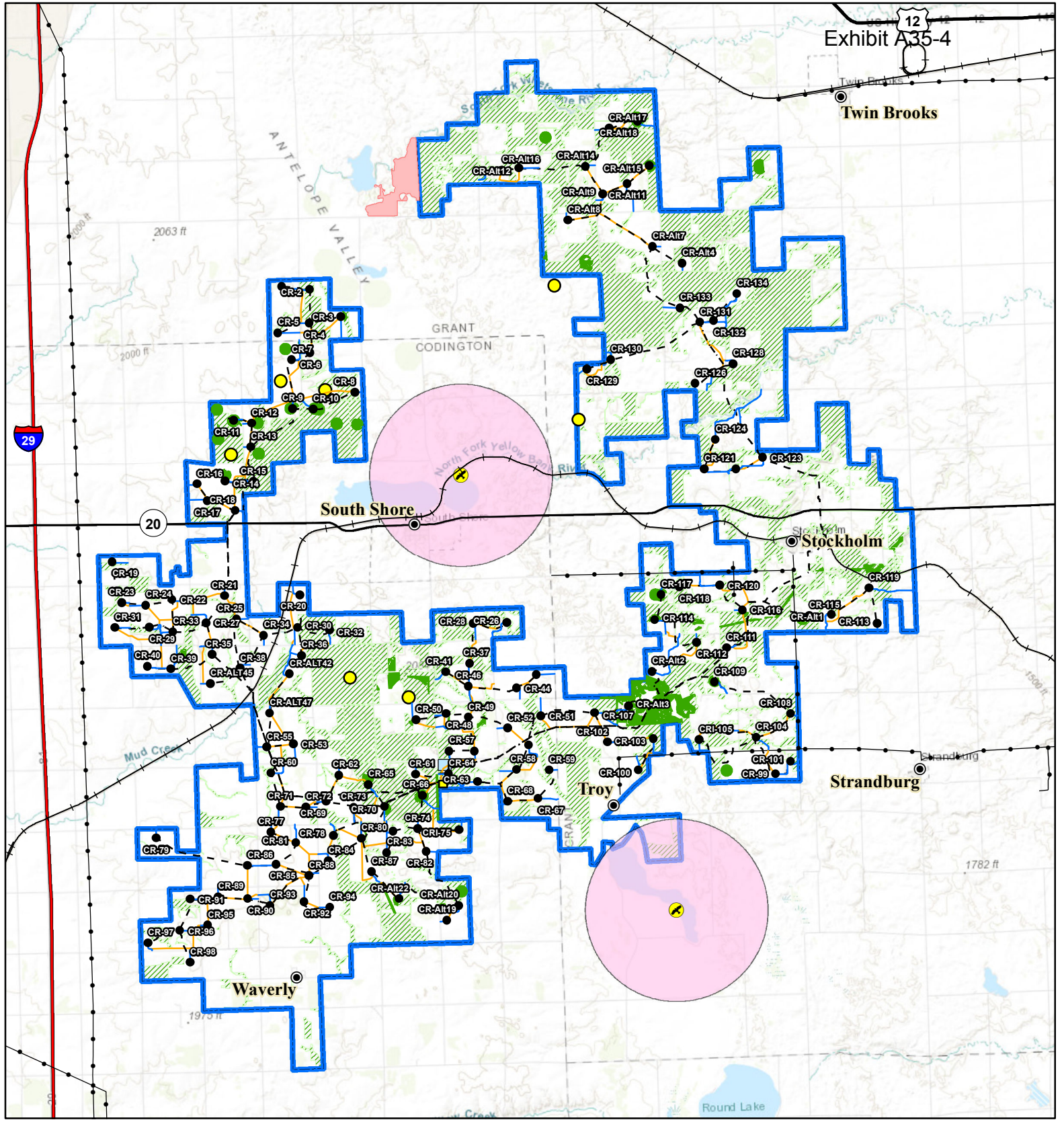
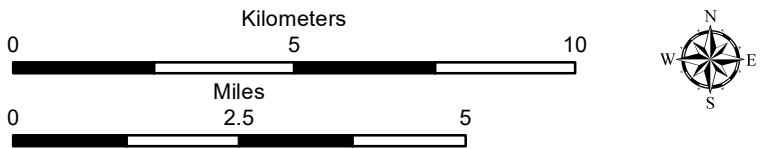


Figure 6. Environmental Constraints

Crowned Ridge Wind Farm

- | | | |
|--------------------------|-------------------------|---|
| Bald Eagle Nest Location | Electrical Line | Field Assessed Dakota Skipper Habitat |
| Turbine | Railroad | 1.5-mile Bald Eagle Nest Buffer |
| Lek Location | Interstate Highway | USFWS Critical Habitat |
| City | U.S. Highway | Undisturbed Native Grasslands (Bauman 2013) |
| Access Road | State Highway | Project Boundary |
| Collector Line | O&M Facility/Substation | |
| Crane Path | Laydown Yard | |



Base Map: World Topographic Map
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
 Codington and Grant Counties, South Dakota

016157

Page 000001

Projection: NAD 1983 UTM Zone 14N

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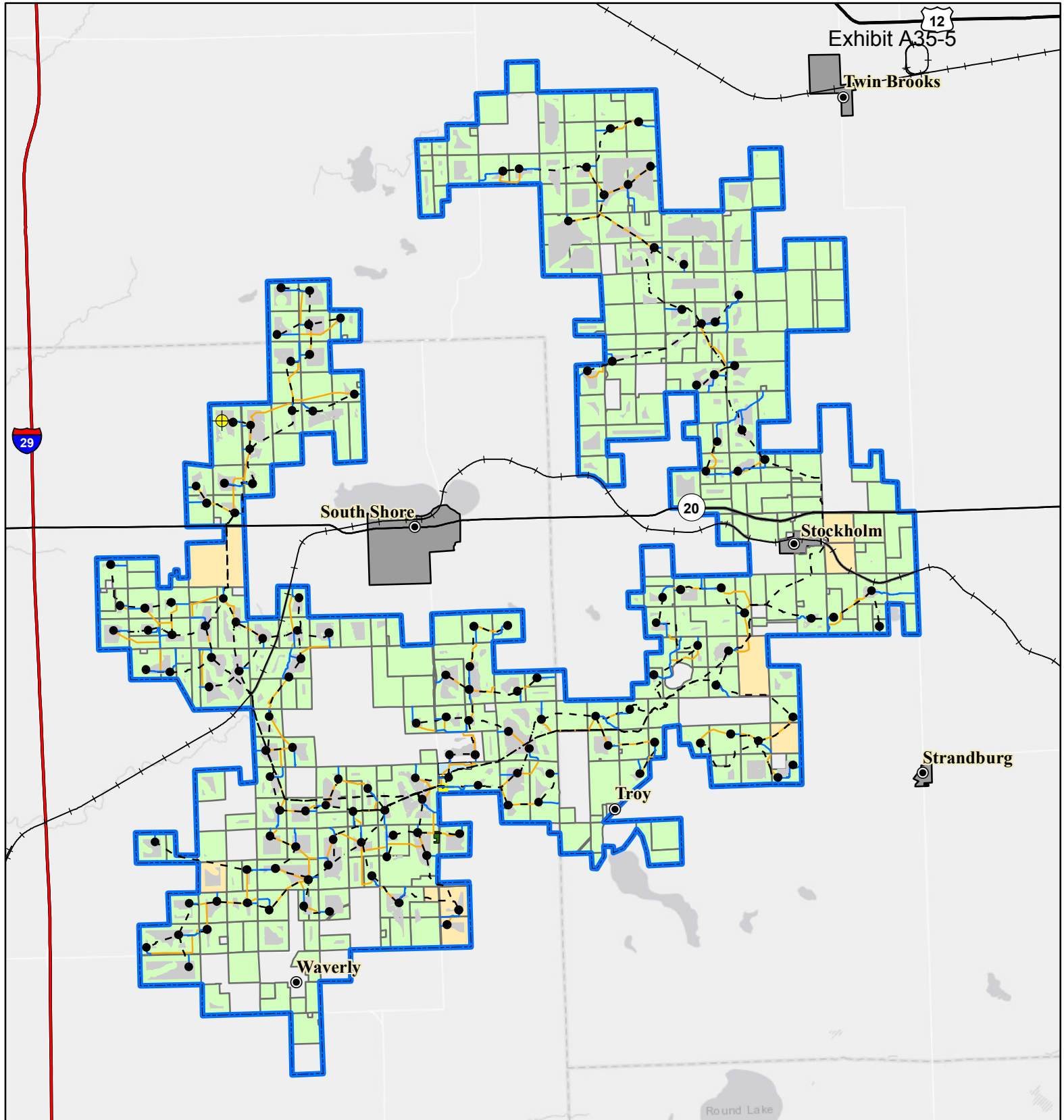
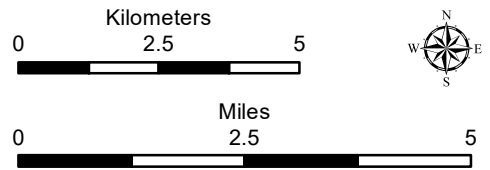
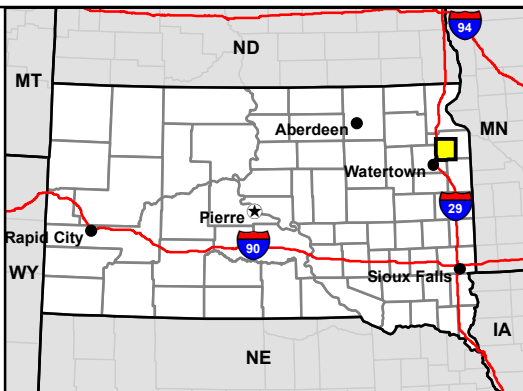


Figure 7. Constraints Map

Crowned Ridge Wind Farm

- MET Tower
- Turbine
- City
- Railroad
- Access Road
- Collector Line
- Crane Path
- Interstate Highway
- U.S. Highway
- State Highway
- Batch Plant
- Laydown Yard
- O & M Facility/
Substation
- Available Land
- Town Boundary
- Project Boundary
- Lease Status**
- Leased, Signed
- Pending Approval



Base Map: World Light Gray Canvas Base
 Sources: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Codington and Grant Counties, South Dakota

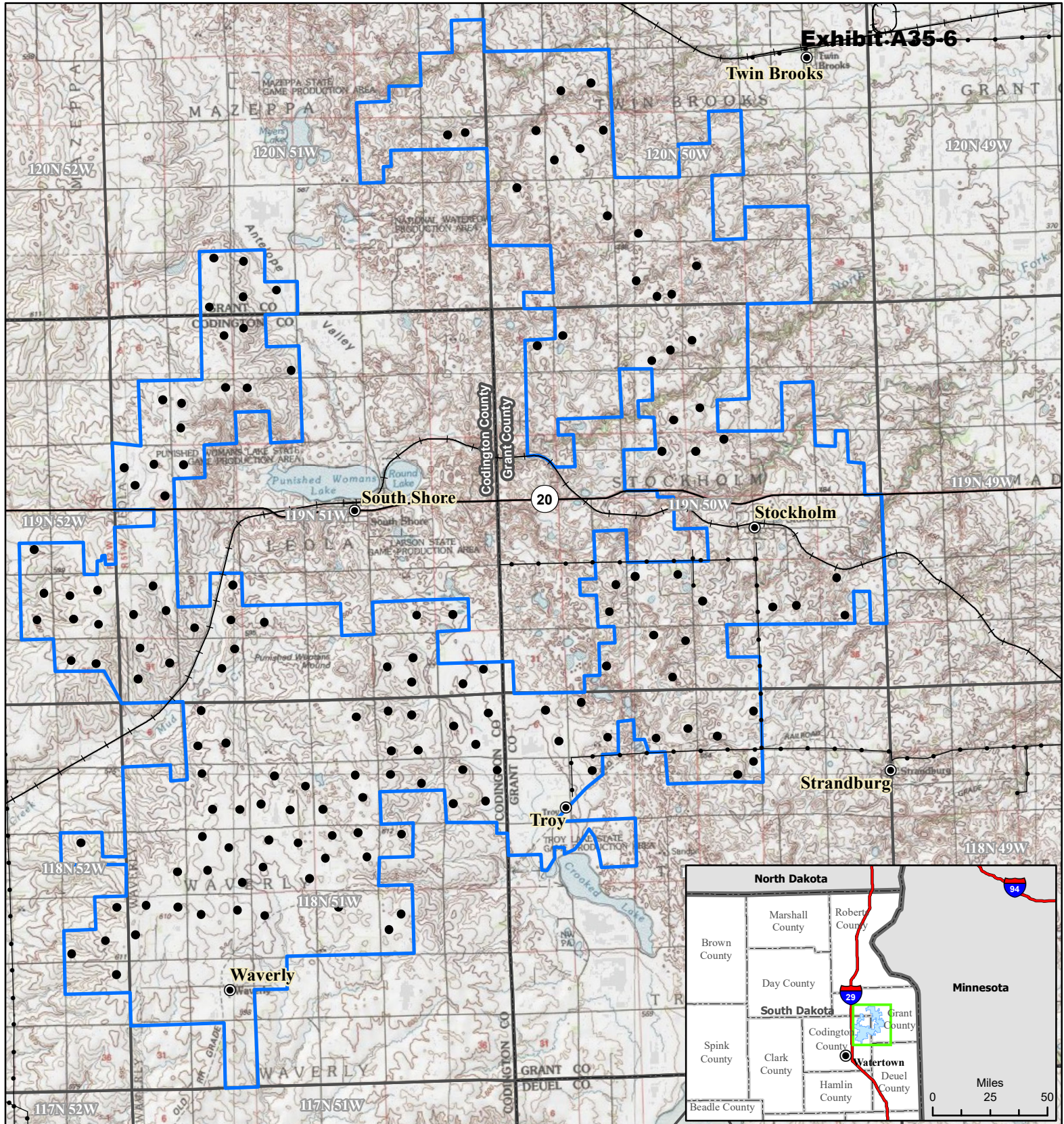
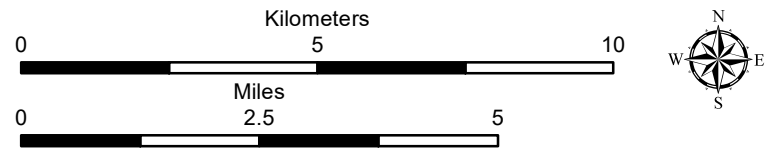


Figure 8. Topographic Map

Crowned Ridge Wind Farm

- Turbine
- City
- +— Railroad
- Electrical Line
- State Highway
- ▭ Project Boundary
- ▭ County Boundary
- ▭ Township/Range Boundary



Base Map: USGS 7.5' Topographic Map
 Source: Copyright: ©2014 National Geographic Society, i-cubed
 Codington and Grant Counties, South Dakota

016159

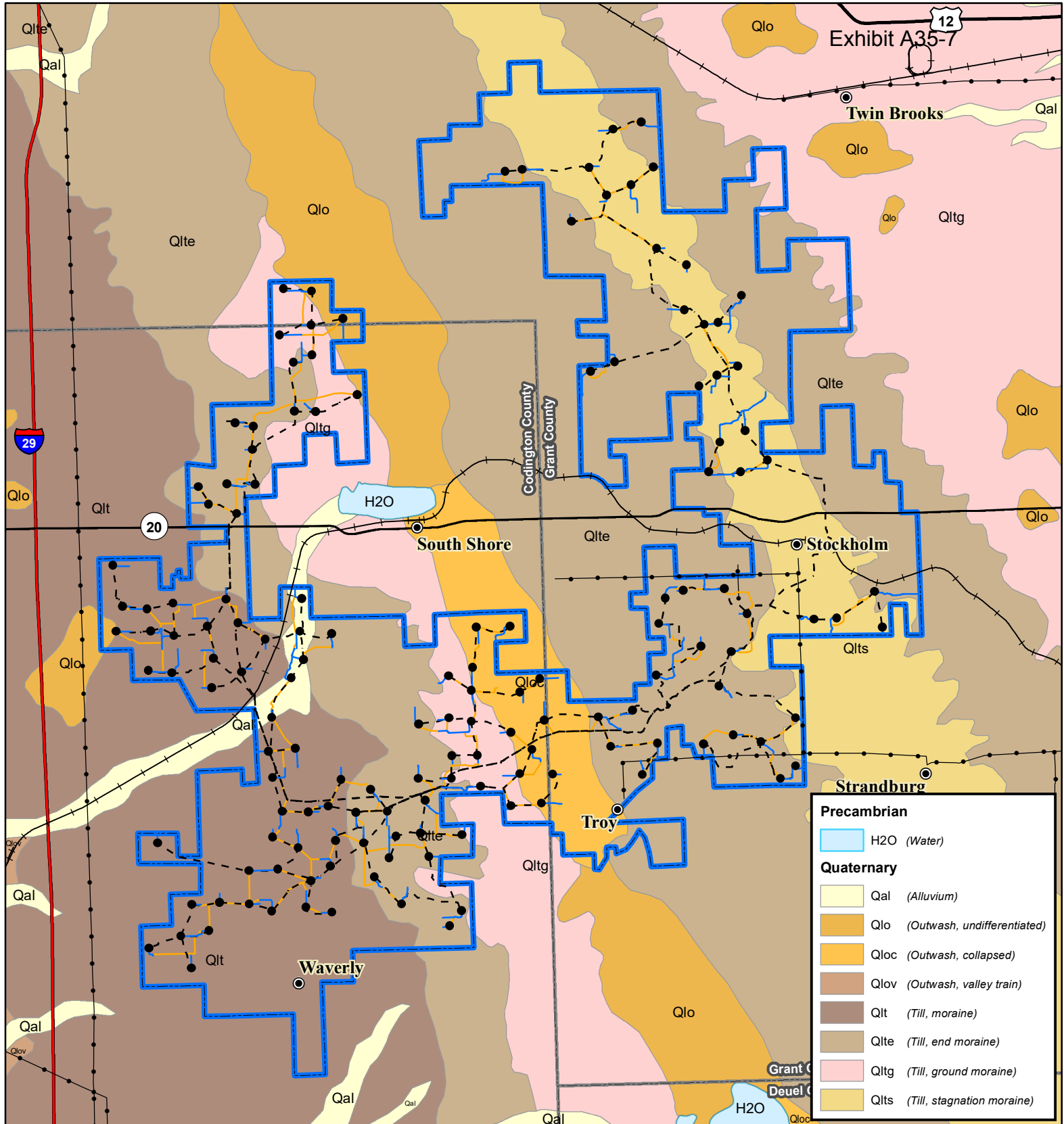
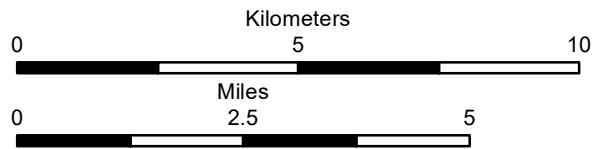


Figure 9a. Surficial Geology

Crowned Ridge Wind Farm

- City
- Turbine
- Access Road
- - - Collector Line
- Crane Path
- Electrical Line
- +— Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- ▭ Project Boundary
- ▭ County Boundary



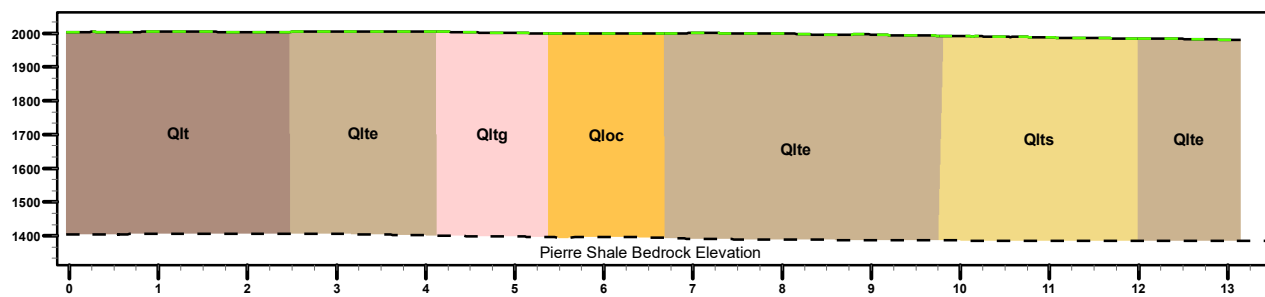
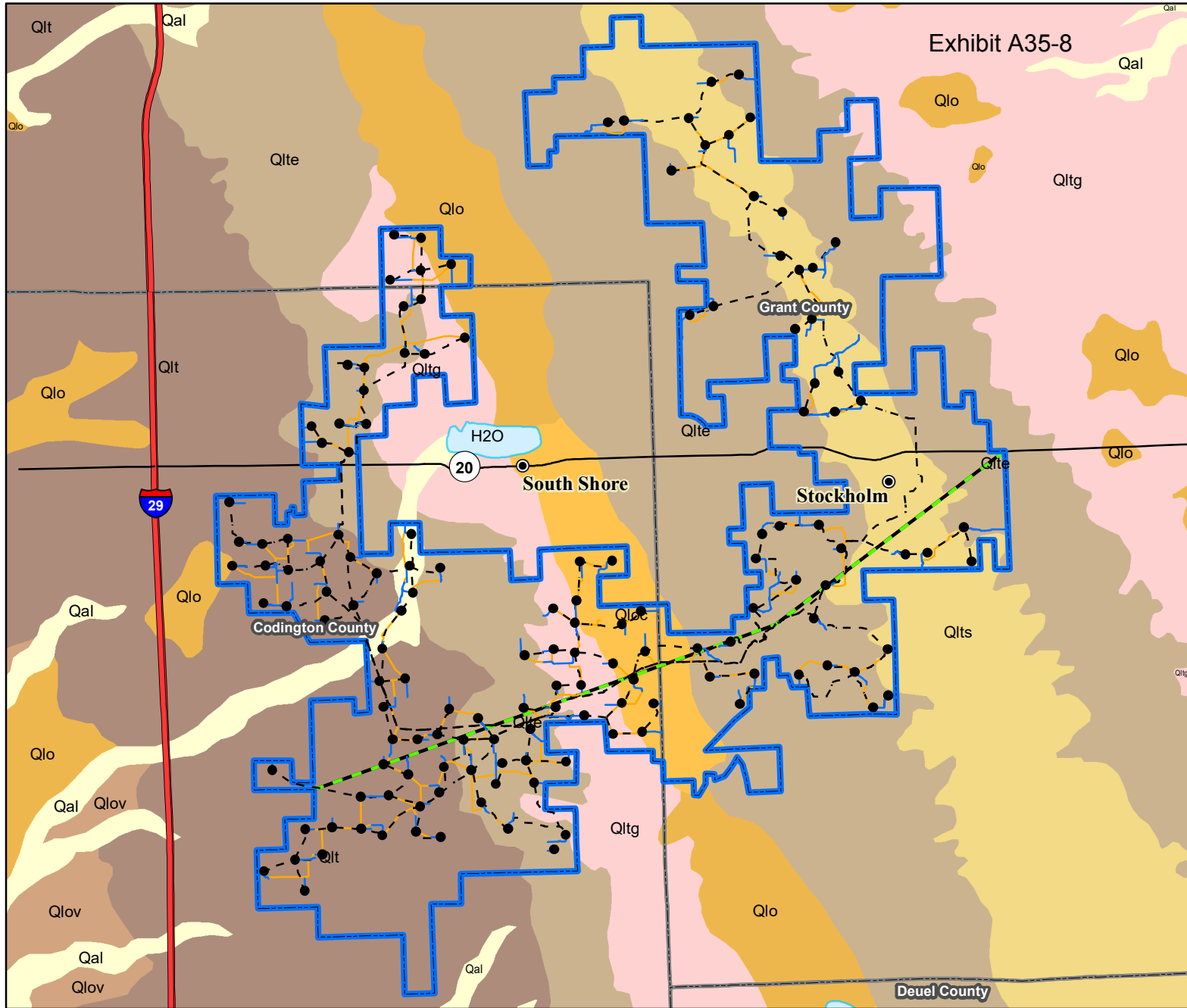
Base Map: Surficial Geology
 Source: South Dakota Geological Survey via
 State of South Dakota GIS
 Codington and Grant Counties, South Dakota

Projection: NAD 1983 UTM Zone 14N

016160

Page 000001



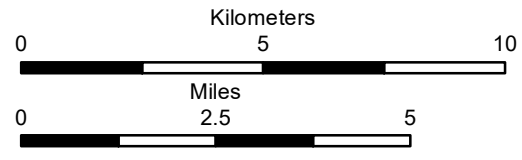


*Vertical axis in feet above sea level; Horizontal axis in miles

Figure 9b. Geology Cross Sections

Crowned Ridge Wind Farm

- City
- Turbine
- Access Road
- - Collector Line
- Crane Path
- Cross Section
- Interstate Highway
- State Highway
- ▭ Project Boundary
- ▭ County Boundary
- Surficial Geology**
- Precambrian**
- ▭ H2O (Water)
- Quaternary**
- ▭ Qal (*Alluvium*)
- ▭ Qlo (*Outwash, undifferentiated*)
- ▭ Qloc (*Outwash, collapsed*)
- ▭ Qlov (*Outwash, valley train*)
- ▭ Qlt (*Till, moraine*)
- ▭ Qlte (*Till, end moraine*)
- ▭ Qltg (*Till, ground moraine*)
- ▭ Qlts (*Till, stagnation moraine*)



Base Map: Surficial Geology
 Source: South Dakota Geological Survey via
 State of South Dakota GIS
 Codington and Grant Counties, South Dakota



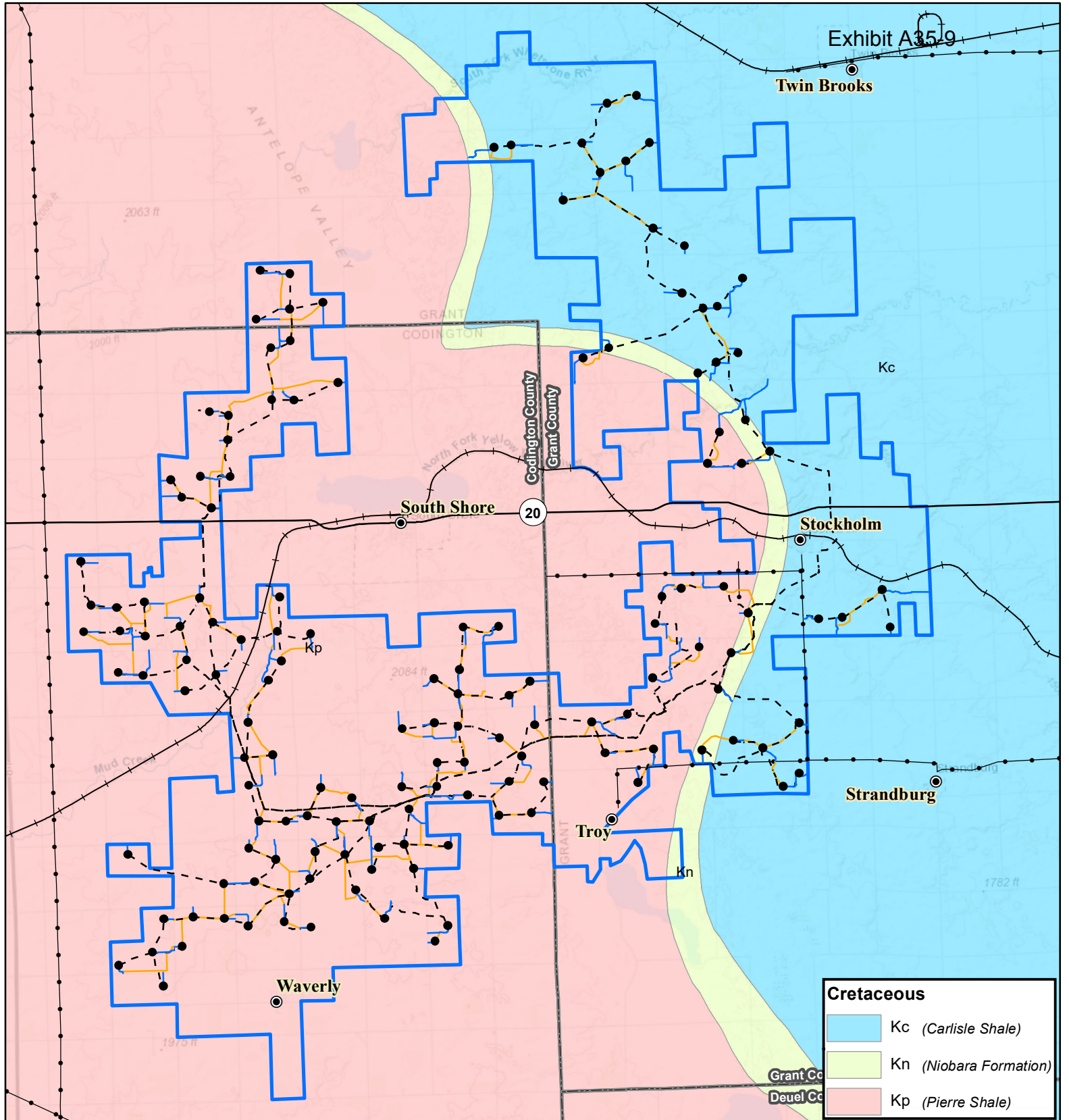


Exhibit A35.9

Twin Brooks

Kc

South Shore

Stockholm

Strandburg

Troy

Waverly

Cretaceous

- Kc (*Carlisle Shale*)
- Kn (*Niobara Formation*)
- Kp (*Pierre Shale*)

Figure 10. Bedrock Geology

Crowned Ridge Wind Farm

- City
- Turbine
- Access Road
- - - Collector Line
- Crane Path
- +— Railroad
- Electrical Line
- State Highway
- ▭ Project Boundary
- ▭ County Boundary

Kilometers

0 5 10

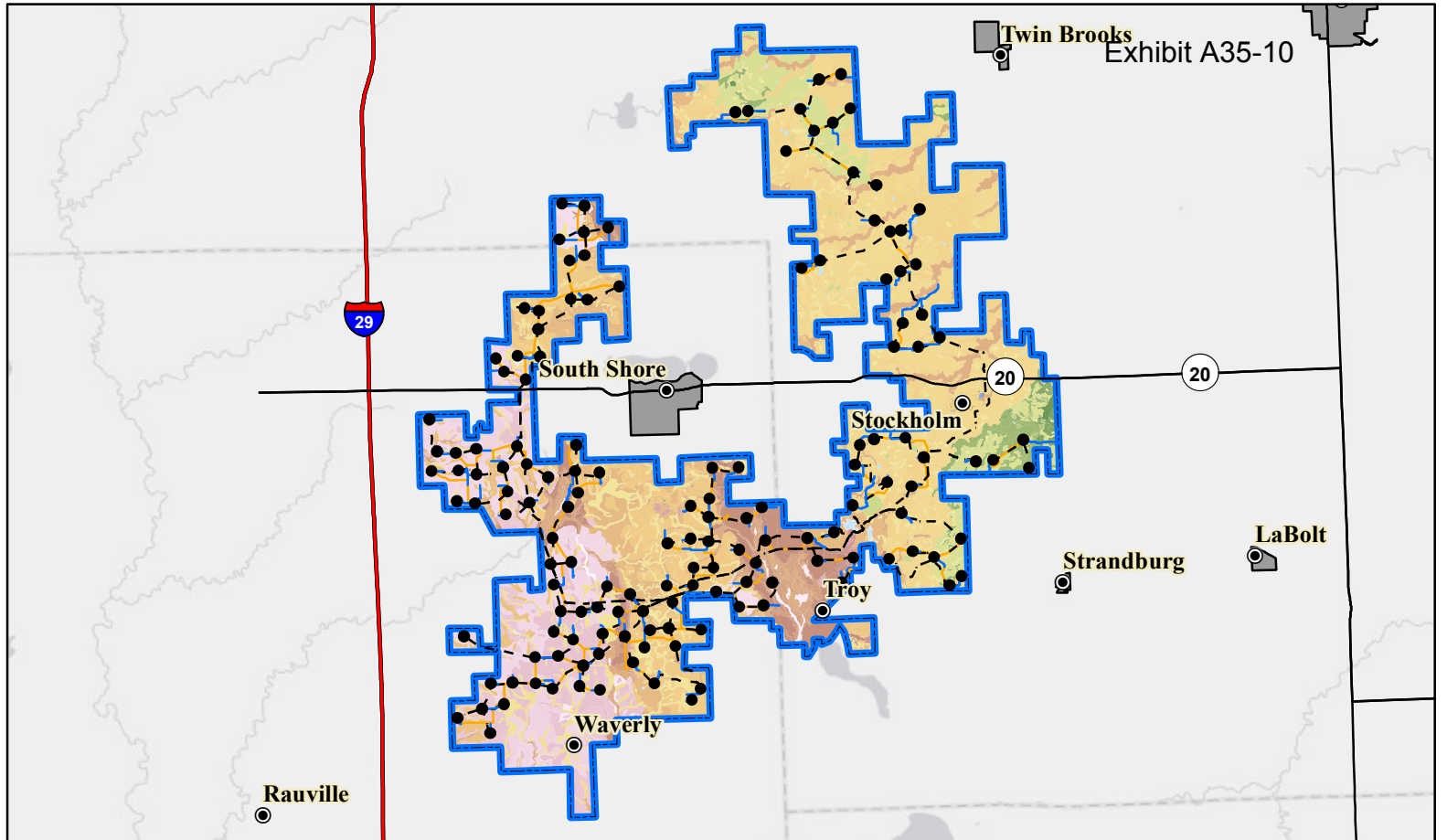
Miles

0 2.5 5

Base Map: World Topographic Map
 Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community
 Codington and Grant Counties, South Dakota

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Projection: NAD 1983 UTM Zone 14N

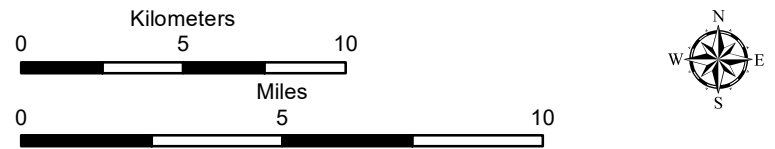


MUSYM (Soil Type)	
BeF (Buse-Forman loams, 25-40% slopes)	PeB (Peever clay loam, 2 to 6% slopes)
BfD (Buse-Forman-Aastad loams, 4-15% slopes)	Ph (Playmoor silty clay loam)
Fa (Flom Clay loam)	Ta (Tonka silty clay loam, 0 to 1% slopes)
FdB (Forman-Aastad loams, 1-6% slopes)	Vb (Vallers-Parnell complex)
FdC (Forman-Aastad loams, 3-9% slopes)	W (Water)
FdD (Forman-Aastad loams, 4-15% slopes)	Z101A (Tonka silty clay loam, 0 to 1% slopes)
FgC (Forman-Buse loams, 6-9% slopes)	Z102A (Badger-Tonka silty clay loam, 0 to 1% slopes)
FgE (Forman-Buse loams, 15-25% slopes)	Z105A (Oldham silty clay loam, coteau, 0 to 1% slopes)
FhE (Forman-Buse extremely stony loams, 9-40% slopes)	Z106A (Southam silty clay loam, 0 to 1% slopes)
HaD (Hattie clay loam, 9 to 15% slopes)	Z107A (Parnell silty clay loam, coteau, 0 to 1% slopes)
HaE (Hattie clay loam, 15 to 40% slopes)	Z110A (Vallers loam, coteau, 0 to 1% slopes)
J119E (Buse-Sioux complex, 9 to 40% slopes)	Z112A (Vallers-Hamerly loams, coteau, 0 to 2% slopes)
J136A (Great Bend-Beotia silt loams, 0 to 2% slopes)	Z113A (Vallers-Parnell complex, coteau, 0 to 2% slopes)
J225B (Forman-Aastad complex)	Z114A (Hamerly-Tonka complex, coteau, 0 to 2% slopes)
Lb (LaDelle silt loam, channeled)	Z115A (Hamerly-Badger complex, coteau, 0 to 2% slopes)
Lc (Ludden silty clay)	Z116A (McKranz-Hidwood, frequently flooded, silty clay loams, 0 to 2% slopes)
M-W (Miscellaneous Water)	Z117A (McKranz-Badger silty clay loams, 0 to 2% slopes)
Pa (Parnell silty clay loam)	Z119A (Hamerly-Balaton loams, coteau, 0 to 3% slopes)
Pb (Southern silty clay loam, 0 to 1% slopes)	Z128B (Hettland silty clay loam, 2 to 6% slopes)
PcA (Peever clay loam, coteau, 0 to 2% slopes)	Z131A (Forman-Aastad loams, coteau, 0 to 2% slopes)
PcB (Peever clay loam, coteau, 2 to 6% slopes)	Z131B (Forman-Aastad loams, coteau, 1 to 6% slopes)
PcC (Peever clay loam, 6 to 9% slopes)	Z132B (Forman-Buse-Aastad loams, coteau, 1 to 6% slopes)
	Z132C (Forman-Buse-Aastad loams, coteau, 2 to 9% slopes)
	Z132D (Forman-Buse-Aastad loams, coteau, 2 to 15% slopes)
	Z135D (Forman-Buse loams, very stony, 2 to 15% slopes)
	Z136F (Buse-Langhei complex, very stony, 9 to 40% slopes)
	Z137F (Buse-Forman loams, very stony, 15 to 40% slopes)
	Z140F (Buse-Langhei complex, coteau, 15 to 40% slopes)
	Z141A (Barnes-Svea loams, coteau, 0 to 2% slopes)
	Z141B (Barnes-Svea loams, coteau, 1 to 6% slopes)
	Z142B (Barnes-Buse-Svea loams, coteau, 2 to 9% slopes)
	Z142C (Barnes-Buse loams, coteau, 6 to 9% slopes)
	Z144E (Buse-Barnes loams, coteau, 9 to 20% slopes)
	Z145D (Buse-Barnes loams, coteau, very stony, 2 to 15% slopes)
	Z145F (Buse-Barnes loams, coteau, very stony, 9 to 40% slopes)
	Z146F (Buse-Lamoure, channeled, frequently flooded, complex, 0 to 40% slopes)
	Z148F (Buse very stony-Lamoure, channeled, frequently flooded, complex, 0 to 40% slopes)
	Z149F (Buse-Langhei, very stony-La Prairie, channeled, occasionally flooded, complex, 0 to 60% slopes)
	Z150A (Rauville silty clay loam, coteau, frequently flooded, 0 to 1% slopes)
	Z152A (Lamoure silty clay loam, coteau, occasionally flooded, 0 to 1% slopes)
	Z153A (Lamoure-Rauville silty clay loams, channeled, frequently flooded, 0 to 2% slopes)
	Z157A (Fairdale loam, channeled, frequently flooded, 0 to 2% slopes)
	Z158A (Marysland loam, occasionally flooded, 0 to 1% slopes)
	Z159A (Divide loam, occasionally flooded, 0 to 2% slopes)
	Z160A (Moritz, occasionally flooded-Lamoure, frequently flooded, complex, 0 to 2% slopes)
	Z161A (Spottswood loam, occasionally flooded, 0 to 2% slopes)
	Z162A (La Prairie loam, coteau, occasionally flooded, 0 to 2% slopes)
	Z166A (Forttown loam, rarely flooded, 0 to 2% slopes)
	Z167A (Renwash loam, rarely flooded, 0 to 2% slopes)
	Z171A (Renshaw-Fordville loams, coteau, 0 to 2% slopes)
	Z171B (Renshaw-Fordville loams, coteau, 2 to 6% slopes)
	Z172A (Renshaw loam, coteau, 0 to 2% slopes)
	Z172B (Renshaw loam, coteau, 2 to 6% slopes)
	Z173B (Renshaw-Sioux complex, coteau, 2 to 6% slopes)
	Z173C (Renshaw-Sioux complex, coteau, 6 to 9% slopes)
	Z174D (Sioux-Renshaw complex, coteau, 9 to 15% slopes)
	Z174F (Sioux-Renshaw complex, coteau, 15 to 40% slopes)
	Z175D (Renshaw-Sioux complex, very stony, 2 to 15% slopes)
	Z176C (Arvilla-Sandberg sandy loams, coteau, 6 to 9% slopes)
	Z177 (Udorhents, coteau (gravel pits))
	Z178A (Rentill loam, coteau, 0 to 2% slopes)
	Z179F (Sioux-Renshaw complex, very stony, 15 to 40% slopes)
	Z184E (Maddock loamy fine sand, 9 to 25% slopes)
	Z185A (Egeland-Embsden complex, coteau, 0 to 2% slopes)
	Z185B (Egeland-Embsden complex, coteau, 2 to 6% slopes)
	Z186B (Maddock-Egeland sandy loams, coteau, 2 to 6% slopes)
	Z186C (Maddock-Egeland sandy loams, coteau, 6 to 9% slopes)
	Z190A (Brookings silty clay loam, 0 to 2% slopes)
	Z192A (Vienna-Brookings complex, coteau, 0 to 2% slopes)
	Z192B (Vienna-Brookings complex, coteau, 1 to 6% slopes)
	Z193C (Vienna-Buse complex, coteau, 6 to 9% slopes)
	Z194A (Barnes clay loam, coteau, 0 to 2% slopes)
	Z194B (Barnes clay loam, coteau, 2 to 6% slopes)
	Z198A (Vienna-Forestville loams, coteau, 0 to 2% slopes)
	Z199B (Vienna-Barnes-Forestville loams, 1 to 6% slopes)
	Z205B (Mauvais clay loam, occasionally ponded, extremely stony, 2 to 6% slopes)
	Z217A (McKranz silty clay loam, 0 to 2% slopes)
	Z250A (Rauville mucky silty clay loam, ponded, frequently flooded, 0 to 1% slopes)
	Z252A (Hidewood silty clay loam, frequently flooded, 0 to 2% slopes)

Figure 11. Soil Types

Crowned Ridge Wind Farm

- City
- Turbine
- Access Road
- - - Collector Line
- Crane Path
- Interstate Highway
- State Highway
- ▭ Town Boundary
- ▭ Project Boundary



Base Map: World Light Gray Canvas Base
 Sources: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
 Codington and Grant Counties, South Dakota

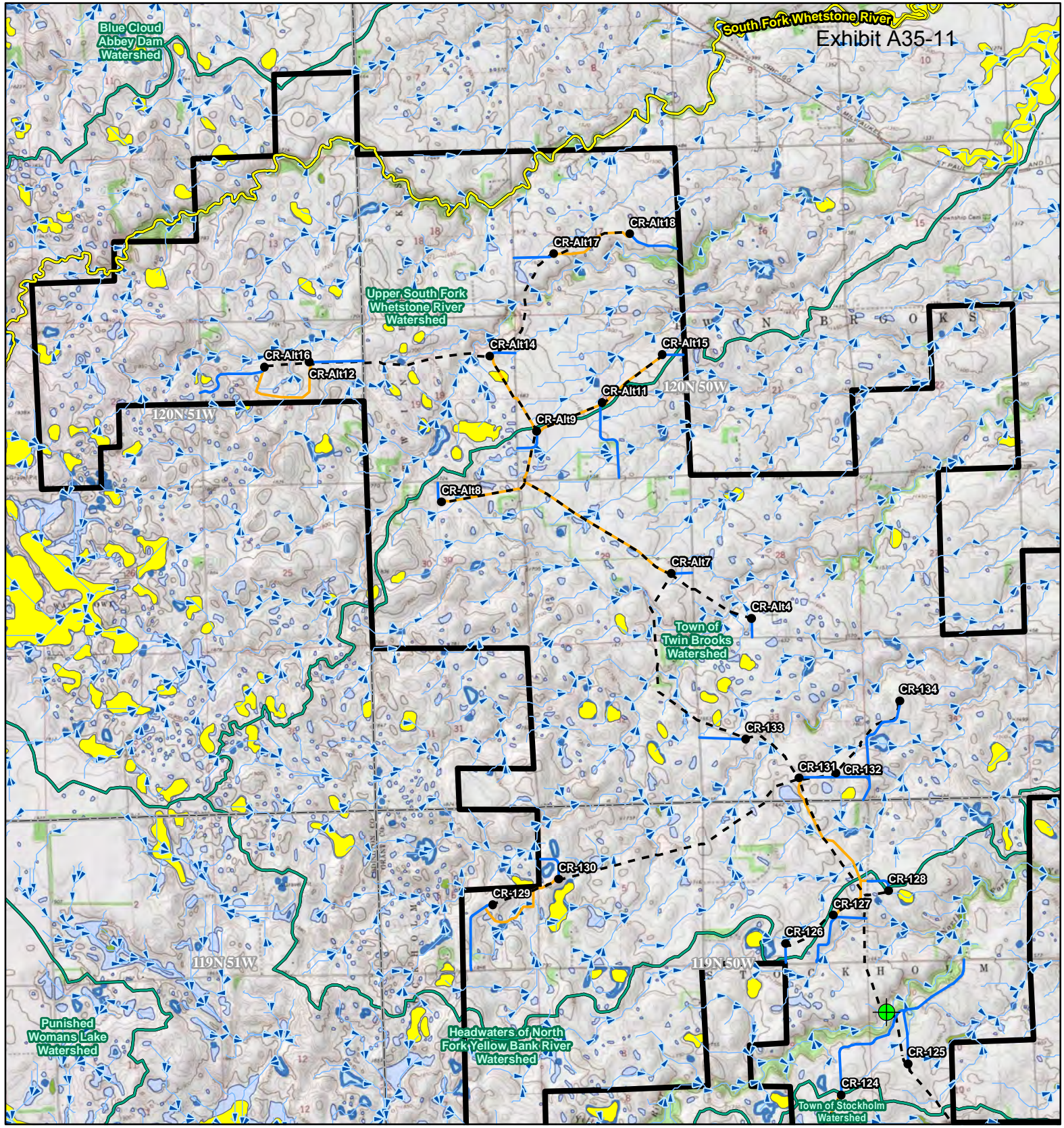
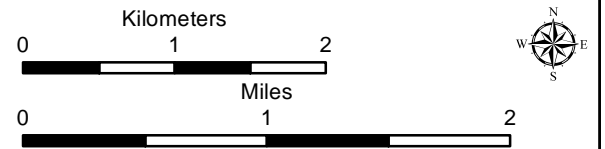
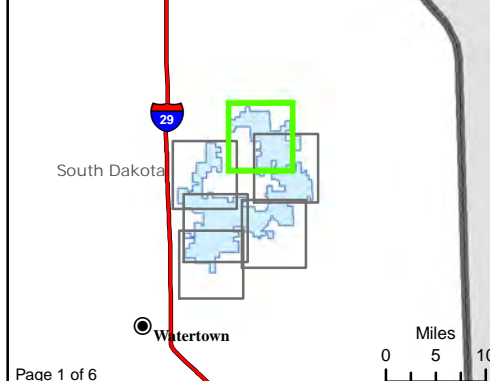


Exhibit A35-11

Figure 12. Water Resources
Crowned Ridge Wind Farm

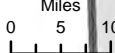
- City
- Intersection of Floodplain and Project Infrastructure
- Turbine
- Access Road
- Collector Line
- Crane Path
- Flow Direction
- South Dakota Beneficial Use Stream
- South Dakota Beneficial Use Lake
- Watershed Boundary (HUC12)
- Project Boundary
- County Boundary
- Township/Range Boundary
- Freshwater Wetland
- Freshwater Forested/Shrub Wetland
- Lake, Pond, or Riverine Wetland
- FEMA Flood Zone A



Base Map: USGS 7.5' Topographic Map
Source: Esri ArcGIS Online service
Quadrangle: Antelope Valley (1973),
Twin Brooks (1973), Stockholm (1973)
Township/Range: T120N, R51W &
T120N, R50W & T119N, R50W
Grant County, South Dakota

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Page 000001 **SWCA**
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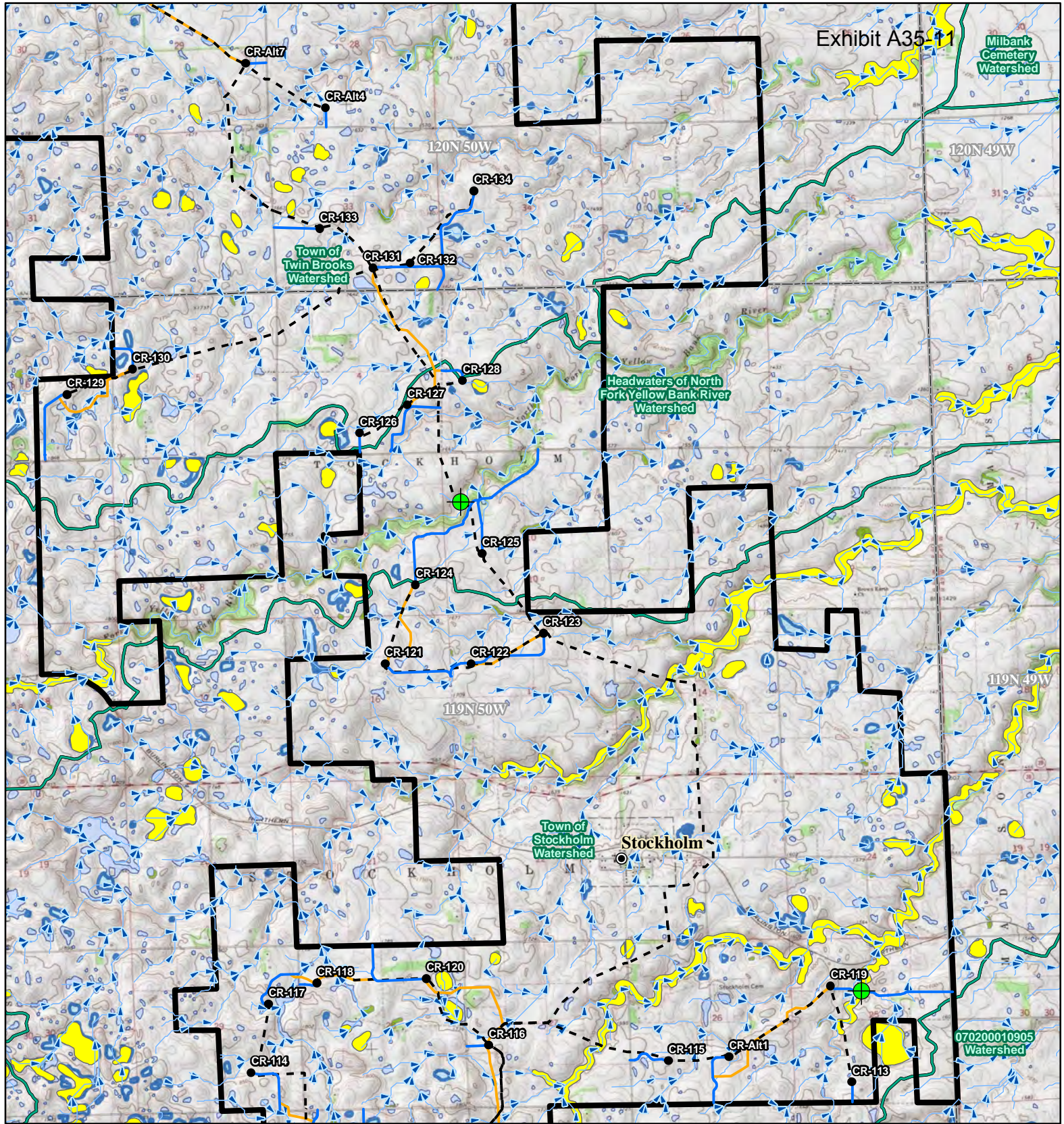
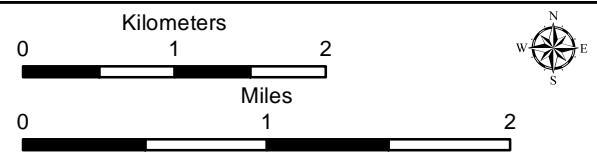
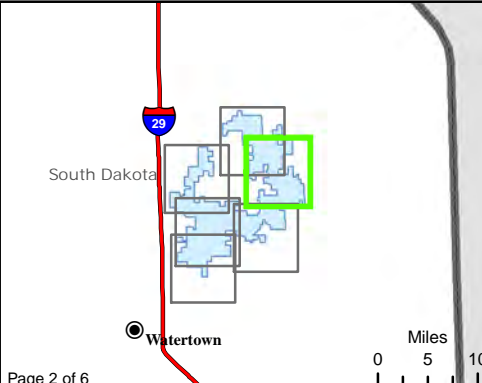


Figure 12. Water Resources
Crowned Ridge Wind Farm

- City
- Intersection of Floodplain and Project Infrastructure
- Turbine
- Access Road
- - Collector Line
- Crane Path
- Flow Direction
- South Dakota Beneficial Use Stream
- South Dakota Beneficial Use Lake
- Watershed Boundary (HUC12)
- Project Boundary
- County Boundary
- Township/Range Boundary
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Lake, Pond, or Riverine Wetland
- FEMA Flood Zone A



Base Map: USGS 7.5' Topographic Map
 Source: Esri ArcGIS Online service
 Quadrangle: Twin Brooks (1973),
 Stockholm (1973)
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 Grant County, South Dakota
 Projection: NAD 1983 UTM Zone 14N

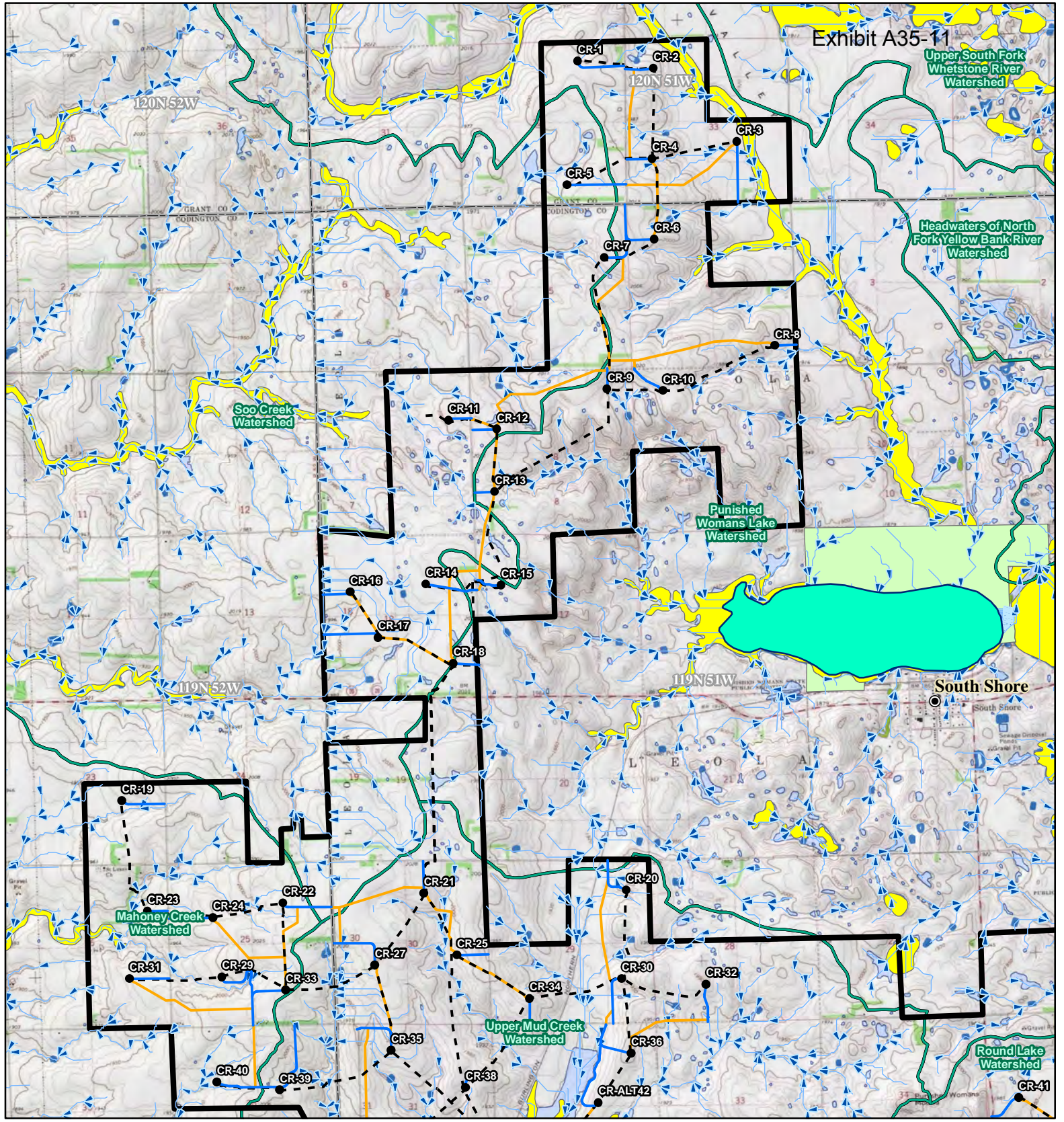
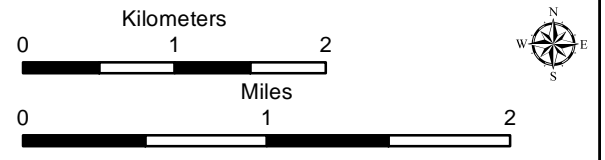
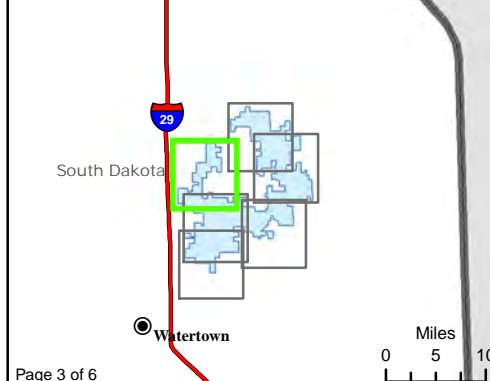


Figure 12. Water Resources
Crowned Ridge Wind Farm

- City
- Intersection of Floodplain and Project Infrastructure
- Turbine
- Access Road
- - Collector Line
- Crane Path
- Flow Direction
- South Dakota Beneficial Use Stream
- South Dakota Beneficial Use Lake
- Watershed Boundary (HUC12)
- Project Boundary
- County Boundary
- Township/Range Boundary
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Lake, Pond, or Riverine Wetland
- FEMA Flood Zone**
- A
- D



Base Map: USGS 7.5' Topographic Map
 Source: Esri ArcGIS Online service
 Quadrangle: Antelope Valley (1973),
 Still Lake SE (1970), South Shore (1973)
 Township/Range: T120N, R51W &
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 Codington and Grant Counties, South Dakota
 Page 000003
 Projection: NAD 1983 UTM Zone 14N

016166



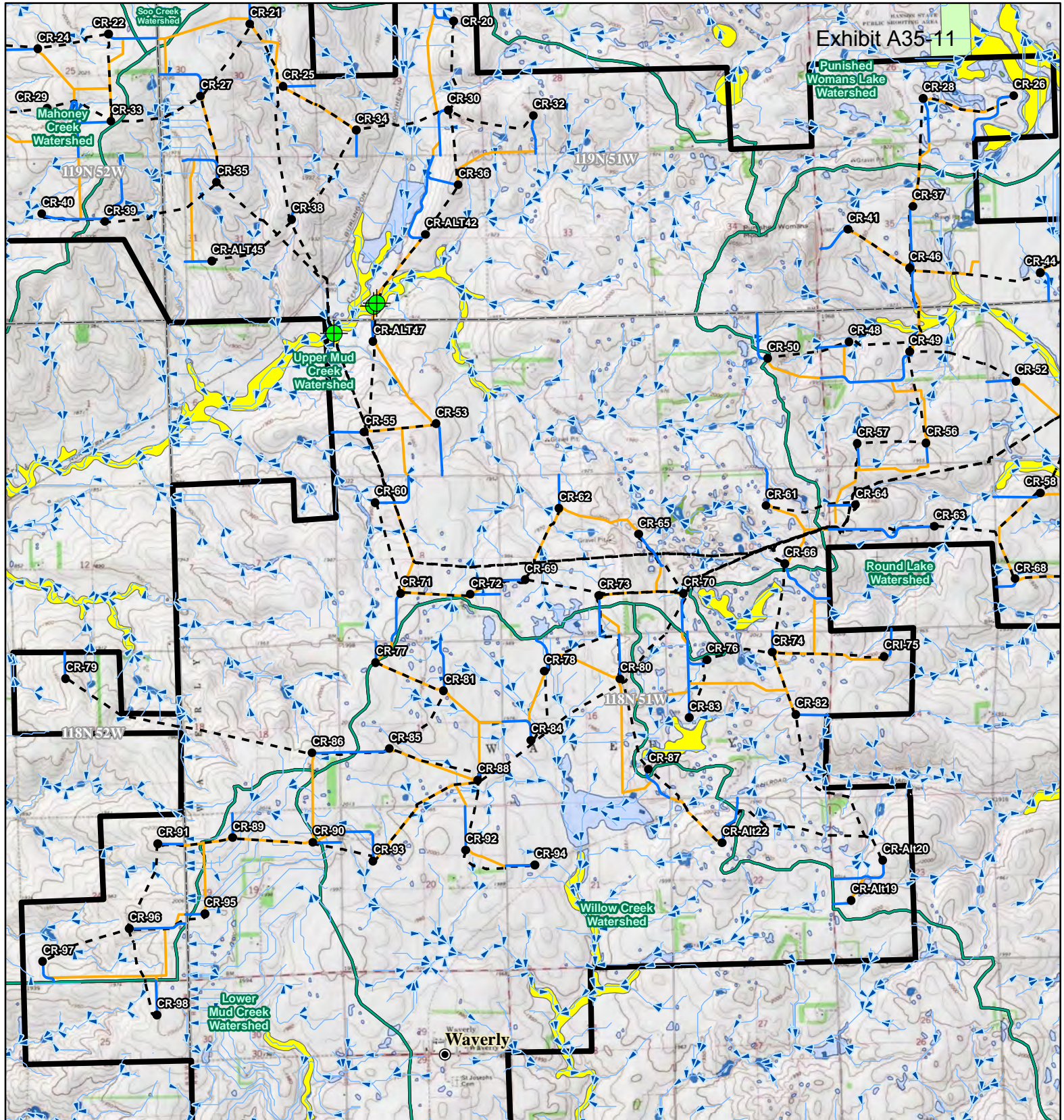
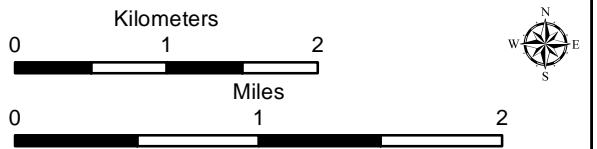
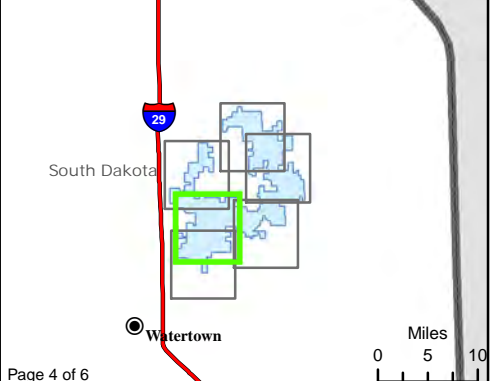


Figure 12. Water Resources
Crowned Ridge Wind Farm

- City
- Intersection of Floodplain and Project Infrastructure
- Turbine
- Access Road
- - Collector Line
- Crane Path
- Flow Direction
- South Dakota Beneficial Use Stream
- South Dakota Beneficial Use Lake
- Watershed Boundary (HUC12)
- Project Boundary
- County Boundary
- Township/Range Boundary
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Lake, Pond, or Riverine Wetland
- FEMA Flood Zone**
- A
- D



Base Map: USGS 7.5' Topographic Map
 Source: Esri ArcGIS Online service
 Quadrangle: Still Lake SE (1970), South Shore (1973),
 Watertown East (1969), Kranzburg (1970)
 Township/Range: T119N, R52W & T119N, R51W &
 T118N, R52W & T118N, R51W
 Codington County, South Dakota
 016167
 Page 00004 **SWCA**
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 Projection: NAD 1983 UTM Zone 14N

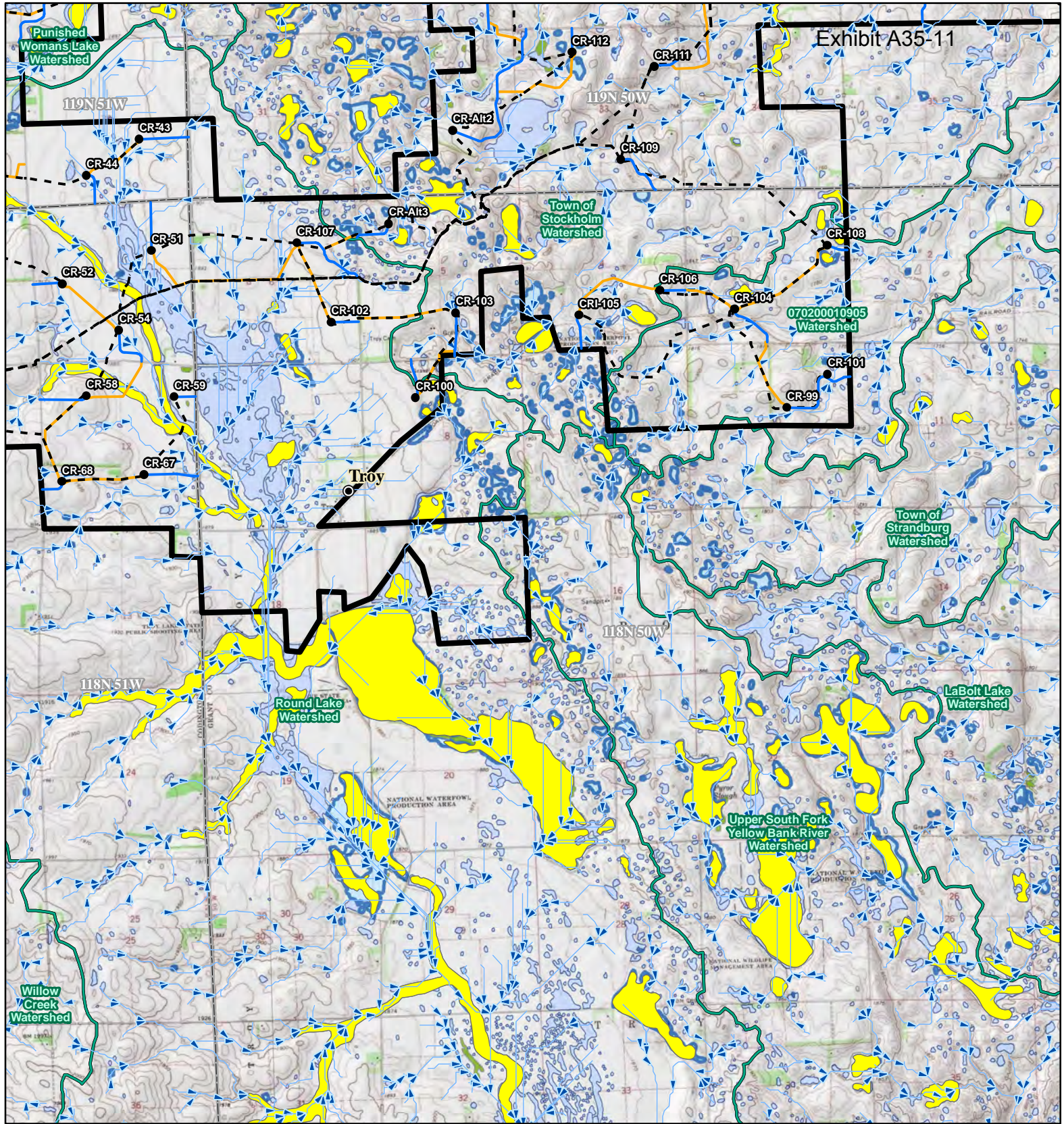
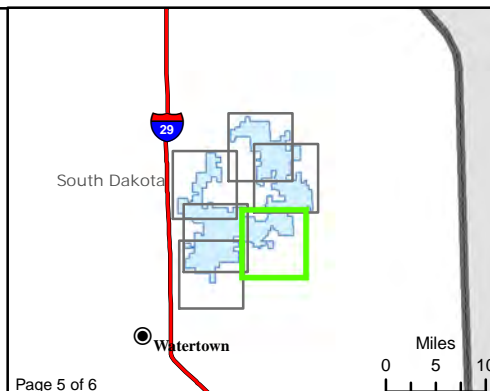


Exhibit A35-11

Figure 12. Water Resources
Crowned Ridge Wind Farm

- City
- Intersection of Floodplain and Project Infrastructure
- Turbine
- Access Road
- - Collector Line
- Crane Path
- Flow Direction
- South Dakota Beneficial Use Stream
- South Dakota Beneficial Use Lake
- Watershed Boundary (HUC12)
- Project Boundary
- County Boundary
- Township/Range Boundary
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Lake, Pond, or Riverine Wetland
- FEMA Flood Zone A



Kilometers
0 1 2

Miles
0 1 2

Base Map: USGS 7.5' Topographic Map
Source: Esri ArcGIS Online service
Quadrangle: South Shore (1973), Stockholm (1973)
Township/Range: T119N, R51W & T119N, R50W & T118N, R51W & T118N, R50W
Codington and Grant Counties, South Dakota
016168
Page 000005 **SWCA**
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Projection: NAD 1983 UTM Zone 14N

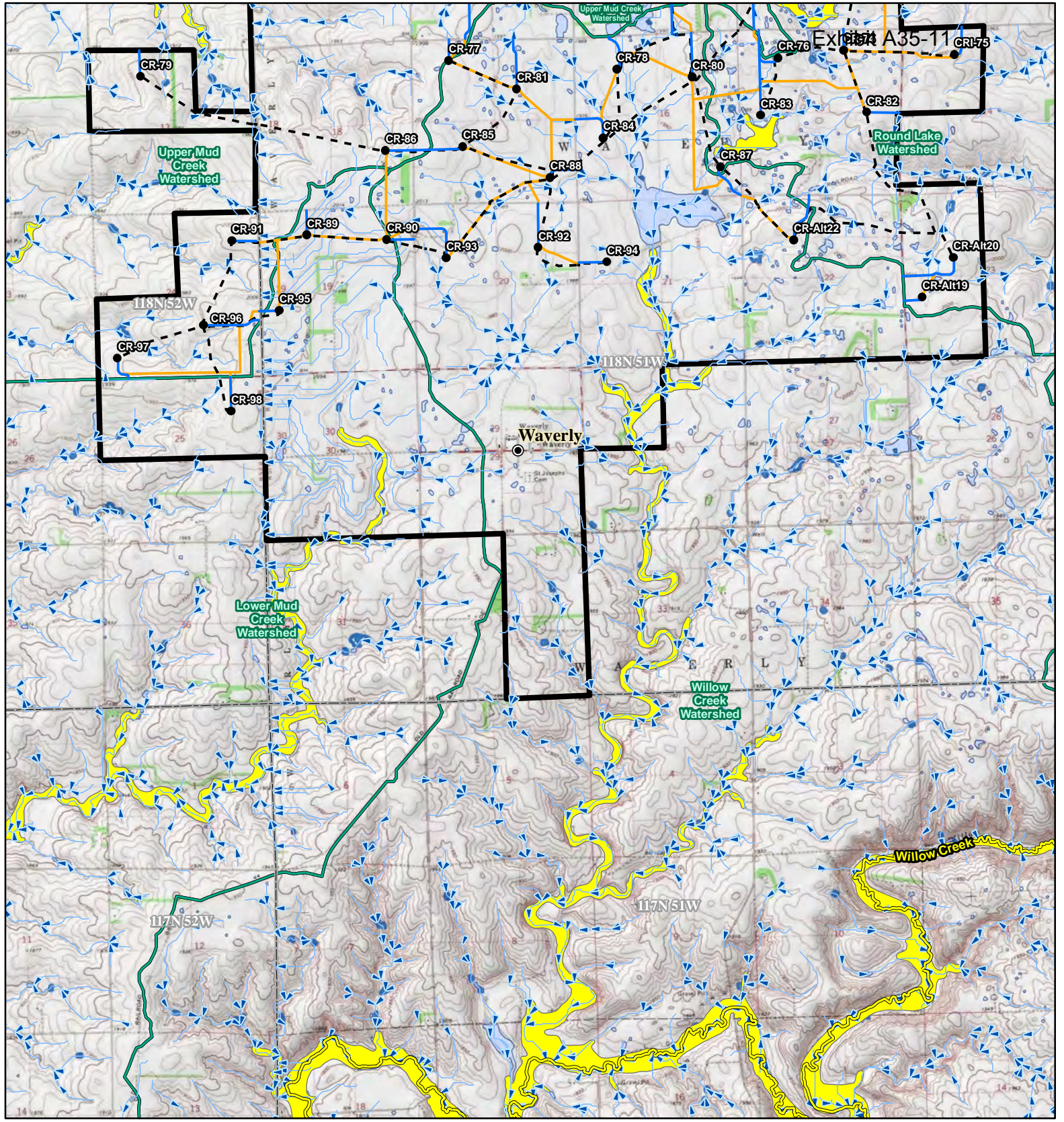
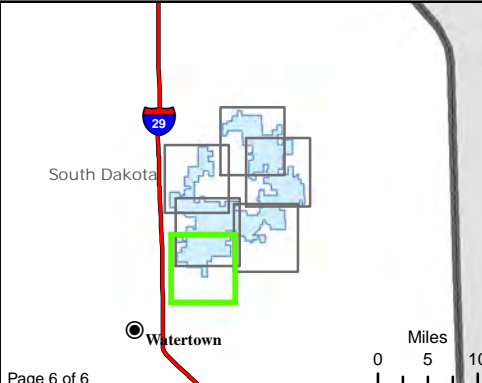


Figure 12. Water Resources
Crowned Ridge Wind Farm

- City
- Intersection of Floodplain and Project Infrastructure
- Turbine
- Access Road
- - Collector Line
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- Flow Direction
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- ▭ Project Boundary
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- ▭ Freshwater Forested/Shrub Wetland
- ▭ Lake, Pond, or Riverine Wetland
- ▭ FEMA Flood Zone A



Kilometers
0 1 2

Miles
0 1 2

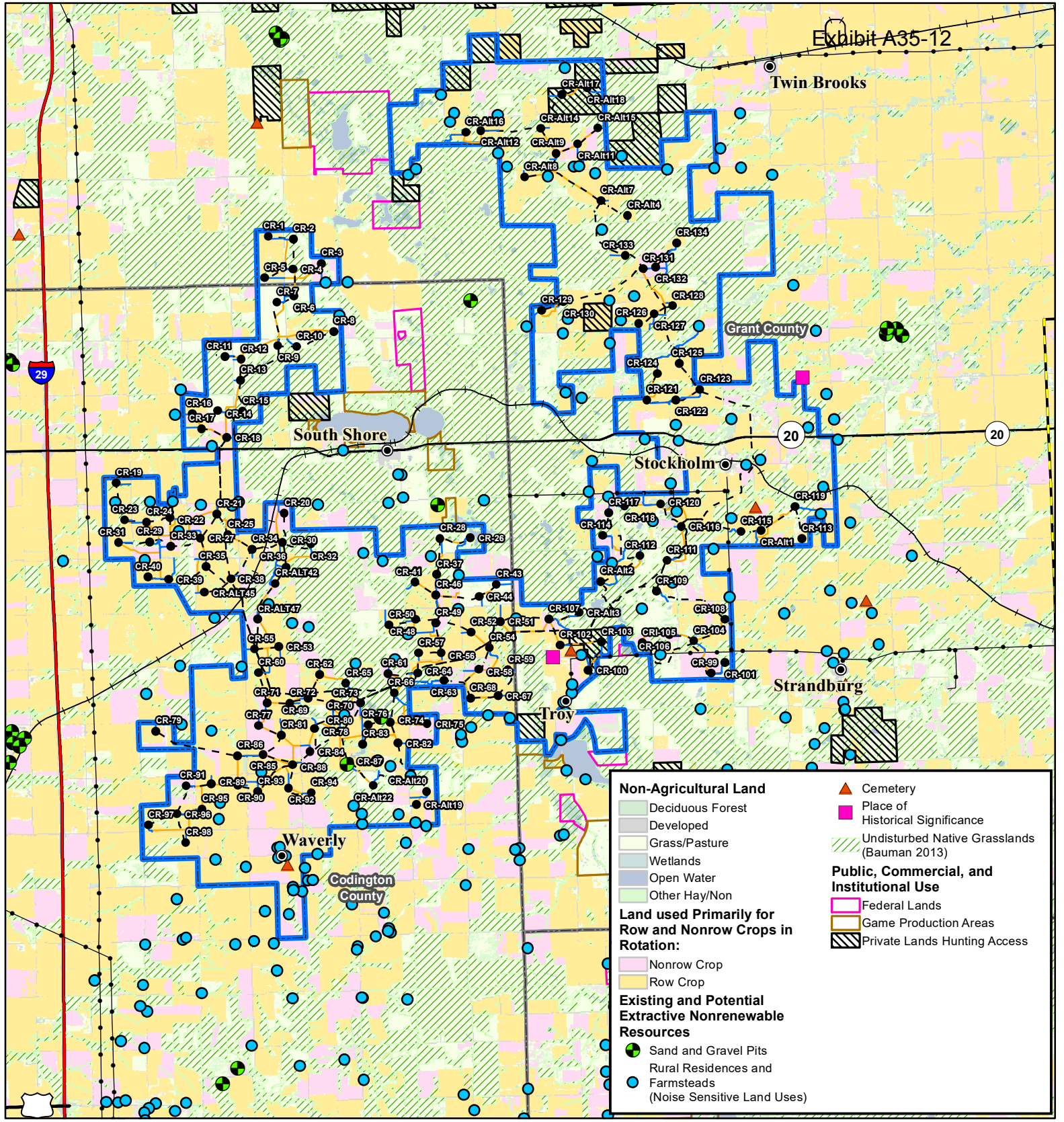
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W E
S

Base Map: USGS 7.5' Topographic Map
 Source: Esri ArcGIS Online service
 Quadrangle: Still Lake SE (1970), South Shore (1973),
 Watertown East (1969), Kranzburg (1970)
 Township/Range: T118N, R52W & T118N, R51W
 Codington County, South Dakota

016169

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Projection: NAD 1983 UTM Zone 14N



Non-Agricultural Land

- Deciduous Forest
- Developed
- Grass/Pasture
- Wetlands
- Open Water
- Other Hay/Non

Land used Primarily for Row and Nonrow Crops in Rotation:

- Nonrow Crop
- Row Crop

Existing and Potential Extractive Nonrenewable Resources

- Sand and Gravel Pits
- Rural Residences and Farmsteads (Noise Sensitive Land Uses)

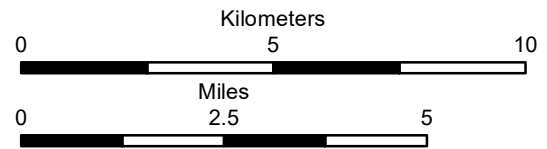
Public, Commercial, and Institutional Use

- Cemetery
- Place of Historical Significance
- Undisturbed Native Grasslands (Bauman 2013)
- Federal Lands
- Game Production Areas
- Private Lands Hunting Access

Figure 13. Land Use

Crowned Ridge Wind Farm

- City
- Turbine
- Access Road
- - - Collector Line
- Crane Path
- Electrical Line
- Natural Gas Line
- +— Railroad
- Interstate Highway
- U.S. Highway
- State Highway
- ▭ Project Boundary
- ▭ County Boundary



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
 Codington, Deuel, and Grant Counties, South Dakota
 Projection: NAD 1983 UTM Zone 14N

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

IN THE MATTER OF THE APPLICATION)
BY CROWNED RIDGE WIND, LLC FOR A) EL19-003
PERMIT OF A WIND ENERGY FACILITY)
IN GRANT AND CODINGTON COUNTIES) **APPLICANT'S RESPONSES**
) **TO STAFF**

Attached, please find Supplemental Responses to Staff 2-41.

Dated this 24th day of May, 2019.



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

Staff 2-41) Refer to the testimony of Tyler Wilhelm and Sam Massey. On page 5 they state that 99% of the necessary property rights have been obtained. Provide an update on if the remaining 1% has been obtained. If it hasn't, does the company still estimate all property rights necessary for the project will be obtained by March 1, 2019?

Original Response: Crowned Ridge Wind is working actively with the landowner to obtain the outstanding easement. The Applicant anticipates that all property rights necessary for the Project will be obtained by March 31, 2019.

Supplement Response: At this time, Crowned Ridge Wind has less than the 99% represented in the original response due to minor revisions to the Project site plan and the expiration of easement options that we expect will be re-signed. Crowned Ridge Wind will need to obtain the following additional property rights:

- (2) easement option agreements to support underground collection and temporary construction access;
- (3) easement option agreements to support underground collection; and
- (2) easement option agreements to support alternate turbine locations and associated facilities (underground collection, turbine access road and temporary construction access etc.)

Crowned Ridge Wind anticipates obtaining all remaining property needed by June 20, 2019

Respondent: Tyler Wilhelm, Project Manager

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

**IN THE MATTER OF THE APPLICATION OF
CROWNED RIDGE, LLC FOR A FACILITIES PERMIT TO
CONSTRUCT A 300 MEGAWATT WIND FACILITY**

Docket No. EL19-003

**REBUTTAL TESTIMONY
OF MARK THOMPSON**

May 24, 2019

INTRODUCTION

1

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. Mark Thompson, 700 Universe Blvd., Juno Beach FL 33408.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am the Manager of Wind Engineering within the Engineering & Construction
6 organization at NextEra Energy Resources, LLC.

7 **Q. WHAT ARE YOUR RESPONSIBILITIES?**

8 A. As the Manager of Wind Engineering, one of my primary roles is to coordinate or
9 provide support for the development of new wind sites, such as Crowned Ridge Wind
10 (“CRW”).

11 **Q. ARE YOU THE SAME MARK THOMPSON WHO SUBMITTED DIRECT**
12 **TESTIMONY IN THIS PROCEEDING ON JANUARY 30, 2019 AND**
13 **SUPPLEMENTAL TESTIMONY ON APRIL 1, 2019?**

14 A. Yes.

15
16 **Q. HAS THIS TESTIMONY BEEN PREPARED BY YOU OR UNDER YOUR**
17 **DIRECT SUPERVISION?**

18 A. Yes

TESTIMONY

19
20 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR REBUTTAL TESTIMONY.**

21 A. The purpose of my supplemental testimony is to respond to the Direct Testimony of Staff
22 witness Darren Kearney, the Direct Testimony of Intervenor witness Allen Robish, and
23 Intervenor’s proposed conditions as set forth in Staff witness Darren Kearney’s Direct
24 Testimony, Exhibit DK-8,

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GE Manual

Q. STAFF WITNESS KEARNEY’S TESTIMONY AT PAGE 18 REQUESTS THAT CROWNED RIDGE WIND PROVIDE THE GE SAFETY MANUAL. DO YOU AGREE WITH THIS REQUEST?

A. Yes, I have attached it as Confidential Exhibit MT-R-1, and I provided it in response to Staff Data Request 5-1 on May 22, 2019.

Wind Turbines and Ice

Q. INTERVENOR WITNESS ROBISH ASSERTS THAT HE VIEWED AN EVENT WHEN A WIND TURBINE THREW ICE ONTO A HIGHWAY. WHAT MEASURES IS CRW IMPLEMENTING TO ADDRESS ICING ON TURBINE BLADES?

A. The CRW will apply the most current set back recommended by the turbine manufacturer GE. The setback is based on recent studies conducted in February 2017. The result of the study states that larger turbines have a lower probability of longer throwing distance. It was discovered that prevailing wind interacting with a taller turbines would cause ice to lump and fall on the windward side on the turbine. The study resulted in adjustments in setback distances of 1.1*(tip height) from highways.

Further, as set forth in response to Staff’s Data Request 5-2 (attached as Exhibit MT-R-2), CRW has committed to use an ice detector and ice detection system on all CRW turbines, which will shut down the wind turbine if the ice buildup is at a level that causes the turbine output to be outside expected limits set by GE.

Intervenors' Proposed Conditions

1
2 **Q. THE INTERVENORS' CONDITION 3 (KEARNEY EXHIBIT DK-8) REQUIRES**
3 **AN INCREASED SETBACK FROM ALL PUBLIC RIGHT-OF-WAYS TO A**
4 **DISTANCE GREATER THAN: 1.5 * (THE DIAMETER OF THE BLADES PLUS**
5 **THE HEIGHT OF THE TURBINE). THIS IS THE DISTANCE OUTLINED IN**
6 **THE GENERAL ELECTRIC ("GE") TECHNICAL DOCUMENT NUMBER**
7 **GER4262, TITLED "ICE SHEDDING AND ICE THROW-RISK AND**
8 **MITIGATION". DO YOU AGREE WITH THIS CONDITION?**

9 A. No, the guidelines in GER 4262 cited by Intervenors are dated 2006. These guidelines
10 are based on older studies of smaller wind turbines. GE updated their recommendations
11 in "Setback Consideration Generic xxHz_EN_r04." See Exhibit MT-R-3. GE's current
12 set back recommendation is based on more recent studies on ice throw from larger utility
13 scale wind turbines and based on these studies GE requires a 1.1*(tip height) set back.
14 CRW will comply with the most current GE set back.

15
16 **Q. THE INTERVENORS' CONDITION 4 (KEARNEY EXHIBIT DK-8) PROPOSES**
17 **TO "LIMIT CONSTRUCTION, INCLUDING TRAFFIC, TO THE HOURS OF 7**
18 **AM - 7 PM SO THAT DISRUPTION TO OUR HOME LIVES IS REASONABLY**
19 **LIMITED." DO YOU AGREE WITH THIS CONDITION?**

20 A. No. While the majority of the site work will be done between 7:00 a.m. and 7:00 pm,
21 work activities, such as turbine install and concrete work, would continue outside of the
22 above specified time frame. These work activities are remote and are far removed from
23 residential homes. Any disturbance to residents is mitigated after 7:00 p.m. because of the

1 reduction of on-site personnel and the number of vehicles. In addition, deliveries will not
2 be scheduled outside of the 7:00 a.m. to 7:00 p.m. window.

3
4 Also, if there are residents that have concerns with the work after 7:00 p.m., CRW will
5 have an on-site construction manager to whom they can address their concerns, and the
6 construction manager has the authority to address those concerns. The construction
7 manager will be identified to the landowners as part of the pre-construction information
8 the Commission requires CRW to send to landowners.

9
10 **Q. THE INTERVENORS' CONDITION 5 (KEARNEY EXHIBIT DK-8) REQUIRES:**
11 **"NOTIFICATION OF WORK AREAS, HEAVY ROAD USAGE, ROAD**
12 **CLOSURES/ANTICIPATED CONGESTION, NOISE, DUST/PARTICULATE**
13 **WARNINGS, FOR RESIDENTS POSTED ONLINE DAILY, ALSO IN LOCAL**
14 **ELEVATORS SO THAT CITIZENS WHO LIVE AND WORK IN THE AREA**
15 **CAN BE INFORMED ABOUT THE DISRUPTION TO THEIR LIVES AND**
16 **TAKE ANY STEPS POSSIBLE TO MITIGATE." DO YOU AGREE WITH THIS**
17 **CONDITION?**

18 **A.** No. In past wind facility permit cases (such as Crocker Wind, Prevailing Wind, and
19 Dakota Range I and II), the Commission has required the following: "Applicant will
20 provide signage that identifies road closures and disturbances resulting from the Project
21 in accordance with the most recent editions of the Manual on Uniform Traffic Control
22 Devices as published by the Federal Highway." CRW agrees with this condition. The
23 Manual on Uniform Traffic Control Devices (MUTCD) as published by the Federal

1 Highway Administration requires that the minimum standards and guidelines that ensure
 2 uniformity of traffic control be adhered to across the nation. The MUTCD is the law
 3 governing all traffic control devices and non-compliance could result in federal action
 4 being taken.

5 In past cases (such as Crocker Wind, Prevailing Wind, and Dakota Range I and II), the
 6 Commission's conditions also required that the following notification:

7 At least 14 days prior to commencement of construction, Applicant shall
 8 provide each participating and non-participating landowner in the Project
 9 Area with the following information:

10 a) A copy of the Final Decision and Order Granting Permit to Construct
 11 Facilities;

12 b) Detailed safety information describing:

13 1) Reasonable safety precautions for existing activities on or near
 14 the Project;

15 2) Known activities or uses that are presently prohibited near the
 16 Project, and

17 3) Other known potential dangers or limitations near the Project;

18 c) Construction/maintenance damage compensation plans and procedures;

19 d) The Commission's address, website, and phone number;

20 e) Contact person for Applicant, including name, e-mail address, and
 21 phone number.

22
 23 CRW will not object to this condition. The Commission condition is more
 24 comprehensive than the notification proposed by landowners and directly targets
 25 participants and non-participants in the project area. Therefore, with CRW agreeing to
 26 these conditions there is no need to adopt the Intervenor's condition.

27 **Q. THE INTERVENORS' CONDITION 11 (KEARNEY EXHIBIT DK-8)**
 28 **REQUIRES: "ALL OIL OR HAZARDOUS MATERIAL SPILLS DURING PRE-**

1 **CONSTRUCTION, CONSTRUCTION, MAINTENANCE, OPERATION AND**
2 **DECOMMISSIONING SHALL BE REPORTED TO THE PUC WITHIN 20 DAYS**
3 **IN ADDITION TO ANY REQUIRED REPORTING TO THE DENR.” DO YOU**
4 **AGREE WITH THIS CONDITION?**

5 A. CWR will be in full compliance with its Spill, Prevention, Control and Countermeasure
6 (“SPCC”) plan. The plan provides clear instruction on how internal and external
7 reporting should proceed. The plan stipulates that all spills should be reported
8 immediately to the NextEra Fleet Performance & Diagnostic Center and the Power
9 Delivery Diagnostic Group. After consultation with the NextEra Environmental Group,
10 all applicable governmental agencies will be notified. If this Commission desires to be
11 added to the list of applicable governmental agencies, CRW is agreeable to add the
12 Commission and notified it within 20 days a spill. The contact telephone numbers for the
13 relevant agencies will be included in the site specific SPCC Plan.

14 **Q. THE INTERVENORS’ CONDITION 12 (KEARNEY EXHIBIT DK-8) PROPOSES**
15 **TO “REQUIRE A CONTAINMENT BASIN WITH A PERIMETER AT LEAST 2**
16 **FEET AWAY FROM THE BASE OF THE TURBINE. THE BASIN SHALL BE**
17 **NO LESS THAN 3 FEET IN DEPTH, WITH A ¼” OR LESS METAL MESH**
18 **COVER.” DO YOU AGREE WITH THIS CONDITION?**

19 A. No, I do not. A catastrophic failure of a turbine gearbox, which contains the majority of
20 the oil, is an infrequent and rear occurrence. If a gearbox does fail, large spills would be
21 contained inside the tower. Drips and leaks would be contained in the “oil catchment
22 basin” located in the nacelle. In the event of a spill that reaches the ground, the SPCC

1 cleanup procedures is activated. Therefore, the Intervenor's proposed condition 11 is not
2 needed and is not appropriate.

3 **Q. THE INTERVENORS' CONDITION 13 (KEARNEY EXHIBIT DK-8)**
4 **REQUIRES:**

5 **ALL INCIDENTS OF BLADE THROW, SHED,**
6 **DEFRAGMENTATION, DELAMINATION SHALL BE REPORTED**
7 **TO THE PUC WITHIN 20 DAYS OF THE INCIDENT.**

- 8
- 9 ○ **REPORT TO PUC HOW EACH OF THE ABOVE ISSUES WILL BE**
 - 10 **RECTIFIED/MITIGATED AND THE ANTICIPATED TIME FRAME.**
 - 11 ○ **SUBMIT A FOLLOW UP REPORT TO THE PUC OUTLINING HOW**
 - 12 **THE ABOVE ISSUES WERE ACTUALLY RECTIFIED/MITIGATED AND**
 - 13 **IF THE ANTICIPATED TIME FRAME WAS MET."**
- 14

15 **DO YOU AGREE WITH THIS CONDITION?**

16

17 A. In part, yes. We agree to report incidents of blade throw, blade defragmentation, blade
18 shed and blade delamination to the Commission within 20 days of its occurrence, with
19 the understanding that some of the report may contain confidential information and may
20 not be disclosed to the public. We would object to the Intervenor's first and second
21 bulleted requirements as part of the reporting condition. However, after our initial report
22 is filed, if further information was requested by the Commission Staff or the Commission
23 we would submit it to the Staff and the Commission.

24 **Q. THE INTERVENORS' CONDITION 14 (KEARNEY EXHIBIT DK-8)**
25 **REQUIRES: "ALL INCIDENTS OF BODILY INJURY OCCURRING TO**
26 **ANYONE RELATED TO THE PROJECT, THROUGH THE CONSTRUCTION,**
27 **OPERATION AND DECOMMISSIONING OF THE PROJECT, INCLUDING**
28 **VEHICULAR ACCIDENTS SHALL BE REPORTED TO THE PUC WITHIN 20**

1 **DAYS OF THE INCIDENT. THIS REPORT SHALL BE AVAILABLE TO THE**
2 **PUBLIC.” DO YOU AGREE WITH THIS CONDITION?**

3 A. No. The condition is not needed because CRW will adhere to the Occupational Safety
4 and Health Administration’s (“OSHA”) official recording and reporting guidelines.
5 Significant events involving bodily injury are reported to OSHA through telephone or
6 electronic submission. Information related to these reports will become available on
7 OSHA’s public web site at *www.osha.gov*.

8 **Q. THE INTERVENORS’ CONDITION 15 (KEARNEY EXHIBIT DK-8)**
9 **REQUIRES: “ALL FIRES RELATED TO THE PROJECT SHALL BE**
10 **REPORTED TO THE PUC WITHIN 20 DAYS OF THE INCIDENT. THIS**
11 **REPORT SHALL BE AVAILABLE TO THE PUBLIC.”**
12 **DO YOU AGREE WITH THIS CONDITION?**

13 A. Yes, in part. CRW agrees to report all fires to the Commission within 20 days.
14 However, it does not agree that the report will be available to the public, as the report
15 may include confidential information. Therefore, CRW is not willing to agree that all
16 reports related to fires will be available to the public. Therefore, CRW proposes that the
17 last sentence be deleted.

18
19 **Q. THE INTERVENORS’ CONDITION 22 (KEARNEY EXHIBIT DK-8)**
20 **REQUIRES: “THE APPLICANT FOR THE LIFE OF THE PROJECT, CRADLE**
21 **TO GRAVE, SHALL KEEP MAINTENANCE LOGS OF EVERY REPAIR OR**
22 **REPLACEMENT. THE REPORT SHALL INCLUDE BUT NOT LIMITED TO**
23 **THE PLACE OF REPAIR, MAINTENANCE OR REPLACEMENT, THE DATE**

1 **AND TIME, THE PART NUMBER, THE SERIAL NUMBER, IDENTIFY IF THE**
2 **PART IS OEM AND WARRANTY INFORMATION. THIS REPORT SHALL BE**
3 **COMPILED QUARTERLY AND SUBMITTED TO THE PUC AND AVAILABLE**
4 **FOR PUBLIC REVIEW.” DO YOU AGREE WITH THIS CONDITION?**

5 A. No. First, there is no need or justification provided for the information implicated by the
6 condition to be provided to the Commission and the public. Second, the information
7 requested in this condition would be highly confidential information that is made public
8 would provide our competitors an advantage. For example, maintenance logs contain
9 confidential information reflecting cost of parts and labor associated with the turbine
10 maintenance. Also, our proprietary maintenance process and procedures, which are
11 unique to CRW, would be of considerable value to competitors if publically disclosed. In
12 addition, there is confidential and sensitive turbine warranty information that GE requires
13 that we as confidential. For all of these reasons, this condition should not be adopted.

14
15 **Q. THE INTERVENORS’ CONDITION 35 (KEARNEY EXHIBIT DK-8)**
16 **REQUIRES: “THE APPLICANT, FOR THE LIFE OF THE PROJECT, SHALL**
17 **QUARTERLY MONITOR AND REPORT ALL STRAY VOLTAGE INCLUDING**
18 **BUT NOT LIMITED TO STRAY VOLTAGE DISPERSED INTO THE GROUND.**
19 **THIS REPORT SHALL BE PUBLISHED WITHIN 30 DAYS PUBLIC OPINION**
20 **NEWSPAPER IN WATERTOWN, SD, SOUTH SHORE GAZETTE IN SOUTH**
21 **SHORE, SD AND THE GRANT COUNTY REVIEW IN MILBANK, SD. DO YOU**
22 **AGREE WITH THIS CONDITION?**

1 A. No, the collection and substation electrical systems are designed in accordance with IEEE
2 and National Electrical Safety Code recommended standards, which ensures that the
3 voltages are balanced during normal operations. Therefore, there will be no stray
4 voltages and of such monitoring, will not be needed.

5
6 **Q. THE INTERVENORS' CONDITION 2 (KEARNEY EXHIBIT DK-8) REQUIRES**
7 **THAT THERE SHOULD BE NO TURBINES WITHIN 2 MILES OF WAVERLY**
8 **SCHOOL TO LESSON THE EXPOSURE OF THE SCHOOL TO THE PROJECT.**
9 **WHAT, IF ANY, CONSTRUCTION, OPERATION AND MAINTENANCE**
10 **EXPOSURE IS THERE TO THE SCHOOL BASED ON CRW'S PROPOSED**
11 **PLACEMENT OF TURBINES?**

12 A. The Waverly School will not have any exposure to activities associated with the
13 placement of turbine. The wind turbines are a minimum of 1.25 miles away from the
14 school, with haul and access roads being an additional 1.0 mile away. Construction,
15 operations, and delivery traffic activities will be far enough away to appropriately
16 minimize the exposure of Waverly School to the CRW project.

17 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18 A. Yes.