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From the office of Miles F. Schumacher
e-mail address: mschumacher@lynnjackson.com

February 27, 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 a revised version of the Appendices attached to Appendix H to the Application, Final Report Crowned Ridge Wind Farm Sound Study, Codington and Grant Counties, SD, and Appendix I to the Application, Final Report Crowned Ridge Wind Farm Shadow Flicker Study, Codington and Grant Counties, SD. Crowned Ridge has been informed that the original version of the Appendices to the Reports inadvertently identified some participating landowners as non-participants. The enclosed revised versions of the Appendices to those Reports correctly identify the landowner status and should replace the documents filed with the Application.

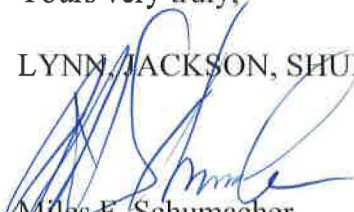
Also, a portion of the project located in Grant County was formerly granted a Conditional Use Permit as Cattle Ridge Wind Farm by Grant County. In our Application we anticipated that the County would grant an extension to the CUP that was granted in March of 2017 with a requirement that development occur within two years. Grant County indicated it preferred a new CUP Application by Crowned Ridge for the former Cattle Ridge project and declined the Application for an extension. Accordingly, Crowned Ridge has filed an additional CUP Application with the County for which a

Ms. Patricia Van Gerpen, Executive Director
February 27, 2019
Page 2

hearing has been scheduled for March 18. We will provide updates, as appropriate, on the progress of the CUP process.

Yours very truly,

LYNN JACKSON, SHULTZ & LEBRUN, P.C.



Miles F. Schumacher
MFS:kab

February 19, 2019

Tyler Wilhelm
Project Manager
NextEra Energy Resources, LLC
700 Universe Boulevard
Juno Beach, FL 33408
Office: (561) 694-3193
Tyler.Wilhelm@nee.com

Subject: Crowned Ridge additional structures

Dear Mr. Wilhelm,

This letter is intended to provide updated landowner participation status information that was not included in the original report titled: "Final Report, Crowned Ridge Wind Farm Sound Study, Codington and Grant Counties, SD", dated February 6, 2019, submitted by EAPC Wind Energy.

After the report was submitted, I was made aware of updated land parcel and farmstead status databases. There were a number of changes in landowner participation status from the original report. Most were changed from non-participating to participating, with a few that changed from participating to non-participating.

There were no changes in compliance with Codington or Grant County requirements for noise limits.

I have attached updated maps and results tables that reflect the changes in participation status for the noise receptors.

Sincerely,

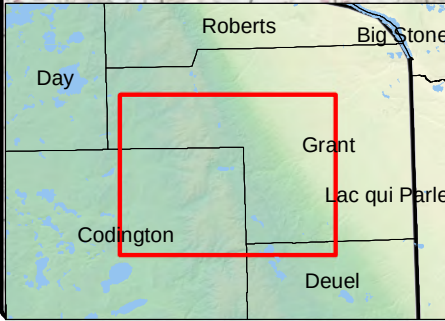
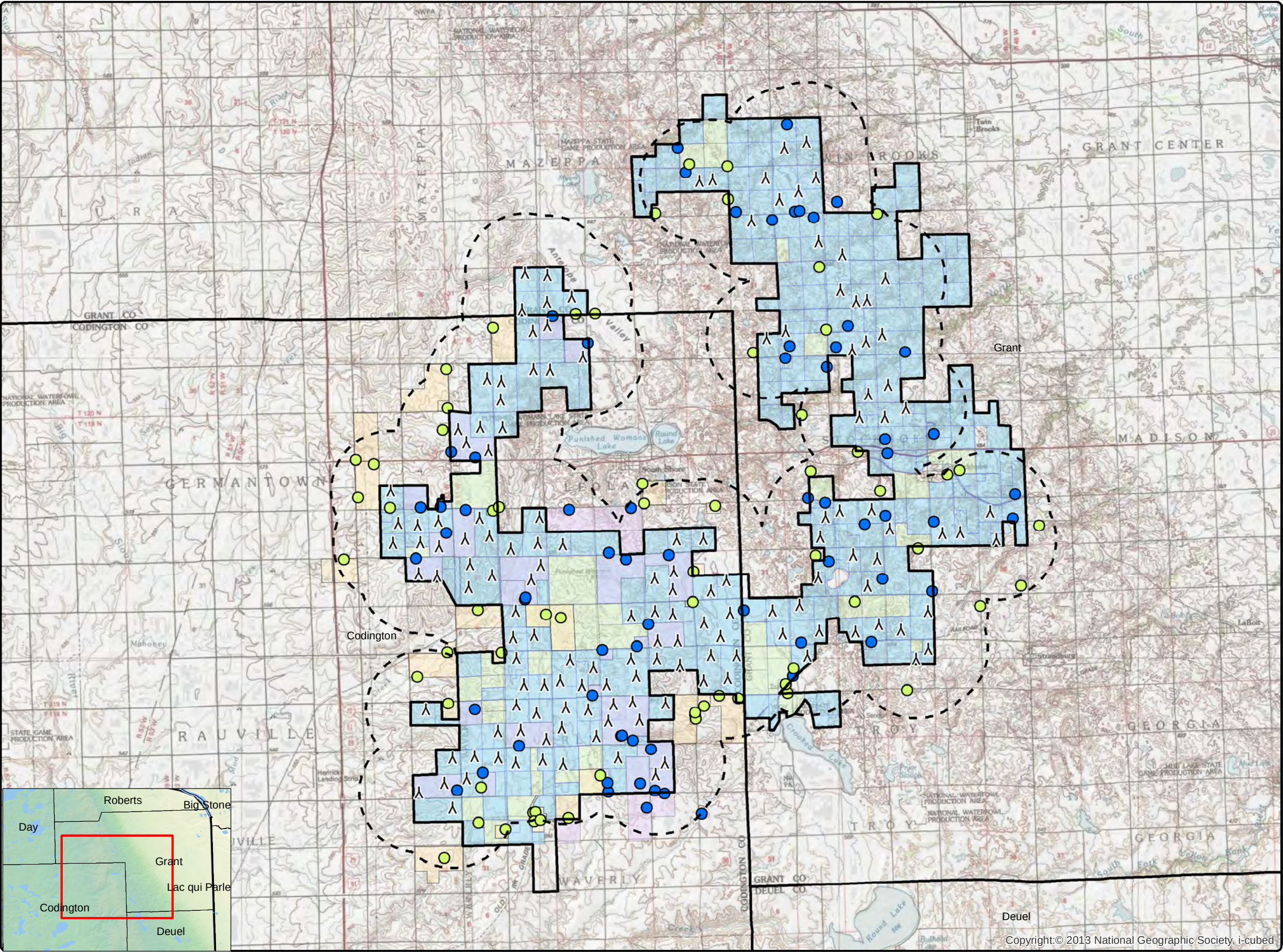


Jay Haley, P.E., Partner
For EAPC Wind Energy

Attachments:

Appendix A – Crowned Ridge Energy Project Site Overview Map
Appendix B – Wind Turbine Coordinates
Appendix C – Table of Sound Results
Appendix D – Standard Resolution Sound Maps

APPENDIX A: CROWNED RIDGE WIND ENERGY PROJECT SITE OVERVIEW MAP





EAPC
WIND ENERGY

www.eapc.net | 701.775.3000

Crowned Ridge Wind Farm
Project Overview Map

Client

SWCA Environmental Consultants

Project Description

Wind turbine layout with land parcels within the project footprint and existing occupied structures.

Codington County land parcels within 2 km of a wind turbine.

Location: Watertown, SD

Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

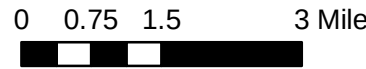
Drawn By: AS Checked By: JH

Legend

- ▲ Crowned Ridge Turbines
- 2 km Turbine Buffer
- ▬ County Lines
- ▬ CR1 Project Boundary
- Non-Participants
- Participants
- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
- Non-Participating Land Parcels

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APPENDIX B: WIND TURBINE COORDINATES

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14

WTG	Turbine Type	Easting (m)	Northing (m)	Base Elev. AMSL (m)	Sound Profile
CRI-1	GE2.3 116RD 90HH r2.madE	659,443	5,003,083	610.2	LNTE
CRI-2	GE2.3 116RD 90HH r2.madE	660,185	5,003,010	598.1	LNTE
CRI-3	GE2.3 116RD 90HH r2.madE	661,008	5,002,288	584.2	LNTE
CRI-4	GE2.3 116RD 90HH r2.madE	660,173	5,002,120	602.4	LNTE
CRI-5	GE2.3 116RD 90HH r2.madE	659,337	5,001,862	609.9	LNTE
CRI-6	GE2.3 116RD 90HH r2.madE	660,193	5,001,329	610.4	LNTE
CRI-7	GE2.3 116RD 90HH r2.madE	659,705	5,001,146	618.0	LNTE
CRI-8	GE2.3 116RD 90HH r2.madE	661,380	5,000,282	588.3	LNTE
CRI-9	GE2.3 116RD 90HH r2.madE	659,731	4,999,855	613.3	LNTE
CRI-10	GE2.3 116RD 90HH r2.madE	660,280	4,999,837	615.0	LNTE
CRI-11	GE2.3 116RD 90HH r2.madE	658,170	4,999,546	611.0	LNTE
CRI-12	GE2.3 116RD 90HH r2.madE	658,644	4,999,460	615.0	LNTE
CRI-13	GE2.3 116RD 90HH r2.madE	658,622	4,998,843	613.3	LNTE
CRI-14	GE2.3 116RD 90HH r2.madE	657,947	4,997,935	618.3	LNTE
CRI-15	GE2.3 116RD 90HH r2.madE	658,688	4,997,924	618.9	LNTE
CRI-16	GE2.3 116RD 90HH r2.madE	657,203	4,997,856	611.9	LNTE
CRI-17	GE2.3 116RD 90HH r2.madE	657,476	4,997,410	611.1	LNTE
CRI-18	GE2.3 116RD 90HH r2.madE	658,217	4,997,154	618.0	LNTE
CRI-19	GE2.3 116RD 90HH r2.madE	654,954	4,995,804	601.1	LNTE
CRI-20	GE2.3 116RD 90HH r2.madE	659,920	4,994,924	594.4	LNTE
CRI-21	GE2.3 116RD 90HH r2.madE	657,925	4,994,896	617.1	LNTE
CRI-22	GE2.3 116RD 90HH r2.madE	656,543	4,994,796	616.5	LNTE
CRI-23	GE2.3 116RD 90HH r2.madE	655,208	4,994,717	594.5	LNTE
CRI-24	GE2.3 116RD 90HH r2.madE	655,852	4,994,652	609.0	LNTE
CRI-25	GE2.3 116RD 90HH r2.madE	658,251	4,994,286	606.0	LNTE
CRI-26	GE2.3 116RD 90HH r2.madE	665,405	4,994,191	578.3	LNTE
CRI-27	GE2.3 116RD 90HH r2.madE	657,442	4,994,187	621.0	LNTE
CRI-28	GE2.3 116RD 90HH r2.madE	664,517	4,994,168	579.0	LNTE
CRI-29	GE2.3 116RD 90HH r2.madE	655,940	4,994,069	606.9	LNTE
CRI-30	GE2.3 116RD 90HH r2.madE	659,871	4,994,052	593.6	LNTE
CRI-31	GE2.3 116RD 90HH r2.madE	655,030	4,994,051	603.0	LNTE
CRI-32	GE2.3 116RD 90HH r2.madE	660,704	4,993,998	606.0	LNTE
CRI-33	GE2.3 116RD 90HH r2.madE	656,566	4,993,941	618.0	LNTE
CRI-34	GE2.3 116RD 90HH r2.madE	658,966	4,993,856	599.6	LNTE
CRI-35	GE2.3 116RD 90HH r2.madE	657,602	4,993,347	607.5	LNTE
CRI-36	GE2.3 116RD 90HH r2.madE	659,966	4,993,319	594.0	LNTE
CRI-37	GE2.3 116RD 90HH r2.madE	664,419	4,993,110	587.2	LNTE
CRI-38	GE2.3 116RD 90HH r2.madE	658,338	4,992,981	600.5	LNTE
CRI-39	GE2.3 116RD 90HH r2.madE	656,507	4,992,958	609.0	LNTE
CRI-40	GE2.3 116RD 90HH r2.madE	655,889	4,993,035	603.0	LNTE
CRI-41	GE2.3 116RD 90HH r2.madE	663,782	4,992,883	597.2	LNTE

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
continued

WTG	Turbine Type	Easting (m)	Northing (m)	Base Elev. AMSL (m)	Sound Profile
CRI-43	GE2.3 116RD 90HH r2.madE	666,181	4,992,815	577.8	LNTE
CRI-44	GE2.3 116RD 90HH r2.madE	665,665	4,992,460	576.0	LNTE
CRI-46	GE2.3 116RD 90HH r2.madE	664,387	4,992,505	591.0	LNTE
CRI-48	GE2.3 116RD 90HH r2.madE	663,794	4,991,782	587.5	LNTE
CRI-49	GE2.3 116RD 90HH r2.madE	664,385	4,991,685	581.6	LNTE
CRI-50	GE2.3 116RD 90HH r2.madE	662,999	4,991,622	612.0	LNTE
CRI-51	GE2.3 116RD 90HH r2.madE	666,299	4,991,723	575.3	LNTE
CRI-52	GE2.3 116RD 90HH r2.madE	665,426	4,991,398	575.6	LNTE
CRI-53	GE2.3 116RD 90HH r2.madE	659,750	4,990,981	598.7	LNTE
CRI-54	GE2.3 116RD 90HH r2.madE	665,979	4,990,946	573.7	LNTE
CRI-55	GE2.3 116RD 90HH r2.madE	659,045	4,990,899	597.0	LNTE
CRI-56	GE2.3 116RD 90HH r2.madE	664,548	4,990,794	591.9	LNTE
CRI-57	GE2.3 116RD 90HH r2.madE	663,874	4,990,787	600.1	LNTE
CRI-58	GE2.3 116RD 90HH r2.madE	665,663	4,990,303	585.0	LNTE
CRI-59	GE2.3 116RD 90HH r2.madE	666,523	4,990,291	573.0	LNTE
CRI-60	GE2.3 116RD 90HH r2.madE	659,155	4,990,208	593.9	LNTE
CRI-61	GE2.3 116RD 90HH r2.madE	662,982	4,990,178	612.0	LNTE
CRI-62	GE2.3 116RD 90HH r2.madE	660,954	4,990,155	600.8	LNTE
CRI-63	GE2.3 116RD 90HH r2.madE	664,627	4,989,977	588.7	LNTE
CRI-64	GE2.3 116RD 90HH r2.madE	663,858	4,990,188	604.5	LNTE
CRI-65	GE2.3 116RD 90HH r2.madE	661,732	4,989,898	609.0	LNTE
CRI-66	GE2.3 116RD 90HH r2.madE	663,165	4,989,613	614.9	LNTE
CRI-67	GE2.3 116RD 90HH r2.madE	666,226	4,989,531	574.8	LNTE
CRI-68	GE2.3 116RD 90HH r2.madE	665,420	4,989,461	585.0	LNTE
CRI-69	GE2.3 116RD 80HH r2.madE	660,621	4,989,453	605.4	LNTE
CRI-70	GE2.3 116RD 90HH r2.madE	662,171	4,989,319	611.0	LNTE
CRI-71	GE2.3 116RD 80HH r2.madE	659,405	4,989,320	607.4	LNTE
CRI-72	GE2.3 116RD 80HH r2.madE	660,087	4,989,309	606.0	LNTE
CRI-73	GE2.3 116RD 90HH r2.madE	661,344	4,989,297	609.8	LNTE
CRI-74	GE2.3 116RD 90HH r2.madE	663,041	4,988,744	615.0	LNTE
CRI-75	GE2.3 116RD 90HH r2.madE	664,137	4,988,702	609.0	LNTE
CRI-76	GE2.3 116RD 90HH r2.madE	662,399	4,988,667	615.0	LNTE
CRI-77	GE2.3 116RD 80HH r2.madE	659,158	4,988,642	612.0	LNTE
CRI-78	GE2.3 116RD 80HH r2.madE	660,811	4,988,558	604.2	LNTE
CRI-79	GE2.3 116RD 90HH r2.madE	656,125	4,988,485	595.0	LNTE
CRI-80	GE2.3 116RD 90HH r2.madE	661,552	4,988,481	608.8	LNTE
CRI-81	GE2.3 116RD 90HH r2.madE	659,825	4,988,365	606.5	LNTE
CRI-82	GE2.3 116RD 90HH r2.madE	663,271	4,988,133	613.0	LNTE
CRI-83	GE2.3 116RD 90HH r2.madE	662,227	4,988,103	606.5	LNTE
CRI-84	GE2.3 116RD 80HH r2.madE	660,677	4,987,880	600.5	LNTE
CRI-85	GE2.3 116RD 90HH r2.madE	659,295	4,987,798	612.0	LNTE

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
continued

WTG	Turbine Type	Easting (m)	Northing (m)	Base Elev. AMSL (m)	Sound Profile
CRI-86	GE2.3 116RD 90HH r2.madE	658,534	4,987,759	613.3	LNTE
CRI-87	GE2.3 116RD 90HH r2.madE	661,830	4,987,596	609.0	LNTE
CRI-88	GE2.3 116RD 90HH r2.madE	660,157	4,987,492	603.0	LNTE
CRI-89	GE2.3 116RD 80HH r2.madE	657,758	4,986,926	614.9	LNTE
CRI-90	GE2.3 116RD 80HH r2.madE	658,545	4,986,881	612.0	LNTE
CRI-91	GE2.3 116RD 80HH r2.madE	657,023	4,986,868	612.0	LNTE
CRI-92	GE2.3 116RD 80HH r2.madE	660,039	4,986,804	606.9	LNTE
CRI-93	GE2.3 116RD 80HH r2.madE	659,133	4,986,700	608.0	LNTE
CRI-94	GE2.3 116RD 80HH r2.madE	660,716	4,986,660	600.7	LNTE
CRI-95	GE2.3 116RD 90HH r2.madE	657,488	4,986,184	612.0	LNTE
CRI-96	GE2.3 116RD 90HH r2.madE	656,744	4,986,037	609.0	LNTE
CRI-97	GE2.3 116RD 80HH r2.madE	655,899	4,985,715	592.6	LNTE
CRI-98	GE2.3 116RD 90HH r2.madE	657,015	4,985,192	609.0	LNTE
CRI-99	GE2.3 116RD 90HH r2.madE	672,521	4,990,188	556.7	LNTE
CRI-100	GE2.3 116RD 90HH r2.madE	668,885	4,990,286	585.0	LNTE
CRI-101	GE2.3 116RD 90HH r2.madE	672,921	4,990,513	544.6	LNTE
CRI-102	GE2.3 116RD 90HH r2.madE	668,059	4,991,023	580.9	LNTE
CRI-103	GE2.3 116RD 90HH r2.madE	669,279	4,991,115	582.0	LNTE
CRI-104	GE2.3 116RD 90HH r2.madE	672,009	4,991,151	555.0	LNTE
CRI-105	GE2.3 116RD 90HH r2.madE	670,488	4,991,091	571.7	LNTE
CRI-106	GE2.3 116RD 90HH r2.madE	671,278	4,991,335	567.0	LNTE
CRI-107	GE2.3 116RD 90HH r2.madE	667,723	4,991,800	582.0	LNTE
CRI-108	GE2.3 116RD 90HH r2.madE	672,917	4,991,775	541.2	LNTE
CRI-109	GE2.3 116RD 90HH r2.madE	670,897	4,992,616	557.3	LNTE
CRI-111	GE2.3 116RD 90HH r2.madE	671,220	4,993,526	550.6	LNTE
CRI-112	GE2.3 116RD 90HH r2.madE	670,419	4,993,665	561.0	LNTE
CRI-113	GE2.3 116RD 90HH r2.madE	675,201	4,994,165	497.6	LNTE
CRI-114	GE2.3 116RD 90HH r2.madE	669,318	4,994,256	561.8	LNTE
CRI-115	GE2.3 116RD 90HH r2.madE	673,402	4,994,374	516.4	LNTE
CRI-116	GE2.3 116RD 90HH r2.madE	671,642	4,994,527	531.0	LNTE
CRI-117	GE2.3 116RD 90HH r2.madE	669,488	4,994,930	545.6	LNTE
CRI-118	GE2.3 116RD 90HH r2.madE	669,961	4,995,134	540.3	LNTE
CRI-119	GE2.3 116RD 90HH r2.madE	674,992	4,995,107	492.0	LNTE
CRI-120	GE2.3 116RD 90HH r2.madE	671,034	4,995,179	536.2	LNTE
CRI-121	GE2.3 116RD 90HH r2.madE	670,629	4,998,259	531.0	LNTE
CRI-122	GE2.3 116RD 90HH r2.madE	671,475	4,998,261	517.8	LNTE
CRI-123	GE2.3 116RD 90HH r2.madE	672,180	4,998,561	505.0	LNTE
CRI-124	GE2.3 116RD 90HH r2.madE	670,926	4,999,036	523.3	LNTE
CRI-125	GE2.3 116RD 90HH r2.madE	671,580	4,999,340	509.8	LNTE
CRI-126	GE2.3 116RD 90HH r2.madE	670,382	5,000,519	516.0	LNTE
CRI-127	GE2.3 116RD 90HH r2.madE	670,845	5,000,795	507.4	LNTE

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
continued

[illegible]

APPENDIX C: TABLE OF SOUND RESULTS

Table C-1: Crowned Ridge Sound Level Tabular Results Sorted by Receptor ID
Realistic case sound results at land parcel boundaries and occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-C1-NP	Non-P	Boundary	657,276	4,983,921	590.3	36.5	4,258
CR1-C2-NP	Non-P	Boundary	658,435	4,984,609	601.8	37.7	5,036
CR1-C3-NP	Non-P	Boundary	657,812	4,984,785	603.1	39.4	2,936
CR1-C4-NP	Non-P	Boundary	659,890	4,985,620	605.4	40.5	3,914
CR1-C6-P	Participant	Boundary	663,383	4,994,502	591.0	38.5	3,878
CR1-C7-NP	Non-P	Boundary	661,266	4,985,387	591.0	46.6	1,253
CR1-C8-P	Participant	Boundary	661,277	4,984,852	597.6	43.1	2,139
CR1-C9-P	Participant	Boundary	665,421	4,985,265	609.0	49.5	1,079
CR1-C10-P	Participant	Boundary	662,869	4,985,477	601.4	52.2	610
CR1-C11-P	Participant	Boundary	664,444	4,985,206	608.6	52.0	738
CR1-C12-P	Participant	Boundary	662,067	4,985,677	604.9	45.3	1,670
CR1-C13-P	Participant	Boundary	664,410	4,986,207	615.0	53.3	574
CR1-C14-NP	Non-P	Boundary	657,803	4,986,003	609.0	46.1	1,191
CR1-C15-P	Participant	Boundary	663,047	4,985,700	612.8	51.1	722
CR1-C16-NP	Non-P	Boundary	661,642	4,985,677	597.0	48.8	948
CR1-C17-P	Participant	Boundary	658,017	4,986,369	606.4	45.2	1,837
CR1-C18-P	Participant	Boundary	664,126	4,986,525	610.2	52.4	591
CR1-C19-P	Participant	Boundary	660,393	4,987,529	607.7	50.1	784
CR1-C20-P	Participant	Boundary	662,024	4,987,612	604.8	51.0	640
CR1-C26-P	Participant	Boundary	658,015	4,987,993	606.0	43.5	1,867
CR1-C27-NP	Non-P	Boundary	656,658	4,988,484	587.2	42.2	1,749
CR1-C28-NP	Non-P	Boundary	665,432	4,989,009	583.9	44.9	1,483
CR1-C29-NP	Non-P	Boundary	666,496	4,989,001	573.9	42.7	1,952
CR1-C30-P	Participant	Boundary	661,978	4,989,318	613.3	51.3	633
CR1-C31-NP	Non-P	Boundary	665,639	4,989,013	584.6	44.5	1,637
CR1-C32-NP	Non-P	Boundary	657,187	4,989,566	573.0	38.2	4,970
CR1-C33-NP	Non-P	Boundary	657,126	4,990,843	567.0	38.1	5,856
CR1-C34-NP	Non-P	Boundary	658,763	4,990,247	589.7	45.9	1,293
CR1-C35-P	Participant	Boundary	661,955	4,990,153	606.0	47.2	1,112
CR1-C36-P	Participant	Boundary	663,564	4,990,731	610.7	48.3	1,033
CR1-C37-P	Participant	Boundary	663,879	4,990,574	594.0	51.1	699
CR1-C38-NP	Non-P	Boundary	660,955	4,990,468	591.2	47.3	1,027
CR1-C39-NP	Non-P	Boundary	659,741	4,991,242	583.2	48.5	856
CR1-C40-NP	Non-P	Boundary	658,706	4,991,231	579.8	44.9	1,555
CR1-C41-NP	Non-P	Boundary	664,801	4,991,929	577.1	46.1	1,585
CR1-C42-P	Participant	Boundary	659,828	4,992,807	580.5	51.1	604
CR1-C44-NP	Non-P	Boundary	665,447	4,992,972	578.2	44.4	1,824
CR1-C45-NP	Non-P	Boundary	653,821	4,993,552	572.0	37.0	4,291
CR1-C46-P	Participant	Boundary	656,678	4,992,970	611.5	51.4	561

Table C-1: Crowned Ridge Sound Level Tabular Results Sorted by Receptor ID
Realistic case sound results at land parcel boundaries and occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County
continued

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-C47-P	Participant	Boundary	663,454	4,992,888	612.0	46.8	1,076
CR1-C48-P	Participant	Boundary	664,262	4,992,514	586.8	53.6	410
CR1-C49-P	Participant	Boundary	662,224	4,993,664	609.0	38.5	5,105
CR1-C50-P	Participant	Boundary	656,239	4,994,042	618.0	49.7	984
CR1-C51-P	Participant	Boundary	657,753	4,994,889	620.0	51.5	564
CR1-C52-NP	Non-P	Boundary	654,986	4,995,398	603.0	45.8	1,335
CR1-C53-NP	Non-P	Boundary	664,171	4,995,340	580.6	37.4	4,009
CR1-C54-NP	Non-P	Boundary	663,495	4,995,329	582.9	36.7	5,075
CR1-C55-P	Participant	Boundary	660,139	4,994,937	606.2	49.4	722
CR1-C56-P	Participant	Boundary	655,621	4,995,989	606.2	49.4	627
CR1-C57-P	Participant	Boundary	656,526	4,995,198	616.1	45.9	1,319
CR1-C58-P	Participant	Boundary	657,619	4,997,581	611.9	50.6	732
CR1-C59-P	Participant	Boundary	661,380	5,000,092	591.0	50.2	623
CR1-C60-NP	Non-P	Boundary	656,909	4,998,465	609.3	42.9	2,218
CR1-C61-NP	Non-P	Boundary	656,927	4,997,826	612.0	48.2	912
CR1-C62-NP	Non-P	Boundary	658,155	4,994,994	614.7	48.7	820
CR1-C63-NP	Non-P	Boundary	658,543	4,995,211	606.8	42.5	2,277
CR1-C64-P	Participant	Boundary	659,129	4,991,995	576.5	49.9	679
CR1-C65-NP	Non-P	Boundary	665,516	4,995,045	578.0	39.2	2,825
CR1-C70-NP	Non-P	Boundary	664,953	4,987,981	596.1	42.7	3,225
CR1-C71-NP	Non-P	Boundary	664,658	4,987,355	600.0	48.6	1,050
CR1-C105-NP	Non-P	Boundary	658,351	5,000,265	609.0	49.8	604
CR1-C106-P	Participant	Boundary	659,931	5,001,205	605.4	51.0	768
CR1-C107-NP	Non-P	Boundary	655,923	4,998,435	595.8	48.5	673
CR1-C109-NP	Non-P	Boundary	654,533	4,997,357	592.6	41.0	1,909
CR1-C110-NP	Non-P	Boundary	654,553	4,996,633	588.7	41.4	2,365
CR1-C111-NP	Non-P	Boundary	654,576	4,995,809	599.1	45.6	1,240
CR2-C150-P	Participant	Boundary	657,308	4,986,173	600.0	51.3	591
CR1-C1-NP	Non-P	Structure	656,743	4,983,525	595.9	34.9	5,541
CR1-C2-NP	Non-P	Structure	658,791	4,984,483	601.6	37.4	6,273
CR1-C3-NP	Non-P	Structure	657,888	4,984,697	604.2	38.8	3,294
CR1-C4-NP	Non-P	Structure	659,744	4,984,749	605.9	38.5	5,981
CR1-C5-NP	Non-P	Structure	659,958	4,984,794	605.2	38.9	5,659
CR1-C6-P	Participant	Structure	662,989	4,995,228	599.8	36.5	6,102
CR1-C7-NP	Non-P	Structure	660,893	4,984,861	593.2	41.3	3,022
CR1-C8-P	Participant	Structure	660,532	4,984,445	599.7	40.1	3,740
CR1-C9-P	Participant	Structure	665,352	4,985,004	609.0	47.7	1,621
CR1-C10-P	Participant	Structure	663,510	4,985,195	609.0	47.0	1,762

Table C-1: Crowned Ridge Sound Level Tabular Results Sorted by Receptor ID
Realistic case sound results at land parcel boundaries and occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County
continued

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-C11-P	Participant	Structure	664,111	4,985,679	609.0	47.9	1,614
CR1-C12-P	Participant	Structure	662,222	4,985,736	603.0	44.3	2,201
CR1-C12-1-P	Participant	Structure	662,199	4,986,047	606.0	43.6	2,818
CR1-C13-P	Participant	Structure	663,792	4,985,785	612.0	46.9	1,739
CR1-C14-NP	Non-P	Structure	657,982	4,985,894	609.0	43.4	1,880
CR1-C15-P	Participant	Structure	663,291	4,986,026	615.0	46.1	1,952
CR1-C16-NP	Non-P	Structure	661,960	4,986,288	606.0	43.3	2,736
CR1-C17-P	Participant	Structure	658,031	4,986,373	609.1	45.1	1,886
CR1-C18-P	Participant	Structure	663,651	4,987,157	610.5	44.8	2,146
CR1-C19-P	Participant	Structure	659,243	4,987,276	611.5	46.4	1,722
CR1-C20-P	Participant	Structure	663,054	4,987,455	606.0	44.5	2,336
CR1-C21-P	Participant	Structure	660,756	4,984,086	594.8	42.0	2,388
CR1-C22-P	Participant	Structure	660,755	4,984,082	594.8	42.0	2,375
CR1-C23-P	Participant	Structure	660,619	4,984,078	596.0	41.5	2,523
CR1-C26-P	Participant	Structure	657,767	4,988,493	597.0	40.6	3,484
CR1-C27-NP	Non-P	Structure	656,876	4,988,683	583.0	40.0	2,549
CR1-C28-NP	Non-P	Structure	665,429	4,988,598	590.8	42.1	2,831
CR1-C29-NP	Non-P	Structure	666,572	4,988,867	575.9	41.4	2,457
CR1-C30-P	Participant	Structure	661,699	4,988,957	615.0	47.9	1,614
CR1-C31-NP	Non-P	Structure	665,939	4,988,950	585.4	43.4	2,126
CR1-C32-NP	Non-P	Structure	655,843	4,989,581	568.6	37.1	3,714
CR1-C33-NP	Non-P	Structure	656,839	4,990,404	569.8	37.4	6,719
CR1-C34-NP	Non-P	Structure	658,661	4,990,389	589.1	44.5	1,726
CR1-C35-P	Participant	Structure	662,025	4,990,475	609.0	43.9	2,123
CR1-C36-P	Participant	Structure	663,181	4,990,600	615.0	46.2	1,532
CR1-C37-P	Participant	Structure	663,563	4,991,342	605.1	46.5	1,631
CR1-C38-NP	Non-P	Structure	660,639	4,991,557	597.0	41.0	3,474
CR1-C39-NP	Non-P	Structure	660,144	4,991,670	588.0	42.3	2,605
CR1-C40-NP	Non-P	Structure	657,865	4,991,818	583.8	41.5	2,690
CR1-C41-NP	Non-P	Structure	665,053	4,992,084	576.1	45.0	2,359
CR1-C42-P	Participant	Structure	659,458	4,992,229	580.0	44.6	1,801
CR1-C44-NP	Non-P	Structure	665,076	4,993,095	578.2	44.0	2,155
CR1-C45-NP	Non-P	Structure	653,390	4,993,503	573.0	35.4	5,673
CR1-C46-P	Participant	Structure	655,802	4,993,540	609.7	46.0	1,680
CR1-C47-P	Participant	Structure	662,825	4,993,508	613.8	39.5	3,750
CR1-C48-P	Participant	Structure	664,247	4,993,646	588.0	44.7	1,847
CR1-C49-P	Participant	Structure	662,250	4,993,731	609.0	38.4	5,148
CR1-C50-P	Participant	Structure	656,806	4,994,388	621.0	46.8	1,591

[illegible]

Table C-1: Crowned Ridge Sound Level Tabular Results Sorted by Receptor ID**Realistic case sound results at occupied structures****Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's****UTM NAD83 Zone 14****Grant County****continued**

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-G12-NP	Non-P	Structure	668,229	4,989,039	575.0	38.0	4,623
CR1-G13-NP	Non-P	Structure	672,216	4,989,142	558.0	37.2	3,576
CR1-G14-NP	Non-P	Structure	668,156	4,989,332	574.1	38.8	3,940
CR1-G15-P	Participant	Structure	668,396	4,989,607	576.0	40.1	2,746
CR1-G16-NP	Non-P	Structure	668,419	4,989,861	576.0	41.8	2,070
CR1-G18-P	Participant	Structure	668,678	4,990,722	585.0	45.1	1,585
CR1-G19-P	Participant	Structure	671,018	4,990,744	570.0	43.4	2,077
CR1-G21-P	Participant	Structure	666,766	4,991,807	577.1	44.9	1,555
CR1-G22-NP	Non-P	Structure	674,670	4,991,955	527.6	34.8	5,781
CR1-G23-NP	Non-P	Structure	670,471	4,992,104	560.1	42.6	2,185
CR1-G24-P	Participant	Structure	673,058	4,992,440	539.4	40.6	2,231
CR1-G25-P	Participant	Structure	671,391	4,992,858	549.0	43.8	1,804
CR1-G26-NP	Non-P	Structure	672,589	4,993,869	531.0	39.9	3,140
CR1-G27-NP	Non-P	Structure	676,630	4,994,642	480.8	34.0	4,944
CR1-G28-P	Participant	Structure	673,113	4,994,772	514.1	43.2	1,614
CR1-G32-P	Participant	Structure	669,477	4,995,401	546.0	45.1	1,545
CR1-G33-P	Participant	Structure	668,911	4,995,550	548.7	39.9	2,779
CR1-G34-NP	Non-P	Structure	671,320	4,995,798	531.0	40.8	2,238
CR1-G36-NP	Non-P	Structure	673,559	4,996,344	498.1	35.5	6,211
CR1-G37-NP	Non-P	Structure	668,998	4,996,452	549.0	36.6	5,246
CR1-G38-NP	Non-P	Structure	673,972	4,996,493	494.5	35.0	5,646
CR1-G41-P	Participant	Structure	671,563	4,997,050	497.7	37.9	3,983
CR1-G42-NP	Non-P	Structure	670,566	4,997,097	518.9	38.1	3,819
CR1-G43-NP	Non-P	Structure	661,141	5,001,721	584.2	43.0	1,909
CR1-G44-NP	Non-P	Structure	661,781	5,001,732	583.7	39.2	3,123
CR1-G59-P	Participant	Structure	675,755	4,994,888	488.3	39.6	2,605
CR1-G60-P	Participant	Structure	675,830	4,995,687	477.0	36.4	3,343
CR1-G65-P	Participant	Structure	671,496	4,994,973	537.0	45.3	1,539
CR1-G66-P	Participant	Structure	670,802	4,994,681	539.8	44.0	1,801
CR1-G67-P	Participant	Structure	669,597	4,993,440	555.8	43.2	2,106
CR1-G68-NP	Non-P	Structure	669,159	4,993,632	564.7	43.0	2,113
CR1-G81-P	Participant	Structure	671,478	4,997,523	508.7	40.7	2,421
CR1-G105-NP	Non-P	Structure	668,696	4,998,325	549.0	35.3	6,345
CR1-G108-NP	Non-P	Structure	669,516	5,001,186	522.2	39.7	3,586
CR1-G109-NP	Non-P	Structure	667,064	5,000,425	566.4	40.1	2,152
CR1-G110-NP	Non-P	Structure	671,218	5,005,064	456.4	34.8	5,889
CR1-G113-NP	Non-P	Structure	666,228	5,005,549	537.0	40.3	2,746
CR1-G114-NP	Non-P	Structure	666,214	5,006,667	520.8	40.8	2,205

[illegible]

Table C-2: Crowned Ridge Sound Level Tabular Results Sorted by Sound Level
Realistic case sound results at land parcel boundaries and occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-C48-P	Participant	Boundary	664,262	4,992,514	586.8	53.6	410
CR1-C13-P	Participant	Boundary	664,410	4,986,207	615.0	53.3	574
CR1-C18-P	Participant	Boundary	664,126	4,986,525	610.2	52.4	591
CR1-C10-P	Participant	Boundary	662,869	4,985,477	601.4	52.2	610
CR1-C11-P	Participant	Boundary	664,444	4,985,206	608.6	52.0	738
CR1-C51-P	Participant	Boundary	657,753	4,994,889	620.0	51.5	564
CR1-C46-P	Participant	Boundary	656,678	4,992,970	611.5	51.4	561
CR1-C30-P	Participant	Boundary	661,978	4,989,318	613.3	51.3	633
CR2-C150-P	Participant	Boundary	657,308	4,986,173	600.0	51.3	591
CR1-C15-P	Participant	Boundary	663,047	4,985,700	612.8	51.1	722
CR1-C37-P	Participant	Boundary	663,879	4,990,574	594.0	51.1	699
CR1-C42-P	Participant	Boundary	659,828	4,992,807	580.5	51.1	604
CR1-C20-P	Participant	Boundary	662,024	4,987,612	604.8	51.0	640
CR1-C106-P	Participant	Boundary	659,931	5,001,205	605.4	51.0	768
CR1-C58-P	Participant	Boundary	657,619	4,997,581	611.9	50.6	732
CR1-C59-P	Participant	Boundary	661,380	5,000,092	591.0	50.2	623
CR1-C19-P	Participant	Boundary	660,393	4,987,529	607.7	50.1	784
CR1-C64-P	Participant	Boundary	659,129	4,991,995	576.5	49.9	679
CR1-C105-NP	Non-P	Boundary	658,351	5,000,265	609.0	49.8	604
CR1-C50-P	Participant	Boundary	656,239	4,994,042	618.0	49.7	984
CR1-C9-P	Participant	Boundary	665,421	4,985,265	609.0	49.5	1,079
CR1-C55-P	Participant	Boundary	660,139	4,994,937	606.2	49.4	722
CR1-C56-P	Participant	Boundary	655,621	4,995,989	606.2	49.4	627
CR1-C16-NP	Non-P	Boundary	661,642	4,985,677	597.0	48.8	948
CR1-C62-NP	Non-P	Boundary	658,155	4,994,994	614.7	48.7	820
CR1-C71-NP	Non-P	Boundary	664,658	4,987,355	600.0	48.6	1,050
CR1-C39-NP	Non-P	Boundary	659,741	4,991,242	583.2	48.5	856
CR1-C107-NP	Non-P	Boundary	655,923	4,998,435	595.8	48.5	673
CR1-C36-P	Participant	Boundary	663,564	4,990,731	610.7	48.3	1,033
CR1-C61-NP	Non-P	Boundary	656,927	4,997,826	612.0	48.2	912
CR1-C38-NP	Non-P	Boundary	660,955	4,990,468	591.2	47.3	1,027
CR1-C35-P	Participant	Boundary	661,955	4,990,153	606.0	47.2	1,112
CR1-C47-P	Participant	Boundary	663,454	4,992,888	612.0	46.8	1,076
CR1-C7-NP	Non-P	Boundary	661,266	4,985,387	591.0	46.6	1,253
CR1-C14-NP	Non-P	Boundary	657,803	4,986,003	609.0	46.1	1,191
CR1-C41-NP	Non-P	Boundary	664,801	4,991,929	577.1	46.1	1,585
CR1-C34-NP	Non-P	Boundary	658,763	4,990,247	589.7	45.9	1,293
CR1-C57-P	Participant	Boundary	656,526	4,995,198	616.1	45.9	1,319
CR1-C52-NP	Non-P	Boundary	654,986	4,995,398	603.0	45.8	1,335

Table C-2: Crowned Ridge Sound Level Tabular Results Sorted by Sound Level
Realistic case sound results at land parcel boundaries and occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County
continued

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-C111-NP	Non-P	Boundary	654,576	4,995,809	599.1	45.6	1,240
CR1-C12-P	Participant	Boundary	662,067	4,985,677	604.9	45.3	1,670
CR1-C17-P	Participant	Boundary	658,017	4,986,369	606.4	45.2	1,837
CR1-C28-NP	Non-P	Boundary	665,432	4,989,009	583.9	44.9	1,483
CR1-C40-NP	Non-P	Boundary	658,706	4,991,231	579.8	44.9	1,555
CR1-C31-NP	Non-P	Boundary	665,639	4,989,013	584.6	44.5	1,637
CR1-C44-NP	Non-P	Boundary	665,447	4,992,972	578.2	44.4	1,824
CR1-C26-P	Participant	Boundary	658,015	4,987,993	606.0	43.5	1,867
CR1-C8-P	Participant	Boundary	661,277	4,984,852	597.6	43.1	2,139
CR1-C60-NP	Non-P	Boundary	656,909	4,998,465	609.3	42.9	2,218
CR1-C70-NP	Non-P	Boundary	664,953	4,987,981	596.1	42.7	3,225
CR1-C29-NP	Non-P	Boundary	666,496	4,989,001	573.9	42.7	1,952
CR1-C63-NP	Non-P	Boundary	658,543	4,995,211	606.8	42.5	2,277
CR1-C27-NP	Non-P	Boundary	656,658	4,988,484	587.2	42.2	1,749
CR1-C110-NP	Non-P	Boundary	654,553	4,996,633	588.7	41.4	2,365
CR1-C109-NP	Non-P	Boundary	654,533	4,997,357	592.6	41.0	1,909
CR1-C4-NP	Non-P	Boundary	659,890	4,985,620	605.4	40.5	3,914
CR1-C3-NP	Non-P	Boundary	657,812	4,984,785	603.1	39.4	2,936
CR1-C65-NP	Non-P	Boundary	665,516	4,995,045	578.0	39.2	2,825
CR1-C49-P	Participant	Boundary	662,224	4,993,664	609.0	38.5	5,105
CR1-C6-P	Participant	Boundary	663,383	4,994,502	591.0	38.5	3,878
CR1-C32-NP	Non-P	Boundary	657,187	4,989,566	573.0	38.2	4,970
CR1-C33-NP	Non-P	Boundary	657,126	4,990,843	567.0	38.1	5,856
CR1-C2-NP	Non-P	Boundary	658,435	4,984,609	601.8	37.7	5,036
CR1-C53-NP	Non-P	Boundary	664,171	4,995,340	580.6	37.4	4,009
CR1-C45-NP	Non-P	Boundary	653,821	4,993,552	572.0	37.0	4,291
CR1-C54-NP	Non-P	Boundary	663,495	4,995,329	582.9	36.7	5,075
CR1-C1-NP	Non-P	Boundary	657,276	4,983,921	590.3	36.5	4,258
CR1-C11-P	Participant	Structure	664,111	4,985,679	609.0	47.9	1,614
CR1-C30-P	Participant	Structure	661,699	4,988,957	615.0	47.9	1,614
CR1-C9-P	Participant	Structure	665,352	4,985,004	609.0	47.7	1,621
CR1-C106-P	Participant	Structure	660,365	5,001,639	605.0	47.3	1,165
CR1-C10-P	Participant	Structure	663,510	4,985,195	609.0	47.0	1,762
CR1-C13-P	Participant	Structure	663,792	4,985,785	612.0	46.9	1,739
CR1-C50-P	Participant	Structure	656,806	4,994,388	621.0	46.8	1,591
CR1-C37-P	Participant	Structure	663,563	4,991,342	605.1	46.5	1,631
CR1-C19-P	Participant	Structure	659,243	4,987,276	611.5	46.4	1,722
CR1-C36-P	Participant	Structure	663,181	4,990,600	615.0	46.2	1,532

Table C-2: Crowned Ridge Sound Level Tabular Results Sorted by Sound Level
Realistic case sound results at land parcel boundaries and occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County
continued

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-C15-P	Participant	Structure	663,291	4,986,026	615.0	46.1	1,952
CR2-C150-P	Participant	Structure	657,178	4,985,788	612.0	46.1	1,640
CR1-C46-P	Participant	Structure	655,802	4,993,540	609.7	46.0	1,680
CR1-C68-P	Participant	Structure	662,652	4,987,606	609.0	45.4	2,146
CR1-C69-P	Participant	Structure	662,685	4,987,619	609.0	45.3	2,185
CR1-C17-P	Participant	Structure	658,031	4,986,373	609.1	45.1	1,886
CR1-C58-P	Participant	Structure	657,781	4,996,906	615.0	45.1	1,647
CR1-C41-NP	Non-P	Structure	665,053	4,992,084	576.1	45.0	2,359
CR1-C64-P	Participant	Structure	659,436	4,992,174	581.0	44.9	1,614
CR1-C57-P	Participant	Structure	656,628	4,995,266	615.0	44.9	1,568
CR1-C18-P	Participant	Structure	663,651	4,987,157	610.5	44.8	2,146
CR1-C56-P	Participant	Structure	655,953	4,995,244	606.0	44.8	1,972
CR1-C48-P	Participant	Structure	664,247	4,993,646	588.0	44.7	1,847
CR1-C52-NP	Non-P	Structure	654,924	4,995,231	603.0	44.7	1,883
CR1-C61-NP	Non-P	Structure	656,690	4,997,831	612.0	44.7	1,686
CR1-C42-P	Participant	Structure	659,458	4,992,229	580.0	44.6	1,801
CR1-C20-P	Participant	Structure	663,054	4,987,455	606.0	44.5	2,336
CR1-C34-NP	Non-P	Structure	658,661	4,990,389	589.1	44.5	1,726
CR1-C12-P	Participant	Structure	662,222	4,985,736	603.0	44.3	2,201
CR1-C51-P	Participant	Structure	657,455	4,995,160	621.0	44.1	1,768
CR1-C44-NP	Non-P	Structure	665,076	4,993,095	578.2	44.0	2,155
CR1-C62-NP	Non-P	Structure	658,375	4,995,138	615.0	44.0	1,676
CR1-C107-NP	Non-P	Structure	656,811	4,999,855	598.8	44.0	1,401
CR1-C35-P	Participant	Structure	662,025	4,990,475	609.0	43.9	2,123
CR1-C108-P	Participant	Structure	656,978	4,997,092	609.0	43.9	1,939
CR1-C12-1-P	Participant	Structure	662,199	4,986,047	606.0	43.6	2,818
CR1-C14-NP	Non-P	Structure	657,982	4,985,894	609.0	43.4	1,880
CR1-C31-NP	Non-P	Structure	665,939	4,988,950	585.4	43.4	2,126
CR1-C16-NP	Non-P	Structure	661,960	4,986,288	606.0	43.3	2,736
CR1-C59-P	Participant	Structure	661,548	5,000,754	584.1	42.7	1,644
CR1-C60-NP	Non-P	Structure	656,855	4,998,565	613.5	42.4	2,592
CR1-C39-NP	Non-P	Structure	660,144	4,991,670	588.0	42.3	2,605
CR1-C63-NP	Non-P	Structure	658,566	4,995,254	612.6	42.2	2,408
CR1-C105-NP	Non-P	Structure	658,372	5,001,257	601.5	42.2	2,549
CR1-C70-NP	Non-P	Structure	665,135	4,988,293	595.7	42.1	3,540
CR1-C72-NP	Non-P	Structure	665,158	4,988,170	595.2	42.1	3,776
CR1-C71-NP	Non-P	Structure	665,137	4,988,378	594.6	42.1	3,448
CR1-C28-NP	Non-P	Structure	665,429	4,988,598	590.8	42.1	2,831

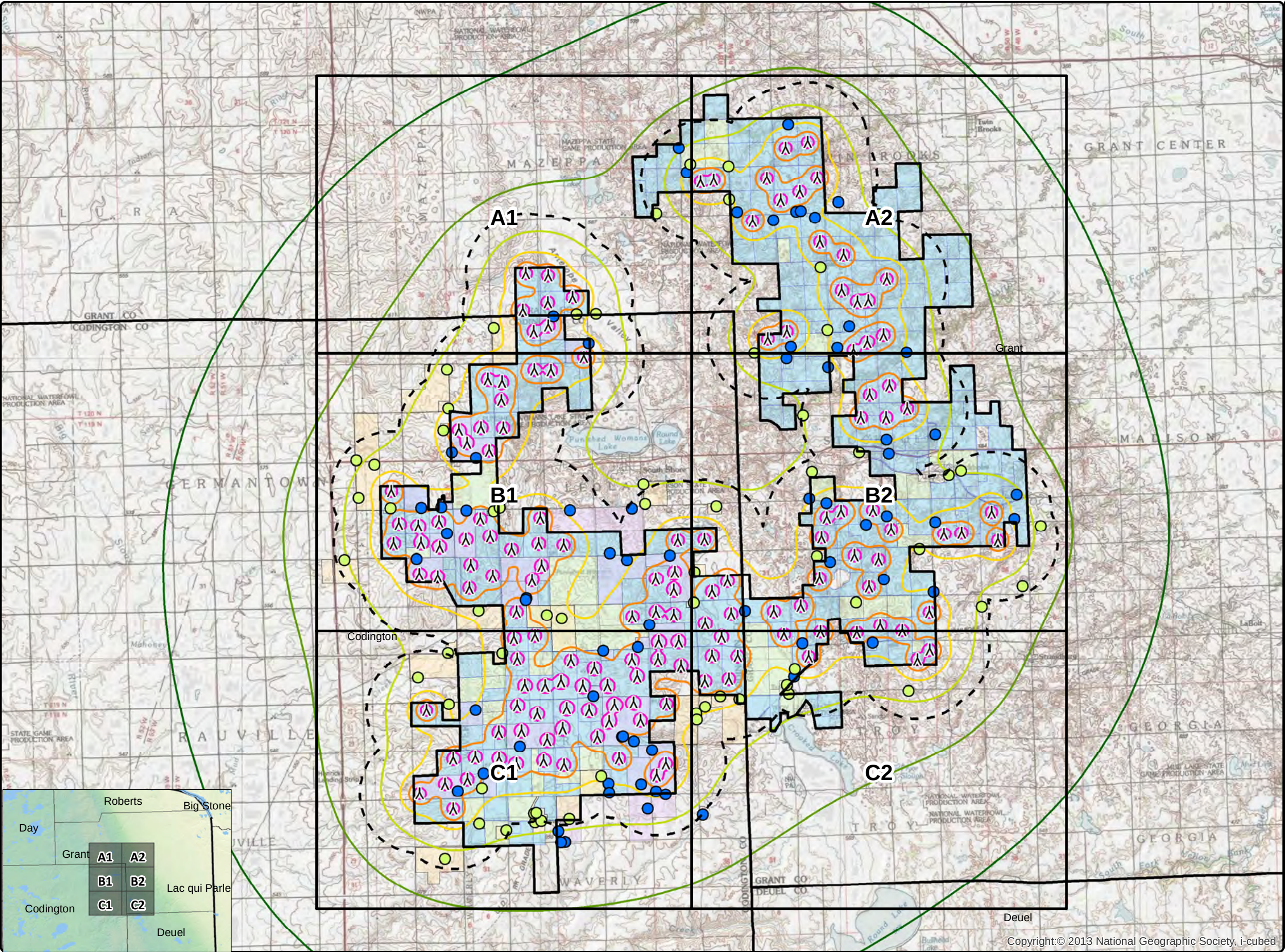
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Table C-2: Crowned Ridge Sound Level Tabular Results Sorted by Sound Level
Realistic case sound results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Grant County
continued

Receptor ID	Participation Status	Type	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Sound (dB(A))	Distance to Nearest Turbine (ft)
CR1-G65-P	Participant	Structure	671,496	4,994,973	537.0	45.3	1,539
CR1-G18-P	Participant	Structure	668,678	4,990,722	585.0	45.1	1,585
CR1-G32-P	Participant	Structure	669,477	4,995,401	546.0	45.1	1,545
CR1-G21-P	Participant	Structure	666,766	4,991,807	577.1	44.9	1,555
CR1-G66-P	Participant	Structure	670,802	4,994,681	539.8	44.0	1,801
CR1-G25-P	Participant	Structure	671,391	4,992,858	549.0	43.8	1,804
CR1-G19-P	Participant	Structure	671,018	4,990,744	570.0	43.4	2,077
CR1-G28-P	Participant	Structure	673,113	4,994,772	514.1	43.2	1,614
CR1-G67-P	Participant	Structure	669,597	4,993,440	555.8	43.2	2,106
CR1-G43-NP	Non-P	Structure	661,141	5,001,721	584.2	43.0	1,909
CR1-G68-NP	Non-P	Structure	669,159	4,993,632	564.7	43.0	2,113
CR1-G128-P	Participant	Structure	670,242	5,001,314	513.0	42.9	2,612
CR1-G131-P	Participant	Structure	668,466	5,005,145	505.1	42.9	2,133
CR1-G125-P	Participant	Structure	668,289	5,000,643	543.0	42.8	1,716
CR1-G124-P	Participant	Structure	669,843	5,000,605	525.0	42.7	1,791
CR1-G23-NP	Non-P	Structure	670,471	4,992,104	560.1	42.6	2,185
CR1-G135-P	Participant	Structure	668,616	5,005,161	504.2	42.6	2,142
CR1-G136-P	Participant	Structure	667,706	5,004,861	522.0	42.2	2,277
CR1-G16-NP	Non-P	Structure	668,419	4,989,861	576.0	41.8	2,070
CR1-G138-P	Participant	Structure	664,809	5,006,456	549.0	41.8	1,824
CR1-G137-P	Participant	Structure	666,501	5,005,136	529.5	41.6	1,939
CR1-G149-NP	Non-P	Structure	669,284	5,003,283	503.2	41.0	2,815
CR1-G34-NP	Non-P	Structure	671,320	4,995,798	531.0	40.8	2,238
CR1-G114-NP	Non-P	Structure	666,214	5,006,667	520.8	40.8	2,205
CR1-G81-P	Participant	Structure	671,478	4,997,523	508.7	40.7	2,421
CR1-G24-P	Participant	Structure	673,058	4,992,440	539.4	40.6	2,231
CR1-G132-P	Participant	Structure	669,098	5,004,948	501.0	40.6	2,703
CR1-G115-NP	Non-P	Structure	664,933	5,006,731	544.6	40.5	2,188
CR1-G113-NP	Non-P	Structure	666,228	5,005,549	537.0	40.3	2,746
CR1-G15-P	Participant	Structure	668,396	4,989,607	576.0	40.1	2,746
CR1-G109-NP	Non-P	Structure	667,064	5,000,425	566.4	40.1	2,152
CR1-G33-P	Participant	Structure	668,911	4,995,550	548.7	39.9	2,779
CR1-G26-NP	Non-P	Structure	672,589	4,993,869	531.0	39.9	3,140
CR1-G139-P	Participant	Structure	668,199	5,008,062	475.9	39.8	2,612
CR1-G108-NP	Non-P	Structure	669,516	5,001,186	522.2	39.7	3,586
CR1-G59-P	Participant	Structure	675,755	4,994,888	488.3	39.6	2,605
CR1-G126-P	Participant	Structure	672,157	5,000,446	484.3	39.4	3,176
CR1-G130-P	Participant	Structure	668,147	5,000,233	549.0	39.3	3,005

continued

APPENDIX D: STANDARD RESOLUTION SOUND MAPS





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Crowned Ridge Wind Farm Sound Pressure Iso-Lines Overview Map

Client
SWCA Environmental Consultants

Project Description
Wind turbine layout with occupied structures and parcel boundaries within 2 km.

Predicted sound pressure levels at existing residences and land parcel boundaries.

Additional 2 dBA added.

Location: Watertown, SD
Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Legend

- ▲ Crowned Ridge Turbines
- 2 km Turbine Buffer
- ▬ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants

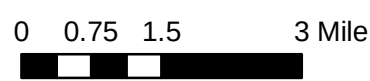
Sound Pressure (dBA)

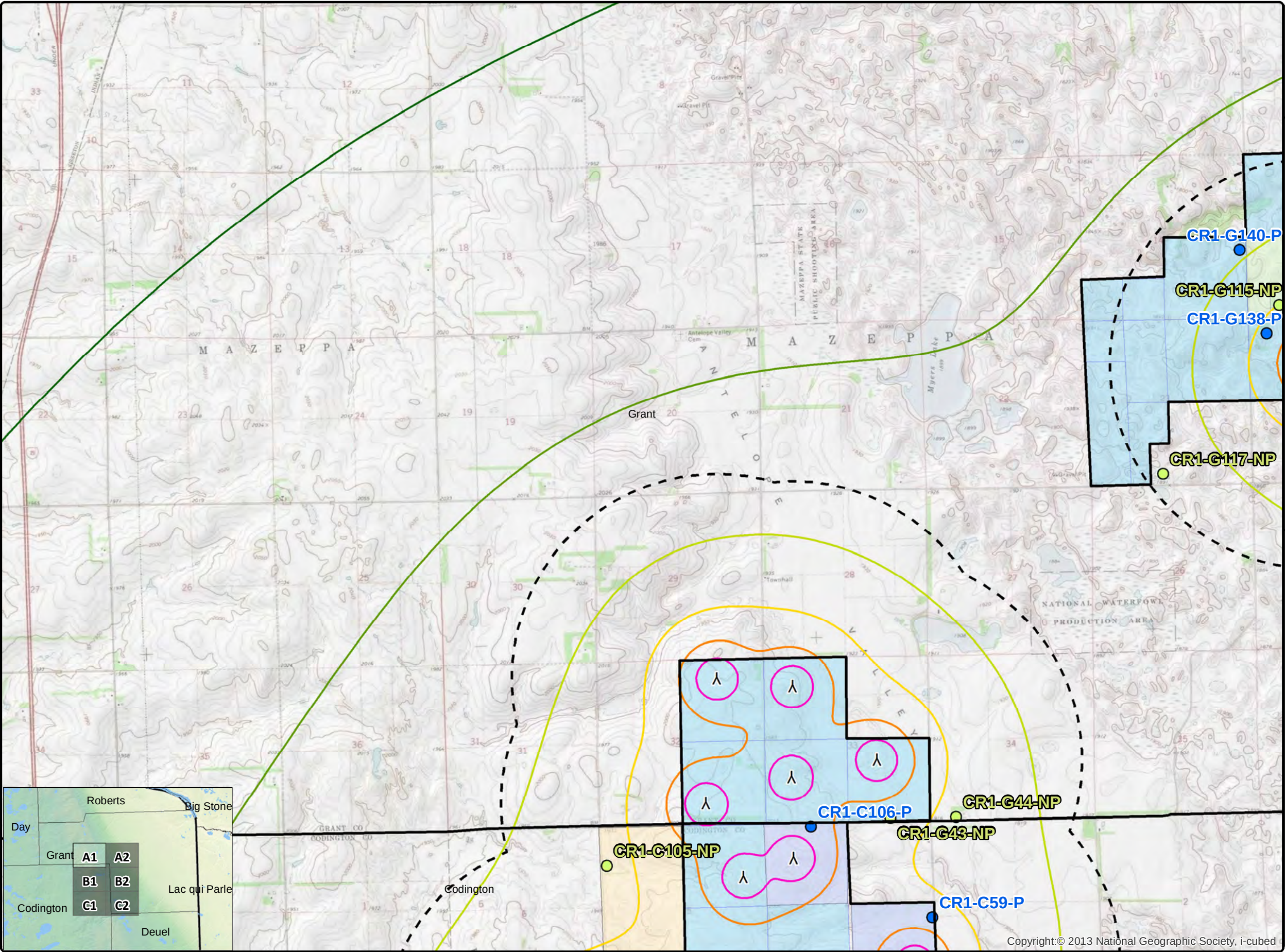
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- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
- Non-Participating Land Parcels

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Crowned Ridge Wind Farm Sound Pressure Iso-Lines

Client
SWCA Environmental Consultants

Project Description
Wind turbine layout with occupied structures and parcel boundaries within 2 km.

Predicted sound pressure levels at existing residences and land parcel boundaries.

Additional 2 dBA added.

Location: Watertown, SD
Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS Checked By: JH

Legend

- ⋈ Crowned Ridge Turbines
- ▭ 2 km Turbine Buffer
- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants

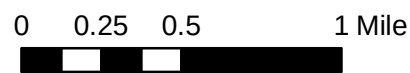
Sound Pressure (dBA)

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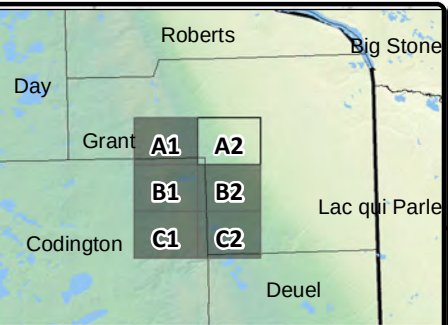
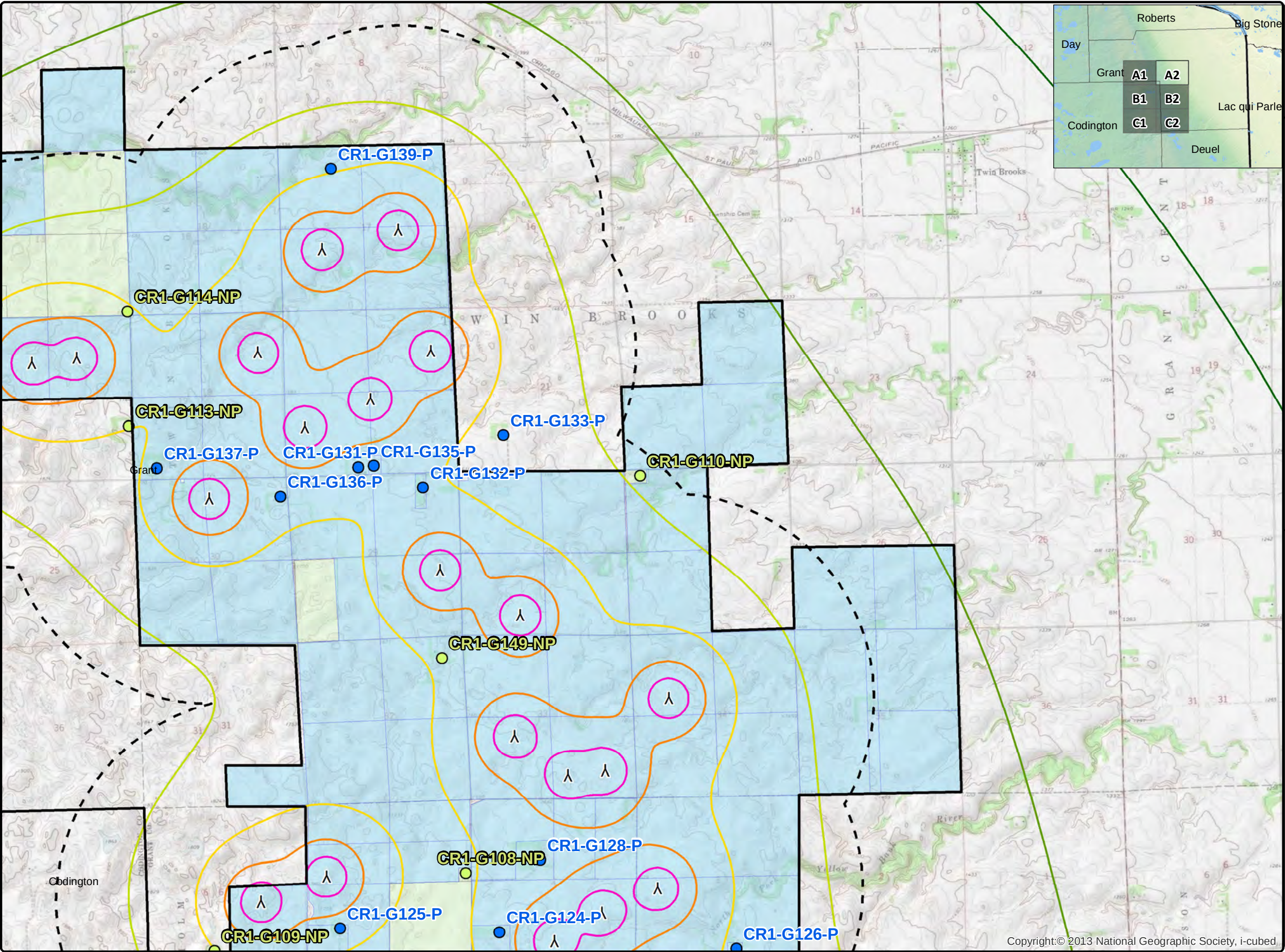
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Location: Watertown, SD
Project #: 20174431

Issue Dates

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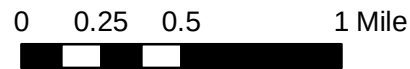
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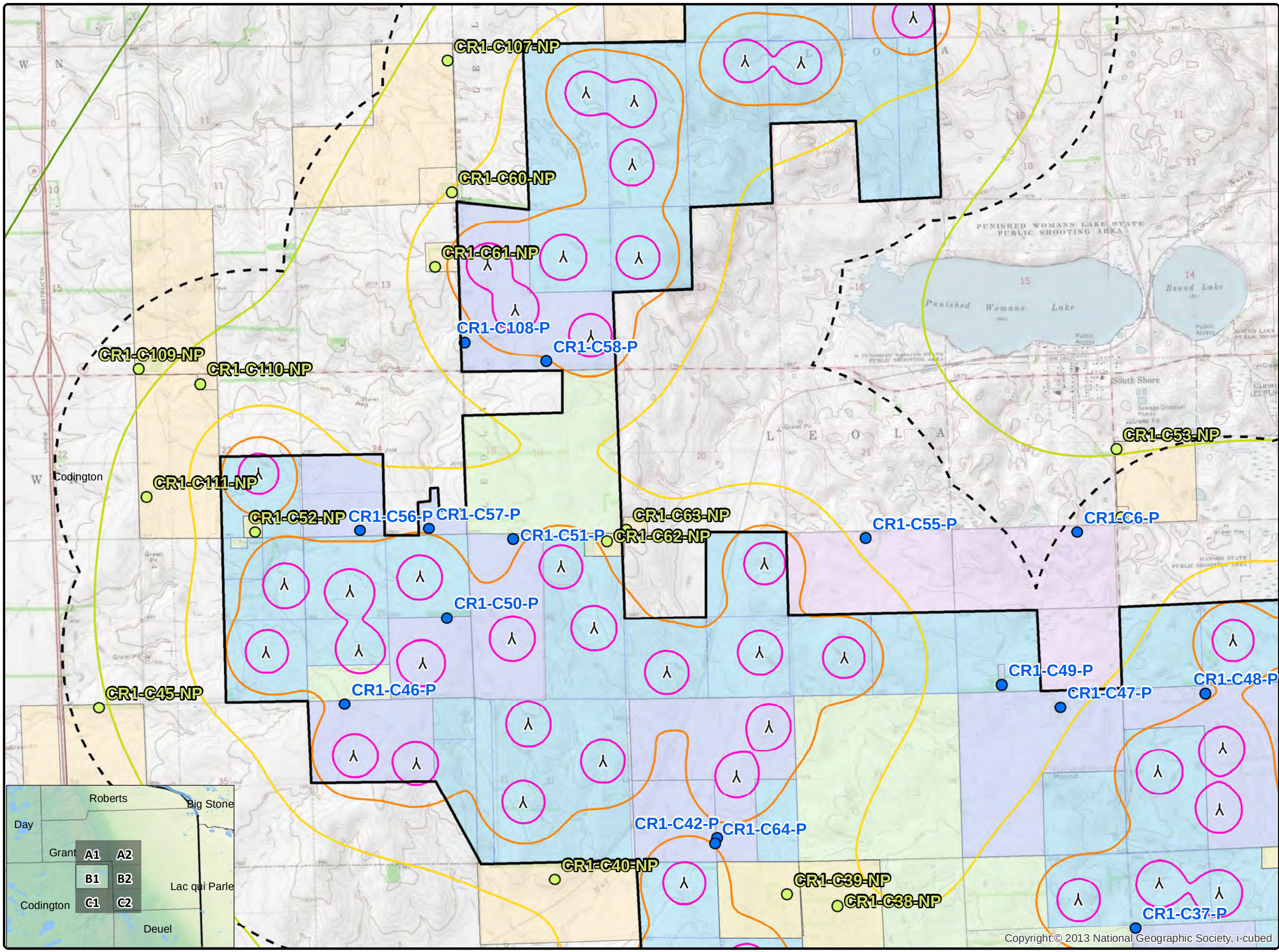
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- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants
- Sound Pressure (dBA)**
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Crowned Ridge Wind Farm
Sound Pressure Iso-Lines

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Location: Watertown, SD
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Issue Dates

1	Original	2019.02.15
#	Description	Date

Drawn By: AS **Checked By:** JH

Legend

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- 2 km Turbine Buffer
- County Lines
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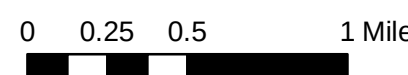
Sound Pressure (dBA)

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- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
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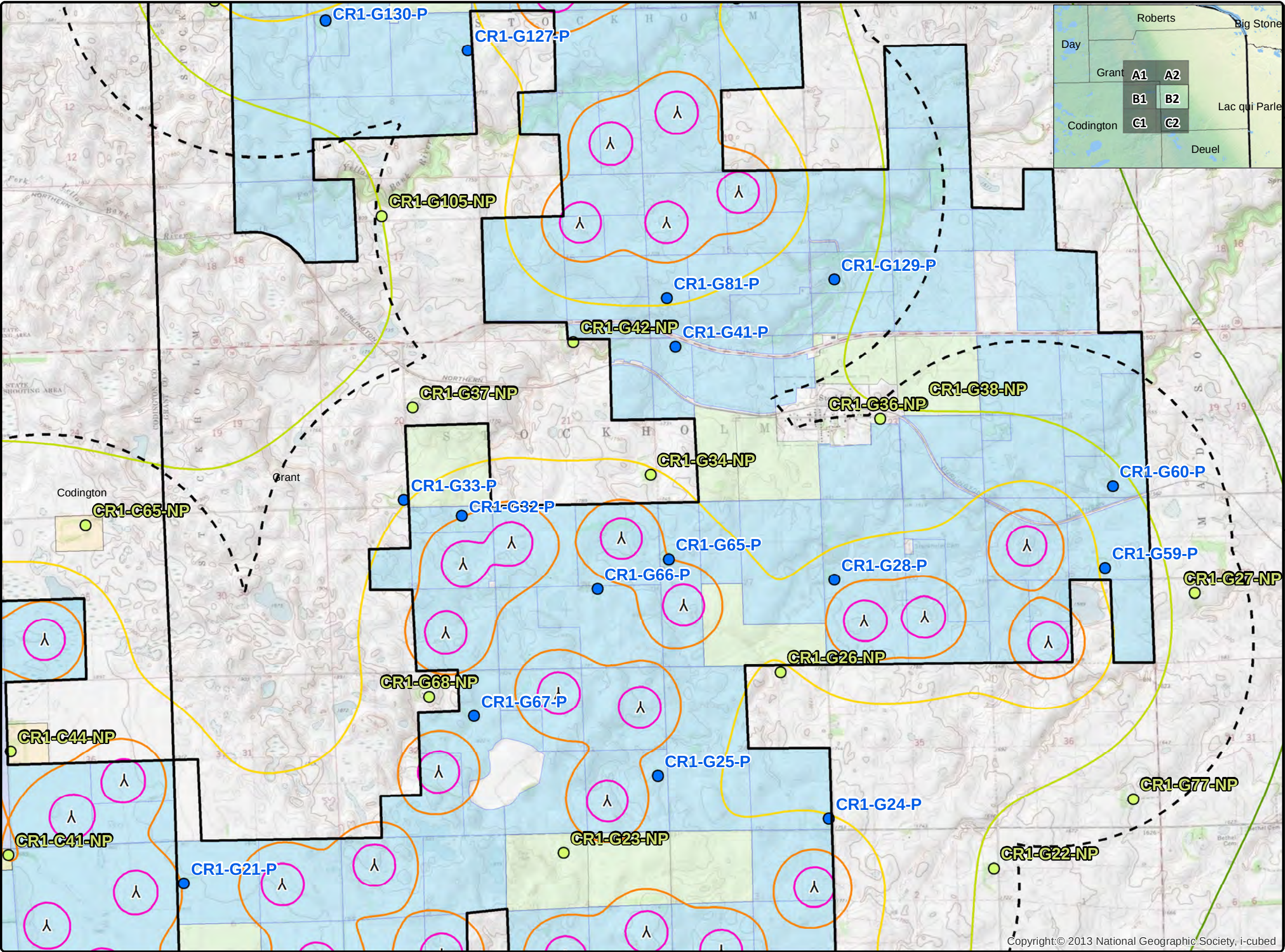
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Crowned Ridge Wind Farm
Sound Pressure Iso-Lines

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Wind turbine layout with occupied structures and parcel boundaries within 2 km.

Predicted sound pressure levels at existing residences and land parcel boundaries.

Additional 2 dBA added.

Location: Watertown, SD
Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS Checked By: JH

Legend

- ⋈ Crowned Ridge Turbines
- 2 km Turbine Buffer
- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants

Sound Pressure (dBA)

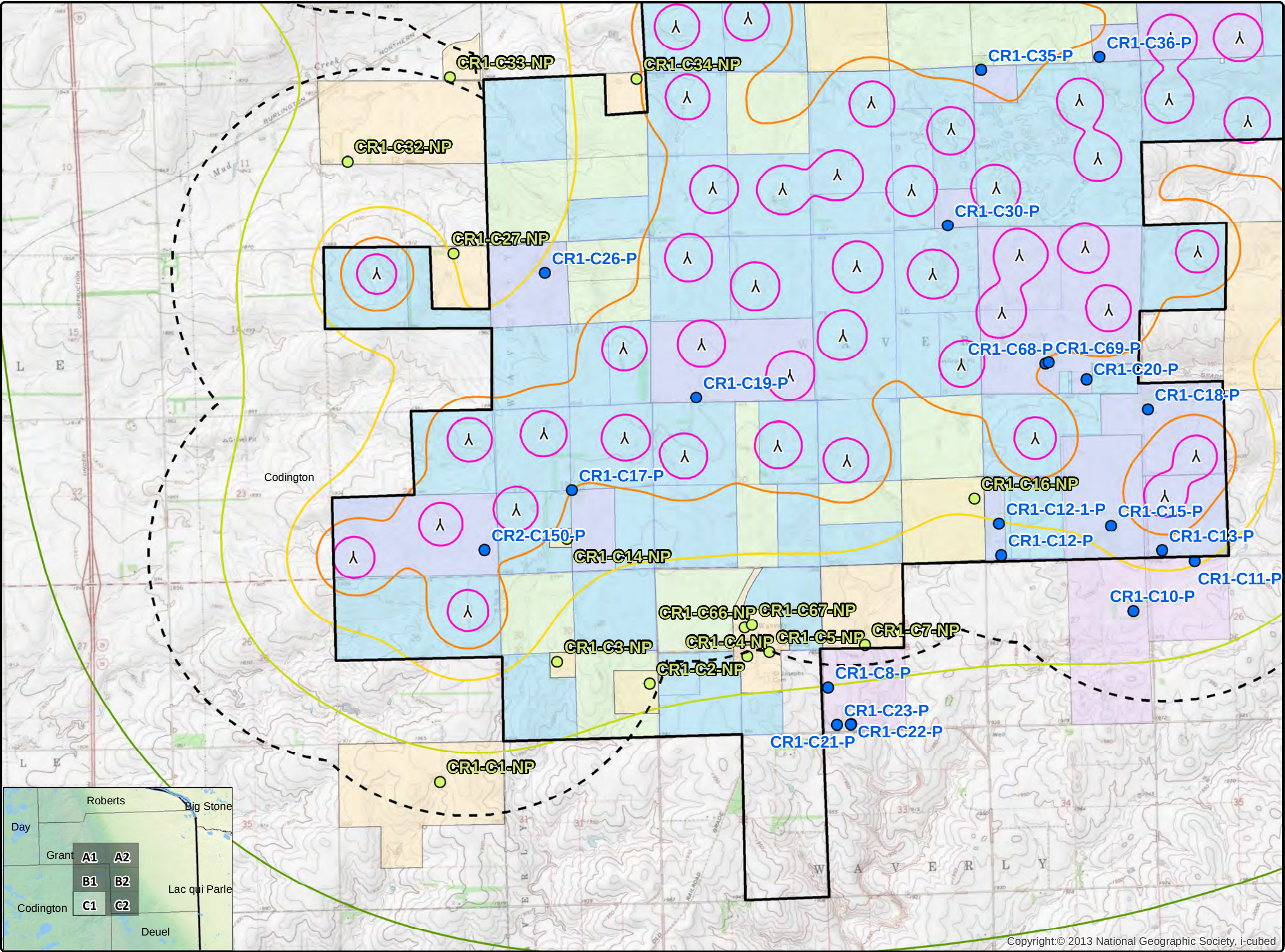
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Crowned Ridge Wind Farm Sound Pressure Iso-Lines

Client
SWCA Environmental Consultants

Project Description
Wind turbine layout with occupied structures and parcel boundaries within 2 km.

Predicted sound pressure levels at existing residences and land parcel boundaries.

Additional 2 dBA added.

Location: Watertown, SD
Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS **Checked By:** JH

Legend

- ⌄ Crowned Ridge Turbines
- ⬜ 2 km Turbine Buffer
- ⬜ County Lines
- ⬜ CR1 Project Boundary
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- Participants

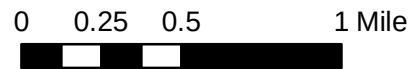
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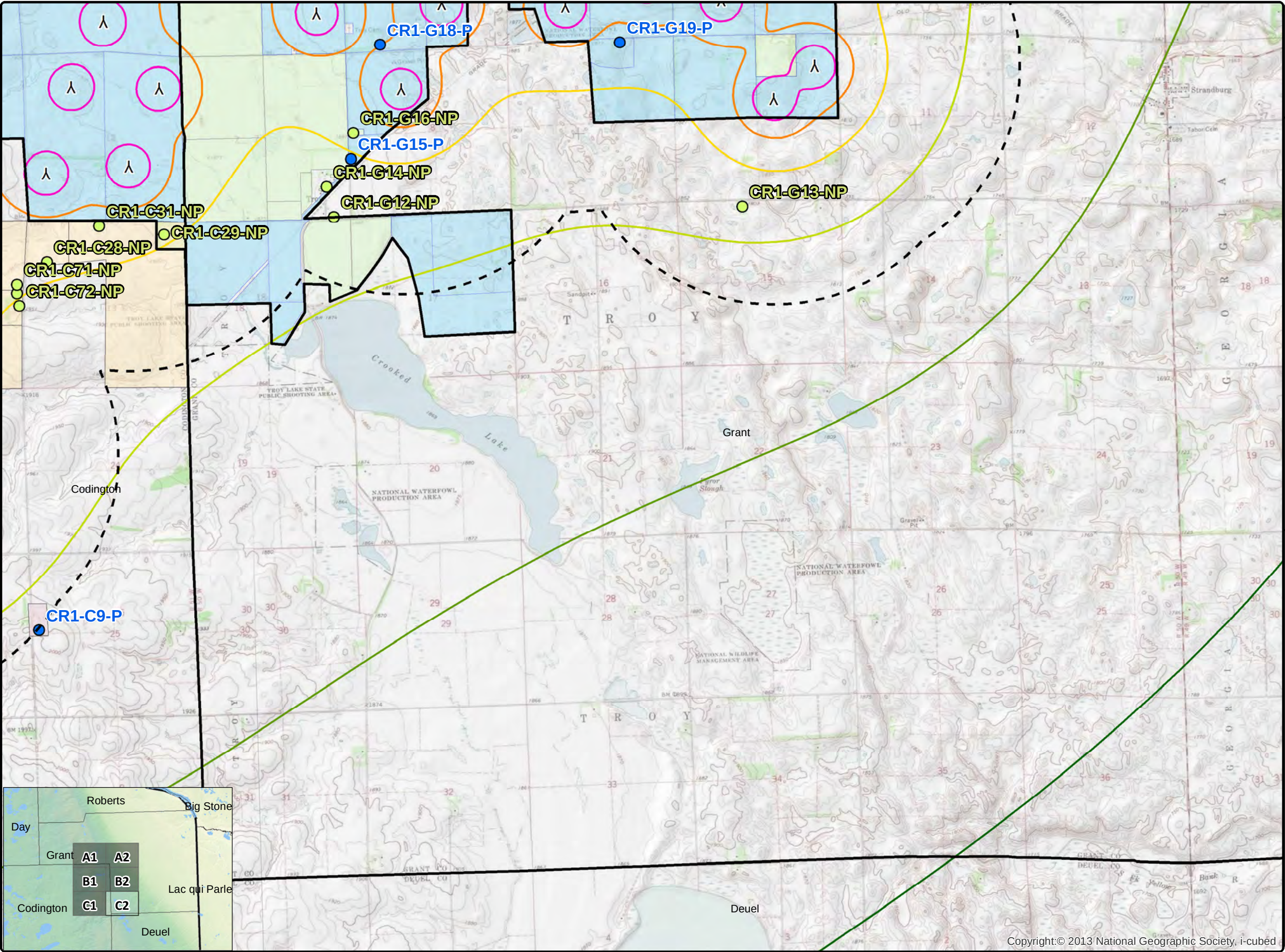
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Crowned Ridge Wind Farm Sound Pressure Iso-Lines

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SWCA Environmental Consultants

Project Description
Wind turbine layout with occupied structures and parcel boundaries within 2 km.

Predicted sound pressure levels at existing residences and land parcel boundaries.

Additional 2 dBA added.

Location: Watertown, SD
Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS **Checked By:** JH

Legend

- ▲ Crowned Ridge Turbines
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- ▬ County Lines
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- Non-Participants
- Participants

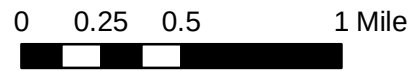
Sound Pressure (dBA)

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February 19, 2019

Tyler Wilhelm
Project Manager
NextEra Energy Resources, LLC
700 Universe Boulevard
Juno Beach, FL 33408
Office: (561) 694-3193
Tyler.Wilhelm@nee.com

Subject: Crowned Ridge additional structures

Dear Mr. Wilhelm,

This letter is intended to provide updated landowner participation status information that was not included in the original report titled: "Final Report, Crowned Ridge Wind Farm Shadow Flicker Study, Codington and Grant Counties, SD", dated February 6, 2019, submitted by EAPC Wind Energy.

After the report was submitted, I was made aware of updated land parcel and farmstead status databases. There were a number of changes in landowner participation status from the original report. Most were changed from non-participating to participating, with a few that changed from participating to non-participating.

There were no changes in compliance with Codington or Grant County requirements for shadow flicker limits.

I have attached updated maps and results tables that reflect the changes in participation status for the shadow flicker receptors.

Sincerely,

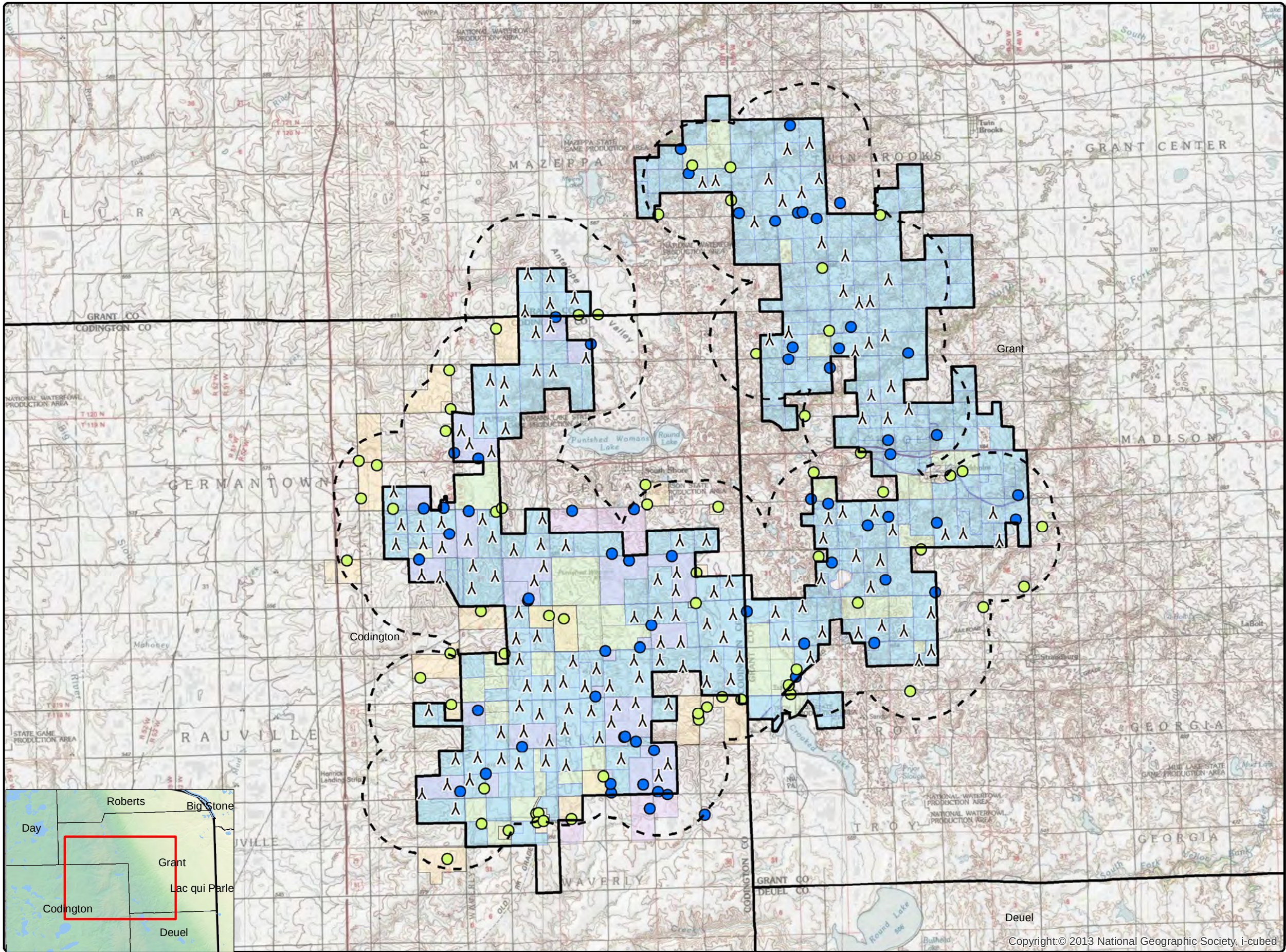


Jay Haley, P.E., Partner
For EAPC Wind Energy

Attachments:

Appendix A – Crowned Ridge Energy Project Site Overview Map
Appendix B – Wind Turbine Coordinates
Appendix C – Table of Sound Results
Appendix D – Standard Resolution Sound Maps
Appendix C – Table of Shadow Flicker Results
Appendix D – Standard Resolution Shadow Flicker Maps

APPENDIX A: CROWNED RIDGE WIND ENERGY PROJECT SITE OVERVIEW MAP





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Crowned Ridge Wind Farm Project Overview Map

Client
SWCA Environmental Consultants

Project Description
Wind turbine layout with land parcels within the project footprint and existing occupied structures.

Codington County land parcels within 2 km of a wind turbine.

Location: Watertown, SD
Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

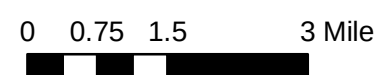
Drawn By: AS Checked By: JH

Legend

- ▲ Crowned Ridge Turbines
- 2 km Turbine Buffer
- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants
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- ▭ Non-Part. Codington Parcels
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APPENDIX B: WIND TURBINE COORDINATES

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14

WTG	Turbine Type	Easting (m)	Northing (m)	Base Elev. AMSL (m)	Sound Profile
CRI-1	GE2.3 116RD 90HH r2.madE	659,443	5,003,083	610.2	LNTE
CRI-2	GE2.3 116RD 90HH r2.madE	660,185	5,003,010	598.1	LNTE
CRI-3	GE2.3 116RD 90HH r2.madE	661,008	5,002,288	584.2	LNTE
CRI-4	GE2.3 116RD 90HH r2.madE	660,173	5,002,120	602.4	LNTE
CRI-5	GE2.3 116RD 90HH r2.madE	659,337	5,001,862	609.9	LNTE
CRI-6	GE2.3 116RD 90HH r2.madE	660,193	5,001,329	610.4	LNTE
CRI-7	GE2.3 116RD 90HH r2.madE	659,705	5,001,146	618.0	LNTE
CRI-8	GE2.3 116RD 90HH r2.madE	661,380	5,000,282	588.3	LNTE
CRI-9	GE2.3 116RD 90HH r2.madE	659,731	4,999,855	613.3	LNTE
CRI-10	GE2.3 116RD 90HH r2.madE	660,280	4,999,837	615.0	LNTE
CRI-11	GE2.3 116RD 90HH r2.madE	658,170	4,999,546	611.0	LNTE
CRI-12	GE2.3 116RD 90HH r2.madE	658,644	4,999,460	615.0	LNTE
CRI-13	GE2.3 116RD 90HH r2.madE	658,622	4,998,843	613.3	LNTE
CRI-14	GE2.3 116RD 90HH r2.madE	657,947	4,997,935	618.3	LNTE
CRI-15	GE2.3 116RD 90HH r2.madE	658,688	4,997,924	618.9	LNTE
CRI-16	GE2.3 116RD 90HH r2.madE	657,203	4,997,856	611.9	LNTE
CRI-17	GE2.3 116RD 90HH r2.madE	657,476	4,997,410	611.1	LNTE
CRI-18	GE2.3 116RD 90HH r2.madE	658,217	4,997,154	618.0	LNTE
CRI-19	GE2.3 116RD 90HH r2.madE	654,954	4,995,804	601.1	LNTE
CRI-20	GE2.3 116RD 90HH r2.madE	659,920	4,994,924	594.4	LNTE
CRI-21	GE2.3 116RD 90HH r2.madE	657,925	4,994,896	617.1	LNTE
CRI-22	GE2.3 116RD 90HH r2.madE	656,543	4,994,796	616.5	LNTE
CRI-23	GE2.3 116RD 90HH r2.madE	655,208	4,994,717	594.5	LNTE
CRI-24	GE2.3 116RD 90HH r2.madE	655,852	4,994,652	609.0	LNTE
CRI-25	GE2.3 116RD 90HH r2.madE	658,251	4,994,286	606.0	LNTE
CRI-26	GE2.3 116RD 90HH r2.madE	665,405	4,994,191	578.3	LNTE
CRI-27	GE2.3 116RD 90HH r2.madE	657,442	4,994,187	621.0	LNTE
CRI-28	GE2.3 116RD 90HH r2.madE	664,517	4,994,168	579.0	LNTE
CRI-29	GE2.3 116RD 90HH r2.madE	655,940	4,994,069	606.9	LNTE
CRI-30	GE2.3 116RD 90HH r2.madE	659,871	4,994,052	593.6	LNTE
CRI-31	GE2.3 116RD 90HH r2.madE	655,030	4,994,051	603.0	LNTE
CRI-32	GE2.3 116RD 90HH r2.madE	660,704	4,993,998	606.0	LNTE
CRI-33	GE2.3 116RD 90HH r2.madE	656,566	4,993,941	618.0	LNTE
CRI-34	GE2.3 116RD 90HH r2.madE	658,966	4,993,856	599.6	LNTE
CRI-35	GE2.3 116RD 90HH r2.madE	657,602	4,993,347	607.5	LNTE
CRI-36	GE2.3 116RD 90HH r2.madE	659,966	4,993,319	594.0	LNTE
CRI-37	GE2.3 116RD 90HH r2.madE	664,419	4,993,110	587.2	LNTE
CRI-38	GE2.3 116RD 90HH r2.madE	658,338	4,992,981	600.5	LNTE
CRI-39	GE2.3 116RD 90HH r2.madE	656,507	4,992,958	609.0	LNTE
CRI-40	GE2.3 116RD 90HH r2.madE	655,889	4,993,035	603.0	LNTE
CRI-41	GE2.3 116RD 90HH r2.madE	663,782	4,992,883	597.2	LNTE

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
continued

WTG	Turbine Type	Easting (m)	Northing (m)	Base Elev. AMSL (m)	Sound Profile
CRI-43	GE2.3 116RD 90HH r2.madE	666,181	4,992,815	577.8	LNTE
CRI-44	GE2.3 116RD 90HH r2.madE	665,665	4,992,460	576.0	LNTE
CRI-46	GE2.3 116RD 90HH r2.madE	664,387	4,992,505	591.0	LNTE
CRI-48	GE2.3 116RD 90HH r2.madE	663,794	4,991,782	587.5	LNTE
CRI-49	GE2.3 116RD 90HH r2.madE	664,385	4,991,685	581.6	LNTE
CRI-50	GE2.3 116RD 90HH r2.madE	662,999	4,991,622	612.0	LNTE
CRI-51	GE2.3 116RD 90HH r2.madE	666,299	4,991,723	575.3	LNTE
CRI-52	GE2.3 116RD 90HH r2.madE	665,426	4,991,398	575.6	LNTE
CRI-53	GE2.3 116RD 90HH r2.madE	659,750	4,990,981	598.7	LNTE
CRI-54	GE2.3 116RD 90HH r2.madE	665,979	4,990,946	573.7	LNTE
CRI-55	GE2.3 116RD 90HH r2.madE	659,045	4,990,899	597.0	LNTE
CRI-56	GE2.3 116RD 90HH r2.madE	664,548	4,990,794	591.9	LNTE
CRI-57	GE2.3 116RD 90HH r2.madE	663,874	4,990,787	600.1	LNTE
CRI-58	GE2.3 116RD 90HH r2.madE	665,663	4,990,303	585.0	LNTE
CRI-59	GE2.3 116RD 90HH r2.madE	666,523	4,990,291	573.0	LNTE
CRI-60	GE2.3 116RD 90HH r2.madE	659,155	4,990,208	593.9	LNTE
CRI-61	GE2.3 116RD 90HH r2.madE	662,982	4,990,178	612.0	LNTE
CRI-62	GE2.3 116RD 90HH r2.madE	660,954	4,990,155	600.8	LNTE
CRI-63	GE2.3 116RD 90HH r2.madE	664,627	4,989,977	588.7	LNTE
CRI-64	GE2.3 116RD 90HH r2.madE	663,858	4,990,188	604.5	LNTE
CRI-65	GE2.3 116RD 90HH r2.madE	661,732	4,989,898	609.0	LNTE
CRI-66	GE2.3 116RD 90HH r2.madE	663,165	4,989,613	614.9	LNTE
CRI-67	GE2.3 116RD 90HH r2.madE	666,226	4,989,531	574.8	LNTE
CRI-68	GE2.3 116RD 90HH r2.madE	665,420	4,989,461	585.0	LNTE
CRI-69	GE2.3 116RD 80HH r2.madE	660,621	4,989,453	605.4	LNTE
CRI-70	GE2.3 116RD 90HH r2.madE	662,171	4,989,319	611.0	LNTE
CRI-71	GE2.3 116RD 80HH r2.madE	659,405	4,989,320	607.4	LNTE
CRI-72	GE2.3 116RD 80HH r2.madE	660,087	4,989,309	606.0	LNTE
CRI-73	GE2.3 116RD 90HH r2.madE	661,344	4,989,297	609.8	LNTE
CRI-74	GE2.3 116RD 90HH r2.madE	663,041	4,988,744	615.0	LNTE
CRI-75	GE2.3 116RD 90HH r2.madE	664,137	4,988,702	609.0	LNTE
CRI-76	GE2.3 116RD 90HH r2.madE	662,399	4,988,667	615.0	LNTE
CRI-77	GE2.3 116RD 80HH r2.madE	659,158	4,988,642	612.0	LNTE
CRI-78	GE2.3 116RD 80HH r2.madE	660,811	4,988,558	604.2	LNTE
CRI-79	GE2.3 116RD 90HH r2.madE	656,125	4,988,485	595.0	LNTE
CRI-80	GE2.3 116RD 90HH r2.madE	661,552	4,988,481	608.8	LNTE
CRI-81	GE2.3 116RD 90HH r2.madE	659,825	4,988,365	606.5	LNTE
CRI-82	GE2.3 116RD 90HH r2.madE	663,271	4,988,133	613.0	LNTE
CRI-83	GE2.3 116RD 90HH r2.madE	662,227	4,988,103	606.5	LNTE
CRI-84	GE2.3 116RD 80HH r2.madE	660,677	4,987,880	600.5	LNTE
CRI-85	GE2.3 116RD 90HH r2.madE	659,295	4,987,798	612.0	LNTE

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
continued

WTG	Turbine Type	Easting (m)	Northing (m)	Base Elev. AMSL (m)	Sound Profile
CRI-86	GE2.3 116RD 90HH r2.madE	658,534	4,987,759	613.3	LNTE
CRI-87	GE2.3 116RD 90HH r2.madE	661,830	4,987,596	609.0	LNTE
CRI-88	GE2.3 116RD 90HH r2.madE	660,157	4,987,492	603.0	LNTE
CRI-89	GE2.3 116RD 80HH r2.madE	657,758	4,986,926	614.9	LNTE
CRI-90	GE2.3 116RD 80HH r2.madE	658,545	4,986,881	612.0	LNTE
CRI-91	GE2.3 116RD 80HH r2.madE	657,023	4,986,868	612.0	LNTE
CRI-92	GE2.3 116RD 80HH r2.madE	660,039	4,986,804	606.9	LNTE
CRI-93	GE2.3 116RD 80HH r2.madE	659,133	4,986,700	608.0	LNTE
CRI-94	GE2.3 116RD 80HH r2.madE	660,716	4,986,660	600.7	LNTE
CRI-95	GE2.3 116RD 90HH r2.madE	657,488	4,986,184	612.0	LNTE
CRI-96	GE2.3 116RD 90HH r2.madE	656,744	4,986,037	609.0	LNTE
CRI-97	GE2.3 116RD 80HH r2.madE	655,899	4,985,715	592.6	LNTE
CRI-98	GE2.3 116RD 90HH r2.madE	657,015	4,985,192	609.0	LNTE
CRI-99	GE2.3 116RD 90HH r2.madE	672,521	4,990,188	556.7	LNTE
CRI-100	GE2.3 116RD 90HH r2.madE	668,885	4,990,286	585.0	LNTE
CRI-101	GE2.3 116RD 90HH r2.madE	672,921	4,990,513	544.6	LNTE
CRI-102	GE2.3 116RD 90HH r2.madE	668,059	4,991,023	580.9	LNTE
CRI-103	GE2.3 116RD 90HH r2.madE	669,279	4,991,115	582.0	LNTE
CRI-104	GE2.3 116RD 90HH r2.madE	672,009	4,991,151	555.0	LNTE
CRI-105	GE2.3 116RD 90HH r2.madE	670,488	4,991,091	571.7	LNTE
CRI-106	GE2.3 116RD 90HH r2.madE	671,278	4,991,335	567.0	LNTE
CRI-107	GE2.3 116RD 90HH r2.madE	667,723	4,991,800	582.0	LNTE
CRI-108	GE2.3 116RD 90HH r2.madE	672,917	4,991,775	541.2	LNTE
CRI-109	GE2.3 116RD 90HH r2.madE	670,897	4,992,616	557.3	LNTE
CRI-111	GE2.3 116RD 90HH r2.madE	671,220	4,993,526	550.6	LNTE
CRI-112	GE2.3 116RD 90HH r2.madE	670,419	4,993,665	561.0	LNTE
CRI-113	GE2.3 116RD 90HH r2.madE	675,201	4,994,165	497.6	LNTE
CRI-114	GE2.3 116RD 90HH r2.madE	669,318	4,994,256	561.8	LNTE
CRI-115	GE2.3 116RD 90HH r2.madE	673,402	4,994,374	516.4	LNTE
CRI-116	GE2.3 116RD 90HH r2.madE	671,642	4,994,527	531.0	LNTE
CRI-117	GE2.3 116RD 90HH r2.madE	669,488	4,994,930	545.6	LNTE
CRI-118	GE2.3 116RD 90HH r2.madE	669,961	4,995,134	540.3	LNTE
CRI-119	GE2.3 116RD 90HH r2.madE	674,992	4,995,107	492.0	LNTE
CRI-120	GE2.3 116RD 90HH r2.madE	671,034	4,995,179	536.2	LNTE
CRI-121	GE2.3 116RD 90HH r2.madE	670,629	4,998,259	531.0	LNTE
CRI-122	GE2.3 116RD 90HH r2.madE	671,475	4,998,261	517.8	LNTE
CRI-123	GE2.3 116RD 90HH r2.madE	672,180	4,998,561	505.0	LNTE
CRI-124	GE2.3 116RD 90HH r2.madE	670,926	4,999,036	523.3	LNTE
CRI-125	GE2.3 116RD 90HH r2.madE	671,580	4,999,340	509.8	LNTE
CRI-126	GE2.3 116RD 90HH r2.madE	670,382	5,000,519	516.0	LNTE
CRI-127	GE2.3 116RD 90HH r2.madE	670,845	5,000,795	507.4	LNTE

Crowned Ridge Wind Farm
GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
continued

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APPENDIX C: TABLE OF SHADOW FLICKER RESULTS

Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C1-NP	Non-P	656,743.00	4,983,525.00	595.9	0:00	5,541
CR1-C2-NP	Non-P	658,791.00	4,984,483.00	601.6	0:00	6,273
CR1-C3-NP	Non-P	657,888.00	4,984,697.00	604.2	4:10	3,294
CR1-C4-NP	Non-P	659,744.00	4,984,749.00	605.9	0:00	5,981
CR1-C5-NP	Non-P	659,958.00	4,984,794.00	605.2	0:00	5,659
CR1-C6-P	Participant	662,989.00	4,995,228.00	599.8	0:00	6,102
CR1-C7-NP	Non-P	660,893.00	4,984,861.00	593.2	0:00	3,022
CR1-C9-P	Participant	665,352.00	4,985,004.00	609.0	18:25	1,621
CR1-C10-P	Participant	663,510.00	4,985,195.00	609.0	12:59	1,762
CR1-C11-P	Participant	664,111.00	4,985,679.00	609.0	12:03	1,614
CR1-C12-1-P	Participant	662,199.00	4,986,047.00	606.0	10:06	2,818
CR1-C12-P	Participant	662,222.00	4,985,736.00	603.0	18:29	2,201
CR1-C13-P	Participant	663,792.00	4,985,785.00	612.0	22:39	1,739
CR1-C14-NP	Non-P	657,982.00	4,985,894.00	609.0	9:59	1,880
CR1-C15-P	Participant	663,291.00	4,986,026.00	615.0	21:43	1,952
CR1-C16-NP	Non-P	661,960.00	4,986,288.00	606.0	7:49	2,736
CR1-C17-P	Participant	658,031.00	4,986,373.00	609.1	26:40	1,886
CR1-C18-P	Participant	663,651.00	4,987,157.00	610.5	23:07	2,146
CR1-C19-P	Participant	659,243.00	4,987,276.00	611.5	21:20	1,722
CR1-C20-P	Participant	663,054.00	4,987,455.00	606.0	16:02	2,336
CR1-C26-P	Participant	657,767.00	4,988,493.00	597.0	7:32	3,484
CR1-C27-NP	Non-P	656,876.00	4,988,683.00	583.0	6:58	2,549
CR1-C28-NP	Non-P	665,429.00	4,988,598.00	590.8	2:43	2,831
CR1-C29-NP	Non-P	666,572.00	4,988,867.00	575.9	6:54	2,457
CR1-C30-P	Participant	661,699.00	4,988,957.00	615.0	23:21	1,614
CR1-C31-NP	Non-P	665,939.00	4,988,950.00	585.4	0:00	2,126
CR1-C32-NP	Non-P	655,843.00	4,989,581.00	568.6	0:00	3,714
CR1-C33-NP	Non-P	656,839.00	4,990,404.00	569.8	0:00	6,719
CR1-C34-NP	Non-P	658,661.00	4,990,389.00	589.1	26:03	1,726
CR1-C35-P	Participant	662,025.00	4,990,475.00	609.0	11:47	2,123
CR1-C36-P	Participant	663,181.00	4,990,600.00	615.0	25:52	1,532
CR1-C37-P	Participant	663,563.00	4,991,342.00	605.1	27:44	1,631
CR1-C38-NP	Non-P	660,639.00	4,991,557.00	597.0	6:04	3,474
CR1-C39-NP	Non-P	660,144.00	4,991,670.00	588.0	6:55	2,605
CR1-C40-NP	Non-P	657,865.00	4,991,818.00	583.8	6:42	2,690
CR1-C41-NP	Non-P	665,053.00	4,992,084.00	576.1	20:43	2,359
CR1-C42-P	Participant	659,458.00	4,992,229.00	580.0	11:54	1,801
CR1-C44-NP	Non-P	665,076.00	4,993,095.00	578.2	28:20	2,155
CR1-C45-NP	Non-P	653,390.00	4,993,503.00	573.0	1:41	5,673

Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County
continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C46-P	Participant	655,802.00	4,993,540.00	609.7	25:38	1,680
CR1-C47-P	Participant	662,825.00	4,993,508.00	613.8	5:00	3,750
CR1-C48-P	Participant	664,247.00	4,993,646.00	588.0	3:46	1,847
CR1-C49-P	Participant	662,250.00	4,993,731.00	609.0	1:12	5,148
CR1-C50-P	Participant	656,806.00	4,994,388.00	621.0	28:30	1,591
CR1-C51-P	Participant	657,455.00	4,995,160.00	621.0	24:39	1,768
CR1-C52-NP	Non-P	654,924.00	4,995,231.00	603.0	11:17	1,883
CR1-C53-NP	Non-P	663,376.00	4,996,043.00	578.6	0:00	7,201
CR1-C54-NP	Non-P	663,421.00	4,995,376.00	583.4	0:00	5,351
CR1-C55-P	Participant	660,914.00	4,995,169.00	607.9	2:51	3,360
CR1-C56-P	Participant	655,953.00	4,995,244.00	606.0	28:42	1,972
CR1-C57-P	Participant	656,628.00	4,995,266.00	615.0	10:38	1,568
CR1-C58-P	Participant	657,781.00	4,996,906.00	615.0	17:06	1,647
CR1-C59-P	Participant	661,548.00	5,000,754.00	584.1	7:36	1,644
CR1-C60-NP	Non-P	656,855.00	4,998,565.00	613.5	14:17	2,592
CR1-C61-NP	Non-P	656,690.00	4,997,831.00	612.0	49:06	1,686
CR1-C62-NP	Non-P	658,375.00	4,995,138.00	615.0	18:05	1,676
CR1-C63-NP	Non-P	658,566.00	4,995,254.00	612.6	10:42	2,408
CR1-C64-P	Participant	659,436.00	4,992,174.00	581.0	19:47	1,614
CR1-C65-NP	Non-P	665,805.00	4,995,305.00	579.0	1:29	3,884
CR1-C66-NP	Non-P	659,718.00	4,985,032.00	606.0	0:00	5,800
CR1-C67-NP	Non-P	659,789.00	4,985,057.00	606.0	0:00	5,791
CR1-C68-P	Participant	662,652.00	4,987,606.00	609.0	8:10	2,146
CR1-C69-P	Participant	662,685.00	4,987,619.00	609.0	7:45	2,185
CR1-C70-NP	Non-P	665,135.00	4,988,293.00	595.7	12:05	3,540
CR1-C71-NP	Non-P	665,137.00	4,988,378.00	594.6	7:28	3,448
CR1-C72-NP	Non-P	665,158.00	4,988,170.00	595.2	7:38	3,776
CR1-C105-NP	Non-P	658,372.48	5,001,256.80	601.5	19:53	2,549
CR1-C106-P	Participant	660,365.47	5,001,639.21	605.0	50:20	1,165
CR1-C107-NP	Non-P	656,810.99	4,999,855.15	598.8	9:57	1,401
CR1-C108-P	Participant	656,977.64	4,997,092.26	609.0	16:58	1,939
CR1-C109-NP	Non-P	653,780.18	4,996,828.35	588.0	7:04	4,797
CR1-C110-NP	Non-P	654,384.54	4,996,685.57	593.9	20:47	2,910
CR1-C111-NP	Non-P	653,857.19	4,995,573.17	591.0	11:42	3,678
CR2-C150-P	Participant	657,178.00	4,985,788.00	612.0	9:58	1,640

Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Grant County
continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-G12-NP	Non-P	668,229.00	4,989,039.00	575.0	0:00	4,623
CR1-G13-NP	Non-P	672,216.00	4,989,142.00	558.0	0:00	3,576
CR1-G14-NP	Non-P	668,156.00	4,989,332.00	574.1	0:00	3,940
CR1-G15-P	Participant	668,396.00	4,989,607.00	576.0	0:00	2,746
CR1-G16-NP	Non-P	668,419.00	4,989,861.00	576.0	0:00	2,070
CR1-G18-P	Participant	668,678.00	4,990,722.00	585.0	22:28	1,585
CR1-G19-P	Participant	671,018.00	4,990,744.00	570.0	5:42	2,077
CR1-G21-P	Participant	666,766.00	4,991,807.00	577.1	28:59	1,555
CR1-G22-NP	Non-P	674,670.00	4,991,955.00	527.6	0:00	5,781
CR1-G23-NP	Non-P	670,471.00	4,992,104.00	560.1	5:16	2,185
CR1-G24-P	Participant	673,058.00	4,992,440.00	539.4	0:00	2,231
CR1-G25-P	Participant	671,391.00	4,992,858.00	549.0	14:36	1,804
CR1-G26-NP	Non-P	672,589.00	4,993,869.00	531.0	8:15	3,140
CR1-G27-NP	Non-P	676,630.00	4,994,642.00	480.8	2:54	4,944
CR1-G28-P	Participant	673,113.00	4,994,772.00	514.1	22:47	1,614
CR1-G32-P	Participant	669,477.00	4,995,401.00	546.0	19:55	1,545
CR1-G33-P	Participant	668,911.00	4,995,550.00	548.7	4:00	2,779
CR1-G34-NP	Non-P	671,320.00	4,995,798.00	531.0	1:28	2,238
CR1-G36-NP	Non-P	673,559.00	4,996,344.00	498.1	0:00	6,211
CR1-G37-NP	Non-P	668,998.00	4,996,452.00	549.0	0:00	5,246
CR1-G38-NP	Non-P	673,972.00	4,996,493.00	494.5	0:00	5,646
CR1-G41-P	Participant	671,563.00	4,997,050.00	497.7	0:00	3,983
CR1-G42-NP	Non-P	670,566.00	4,997,097.00	518.9	0:00	3,819
CR1-G43-NP	Non-P	661,141.00	5,001,721.00	584.2	18:19	1,909
CR1-G44-NP	Non-P	661,781.00	5,001,732.00	583.7	2:49	3,123
CR1-G59-P	Participant	675,755.00	4,994,888.00	488.3	12:40	2,605
CR1-G60-P	Participant	675,830.00	4,995,687.00	477.0	5:42	3,343
CR1-G65-P	Participant	671,496.00	4,994,973.00	537.0	29:50	1,539
CR1-G66-P	Participant	670,802.00	4,994,681.00	539.8	16:39	1,801
CR1-G67-P	Participant	669,597.00	4,993,440.00	555.8	12:03	2,106
CR1-G68-NP	Non-P	669,159.00	4,993,632.00	564.7	2:09	2,113
CR1-G77-NP	Non-P	676,031.00	4,992,629.00	503.1	0:00	5,728
CR1-G81-P	Participant	671,478.00	4,997,523.00	508.7	0:00	2,421
CR1-G105-NP	Non-P	668,696.00	4,998,325.00	549.0	0:00	6,345
CR1-G108-NP	Non-P	669,516.00	5,001,186.00	522.2	11:37	3,586
CR1-G109-NP	Non-P	667,064.00	5,000,425.00	566.4	0:59	2,152
CR1-G110-NP	Non-P	671,218.00	5,005,064.00	456.4	0:00	5,889
CR1-G113-NP	Non-P	666,228.00	5,005,549.00	537.0	7:15	2,746

Table C-1: Crowned Ridge Shadow Flicker Tabular Results Sorted by Receptor ID
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Grant County
continued

[illegible]

Table C-2: Crowned Ridge Shadow Flicker Tabular Results Sorted by Real Case Shadow Flicker Hours/Year**Realistic case shadow results at occupied structures****Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's****UTM NAD83 Zone 14****Codington County**

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C106-P	Participant	660,365.47	5,001,639.21	605.0	50:20	1,165
CR1-C61-NP	Non-P	656,690.00	4,997,831.00	612.0	49:06	1,686
CR1-C56-P	Participant	655,953.00	4,995,244.00	606.0	28:42	1,972
CR1-C50-P	Participant	656,806.00	4,994,388.00	621.0	28:30	1,591
CR1-C44-NP	Non-P	665,076.00	4,993,095.00	578.2	28:20	2,155
CR1-C37-P	Participant	663,563.00	4,991,342.00	605.1	27:44	1,631
CR1-C17-P	Participant	658,031.00	4,986,373.00	609.1	26:40	1,886
CR1-C34-NP	Non-P	658,661.00	4,990,389.00	589.1	26:03	1,726
CR1-C36-P	Participant	663,181.00	4,990,600.00	615.0	25:52	1,532
CR1-C46-P	Participant	655,802.00	4,993,540.00	609.7	25:38	1,680
CR1-C51-P	Participant	657,455.00	4,995,160.00	621.0	24:39	1,768
CR1-C30-P	Participant	661,699.00	4,988,957.00	615.0	23:21	1,614
CR1-C18-P	Participant	663,651.00	4,987,157.00	610.5	23:07	2,146
CR1-C13-P	Participant	663,792.00	4,985,785.00	612.0	22:39	1,739
CR1-C15-P	Participant	663,291.00	4,986,026.00	615.0	21:43	1,952
CR1-C19-P	Participant	659,243.00	4,987,276.00	611.5	21:20	1,722
CR1-C110-NP	Non-P	654,384.54	4,996,685.57	593.9	20:47	2,910
CR1-C41-NP	Non-P	665,053.00	4,992,084.00	576.1	20:43	2,359
CR1-C105-NP	Non-P	658,372.48	5,001,256.80	601.5	19:53	2,549
CR1-C64-P	Participant	659,436.00	4,992,174.00	581.0	19:47	1,614
CR1-C12-P	Participant	662,222.00	4,985,736.00	603.0	18:29	2,201
CR1-C9-P	Participant	665,352.00	4,985,004.00	609.0	18:25	1,621
CR1-C62-NP	Non-P	658,375.00	4,995,138.00	615.0	18:05	1,676
CR1-C58-P	Participant	657,781.00	4,996,906.00	615.0	17:06	1,647
CR1-C108-P	Participant	656,977.64	4,997,092.26	609.0	16:58	1,939
CR1-C20-P	Participant	663,054.00	4,987,455.00	606.0	16:02	2,336
CR1-C60-NP	Non-P	656,855.00	4,998,565.00	613.5	14:17	2,592
CR1-C10-P	Participant	663,510.00	4,985,195.00	609.0	12:59	1,762
CR1-C70-NP	Non-P	665,135.00	4,988,293.00	595.7	12:05	3,540
CR1-C11-P	Participant	664,111.00	4,985,679.00	609.0	12:03	1,614
CR1-C42-P	Participant	659,458.00	4,992,229.00	580.0	11:54	1,801
CR1-C35-P	Participant	662,025.00	4,990,475.00	609.0	11:47	2,123
CR1-C111-NP	Non-P	653,857.19	4,995,573.17	591.0	11:42	3,678
CR1-C52-NP	Non-P	654,924.00	4,995,231.00	603.0	11:17	1,883
CR1-C63-NP	Non-P	658,566.00	4,995,254.00	612.6	10:42	2,408
CR1-C57-P	Participant	656,628.00	4,995,266.00	615.0	10:38	1,568
CR1-C12-1-P	Participant	662,199.00	4,986,047.00	606.0	10:06	2,818
CR1-C14-NP	Non-P	657,982.00	4,985,894.00	609.0	9:59	1,880
CR2-C150-P	Participant	657,178.00	4,985,788.00	612.0	9:58	1,640

Table C-2: Crowned Ridge Shadow Flicker Tabular Results Sorted by Real Case Shadow Flicker Hours/Year
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Codington County
continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-C107-NP	Non-P	656,810.99	4,999,855.15	598.8	9:57	1,401
CR1-C68-P	Participant	662,652.00	4,987,606.00	609.0	8:10	2,146
CR1-C16-NP	Non-P	661,960.00	4,986,288.00	606.0	7:49	2,736
CR1-C69-P	Participant	662,685.00	4,987,619.00	609.0	7:45	2,185
CR1-C72-NP	Non-P	665,158.00	4,988,170.00	595.2	7:38	3,776
CR1-C59-P	Participant	661,548.00	5,000,754.00	584.1	7:36	1,644
CR1-C26-P	Participant	657,767.00	4,988,493.00	597.0	7:32	3,484
CR1-C71-NP	Non-P	665,137.00	4,988,378.00	594.6	7:28	3,448
CR1-C109-NP	Non-P	653,780.18	4,996,828.35	588.0	7:04	4,797
CR1-C27-NP	Non-P	656,876.00	4,988,683.00	583.0	6:58	2,549
CR1-C39-NP	Non-P	660,144.00	4,991,670.00	588.0	6:55	2,605
CR1-C29-NP	Non-P	666,572.00	4,988,867.00	575.9	6:54	2,457
CR1-C40-NP	Non-P	657,865.00	4,991,818.00	583.8	6:42	2,690
CR1-C38-NP	Non-P	660,639.00	4,991,557.00	597.0	6:04	3,474
CR1-C47-P	Participant	662,825.00	4,993,508.00	613.8	5:00	3,750
CR1-C3-NP	Non-P	657,888.00	4,984,697.00	604.2	4:10	3,294
CR1-C48-P	Participant	664,247.00	4,993,646.00	588.0	3:46	1,847
CR1-C55-P	Participant	660,914.00	4,995,169.00	607.9	2:51	3,360
CR1-C28-NP	Non-P	665,429.00	4,988,598.00	590.8	2:43	2,831
CR1-C45-NP	Non-P	653,390.00	4,993,503.00	573.0	1:41	5,673
CR1-C65-NP	Non-P	665,805.00	4,995,305.00	579.0	1:29	3,884
CR1-C49-P	Participant	662,250.00	4,993,731.00	609.0	1:12	5,148
CR1-C1-NP	Non-P	656,743.00	4,983,525.00	595.9	0:00	5,541
CR1-C2-NP	Non-P	658,791.00	4,984,483.00	601.6	0:00	6,273
CR1-C7-NP	Non-P	660,893.00	4,984,861.00	593.2	0:00	3,022
CR1-C32-NP	Non-P	655,843.00	4,989,581.00	568.6	0:00	3,714
CR1-C31-NP	Non-P	665,939.00	4,988,950.00	585.4	0:00	2,126
CR1-C54-NP	Non-P	663,421.00	4,995,376.00	583.4	0:00	5,351
CR1-C33-NP	Non-P	656,839.00	4,990,404.00	569.8	0:00	6,719
CR1-C53-NP	Non-P	663,376.00	4,996,043.00	578.6	0:00	7,201
CR1-C6-P	Participant	662,989.00	4,995,228.00	599.8	0:00	6,102
CR1-C66-NP	Non-P	659,718.00	4,985,032.00	606.0	0:00	5,800
CR1-C4-NP	Non-P	659,744.00	4,984,749.00	605.9	0:00	5,981
CR1-C67-NP	Non-P	659,789.00	4,985,057.00	606.0	0:00	5,791
CR1-C5-NP	Non-P	659,958.00	4,984,794.00	605.2	0:00	5,659

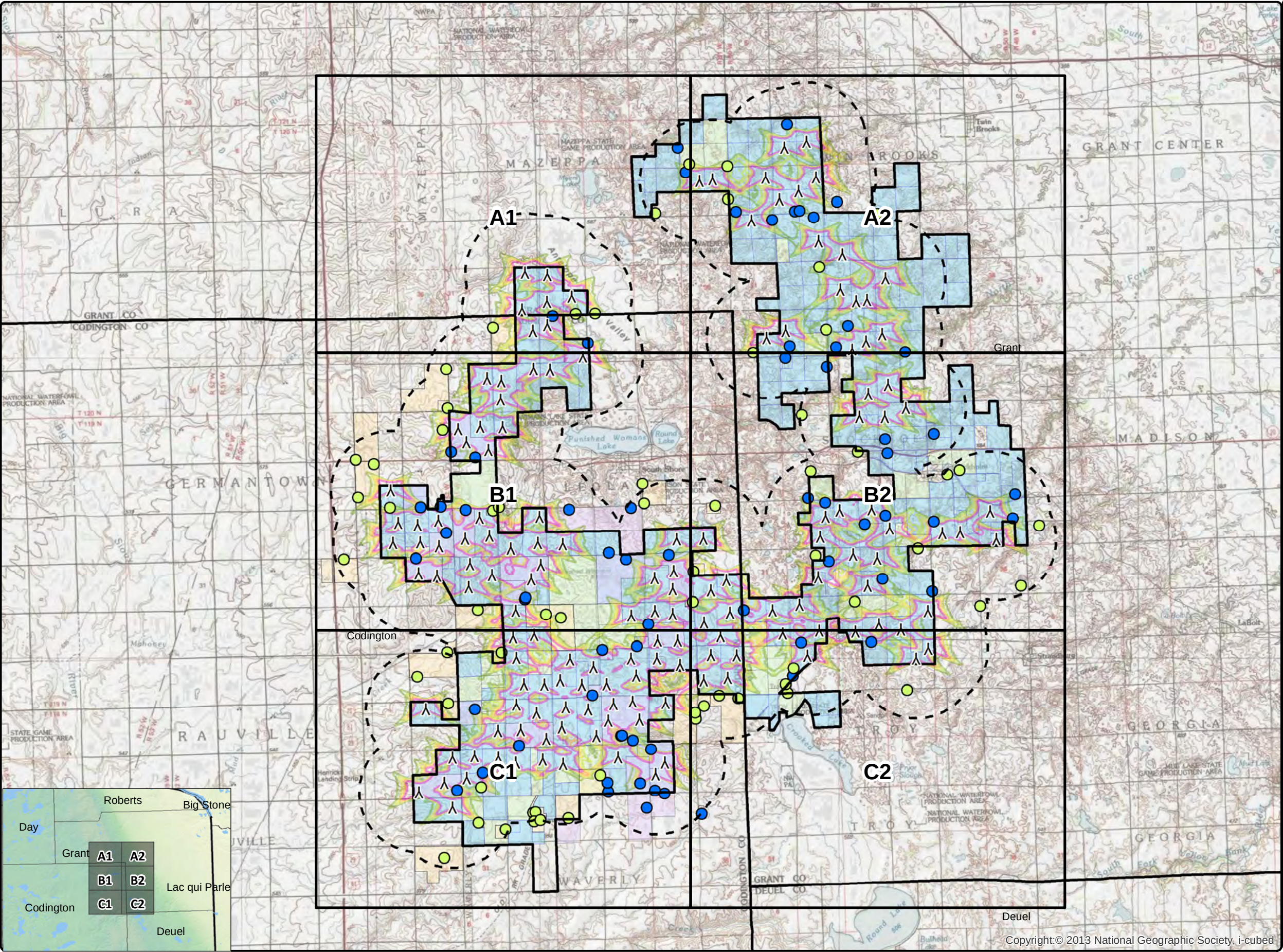
Table C-2: Crowned Ridge Shadow Flicker Tabular Results Sorted by Real Case Shadow Flicker Hours/Year
Realistic case shadow results at occupied structures
Results using GE 2.3-116-90 m HH, GE 2.3-116-80 m HH WTG's
UTM NAD83 Zone 14
Grant County
continued

Receptor ID	Participation Status	Easting (m)	Northing (m)	Elevation AMSL (m)	Real Case Shadow (hrs/year)	Distance to Nearest Turbine (ft)
CR1-G65-P	Participant	671,496.00	4,994,973.00	537.0	29:50	1,539
CR1-G21-P	Participant	666,766.00	4,991,807.00	577.1	28:59	1,555
CR1-G138-P	Participant	664,809.00	5,006,456.00	549.0	25:18	1,824
CR1-G114-NP	Non-P	666,214.00	5,006,667.00	520.8	23:18	2,205
CR1-G28-P	Participant	673,113.00	4,994,772.00	514.1	22:47	1,614
CR1-G18-P	Participant	668,678.00	4,990,722.00	585.0	22:28	1,585
CR1-G32-P	Participant	669,477.00	4,995,401.00	546.0	19:55	1,545
CR1-G124-P	Participant	669,843.00	5,000,605.00	525.0	19:21	1,791
CR1-G137-P	Participant	666,501.00	5,005,136.00	529.5	18:36	1,939
CR1-G43-NP	Non-P	661,141.00	5,001,721.00	584.2	18:19	1,909
CR1-G66-P	Participant	670,802.00	4,994,681.00	539.8	16:39	1,801
CR1-G125-P	Participant	668,289.00	5,000,643.00	543.0	15:48	1,716
CR1-G128-P	Participant	670,242.00	5,001,314.00	513.0	14:58	2,612
CR1-G25-P	Participant	671,391.00	4,992,858.00	549.0	14:36	1,804
CR1-G59-P	Participant	675,755.00	4,994,888.00	488.3	12:40	2,605
CR1-G149-NP	Non-P	669,284.00	5,003,283.00	503.2	12:39	2,815
CR1-G67-P	Participant	669,597.00	4,993,440.00	555.8	12:03	2,106
CR1-G108-NP	Non-P	669,516.00	5,001,186.00	522.2	11:37	3,586
CR1-G136-P	Participant	667,706.00	5,004,861.00	522.0	10:34	2,277
CR1-G26-NP	Non-P	672,589.00	4,993,869.00	531.0	8:15	3,140
CR1-G135-P	Participant	668,616.00	5,005,161.00	504.2	8:10	2,142
CR1-G139-P	Participant	668,199.00	5,008,062.00	475.9	8:05	2,612
CR1-G115-NP	Non-P	664,933.00	5,006,731.00	544.6	7:58	2,188
CR1-G132-P	Participant	669,098.00	5,004,948.00	501.0	7:38	2,703
CR1-G113-NP	Non-P	666,228.00	5,005,549.00	537.0	7:15	2,746
CR1-G19-P	Participant	671,018.00	4,990,744.00	570.0	5:42	2,077
CR1-G60-P	Participant	675,830.00	4,995,687.00	477.0	5:42	3,343
CR1-G23-NP	Non-P	670,471.00	4,992,104.00	560.1	5:16	2,185
CR1-G33-P	Participant	668,911.00	4,995,550.00	548.7	4:00	2,779
CR1-G133-P	Participant	669,881.00	5,005,460.00	478.8	3:26	3,556
CR1-G126-P	Participant	672,157.00	5,000,446.00	484.3	3:21	3,176
CR1-G27-NP	Non-P	676,630.00	4,994,642.00	480.8	2:54	4,944
CR1-G44-NP	Non-P	661,781.00	5,001,732.00	583.7	2:49	3,123
CR1-G129-P	Participant	673,111.00	4,997,703.00	477.8	2:27	4,153
CR1-G127-P	Participant	669,534.00	4,999,939.00	533.9	2:23	3,369
CR1-G68-NP	Non-P	669,159.00	4,993,632.00	564.7	2:09	2,113
CR1-G117-NP	Non-P	663,801.00	5,005,084.00	581.3	1:54	4,501
CR1-G131-P	Participant	668,466.00	5,005,145.00	505.1	1:31	2,133

continued

[illegible]

APPENDIX D: STANDARD RESOLUTION SHADOW FLICKER MAPS





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Crowned Ridge Wind Farm Shadow Flicker Iso-Lines Overview Map

Client
SWCA Environmental Consultants

Project Description
Wind turbine layout with occupied structures within 2 km.

Predicted shadow flicker levels at existing residences.

Location: Watertown, SD
Project #: 20174431

Issue Dates	
#	Date
1	Original
	2019.02.15

Drawn By: AS Checked By: JH

Legend

- ▲ Crowned Ridge Turbines
- 2 km Turbine Buffer
- County Lines
- CR1 Project Boundary
- Non-Participants
- Participants

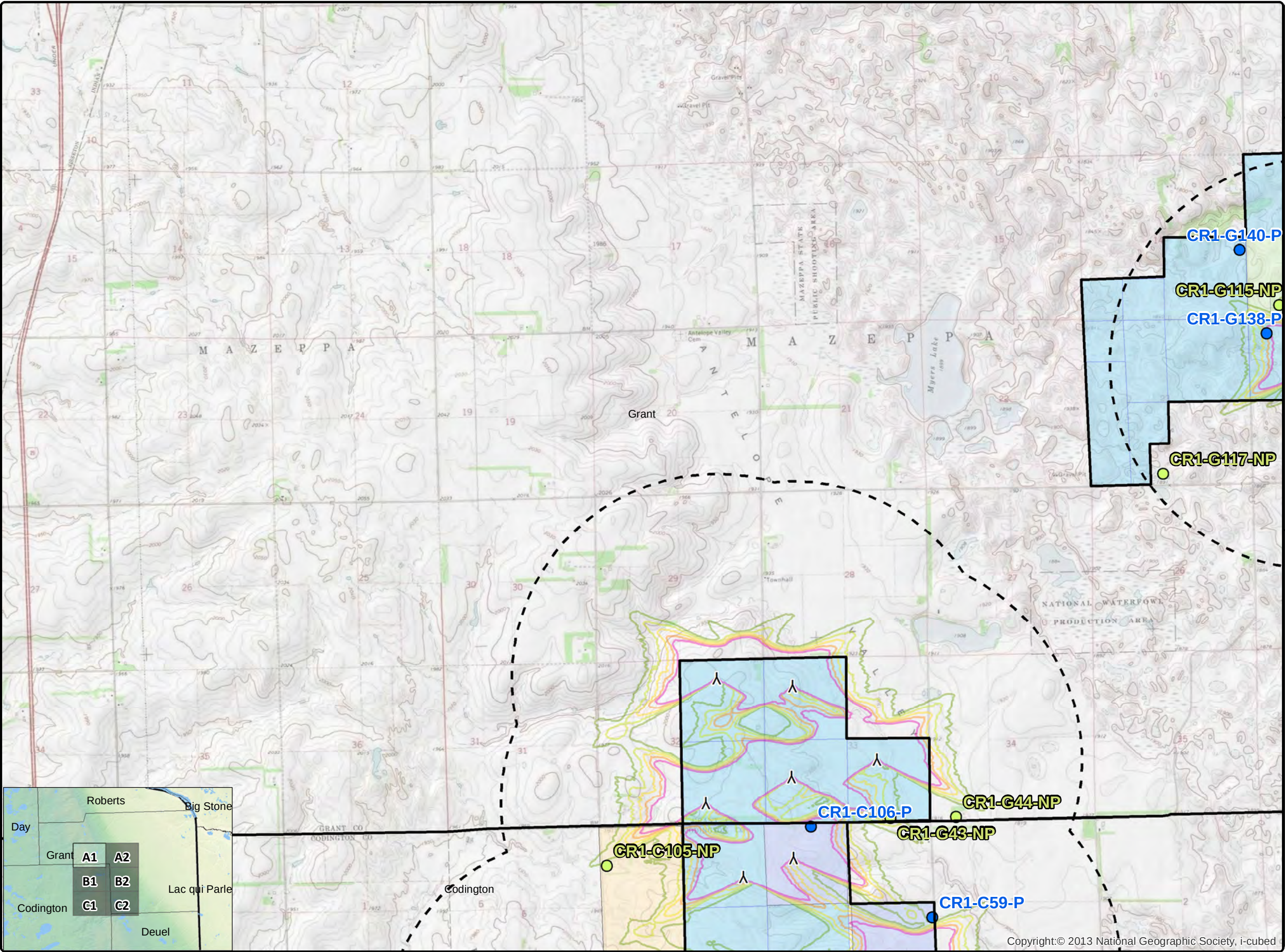
Shadow Flicker (hr/yr)

- 10
- 15
- 20
- 25
- 30

- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
- Non-Participating Land Parcels

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Crowned Ridge Wind Farm Shadow Flicker Iso-Lines

Client
SWCA Environmental Consultants

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Wind turbine layout with occupied structures within 2 km.

Predicted shadow flicker levels at existing residences.

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Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS Checked By: JH

Legend

- ▲ Crowned Ridge Turbines
- ▭ 2 km Turbine Buffer
- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants

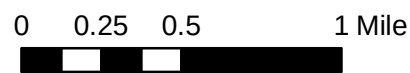
Shadow Flicker (hr/yr)

- 10
- 15
- 20
- 25
- 30

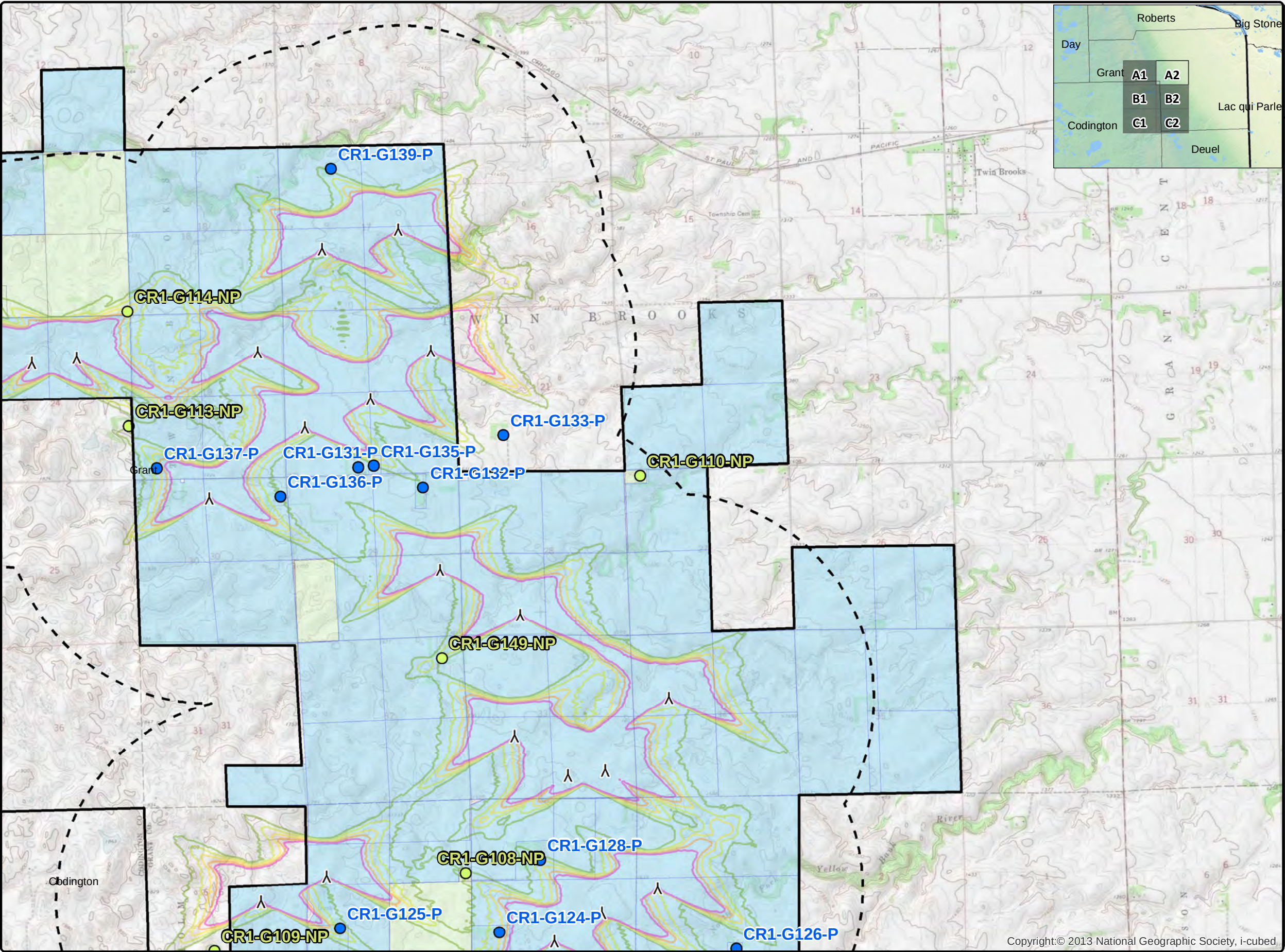
- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
- Non-Participating Land Parcels

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Crowned Ridge Wind Farm
Shadow Flicker Iso-Lines

Client

SWCA Environmental Consultants

Project Description

Wind turbine layout with occupied structures within 2 km.

Predicted shadow flicker levels at existing residences.

Location: Watertown, SD

Project #: 20174431

Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS Checked By: JH

Legend

- ▲ Crowned Ridge Turbines
- 2 km Turbine Buffer
- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants

Shadow Flicker (hr/yr)

- 10
- 15
- 20
- 25
- 30

- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
- Non-Participating Land Parcels

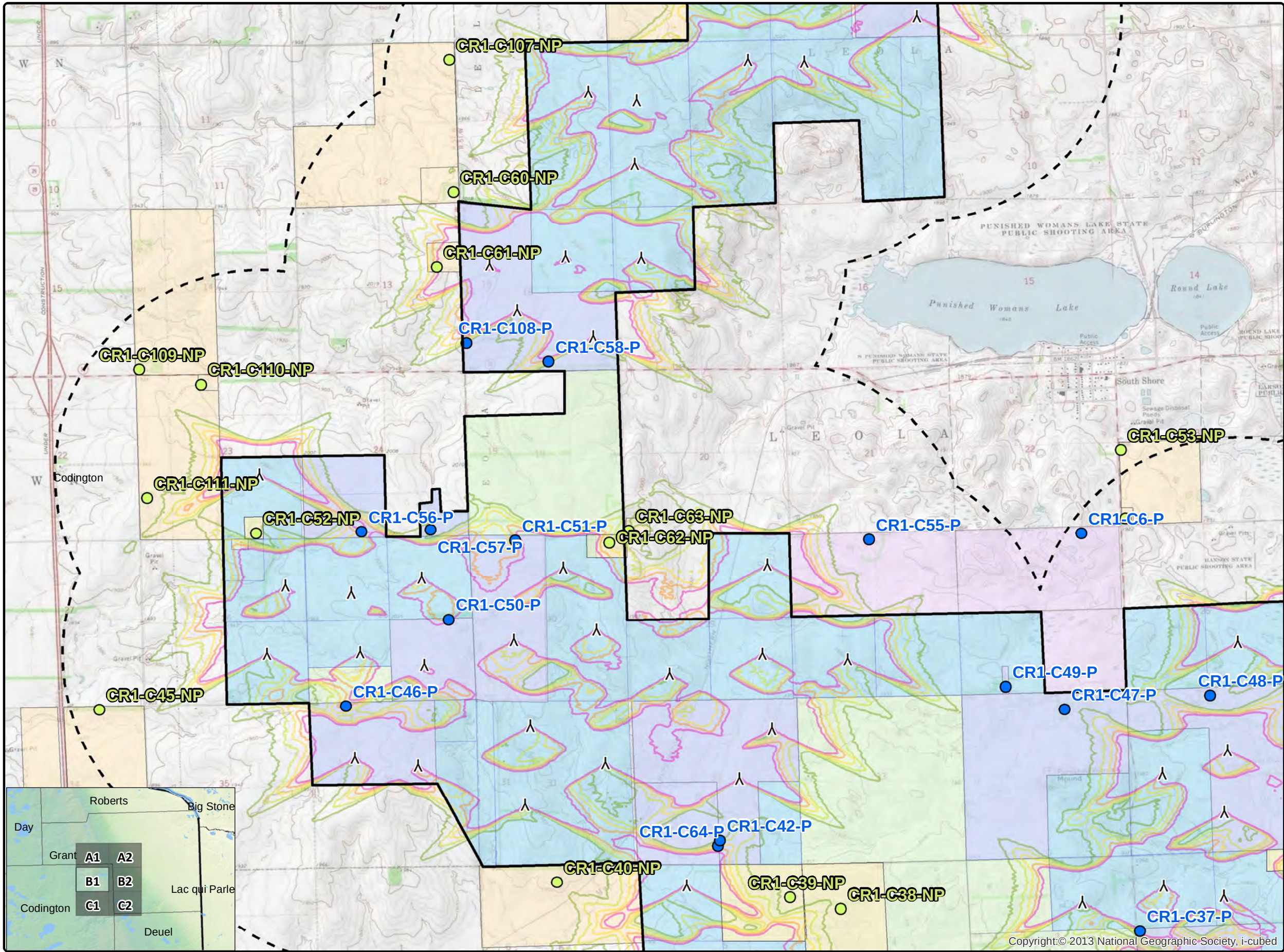
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**Crowned Ridge Wind Farm
Shadow Flicker Iso-Lines**

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SWCA Environmental Consultants

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Wind turbine layout with occupied structures within 2 km.

Predicted shadow flicker levels at existing residences.

Location: Watertown, SD
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Issue Dates

#	Description	Date
1	Original	2019.02.15

Drawn By: AS Checked By: JH

Legend

- ▲ Crowned Ridge Turbines
- 2 km Turbine Buffer
- ▭ County Lines
- ▭ CR1 Project Boundary
- Non-Participants
- Participants

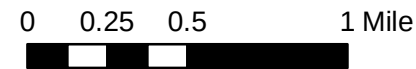
Shadow Flicker (hr/yr)

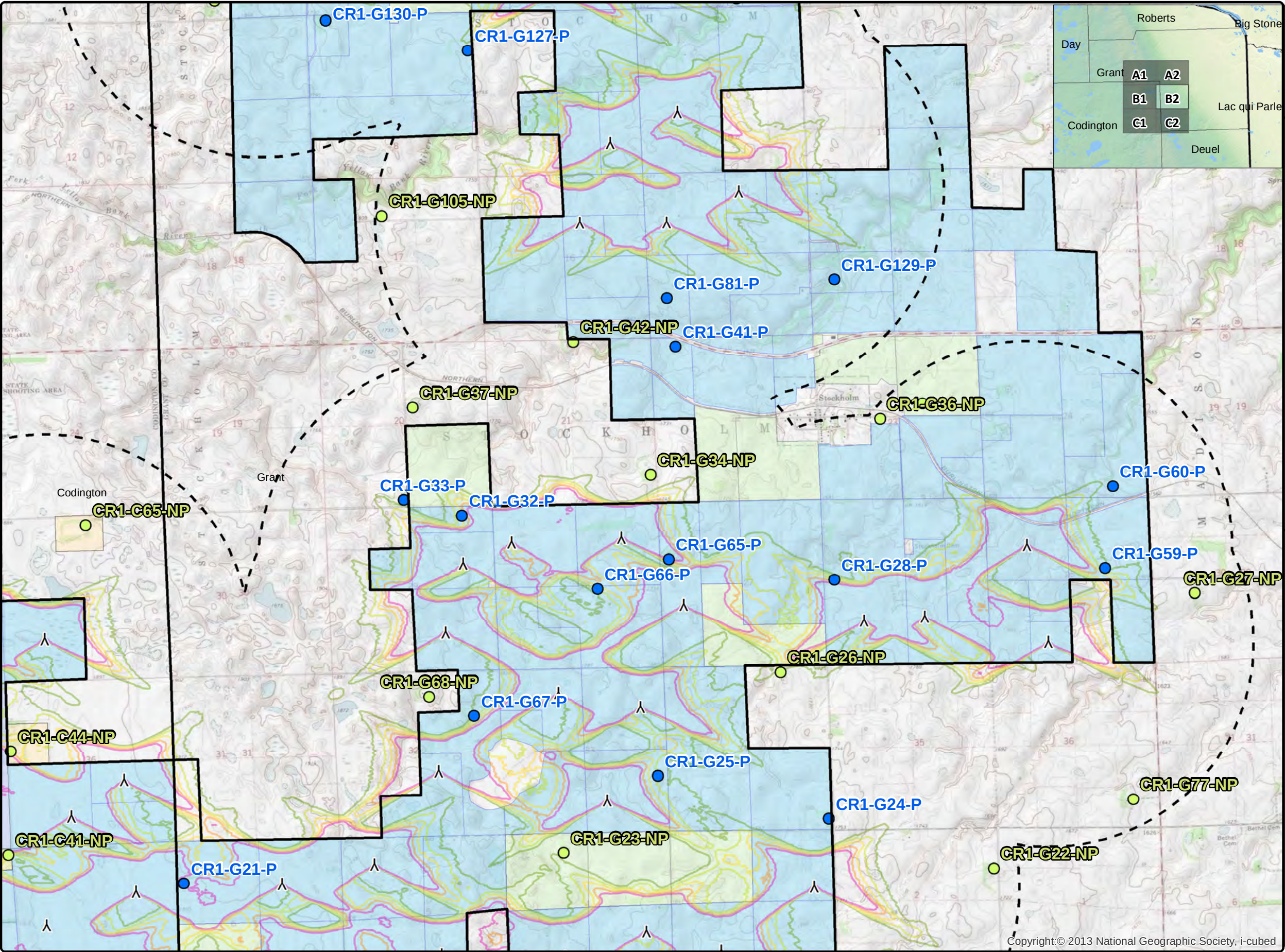
- 10
- 15
- 20
- 25
- 30

- Participating Codington Parcels
- Non-Part. Codington Parcels
- Participating Land Parcels
- Non-Participating Land Parcels

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WIND ENERGY

www.eapc.net | 701.775.3000

Crowned Ridge Wind Farm
Shadow Flicker Iso-Lines

Client
SWCA Environmental Consultants

Project Description
Wind turbine layout with occupied structures within 2 km.

Predicted shadow flicker levels at existing residences.

Location: Watertown, SD
Project #: 20174431

Issue Dates

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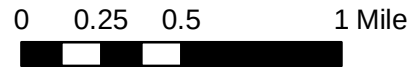
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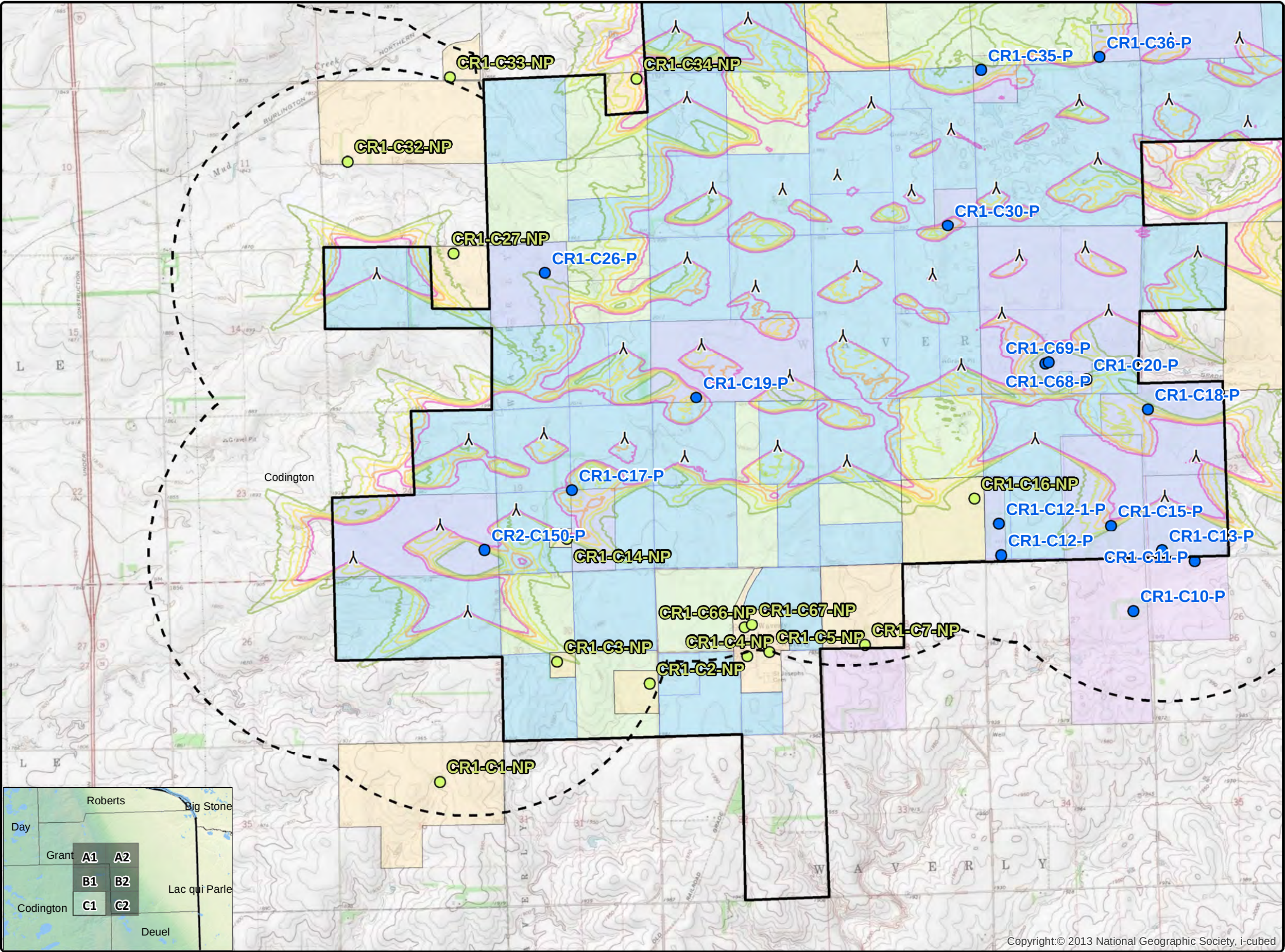
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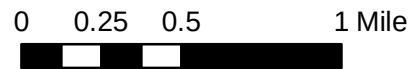
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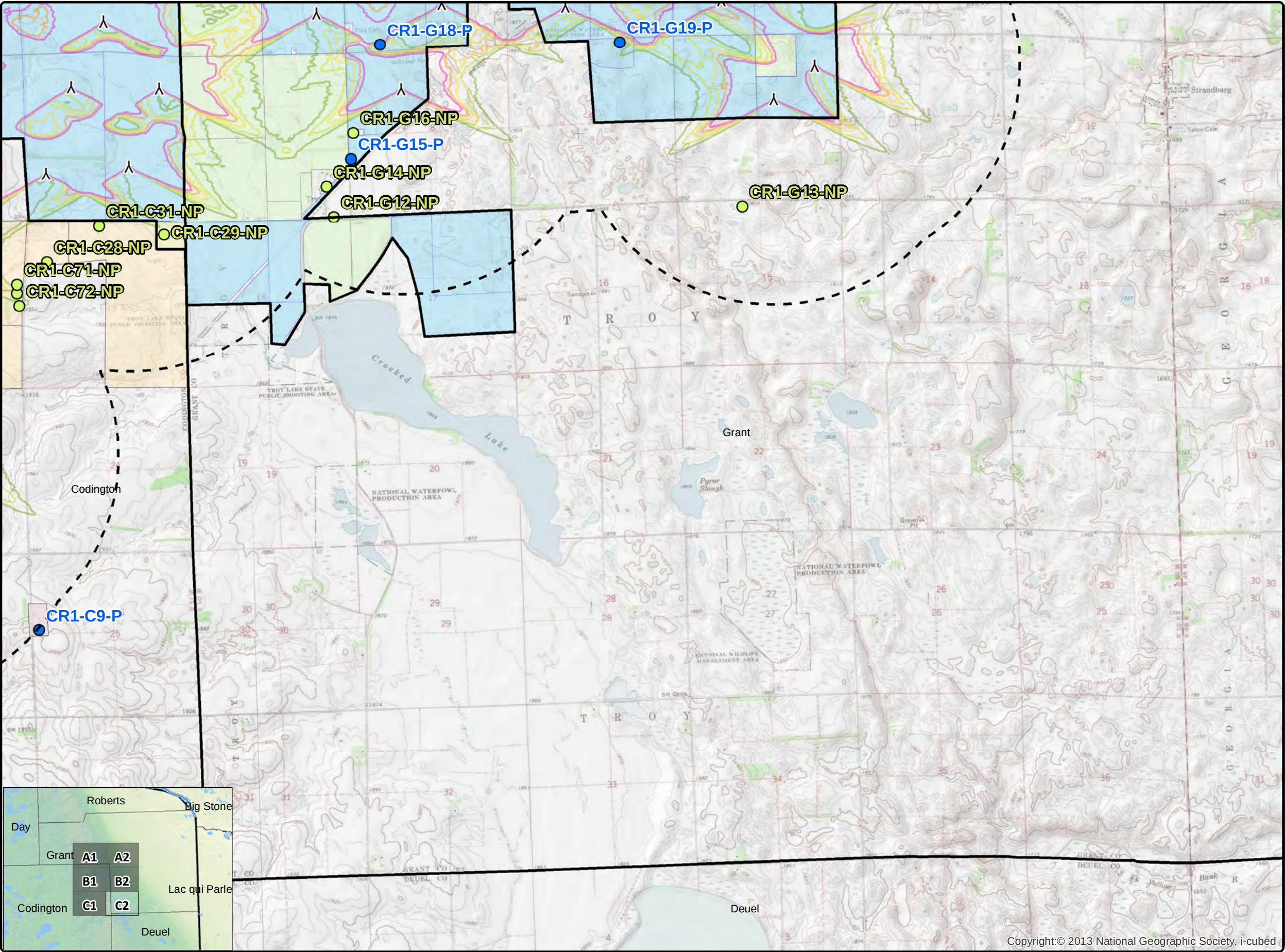
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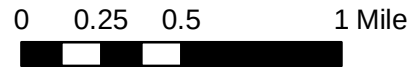
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001133

**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)	CERTIFICATE OF SERVICE
)	

I hereby certify that true and correct copies of revised versions of the Appendices attached to Appendix H and Appendix I to the Application in this matter were served electronically to the parties listed below on the 27th day of February, 2019, addressed to:

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