

Appendix A
Stearns County C-BED Resolution

Stearns County Resolution Number 16-45

**A RESOLUTION OF SUPPORT FOR THE GETTY WIND, LLC PROJECT IN
GETTY TOWNSHIP**

WHEREAS, it is the policy of the State of Minnesota to encourage the development of Community-based energy development, or C-BED, projects; and

WHEREAS, Minnesota Statutes, section 216B.1612, subdivision 2(h)(3) requires that the County Board of the county in which the project is to be located adopt a resolution of support in order for the project developer to obtain C-BED status; and

WHEREAS, the development of wind energy projects in Stearns County provides economic opportunity for residents of the County; and

WHEREAS, the Getty Wind project calls for the development of up to 38 megawatts of wind energy, located in Sauk Centre and Getty Township of Stearns County; and

WHEREAS, the project is owned by Getty Wind, LLC, a limited liability company organized in Minnesota by Minnesota residents; and

WHEREAS, the proposed project ownership will purportedly meet the criteria set forth in Minnesota Statutes section 216B.1612; and

WHEREAS, the project is purportedly structured to ensure that a majority of the financial benefits of the project accrue to a Qualifying beneficiary as defined by Minnesota Statutes section 216B.1612; and

WHEREAS, the developers of the project understand and accept the responsibility for securing all necessary permits and approvals for the development of the wind turbines and towers.

NOW, THEREFORE, BE IT RESOLVED THAT, the Stearns County Board of Commissioners hereby indicates its support for the development, construction, and operation of the Getty Wind, LLC Project as a C-BED project, subject to the authority of Stearns County to grant or deny applications for permits for wind energy projects as provided by Minnesota Statutes section 216F, and other State statutes, local ordinances rules and regulations.

Adopted by the Stearns County Board of Commissioners this 8th day of June, 2010.

APPROVED:



Mark Sakry, Chair
Stearns County Board of Commissioners

ATTEST BY:



Randy B. Schreifels
Stearns County Auditor-Treasurer
Clerk of the Board

Appendix B
Black Oak Station Configuration

GENERAL NOTES - LOCATION PLAN (PRIOR TO 2004 CONSTRUCTION)

1. LOCATION OF BENCH MARK FOR GRADE ELEVATION IS SPIKE NAIL IN POWER POLE #354. ASSUMED ELEVATION IS 1232.00 FEET.
2. AREA ENCLOSED BY FENCE AND EXTENDING 1'-0" APPROXIMATELY UP AND DOWN DRIVEWAY TO EL. 1231.83' AT CENTER LINE OF STATION OF STATION, EXCEPT FOR DRIVEWAY AND TRANSFORMER AREA, SEE NOTE 3.
3. 6" OF CRUSHED ROCK ON DRIVE AREAS - 1 1/2" MAXIMUM TO FINE IN 3 LAYERS: COURSE ON DRIVEWAY TO BE 2" ABOVE THE ELEVATIONS DESTROYED IN NOTE 2.
4. FENCE 7'-0" HIGH STRAIGHT POSTS, BARRED CHAIN LINK FABRIC IN 24" GAUGE WITH A.S.P. APPROVED STANDARD NO. 1.
5. U.G. TELEPHONE SERVICE TO CONTROL HOUSE RUN IN 2" DIA. 1/2" DIA. CONDUIT FROM 2'-0" OUTSIDE TO BE 2" ABOVE THE ELEVATIONS DESTROYED IN NOTE 2.
6. EXTERNAL LOADS ON 40 KV STRUCTURE NOT TO EXCEED 2000 LB PER CONDUCTOR AT 20' MAXIMUM ANGLE WITH NUMBER OF CONDUCTORS SHOWN AND EXTERNAL LOADS ON EXTENDED COLUMNS NOT TO EXCEED 1000 LB PER STATIC WIRE.
7. EXTERNAL LOADS ON 115 KV STRUCTURE NOT TO EXCEED 2000 LB PER CONDUCTOR AT 20' MAXIMUM ANGLE WITH NUMBER OF CONDUCTORS SHOWN AND EXTERNAL LOADS ON EXTENDED COLUMNS NOT TO EXCEED 1000 LB PER STATIC WIRE.
8. EXTERNAL LOADS ON 115 KV SWITCH STRUCTURE NOT TO EXCEED 1000 LB PER CONDUCTOR AT 30' MAXIMUM ANGLE WITH NUMBER OF CONDUCTORS SHOWN AND EXTERNAL LOADS ON EXTENDED COLUMNS NOT TO EXCEED 500 LB PER STATIC WIRE.
9. PERMITS AND/OR EASEMENTS MAY BE REQUIRED AND MUST BE OBTAINED BEFORE CONSTRUCTION STARTS.

GENERAL NOTES (2004 CONSTRUCTION AND AFTER)

1. FENCE - 7'-0" HIGH STEEL CHAIN LINK FABRIC AND 1'-0" HIGH VERTICAL HEIGHT BARRED WIRE ON TOP MOUNTED AT A 45° ANGLE POINTED OUTSIDE OF SUBSTATION.
2. SEE STRUCTURAL STEEL DRAWINGS FOR LOAD REQUIREMENTS OF EXTERNAL AND INTERNAL STRAINS.
3. U.G. POWER DUCTS PASS UNDER FENCE MIDWAY BETWEEN FENCE POSTS AND, WHERE POSSIBLE, NOT LESS THAN 2'-6" BELOW GRADE.

LEGEND

- (A) OLD FENCE SIGN WORN "WARNING, HAZARDOUS VOLTAGES INSIDE, KEEP OUT, CAN SHOCK, BURN OR CAUSE DEATH". THIS SIGN CAN NO LONGER BE ORDERED.
- (B) FENCE WARNING SIGN (16-0892), PER ENG & DSON STD ED 4.10.04. THE SIGNS ARE TO BE MOUNTED 5'-0" FROM GRADE TO TOP OF SIGN, 38-0" - 45-0" APART AND NO MORE THAN 10' FROM EACH CORNER. SIGNS SHALL BE MOUNTED ON EACH DRIVE GATE, ONE ON THE INSIDE AND ONE ON THE OUTSIDE. BACK TO BACK ON THE LEFT SIDE OR DRIVERS SIDE PANEL OF THE DOUBLE GATES.
- (C) BURIED CABLE SIGN (16-0896), PER ENG & DSON STD ED 4.10.04. THE SIGNS ARE TO BE MOUNTED 5'-0" FROM GRADE TO TOP OF SIGN, APPROXIMATELY 3'-6" FROM GRADE TO TOP OF SIGNS, ORDERED BY FIELD.
- (D) BURIED CABLE SIGN MOUNTED ON POST (16-0895), PER ENG & DSON STD ED 4.10.04. POST AND SIGN ORDERED BY FIELD.
- (E) SUBSTATION IDENTIFICATION SIGN PER ENG & DSON STD ED 4.10.02 (10P) AND ADDRESS SIGN PER ENG & DSON STD ED 4.10.03 (BOTTOM). THE TOP SIGN SHALL BE MOUNTED TO TOP OF SIGN AND LOCATED ADJACENT TO MAIN DRIVE GATES.
- (F) BATTERY WARNING SIGN (57-6544), PER ENG & DSON STD ED 4.10.04. THE SIGNS ARE TO MOUNTED ON THE OUTSIDE OF EACH CONTROL HOUSE DOOR, APPROXIMATELY 5'-0" FROM THE BOTTOM OF THE DOOR TO THE TOP OF SIGN. INDICATES CONCRETE MARKERS FOR DIRECT BURIED CABLE RUNS.

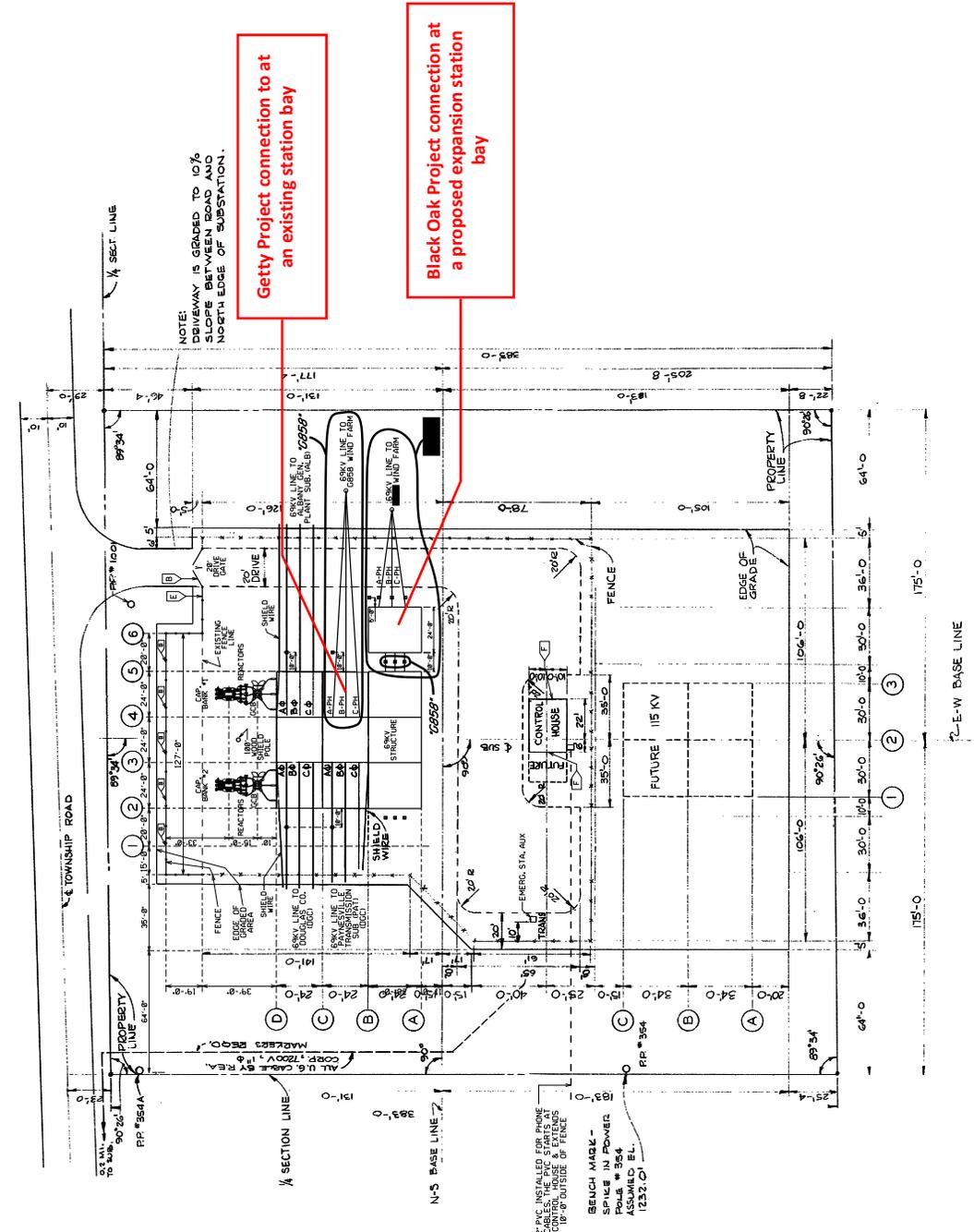
ADDRESS: SHERWOOD ROAD
BLACK OAK SUBSTATION
MILWAUKEE, WI 53018

FOR DRAWING REFERENCE AND REVISION INFORMATION SEE INDEX SHEET NO. 2008881

NO.	DATE	DESCRIPTION
1	01/02/02	ISSUED FOR PERMITS
2	01/02/02	ISSUED FOR PERMITS
3	01/02/02	ISSUED FOR PERMITS
4	01/02/02	ISSUED FOR PERMITS
5	01/02/02	ISSUED FOR PERMITS
6	01/02/02	ISSUED FOR PERMITS
7	01/02/02	ISSUED FOR PERMITS
8	01/02/02	ISSUED FOR PERMITS
9	01/02/02	ISSUED FOR PERMITS
10	01/02/02	ISSUED FOR PERMITS
11	01/02/02	ISSUED FOR PERMITS
12	01/02/02	ISSUED FOR PERMITS
13	01/02/02	ISSUED FOR PERMITS
14	01/02/02	ISSUED FOR PERMITS
15	01/02/02	ISSUED FOR PERMITS
16	01/02/02	ISSUED FOR PERMITS
17	01/02/02	ISSUED FOR PERMITS
18	01/02/02	ISSUED FOR PERMITS
19	01/02/02	ISSUED FOR PERMITS
20	01/02/02	ISSUED FOR PERMITS

OPERATION AREA
BLACK OAK SUBSTATION
LOCATION PLAN

37125 SHERWOOD ROAD, MILWAUKEE, WI
SCALE: 1" = 30'-0"
NH-42356



LOCATION PLAN
SCALE: 1" = 30'



2" P.C. INSTALLED FOR PHONE CABLES. THE P.C. SPALLS AT 10" OR OUTSIDE OF FENCE.

BENCH MARK - SPIKE IN POWER POLE # 354 ASSUMED EL. 1232.00'

Getty Project connection to an existing station bay

Black Oak Project connection at a proposed expansion station bay

Appendix C
Expected dB(A) Noise Calculations
by Receptor

Expected dB(A) Noise Calculations by Receptor

Typical background dB(A) noise levels in rural agricultural areas are low to mid 30's, a dB(A) level below background noise levels indicates no increase at that receptor.

Receptor ID	Vestas V112	REpower MM100	Goldwind 87/1500
1	17.09	18.59	21.22
2	16.15	17.39	26.65
3	16.89	18.36	21.12
4	19.12	20.46	23.64
5	18.70	19.94	24.65
6	17.15	18.38	25.06
7	17.53	18.75	25.92
8	21.88	23.09	27.05
9	20.14	21.36	25.77
10	22.37	23.67	26.60
11	25.39	26.75	29.17
12	24.04	25.48	27.69
13	19.60	21.06	23.58
14	21.39	22.88	25.16
15	19.36	20.90	23.19
16	22.01	23.78	25.45
17	23.38	25.90	27.81
18	21.73	24.22	26.25
19	23.38	25.61	27.64
20	24.57	26.56	28.54
21	24.22	26.14	28.03
22	24.19	26.14	28.05
23	24.59	26.53	28.44
24	24.83	26.74	28.64
25	24.87	26.69	28.34
26	20.27	21.93	23.84
27	18.88	20.02	41.77
28	18.73	20.77	26.26
29	18.28	20.32	25.92
30	19.99	21.96	28.17
31	20.15	22.11	28.41
32	20.85	22.76	29.64
33	26.15	28.07	32.75
34	23.67	25.56	31.60
35	22.10	23.90	33.99
36	23.77	25.55	34.93
37	25.91	27.63	37.60
38	29.15	30.77	42.84

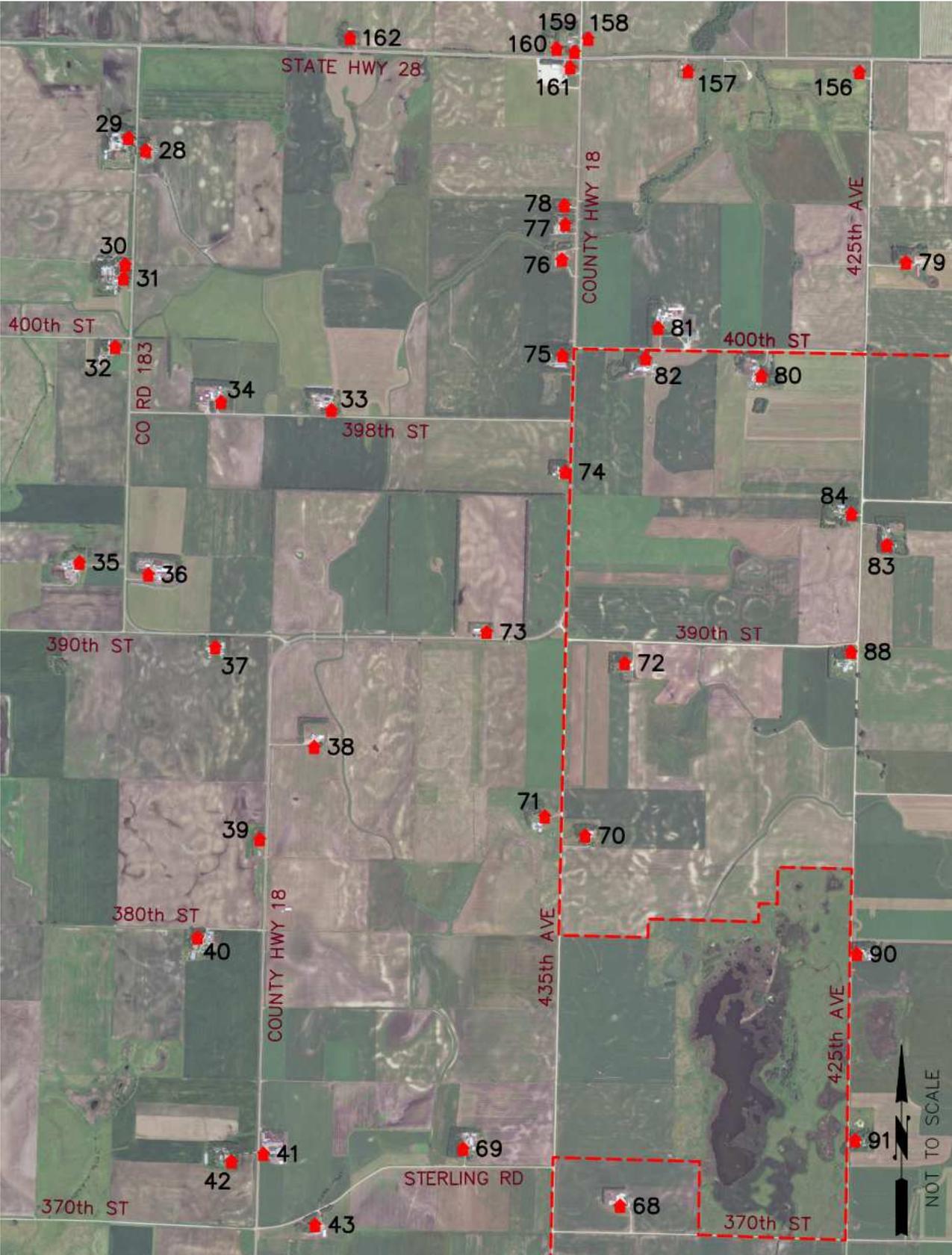
Receptor ID	Vestas V112	REpower MM100	Goldwind 87/1500
39	27.23	28.85	43.72
40	25.29	26.91	43.84
41	26.67	27.94	39.00
42	25.95	27.23	39.13
43	28.55	29.50	39.77
44	26.64	27.47	41.46
45	24.89	25.74	42.36
46	27.97	28.72	40.04
47	20.45	21.56	43.43
48	24.28	25.33	37.58
49	22.89	24.02	36.51
50	25.09	26.22	34.35
51	20.79	21.97	33.88
52	23.88	25.03	32.05
53	26.20	27.48	30.22
54	26.69	27.88	31.03
55	26.57	27.69	31.24
56	24.20	25.34	29.79
57	26.15	27.26	31.45
58	26.27	27.38	31.61
59	28.00	29.07	32.77
60	30.08	31.08	34.43
61	29.53	30.55	33.95
62	33.20	34.10	36.95
63	35.89	36.69	38.41
64	32.11	33.23	36.09
65	31.20	32.13	36.91
66	36.67	36.25	43.81
67	37.05	36.60	43.51
68	34.93	36.46	39.61
69	31.25	32.52	39.00
70	40.00	40.49	43.09
71	39.18	40.14	44.45
72	42.80	44.50	44.34
73	35.12	36.87	41.68
74	33.25	35.30	36.83
75	29.65	31.86	33.53
76	27.00	29.30	31.17
77	26.14	28.46	30.39
78	25.65	27.98	29.96
79	28.47	31.69	32.17
80	32.62	35.48	35.68

Receptor ID	Vestas V112	REpower MM100	Goldwind 87/1500
81	30.14	32.60	33.57
82	31.02	33.43	34.37
83	38.89	44.01	42.43
84	38.46	42.64	41.72
85	35.56	41.55	40.14
86	35.04	40.54	40.19
87	38.96	39.95	42.61
88	42.41	44.66	43.74
89	37.49	41.24	43.18
90	34.38	41.53	42.06
91	35.44	40.07	40.56
92	36.42	40.39	40.64
93	27.29	28.58	31.21
94	29.01	30.31	32.80
95	32.31	33.76	35.57
96	37.30	38.92	40.08
97	38.37	39.93	41.18
98	40.47	42.41	42.55
99	40.80	44.22	43.71
100	40.63	43.81	43.32
101	39.30	41.77	41.69
102	38.68	41.93	41.95
103	38.56	41.71	41.75
104	38.63	42.26	42.80
105	38.90	42.78	43.48
106	34.93	41.08	41.17
107	34.05	41.26	40.03
108	32.40	36.38	37.20
109	32.99	36.92	37.86
110	33.22	35.00	37.06
111	34.61	35.32	37.91
112	31.35	33.17	34.93
113	26.78	29.16	30.73
114	24.16	26.62	28.51
115	22.90	24.42	26.46
116	25.61	27.18	28.87
117	27.09	28.72	30.16
118	27.18	28.85	30.21
119	28.79	30.57	31.64
120	31.25	33.10	33.83
121	27.42	29.16	30.37
122	31.01	32.69	33.70

Receptor ID	Vestas V112	REpower MM100	Goldwind 87/1500
123	32.15	33.72	35.66
124	25.27	27.51	29.38
125	25.13	27.79	29.55
126	27.66	30.29	32.00
127	31.05	32.62	35.19
128	33.46	34.77	38.15
129	27.61	30.29	31.89
130	25.81	27.99	29.85
131	23.87	26.26	28.00
132	23.09	25.52	27.28
133	21.62	24.14	25.91
134	21.04	23.59	25.37
135	20.88	23.44	25.22
136	20.73	23.29	25.08
137	20.55	23.11	24.91
138	20.41	22.97	24.78
139	20.28	22.85	24.66
140	19.87	22.45	24.28
141	20.23	22.81	24.62
142	20.44	23.04	24.81
143	20.25	22.85	24.63
144	20.29	22.92	24.66
145	19.98	22.60	24.38
146	20.06	22.70	24.45
147	19.70	22.33	24.12
148	19.72	22.35	24.13
149	19.18	21.81	23.64
150	19.52	22.15	23.94
151	19.60	22.24	24.02
152	19.82	22.48	24.22
153	21.06	23.84	25.36
154	22.49	25.36	26.67
155	22.31	25.17	26.50
156	23.57	26.33	27.63
157	23.28	25.82	27.53
158	21.96	24.38	26.59
159	22.16	24.56	26.81
160	21.95	24.33	26.67
161	22.48	24.87	27.10
162	19.68	21.88	25.51

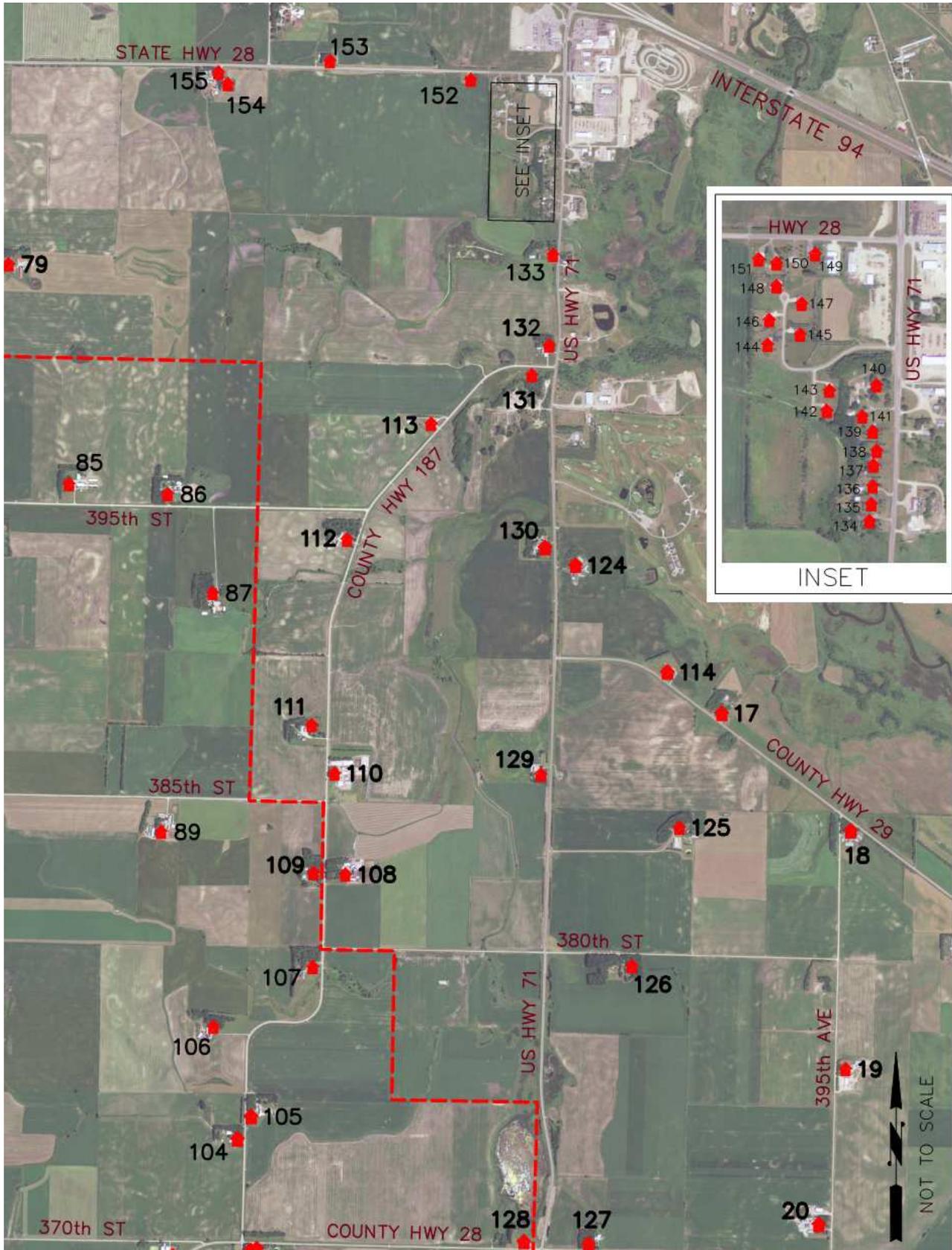
RECEPTOR KEY – NORTHWEST AREA

▲ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



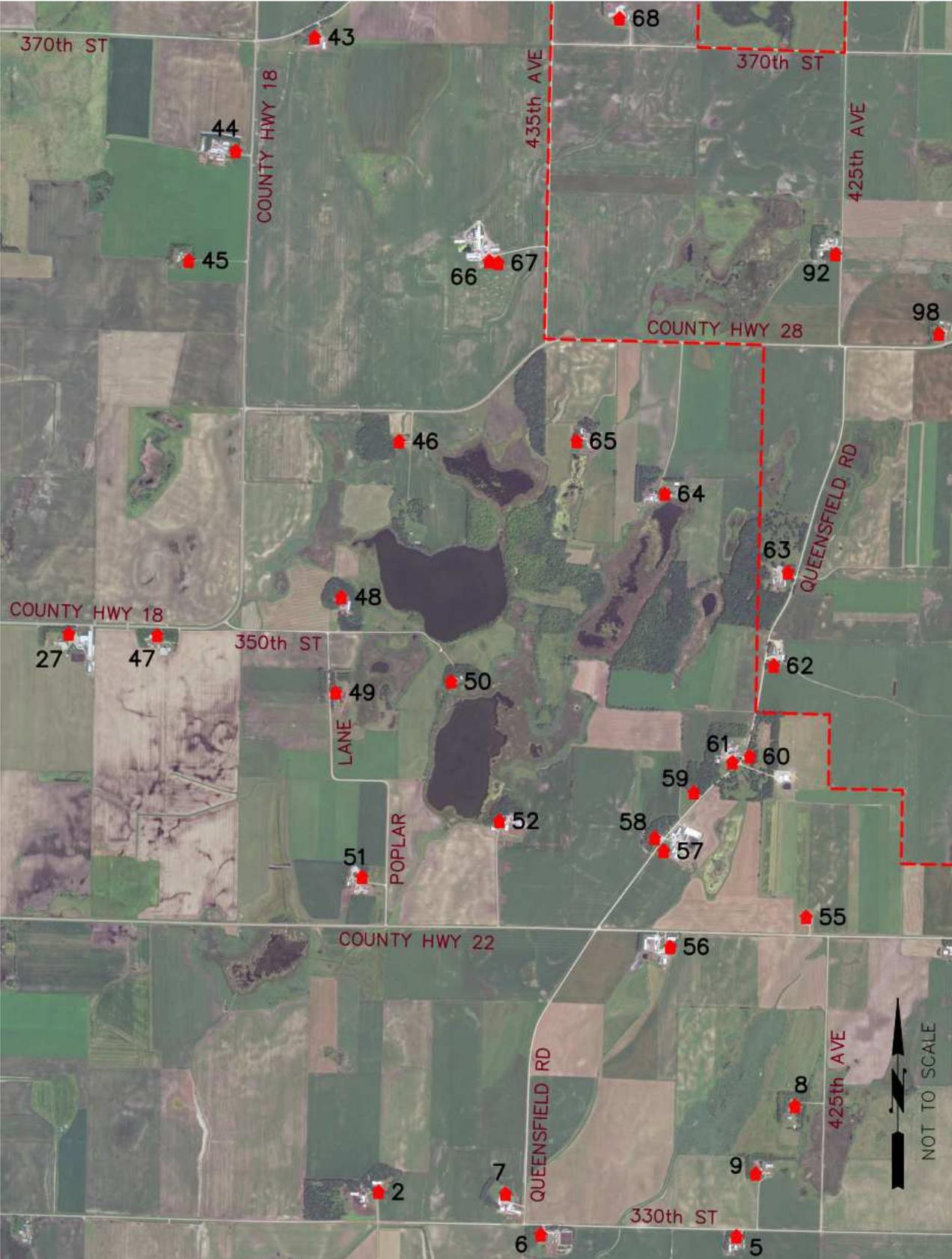
RECEPTOR KEY – NORTHEAST AREA

- ◆ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



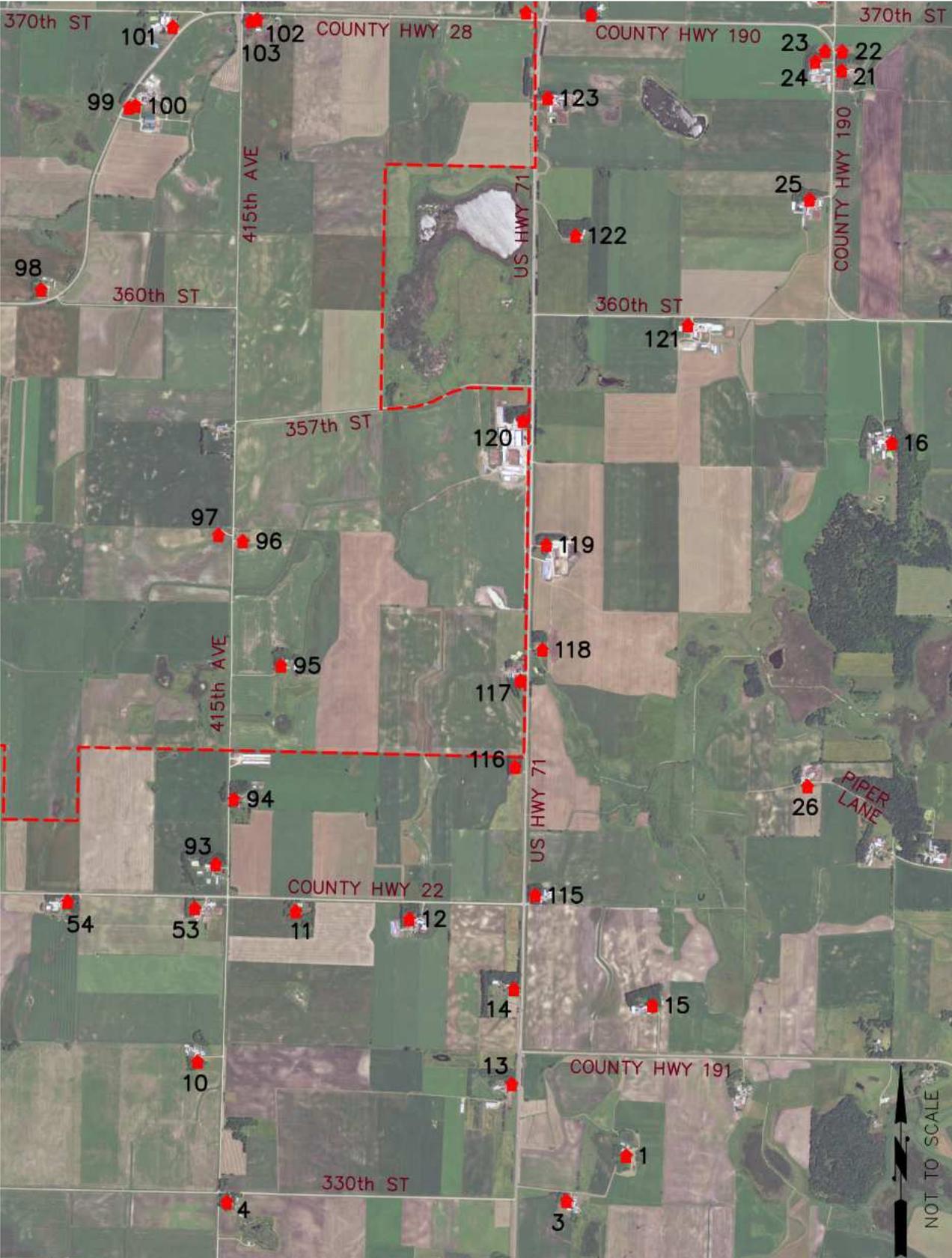
RECEPTOR KEY – SOUTHWEST AREA

▲ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



RECEPTOR KEY – SOUTHEAST AREA

◆ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



Appendix D
Shadow Flicker by Receptor
in Hours & Minutes / Year

Shadow Flicker by Receptor in Hours & Minutes / Year						
	Vestas V112		REpower MM100		Goldwind 87/1500	
Receptor ID	Expected H:MN/Year	Worst Case H:MN/Year	Expected H:MN/Year	Worst Case H:MN/Year	Expected H:MN/Year	Worst Case H:MN/Year
A	0:00	0:00	0:00	0:00	0:00	0:00
B	0:00	0:00	0:00	0:00	0:00	0:00
C	0:00	0:00	0:00	0:00	0:00	0:00
D	0:00	0:00	0:00	0:00	0:00	0:00
E	0:00	0:00	0:00	0:00	0:00	0:00
F	0:00	0:00	0:00	0:00	0:00	0:00
G	0:00	0:00	0:00	0:00	0:00	0:00
H	0:00	0:00	0:00	0:00	0:00	0:00
I	0:00	0:00	0:00	0:00	0:00	0:00
J	0:00	0:00	0:00	0:00	0:00	0:00
K	0:00	0:00	0:00	0:00	0:00	0:00
L	0:00	0:00	0:00	0:00	0:00	0:00
M	0:00	0:00	0:00	0:00	0:00	0:00
N	0:00	0:00	0:00	0:00	0:00	0:00
O	0:00	0:00	0:00	0:00	0:00	0:00
P	0:00	0:00	0:00	0:00	0:00	0:00
Q	0:00	0:00	0:00	0:00	0:00	0:00
R	0:00	0:00	0:00	0:00	0:00	0:00
S	0:00	0:00	0:00	0:00	0:00	0:00
T	0:00	0:00	0:00	0:00	0:00	0:00
U	0:00	0:00	0:00	0:00	0:00	0:00
V	0:00	0:00	0:00	0:00	0:00	0:00
W	0:00	0:00	0:00	0:00	0:00	0:00
X	0:00	0:00	0:00	0:00	0:00	0:00
Y	0:00	0:00	0:00	0:00	0:00	0:00
Z	0:00	0:00	0:00	0:00	0:00	0:00
AA	0:00	0:00	0:00	0:00	2:50	10:56
AB	0:00	0:00	0:00	0:00	0:00	0:00
AC	0:00	0:00	0:00	0:00	0:00	0:00
AD	0:00	0:00	0:00	0:00	0:00	0:00
AE	0:00	0:00	0:00	0:00	0:00	0:00
AF	0:00	0:00	0:00	0:00	0:00	0:00
AG	0:00	0:00	0:00	0:00	0:00	0:00
AH	0:00	0:00	0:00	0:00	0:00	0:00
AI	0:00	0:00	0:00	0:00	0:00	0:00
AJ	0:00	0:00	0:00	0:00	0:46	2:41
AK	0:00	0:00	0:00	0:00	2:25	8:06
AL	0:00	0:00	0:03	0:08	16:18	50:07
AM	0:00	0:00	0:00	0:00	20:31	66:33

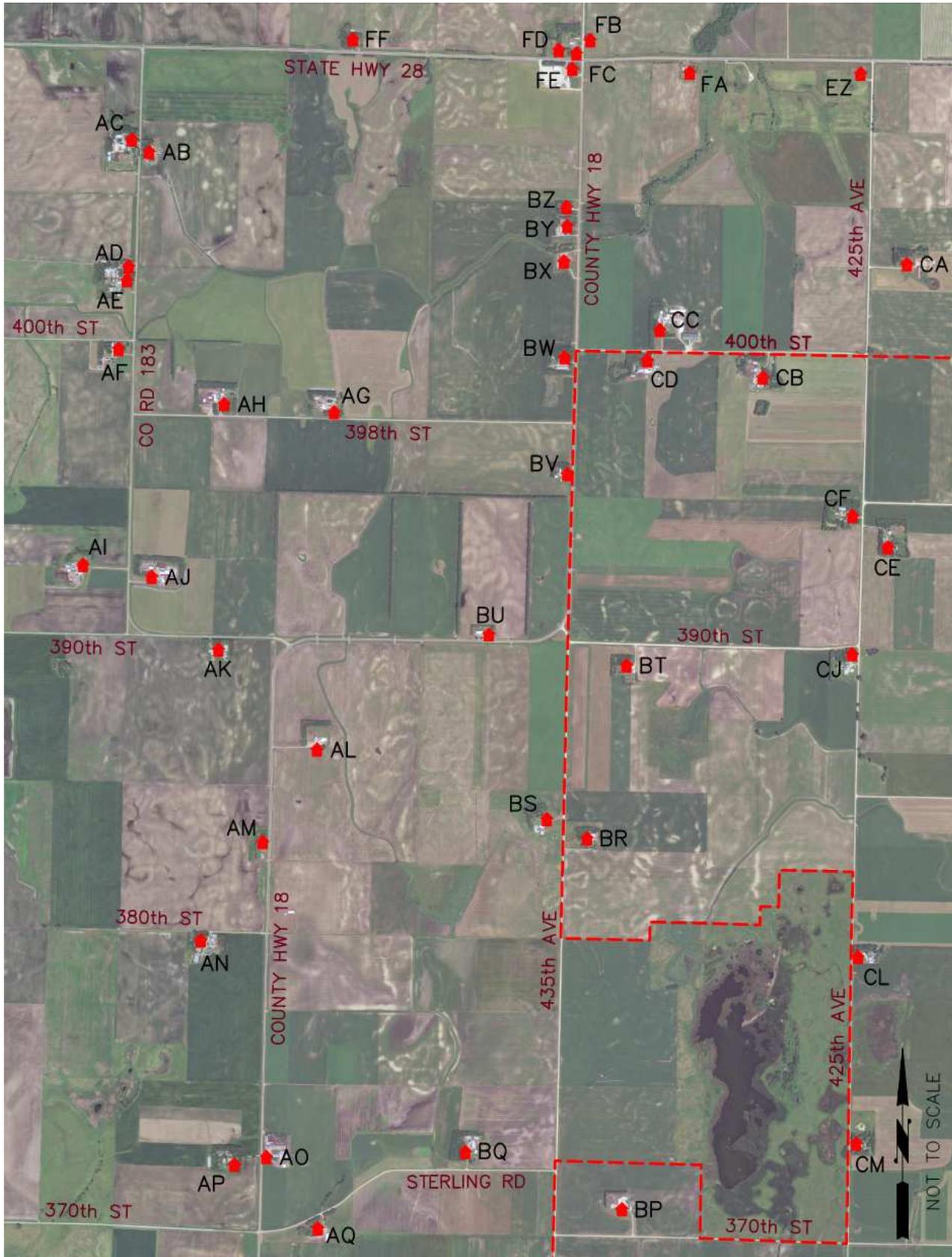
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AN	0:00	0:00	0:00	0:00	2:22	9:10
AO	0:00	0:00	0:00	0:00	0:26	1:32
AP	0:00	0:00	0:00	0:00	0:47	3:01
AQ	0:47	2:26	0:32	1:34	5:56	22:17
AR	0:00	0:00	0:11	0:27	11:22	38:40
AS	0:00	0:00	0:00	0:00	6:35	21:21
AT	0:00	0:00	0:00	0:00	1:26	5:11
AU	0:00	0:00	0:00	0:00	0:00	0:00
AV	0:00	0:00	0:00	0:00	0:57	3:57
AW	0:00	0:00	0:00	0:00	3:10	12:05
AX	0:00	0:00	0:00	0:00	0:28	1:37
AY	0:00	0:00	0:00	0:00	0:00	0:00
AZ	0:00	0:00	0:00	0:00	0:12	0:34
BA	0:00	0:00	0:00	0:00	0:00	0:00
BB	0:00	0:00	0:00	0:00	0:00	0:00
BC	0:00	0:00	0:00	0:00	0:00	0:00
BD	0:00	0:00	0:00	0:00	0:00	0:00
BE	0:00	0:00	0:00	0:00	0:00	0:00
BF	0:00	0:00	0:00	0:00	0:00	0:00
BG	0:00	0:00	0:00	0:00	0:00	0:00
BH	0:00	0:00	0:00	0:00	0:00	0:00
BI	0:00	0:00	0:00	0:00	0:00	0:00
BJ	0:00	0:00	0:00	0:00	0:00	0:00
BK	0:00	0:00	0:00	0:00	3:51	11:39
BL	0:49	2:08	0:37	1:36	0:55	2:50
BM	0:00	0:00	0:00	0:00	0:00	0:00
BN	0:00	0:00	0:00	0:00	4:15	14:31
BO	0:00	0:00	0:00	0:00	3:18	11:29
BP	0:00	0:00	0:24	1:04	1:01	4:18
BQ	0:00	0:00	0:00	0:00	0:00	0:00
BR	0:00	0:00	0:00	0:00	1:20	4:40
BS	0:00	0:00	0:00	0:00	2:19	9:09
BT	14:58	36:09	20:07	59:17	15:27	62:20
BU	10:15	30:48	10:17	31:34	6:18	22:06
BV	1:27	4:16	5:17	16:21	3:34	13:02
BW	0:00	0:00	0:00	0:00	0:00	0:00
BX	0:00	0:00	0:00	0:00	0:00	0:00
BY	0:00	0:00	0:00	0:00	0:00	0:00
BZ	0:00	0:00	0:00	0:00	0:00	0:00
CA	0:00	0:00	0:00	0:00	0:00	0:00
CB	0:00	0:00	1:03	3:06	0:24	1:24

Receptor ID	Expected H:MN/Year	Worst Case H:MN/Year	Expected H:MN/Year	Worst Case H:MN/Year	Expected H:MN/Year	Worst Case H:MN/Year
CC	0:00	0:00	0:00	0:00	0:00	0:00
CD	0:00	0:00	0:00	0:00	0:00	0:00
CE	14:50	55:40	28:56	88:13	22:06	79:02
CF	3:46	11:39	19:23	74:16	19:21	77:49
CG	0:46	3:28	2:15	8:22	2:09	8:55
CH	0:00	0:00	12:06	49:29	0:28	1:48
CI	17:07	70:16	3:20	8:21	9:16	26:09
CJ	20:06	57:51	2:55	9:55	11:08	41:03
CK	0:00	0:00	7:13	25:08	9:37	33:40
CL	0:00	0:00	10:12	28:02	7:49	26:52
CM	0:00	0:00	9:31	29:00	6:41	23:43
CN	2:33	7:11	3:07	9:37	1:57	6:28
CO	0:00	0:00	0:00	0:00	0:00	0:00
CP	0:00	0:00	0:00	0:00	0:00	0:00
CQ	0:00	0:00	0:00	0:00	0:00	0:00
CR	0:00	0:00	0:00	0:00	1:18	4:52
CS	0:00	0:00	0:00	0:00	2:23	8:28
CT	7:52	23:05	13:35	40:22	9:50	31:29
CU	7:08	22:04	18:01	66:56	13:32	56:16
CV	6:17	19:53	19:26	70:46	13:55	57:12
CW	10:33	26:17	5:26	20:00	3:50	15:50
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CY	3:16	8:04	3:50	14:32	3:03	12:56
CZ	15:39	43:18	15:16	44:55	12:51	41:22
DA	15:41	47:06	21:25	67:09	19:28	69:14
DB	4:21	14:00	9:50	23:41	10:09	31:29
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DE	0:00	0:00	1:47	5:26	1:28	5:27
DF	0:00	0:00	0:58	3:37	1:00	3:42
DG	0:00	0:00	1:41	5:24	2:25	8:40
DH	2:08	7:53	2:02	5:27	2:16	9:01
DI	0:00	0:00	0:22	1:21	0:22	1:31
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DK	0:00	0:00	0:00	0:00	0:00	0:00
DL	0:00	0:00	0:00	0:00	0:00	0:00
DM	0:00	0:00	0:00	0:00	0:00	0:00
DN	0:00	0:00	0:00	0:00	0:00	0:00
DO	0:00	0:00	0:00	0:00	0:00	0:00
DP	0:00	0:00	0:00	0:00	0:00	0:00
DQ	0:00	0:00	0:00	0:00	0:00	0:00

Receptor ID	Expected H:MN/Year	Worst Case H:MN/Year	Expected H:MN/Year	Worst Case H:MN/Year	Expected H:MN/Year	Worst Case H:MN/Year
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DS	0:00	0:00	1:18	4:56	0:40	3:00
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DV	0:00	0:00	0:16	0:57	0:12	0:49
DW	0:00	0:00	0:00	0:00	0:00	0:00
DX	0:00	0:00	1:19	5:20	0:00	0:00
DY	0:00	0:00	0:00	0:00	0:00	0:00
DZ	0:00	0:00	0:00	0:00	0:00	0:00
EA	0:00	0:00	0:00	0:00	0:00	0:00
EB	0:00	0:00	0:00	0:00	0:00	0:00
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EJ	0:00	0:00	0:00	0:00	0:00	0:00
EK	0:00	0:00	0:00	0:00	0:00	0:00
EL	0:00	0:00	0:00	0:00	0:00	0:00
EM	0:00	0:00	0:00	0:00	0:00	0:00
EN	0:00	0:00	0:00	0:00	0:00	0:00
EO	0:00	0:00	0:00	0:00	0:00	0:00
EP	0:00	0:00	0:00	0:00	0:00	0:00
EQ	0:00	0:00	0:00	0:00	0:00	0:00
ER	0:00	0:00	0:00	0:00	0:00	0:00
ES	0:00	0:00	0:00	0:00	0:00	0:00
ET	0:00	0:00	0:00	0:00	0:00	0:00
EU	0:00	0:00	0:00	0:00	0:00	0:00
EV	0:00	0:00	0:00	0:00	0:00	0:00
EW	0:00	0:00	0:00	0:00	0:00	0:00
EX	0:00	0:00	0:00	0:00	0:00	0:00
EY	0:00	0:00	0:00	0:00	0:00	0:00
EZ	0:00	0:00	0:00	0:00	0:00	0:00
FA	0:00	0:00	0:00	0:00	0:00	0:00
FB	0:00	0:00	0:00	0:00	0:00	0:00
FC	0:00	0:00	0:00	0:00	0:00	0:00
FD	0:00	0:00	0:00	0:00	0:00	0:00
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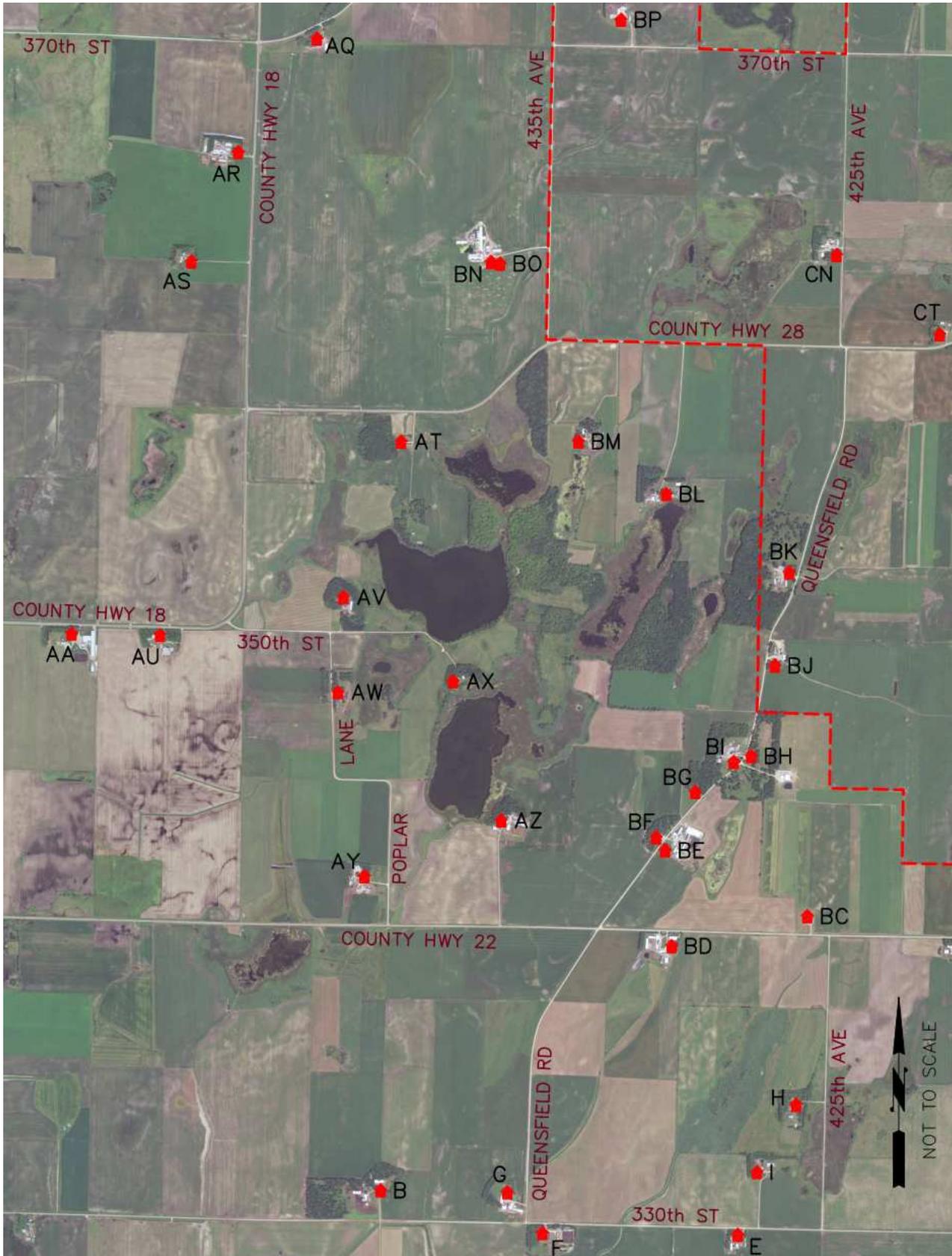
RECEPTOR KEY – NORTHWEST AREA

◆ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



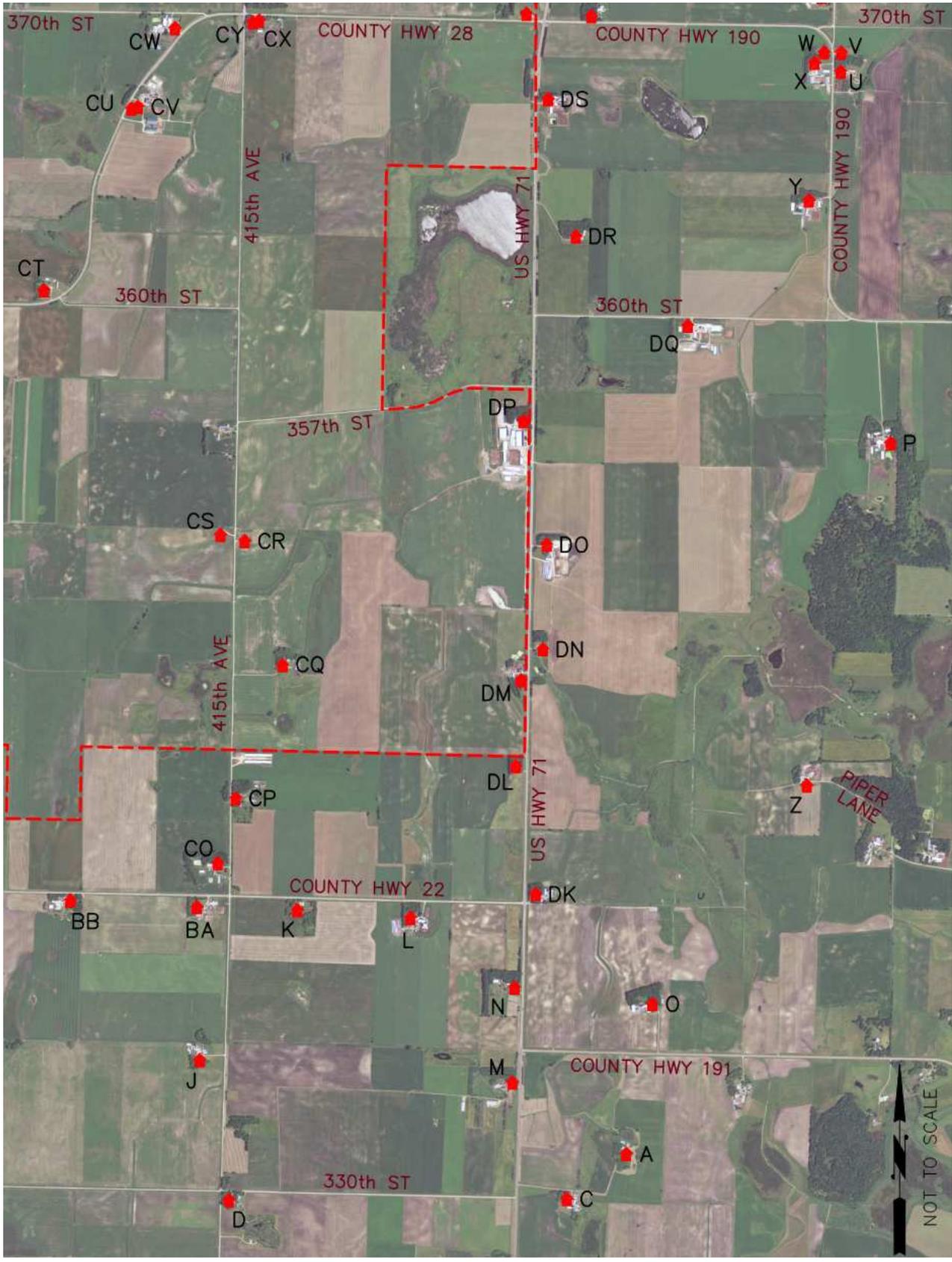
RECEPTOR KEY – SOUTHWEST AREA

▲ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



RECEPTOR KEY – SOUTHEAST AREA

◆ RESIDENCE (RECEPTOR)
- - - PROJECT BOUNDARY



Appendix E
State Historic Preservation Office
Correspondence

April 7, 2010

Mr. Bruce Jennings
DGR and Associates
1302 South Union Street
PO Box 511
Rock Rapids, IA 51246

RE: Getty Wind, LLC, Wind Farm
Stearns County
DGR Project Number: 850801
SHPO Number: 2010-2106

Dear Mr. Jennings:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800), and to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

Due to the nature of the proposed project, we recommend that an archaeological survey be completed. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified. For your information, we have enclosed a list of consultants who have expressed an interest in undertaking such surveys.

If the project area can be documented as previously disturbed or previously surveyed, we will re-evaluate the need for survey. Previously disturbed areas are those where the naturally occurring post-glacial soils and sediments have been recently removed. Any previous survey work must meet contemporary standards.

If you have any questions on our review of this project, please contact me at (651) 259-3456.

Sincerely,


Mary Ann Heidemann
Manager, Government Programs and Compliance

Enclosure: List of Consultants



MINNESOTA HISTORICAL SOCIETY
State Historic Preservation Office
Contract Archaeologists
Last Updated: 11/20/09

This listing is comprised of individuals and firms who have expressed an interest in undertaking contract archaeology in the State of Minnesota. It is provided for informational purposes to those who may require the services of an archaeological consultant. Inclusion on the list does not constitute an endorsement of the consultant's professional qualifications or past performance. The SHPO may remove contractors from the list if no work is completed in Minnesota over a two year period. The SHPO reserves the right to reject contract reports if the principal investigator or other contract personnel do not meet certain minimal qualifications such as the Secretary of the Interior's professional qualifications standards (Federal Register 9/29/83).

It is recommended that work references be checked and multiple bids be obtained before initiating a contractual agreement. The SHPO will not recommend specific contractors, but may be able to comment on previous work reviewed pursuant to state and federal standards and guidelines. The SHPO can be contacted at the Minnesota History Center, 345 Kellogg Boulevard West, St. Paul, MN 55102, 651-259-3450.

10,000 Lakes Archaeology, Inc.

220 9th Avenue South
South St. Paul, MN 55075
612/670-6431
gronhovd@10000lakesarchaeology.com
www.10000lakesarchaeology.com

The 106 Group Limited

370 Selby Avenue
St. Paul, MN 55102
651/290-0977
Fax 290-0979
anneketz@106group.com
www.106group.com

AECOM Environment

Amy Ollendorf, Ph.D.
161 Cheshire Lane North
Suite 500
St. Louis Park, MN 55441
763/852-4200
Cell 612/599-1255
Fax 763/473-0400
amy.ollendorf@aecom.com
www.aecom.com

AMEC Earth and Environmental

109 Woodward Avenue
Jefferson City, MO 65109
573/301-6084

Anthropology Research

University of North Dakota
236 Centennial Drive Stop 7094
Dennis L. Toom
Grand Forks, ND 58202
701/777-2436

ARCH3, LLC

Daniel R. Pratt, M.A.
1386 Idaho Avenue West
St. Paul, MN 55108
651/308-8749
Fax 651/917-9291
arch3llc@gmail.com
www.arch3llc.com

Archaeological Research Services

1812 15th Avenue South
Minneapolis, MN 55404
612/870-9775

Archaeology Laboratory

Augustana College
2032 South Grange Avenue
Sioux Falls, SD 57105
605/274-5493

Bear Creek Archaeology, Inc.
P. O. Box 347
24091 Yellow Avenue
Cresco, IA 52136
563/547-4545 FAX 563/547-5403
www.bearcreekarcheology.com

Louis Berger and Associates, Inc.
Attn. Randall M. Withrow
950 50th Street
Marion, IA 52302
319/373-3043

Black River Archaeology, LLC
Ryan J. Howell
447 North Youlon Street, Suite B
West Salem, WI 54669
608/498-0336

Blondo Consulting, LLC
Steven J. Blondo
3939 Sand Hill Road
Kettle River, MN 55757
218/273-0074
763/245-1174 Cell
stewel@blondoconsulting.com
www.blondoconsulting.com

Bolton & Menk, Inc.
Dale Maul
1224 Nicollet Avenue
Burnsville, MN 55337-6857
952/890-0509
Fax 952/890-8065
dalema@bolton-menk.com
www.bolton-menk.com

Commonwealth Cultural Resources
Kathryn C. Egan-Bruhly
PO Box 1061
Minocqua, WI 54548
715/358-5686

Consulting Archaeological Services
PO Box 686
Creston, IA 50801
515/333-4607

Cultural Herage Consultants
Todd Kapler
PO Box 3836
Sioux City, IA 51102-3836
Phone 712/239-9085
Fax 712/239-9086

Duluth Archaeology Center
5910 Fremont Street, Suite 1
Duluth, MN 55807
218/624-5489
archcenter@aol.com
www.dulutharchaeologycenter.com

Environmental Resources Management
Leslie B. Kirchler
1701 Golf Road, Suite 1-1000
Rolling Meadows, IL 60008-4242
847/258-8921
Fax 847/258-8901
leslie.kirchler@erm.com
www.erm.com

Florin Cultural Resource Services
N12902 273rd Street
Boyceville, WI 54725
715/643-2918

Foth and Van Dyke, Inc.
Curtis M. Hudak
Eagle Point II
8550 Hudson Boulevard North
Suite 100
Lake Elmo, MN 55042
651/288-8593
Fax 651/288-8551
www.foth.com

R.C. Goodwin and Associates
309 Jefferson Highway, Suite A
New Orleans, LA 70121
504/837-1940
neworleans@rcgoodwin.com

Great Lakes Arch. Research Center
427 East Stewart Street
Milwaukee, WI 53207
414/481-2093

Richard Grubb and Associates
22927 Wigeon Court
Plainfield, IL 60585
815/439-3501

HDR One Company
Michael Justin
701 Xenia Avenue South
Suite 600
Minneapolis, MN 55416
763/591-5423
Fax 763/591-5413
michael.Justin@hdrinc.com

Historic Preservation Associates

Contact: Timothy Klinger
P.O. Box 1064
Fayetteville, AR 72702
501/442-3779

Jeff Kinney and Associates

PO Box 43
Manvel, ND 58256
701/696-2289

Larson-Tibesar Assoc., Inc.

421 South Cedar Street
Laramie, WY 82070
307/742-4371 or 701/696-2236

Leech Lake Heritage Sites Program

115 6th Street NW
Suite E
Cass Lake, MN 56633
218/335-8095

McFarlane Consulting, LLC

318 Goodhue Street
St. Paul, MN 55102
651/699-1921

Metcalf Archaeological Consultants

PO Box 2154
Bismarck, ND 58501
701/258-1215

Minnesota State University Moorhead

Michael Michlovic or George Holley
Department of Anthropology & Earth Science
Moorhead, MN 56560
218/477-2035 or 218/477-2680
michlovic@mnstate.edu
holley@mnstate.edu

Mississippi Valley Archaeology Center

1725 State Street
LaCrosse, WI 54601
608/785-8463
boszhard.robe@uwlax.edu
www.uwlax.edu/mnvac/contracts.htm

Parsons Engineering Science Inc.

400 Woods Mill Road
Chesterfield, MO 63017
314/576-7330

Pathfinder CRM

Robert Vogel
168 West Main Street
P.O. Box 503
Spring Grove, MN 55974
507/498-3810

Quality Services

3459 Jet Drive
Rapid City, SD 57703
605/388-5309 or
605/209-0265

Rolling Hills Consulting Services, LLC

Chad A. Goings
1221 East 3rd Street
Washington, IA 52353
319/461-7427
cagoings@aol.com

Root River Archaeology & Historic Preservation, LLC

Michael Bradford
2109 S. Broadway, Suite #5
Rochester, MN
507/258-0017
Fax 608/786-4787

St. Cloud State University

Mark P. Muñiz, Ph.D., RPA
Assistant Professor
Director CRM Archaeology Graduate Program
Department of Sociology and Anthropology
262 Stewart Hall
720 Fourth Avenue South
St. Cloud, MN 56301
320/308-4162
Fax 320/308-1694
mpmuniz@stcloudstate.edu

SOILS Consulting

PO Box 121
Longville, MN 56655
218/682-2110

Stemper and Associates

24505 Hardeggers Drive
Cleveland, MN 56017
507/931-0823
Fax 507/931-5356

Summit Envirosolutions

Andrea Vermeer
1217 Bandana Boulevard North
St. Paul, MN 55108
651/644-8080

Robert Thompson

13367 87th Place North
Maple Grove, MN 55369
612/788-7412

TRC Mariah

605 Skyline Drive
Laramie, WY 82070
307/742-3843

Trefoil Cultural & Environmental Heritage

Richard Rothaus, PHD
1965 W. Highview Drive
Sauk Rapids, MN 56379
320/761-9090
rothaus@trefoilcultural.com

Two Pines Resource Group

17711 260th Street
Shafer, MN 55074
651/257-4766

**University of South Dakota Archaeology
Laboratory**

Contact: Richard Fox
414 Clark Street
Vermillion, SD 57069
605/677-5594

WAPSI Valley Archaeology

PO Box 244
Anamosa, IA 52205
319/462-4760

Westwood Professional Services, Inc.

7699 Anagram Drive
Eden Prairie, MN 55344
952/937-5150
Fax 952/937-5822
www.westwoodps.com

Wilbur Smith Associates

465 E High Street, Suite 100
Lexington, KY 40507
859/254-5759

Appendix F
Native American Tribes Correspondence

Santee Sioux Nation

COUNCIL HEADQUARTERS / MUSEUM

Chairman: Roger Trudell
Vice Chairman: David Henry
Treasurer: Robert Campbell
Secretary: Cora Jones



108 Spirit Lake Avenue West
Niobrara, NE 68701-7219
Phone: (402) 857-2772
FAX: (402) 857-2779

Subject; Santee Sioux Nation's response to your respective request that is governed under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800).

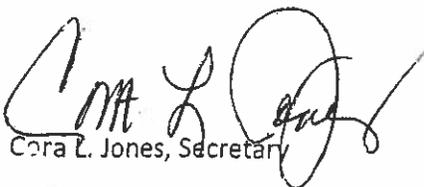
To Whom it may concern:

Project: DGR - Project 850801

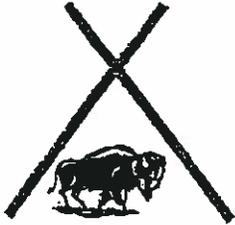
The purpose of this letter is to inform you that the Santee Sioux Nation has no objection to your proposed project unless any cultural, natural resources and/or places with traditional cultural significance within the project are found. Then we want to be notified immediately.

We, also, want to be consulted in the event of any NEPA or Section 106 reviews which reflect any cultural significance that are specific to our Dakota culture.

Sincerely,


Cora L. Jones, Secretary

Santee Sioux Nation



FLANDREAU SANTEE SIOUX TRIBE

P.O. Box 283
603 W. Broad Ave.
Flandreau, S. D. -57028-

Phone: 605-997-3891
Fax: 605-997-3878

Fax Transmittal Form

To: Bruce Jennings

From: FSST

Phone number: _____
Fax number: 712-472-2710

Phone: 605-997-3891
Fax: 605-997-3878

- Urgent
- For Review
- Please Comment
- Please Reply

Date sent: 3-23-10
Number of pages including cover page: 3

RE: _____

Message:

Thanks & Have A Great Day!



Flandreau Santee Sioux Tribe

P.O. Box 283 Flandreau, SD 57028

Ph. 605-997-3891

Fax: 605-997-3878

www.santeesioux.com

Flandreau Santee Sioux Tribe
Office of Cultural Preservation/Tribal NAGPRA Office

Reference Number: DGR project 850801 - Wind Energy
Project Number: _____

Date: 3-23, 2010

We have no interest in this area geographically

We have no comment on the proposed undertaking

No objections. However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify the appropriate persons (state & tribal NAGPRA representatives)

We have an objection or require additional project information. Please send the following to Cultural Preservation Office, FSST, P.O. Box 283, Flandreau, SD, 57028

Signature: Samuel Allen Trustee IV
Samuel Allen-Trustee IV

**DeWild Grant Reckert and Associates Company**

CONSULTING ENGINEERS AND LAND SURVEYORS

1302 South Union Street
P.O. Box 511
Rock Rapids, IA 51246
(712)472-2531
Fax (712)472-2710

March 16, 2010

Mr. Mark Allen
Flandreau Santee Sioux Executive Committee
PO Box 103
Flandreau, SD 57010Re: Getty Wind, LLC
Large Wind Energy Conversion System
DGR Project 850801

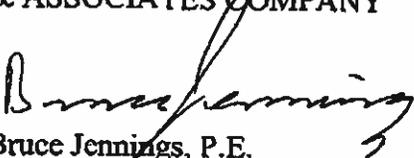
Dear Mr. Allen:

Getty Wind, LLC proposes construction of approximately 28 wind turbines for a Large Wind Energy Conversion System in Stearns County, Minnesota. The project area is centered at approximately Latitude 45.612N, Longitude 94.991 West, southwest of the City of Sauk Centre. It is expected that these turbines may be financed in part with funds from USDA Rural Development, and that this project will require permitting from Minnesota PUC. As part of the environmental review process, we request your review of the proposed project area and ask that you provide comment regarding any known historic and cultural resources, any information regarding any religiously significant archaeological or cultural resources important to you that have yet to be identified, or the potential effect to any such properties and recommended mitigation measures. Please note where your comments may apply to an individual turbine or to the overall project.

I have attached maps of the proposed sites, with the townships and sections noted.

If you have any questions or need further information please call me at 712-472-2531 or e-mail me at bjennings@dgrnet.com. Thank you for your review.

Sincerely,

DEWILD GRANT RECKERT
& ASSOCIATES COMPANY
Bruce Jennings, P.E.

BJ:jkv

Appendix G
MDNR Consultations and Correspondence

Minnesota Department of Natural Resources

Division of Ecological Resources
940 Industrial Drive South, Suite 103
Sauk Rapids, Minnesota 56379



April 12, 2010

Mr. Bruce Jennings
DeWild Grant Reckert and Associates
Post Office Box 511
Rock Rapids, Iowa 51246

Dear Mr. Jennings:

The Minnesota Department of Natural Resources has received your letter of March 16, 2010 regarding the prospective Getty Wind Farm Large Wind Energy Conversion System in western Stearns County, Minnesota. We offer the following comments for your consideration.

The proposed windfarm is located in an area of rolling topography in prairie pothole country. Although the prairie has been converted to cropfields in the windfarm boundary, there are numerous seasonal and semipermanent wetlands scattered throughout the site, along with restored grasslands on wildlife management units.

The Padua Wildlife Management Area (WMA) is located at the southwest corner of the project boundary. We recommend a minimum ½ mile setback from all WMAs for all wind turbines. There are also two U.S. Fish and Wildlife Service (USFWS) Waterfowl Production Areas (WPAs) in the vicinity of the project area. If you have not done so already, I encourage you to contact the USFWS Twin Cities Field Office at 612-725-3548. One is the Kenna WPA located in Sections 9 and 16 of Getty Twp. adjacent to the eastern boundary of the proposed windfarm boundary. The other is the Trisco WPA located in Section 6 of Getty Twp. and section 31 of Sauk Center Twp. The USFWS also recommends a minimum ½ mile setback from all WMAs for all wind turbines.

I conducted a drive-by avian survey of the proposed windfarm site on March 26, 2010. I noted a few scattered pairs of Canada geese (*Branta canadensis*) and mallards (*Anas platyrhynchos*) and numerous pairs of horned larks (*Eremophila alpestris*) throughout the area, an apparent pair of red-tailed hawks (*Buteo jamaicensis*) in Sections 5 and 6 of Getty Twp., and a few killdeer (*Charadrius vociferus*) and a northern harrier (*Circus cyaneus*). The WMAs and WPAs in the vicinity provide habitat during the breeding season and during migration for many other species of birds, and waterbirds often migrate between wetland complexes. We understand that many of the proposed turbine locations are speculative at this point. However, several are located in or adjacent to wetlands or wetland complexes. The most problematic site is turbine #14, which is

located in or at the edge of a farmed wetland. On March 26th, I saw 110 tundra swans (*Cygnus columbianus*) sitting on or flying in and out of this wetland, along with 60 Canada geese and over 200 mallards and ring-necked ducks (*Aythya collaris*) sitting on the wetland. Other problematic turbines that are too close to either WMAs/WPAs, wetlands, or wetland complexes are #7, 16, 22, 23 and 27. In addition, turbines #1, 2, 3, 13, 15, and 25 appear to be within flyways related to the wetland complexes present.

Another high value wetland that is located on private property is in the SE1/4 of Section 4 of Getty Twp. Last year, during the first year of a 5-year effort to develop a breeding bird atlas for Minnesota, this wetland was discovered to support a breeding colony of black terns (*Chlidonias niger*) and red-necked grebes (*Podiceps grisegena*). So far, there have only been 10 confirmed breeding locales for black terns, and 15 for red-necked grebes (see www.mnbba.org).

The southwest portion of the project boundary contains part of a Central Region Regionally Significant Ecological Area (RSEA). The DNR Central Region identified these ecologically significant terrestrial and wetland areas by conducting a landscape-scale assessment based on the size and shape of the ecological area, land cover within the ecological area, adjacent land cover/use, and connectivity to other ecological areas. The purpose of the data is to inform regional scale land use decisions, especially as it relates to balancing development and natural resource protection. A GIS shapefile of this data layer can be downloaded from the DNR Data Deli at <http://deli.dnr.state.mn.us>. For more information on RSEAs, or to view pdf versions of the final maps, please visit <http://www.dnr.state.mn.us/rsea/index.html>. If you would like help interpreting the RSEA data, contact Hannah Texler, Regional Plant Ecologist for DNR's Central Region, at 651-259-5811.

The map attached to your letter implied that there are no natural heritage elements within the proposed windfarm boundary. This is inaccurate. There are records of the Powesheik skipper (*Oarisma powesheik*), a state-listed species of special concern, in the project area. Additionally, in 1997, there were breeding season observations of the marbled godwit (*Limosa fedoa*), a state-listed bird of special concern, and the upland sandpiper (*Bartramia longicauda*) in the vicinity of the project. If you have not done so already, please contact Lisa Joyal, DNR Endangered Species Environmental Review Coordinator, at 651-259-5109 to arrange for a Natural Heritage Database element search. There is a fee for this search.

Also please be aware that any transmission line crossings of Wildlife Management Areas or public waters requires a License to Cross Public Lands or a License to Cross Public Waters from the DNR. There are numerous Public Waters in the windfarm boundary, including an unnamed tributary to the Sauk River along the eastern edge of the windfarm boundary. For applications to cross public lands or waters, please contact Trina Zieman at 651-259-5792.

In summary, given the number of state and federal wildlife management lands, the number of semipermanent and seasonal wetlands present, and the documented avian resources in the area, this does not seem like a viable location for a windfarm. However, if the project is proposed to proceed, we recommend 1 full year of pre-application and 2

full years of post-construction avian and bat surveys be conducted to adequately assess the year-around use of the site by these resources.

Thank you for the opportunity to review the preliminary information. If you have any questions, I may be reached at 320-255-4279, ext. 235.

Sincerely,



Michael R. North
Regional Environmental Assessment Ecologist

ERDB 20100605

Cc: Fred Bengtson, Tim Bremicker, Randall Doneen, Lisa Joyal, Joe Kurcinka, Nick Snavely, Hannah Texler, Jan Wolff, Trina Zieman (DNR)
Rich Davis, Tony Sullins (USFWS)

DEPARTMENT OF NATURAL RESOURCES
Division of Ecological Resources

STATE OF MINNESOTA
Memorandum

DATE: September 2, 2011

PHONE: (651) 259-5115

TO: Suzanne Steinhauer
Department of Commerce, Office of Energy Security

FROM: Jamie Schrenzel 
MDNR, Division of Ecological and Water Resources

SUBJECT: Black Oak/Getty Wind Draft Avian Report Initial Review

The Minnesota Department of Natural Resources (DNR) has reviewed the Draft Avian Report for the Black Oak and Getty Wind Projects, dated August 2011. During a meeting regarding the report on August 30, 2011, the DNR agreed to provide initial comments this week and to follow with more detailed comments in the coming weeks. This memo provides initial comments for the purpose of identifying any additional survey needs in a timely manner and, as discussed, more comments will follow.

Generally, the Draft Avian Report for Black Oak and Getty Wind Projects provides enough avian information for the purpose of continuing development of the Avian and Bat Protection Plan without further avian surveys during the fall 2011 migration survey season. The DNR plans to follow up with more information regarding recommendations for the Avian and Bat Protection Plan based on the results of this report. Considering possible risk to bats in the area, there are numerous wetlands in the vicinity of the project areas and a river located northeast of the Getty Wind project boundary. The DNR has some concern regarding risk to bats, particularly in the vicinity of the Getty Wind project area and has previously commented (see attached letter) regarding bats in this area. However, as the project proposers noted in the August 30, 2011 meeting regarding this report, the preliminary turbine layout includes avoidance of wetlands and the nearby river habitat, which are considered probable bat habitat. Due to the location of the project in the vicinity of features that may attract bats, pre-construction acoustic bat data would ideally be included in the record prior to permit issuance. However, because the primary purposes of collecting pre-construction data is for impact avoidance and the preliminary site layout avoids areas of probable higher risk to bats, the DNR recommends that these efforts be considered voluntary by the Department of Commerce. If data is collected during the 2011 fall migration period for bats, the DNR recommends following the attached draft protocols for the remainder of the season.

Also, when considering data collection and bat risk for these sites, it is important to note that post-construction fatality surveys would also provide bat fatality data in addition to avian fatality data. Initial review of survey results for the Black Oak and Getty Wind project areas indicates that risk level would be estimated at a minimum of moderate risk, and possibly high risk. This assessment will be further developed in the next set of comments. For purposes of this discussion, either a moderate or high risk level would correspond with DNR recommended draft protocols for post-construction fatality surveys. Therefore, the DNR plans to recommend post-construction fatality surveys, which would assess fatality of both birds and bats.

Please note that this assessment is based on a preliminary turbine layout and current avoidance efforts. Additional pre-construction surveys may be warranted if the turbine layout changes substantially.

Thank you for your coordination regarding the Black Oak and Getty Wind Draft Avian Report.

Minnesota Department of Natural Resources



Division of Ecological Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 E-mail: lisa.ioval@state.mn.us

August 24, 2010

Correspondence # ERDB 20100605-0002

Mr. Bruce Jennings
DeWild Grant Reckert & Associates Co.
1302 South Union Street
Rock Rapids, IA 51246

RE: Natural Heritage information in the vicinity of the proposed Getty Wind,
T126N R34W Sections 31 & 32 and T125N R34W Sections 4-9 & 16-18, Stearns County

Dear Mr. Jennings,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, a rare butterfly has been documented within the search area (for details, see the enclosed database reports; please visit the Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of this rare species). We recommend that the following issues be resolved before submitting a Site Permit Application to the Public Utilities Commission:

- The Minnesota County Biological Survey (MCBS) has identified a Site of Moderate Biodiversity Significance in T126N R34W Section 31 and T125N R34W Section 6 (A GIS shapefile of MCBS Sites of Biodiversity Significance can be downloaded from the DNR Data Deli at <http://deli.dnr.state.mn.us>). Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as Moderate contain occurrences of rare species and/or moderately disturbed native plant communities, and/or landscapes that have a strong potential for recovery. This particular Site contains the USFWS Trisco Waterfowl Production Area and consists of marsh and shallow open water, and old fields with scattered native plants. This is one of only two sites in the county for powesheik skippers (*Oarisma powesheik*), a state-listed butterfly of special concern. Given the ecological significance of this Site, we recommend that it be considered an avoidance area within the permitting boundary.
- The nearby Wildlife Management Areas and Waterfowl Production Areas attract many species of birds during the breeding season and during migration. Mike North's letter dated April 12, 2010, includes a discussion of birds that are known to occur in the area. Many of these birds are Species in Greatest Conservation Need (SGCN) as identified in Minnesota's Comprehensive Wildlife Conservation Strategy (<http://www.dnr.state.mn.us/cwcs/index.html>). Please note many SGCN are not tracked in the Natural Heritage Information System (NHIS), and the NHIS does not include records of migrating birds. In addition, the MCBS has not conducted surveys in this area in over twenty years, so data on the current avian use of the area is incomplete.

Wind farms can affect birds due to collision mortality, displacement due to disturbance, habitat fragmentation, and habitat loss. Even if collision mortality rates are low, the additional mortality may be significant for rare species. Given the proximity of the project to lands set aside for conservation purposes and the potential for significant avian travel within the project boundary, we recommend that a flight path analysis (breeding season and migration seasons) be conducted within the project area to help identify avian pathways. This information will be helpful in determining turbine placement. Post-construction avian mortality monitoring would also provide valuable information regarding impacts to birds.

- The Wind Turbine Guidelines Advisory Committee, representing varied interests associated with wind energy development, has submitted voluntary recommendations to the Secretary of the Interior regarding guidelines on developing effective measures to mitigate impacts to wildlife and their habitats related to land-based wind energy facilities (available at http://www.fws.gov/habitatconservation/windpower/wind_turbine_advisory_committee.html). The Committee recommends using a tiered approach:

Tier Level	Tier Description	Considerations for Proposed Project
Tier 1	Preliminary Evaluation or Screening of Potential Sites	Given that the proposed project is within an important complex of wildlife habitats and conservation lands, it may be appropriate to consider alternate locations.
Tier 2	Site Characterization	This level includes agency review (e.g., this letter and Mike North's letter).
Tier 3	Field Studies	Given that the MCBS has not conducted recent surveys in this area and given the potential for significant avian travel between lands set aside for conservation purposes, pre-construction avian surveys are recommended.
Tier 4	Post-construction Fatality Studies	The Committee recommends that fatality studies be considered for all wind energy projects. The number of years of monitoring will depend on the results of Tier 3 and Tier 4 studies.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Department of Natural Resources, Division of Ecological Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted.

The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

This letter does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,



Lisa Joyal
Natural Heritage Review Coordinator

enc. Rare Features Database: Index and Detailed Reports
Rare Features Database Reports: An Explanation of Fields
Mike North's letter dated April 12, 2010

cc: Mike North
Jamie Schrenzel



Minnesota Department of Natural Resources

Division of Ecological and Water Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 E-mail: lisa.joyal@state.mn.us

August 29, 2011

Correspondence # ERDB 20100605-0003

Mr. Bruce Jennings
DeWild Grant Reckert & Associates Co.
1302 South Union Street
Rock Rapids, IA 51246

RE: Natural Heritage Review of the proposed Getty Wind;
T126N R34W Sections 29-33 and T125N R34W Sections 4-9 & 16-21; Stearns County

Dear Mr. Jennings,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the revised project boundary. The changes to the project boundary do not change the results of the previous Natural Heritage review (see the enclosed database reports; the upland sandpiper is included because you changed your search criteria to include species with no legal status). As such, the response letter dated 24 August 2010 is still valid. The following comments should be considered a **supplement** to the 2010 letter:

- It is noted that the project boundary no longer includes the Site of Biodiversity Significance mentioned in the 2010 letter. Avoidance of this area is important, and the DNR appreciates the proposer's cooperation in this matter.
- It should also be noted that the state status of the powesheik skipper (*Oarisma powesheik*), currently a state-listed butterfly of special concern, is proposed to change to endangered. These butterflies are completely dependent upon the survival of native prairie habitat. Yet, less than 1% of Minnesota's native prairie remains and the remaining prairie mostly consists of widely scattered small fragments surrounded by agriculture and development. As a result, small colony sizes (due to past habitat loss) and further habitat destruction are the primary threats facing these rare species in Minnesota. The use of herbicides to control weeds or shrubs can also eliminate critical nectar sources, and insecticide drift from nearby agricultural fields may kill these butterflies. Potential mortality from collisions with the turbines may also be a concern, but there is limited literature on this topic.
- As recommended in the 2010 letter, pre-construction avian surveys were conducted this year. The Draft Avian Use Assessment Report prepared by HDR Engineering documents seven state-listed species in the vicinity of the project area. Four of these species are state-listed species of special concern: marbled godwit (*Limosa fedoa*), Forster's tern (*Sterna forsteri*), American white pelican (*Pelecanus erythrorhynchos*), and the bald eagle (*Haliaeetus leucocephalus*). Three of the species are state-listed as threatened: trumpeter swan (*Cygnus buccinator*), horned grebe (*Podiceps auritus*), and Wilson's phalarope (*Phalaropus tricolor*). The status of the trumpeter swan and the horned grebe are proposed to change to special concern and endangered, respectively. Given the known occurrences of these state-listed species, as well as 22 Species in Greatest Conservation Need (SGCN) identified in Minnesota's Comprehensive Wildlife Conservation Strategy (<http://www.dnr.state.mn.us/cwcs/index.html>), the DNR recommends post-construction avian fatality monitoring.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted.

The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

For environmental review purposes, the Natural Heritage letter and database reports are valid for one year; they are only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or if an updated review is needed.

Please note that locations of the gray wolf (*Canis lupus*), federally-listed as threatened and state-listed as special concern, and the Canada lynx (*Lynx canadensis*), federally-listed as threatened, are not currently tracked in the NHIS. As such, the Natural Heritage Review does not address these species.

Furthermore, the Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist (contact information available at http://www.dnr.state.mn.us/eco/ereview/erp_regioncontacts.html). Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

Sincerely,



Lisa Joyal
Natural Heritage Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detailed Report
Rare Features Database Reports: An Explanation of Fields
Natural Heritage letter dated 24 August 2010

cc: Jamie Schrenzel, DNR
Melissa Doperalski, DNR
Krista Larson, DNR
Richard Baker, DNR
Deborah Pile, EFP
Ingrid Bjorklund, EFP

Appendix H
USFWS Consultations and Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Twin Cities Field Office
4101 American Blvd E.
Bloomington, Minnesota 55425-1665

May 11, 2010

Bruce Jennings, P.E.
Dewild Grant Reckert and Associates Co.
1302 South Union Street
P.O. Box 511
Rock Rapids, Iowa 51246-0511

Re: Getty Wind (LLC) Review, Stearns County, Minnesota
FWS TAILS #32410-2010-FA-0068

Dear Mr. Jennings:

This is in response to your March 18, 2010, letter requesting our review of the proposed Getty Wind Project in Stearns County, Minnesota. The proposed project includes the installation of 28 wind turbines, and associated infrastructure including roads, transmission lines, and staging areas. The macro-siting project boundary provided to our office covers a total area of approximately 5,440 acres located in all or parts of sections 31 – 33, Township 126 North, Range 34 West, and sections 4 – 9 and 16 – 18, Township 125 North, Range 34 West, Stearns County, Minnesota.

The following comments are being provided pursuant to the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act, and Fish and Wildlife Act of 1956. This information is being provided to assist you in making an informed decision regarding wildlife issues, site selection, project design, and compliance with applicable laws.

The Service has been in contact with the DNR as they have developed recommended survey protocols and site evaluations that will satisfy both state and federal wildlife statutes, and this letter describes these measures, in part. We appreciate your early coordination with both the Service and the DNR, and recommend continued collaboration on this project to ensure wildlife and habitat issues are fully and appropriately addressed.

The Fish and Wildlife Service supports the development of wind power as an alternative energy source. However, wind farms can have negative impacts on wildlife and their habitats if not sited and designed with potential wildlife and habitat impacts in mind. Selection of the best sites for turbine placement is enhanced by ruling out sites with known, high concentrations of birds and/or bats passing within the rotor-swept area of the turbines or where the effects of habitat fragmentation will be detrimental. In support of wind power generation as a wildlife-friendly,

renewable source of power, development sites with comparatively low bird, bat and other wildlife values would be preferable and would have relatively lower impacts on wildlife.

The Service recommends that impacts to streams and wetlands be avoided, and buffers surrounding these systems be preserved. Streams and wetlands provide valuable habitat for fish and wildlife resources, and the filtering capacity of wetlands helps to improve water quality. Naturally-vegetated buffers surrounding these systems are also important in preserving their wildlife-habitat and water quality-enhancement properties. Furthermore, forested riparian systems (wooded areas adjacent to streams) provide important stopover habitat for birds migrating through the region.

The proposed activities do not constitute a water-dependent activity, as described in the Section 404(b)(1) guidelines, 40 CFR 230.10. Therefore, practicable alternatives that do not impact aquatic sites are presumed to be available, unless clearly demonstrated otherwise. Therefore, before applying for a Section 404 permit, the client should closely evaluate all project alternatives that do not affect streams or wetlands, and if possible, select an alternative that avoids impacts to the aquatic resource. If water resources will be impacted, the St. Paul District of the Corps of Engineers should be contacted for possible need of a Section 404 permit.

Federally-listed Threatened, Endangered, and Candidate Species

Because of the potential for wind power projects to impact federally-listed species, they are subject to the Endangered Species Act (16 U.S.C. 1531-1544) section 9 provisions governing "take," similar to any other development project. "Take" incidental to a lawful activity may be authorized through the initiation of formal consultation, if a Federal agency is involved. If a federal agency, federal funding, or a federal permit are not involved in the project, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA may be obtained upon completion of a satisfactory habitat conservation plan for the listed species. However, there is no mechanism for authorizing incidental take after the project is constructed and operational.

Currently there are no federally-listed candidate, threatened, or endangered species present within Stearns County. At any point during project planning, construction, or operation should additional information on listed or proposed species become available, or new species are listed that may be affected by the project, consultation should be reinitiated with the Twin Cities Field Office.

The Poweshiek skipper has been identified within the Trisko Waterfowl Production Area (WPA), which is within the proposed project boundary. The Poweshiek skipper has experienced rapid population decline in Minnesota, and the Service is currently analyzing the possibility of listing the species as a candidate under ESA. To minimize any potential impacts to the species or its habitat, placement of turbines within grassland habitats should be avoided. Please contact Rich Davis of our office for assistance in identifying potential Poweshiek skipper habitats within or adjacent to the project boundary. Contact information is provided at the end of this letter.

Migratory Birds

The Migratory Bird Treaty Act (16 U.S.C. 703-712; MBTA) implements four treaties that provide for international protection of migratory birds. The MBTA prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. Bald and golden eagles are afforded additional legal protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d). Unlike the Endangered Species Act, neither the MBTA nor its implementing regulations at 50 CFR Part 21, provide for permitting of “incidental take” of migratory birds.

Monitoring should be conducted to assess the daily movement patterns of any species of raptor whose nest is located within the proposed project site or within two miles of the proposed project site. During the incubation and rearing stage, the location of adult birds should be tracked for at least 4 hours twice per week until consistent activity patterns are established. These monitoring dates will be determined based upon identified species within two miles of the project boundary. Alternate monitoring strategies that assess the degree to which nesting birds utilize the proposed project site will be considered. Information collected will be used to document how frequently the birds enter the proposed project site, and this information can be utilized during micro-siting to minimize substantial risks to birds within close proximity of the project site. There is a record of a bald eagle nest approximately 4 miles northeast of the proposed project site. During other recommended survey work, the project proponent or their consultant should at a minimum take note of any bald eagles flying through or using habitat within the proposed project area, and note the direction of flight, frequency, and foraging areas being utilized.

Shoreland bird and waterfowl species may be prevalent within the proposed project area, as there are wetland complexes within and adjacent to the proposed project boundary. The proposed turbine siting map you provided to our office on March 18, 2010, indicated turbines would be located between the Trisko WPA (Sections 6 and 31) and the Kenna WPA (Sections 9 and 16). There are also turbines proposed to be placed between the aforementioned WPAs and a wetland complex located adjacent to the southwest corner of the proposed project boundary.

The Service recommends observational bird surveys for the Getty Wind Project site to document species, direction of flight, and height of flight. At a minimum, survey points should be selected between the Trisko and Kenna WPAs, and also between both WPAs and the wetland complex adjacent to the southwest corner of the proposed project boundary. There is concern that birds utilizing these WPAs may have an increased likelihood of being struck by a turbine as they move from one WPA to another. The Service would like the project proponent to utilize this flight survey data to assist them in micro-siting the individual turbines.

We also recommend a habitat survey throughout the proposed project site. There are a number of records of upland sandpiper and marbled godwit in the vicinity of the project. Should the habitat survey confirm habitat for any of these aforementioned species, breeding bird surveys may be necessary to determine the utilization of habitat areas within the proposed project site.

The Service's Office of Law Enforcement serves its mission to protect federal trust wildlife species in part by actively monitoring industries known to negatively impact wildlife, and assessing their compliance with Federal law. These industries include oil/gas production sites, cyanide heap/leach mining operations, industrial waste water sites, and wind power sites. There is no threshold as to the number of birds incidentally killed by wind power sites, or other industry, past which the Service will seek to initiate enforcement action. However, the Service is less likely to prioritize enforcement action against a site operator that is cooperative in seeking and implementing measures to mitigate take of protected wildlife.

Migratory Bird Concentration Areas and Conservation Lands

We recommend that no turbines be located within ¼ mile of Conservation Reserve Program, Wetland Reserve Program, or other similar federally- or state-funded restoration projects.

Service-owned Lands

The Trisko WPA is within the proposed project site (Sections 6 and 31). The Kenna WPA is located directly adjacent to the proposed project boundary of the Getty Wind Project (Sections 9 and 16). The Service recommends that during micro-siting no turbines be placed within ½ mile of any WPAs. If feasible, a one-mile setback from WPAs is preferred, which will reduce the potential for striking migratory birds utilizing the open water wetland and grassland habitats located in or associated with these areas.

If turbine locations are selected within 1 mile of any WPA, Getty Wind should complete point count surveys at these turbine locations prior to construction, and post-construction mortality surveys should be completed at these turbine locations.

Interim Service Guidelines

Research into the actual causes of bat and bird collisions with wind turbines is limited. To assist Service field staff in review of wind farm proposals, as well as aid wind energy companies in developing best practices for siting and monitoring of wind farms, the Service published *Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines* (2003). We encourage any company/licensee proposing a new wind farm to consider the following excerpted suggestions from the guidelines in an effort to minimize impacts to migratory birds and bats.

- 1) Pre-development evaluations of potential wind farm sites to be conducted by a team of Federal and/or State agency wildlife professionals with no vested interest in potential sites;
- 2) Rank potential sites by risk to wildlife;
- 3) Avoid placing turbines in documented locations of federally-listed species;
- 4) Avoid locating turbines in known bird flyways or migration pathways, or near areas of high bird concentrations (i.e., rookeries, leks, refuges, riparian corridors, etc.);

- 5) Avoid locating turbines near known bat hibernation, breeding, or maternity colonies, in migration corridors, or in flight paths between colonies and feeding areas;
- 6) Configure turbine arrays to avoid potential avian mortality where feasible. Implement storm water management practices that do not create attractions for birds, and maintain contiguous habitat for area-sensitive species;
- 7) Avoid fragmenting large, contiguous tracts of wildlife habitat;
- 8) Use tubular supports with pointed tops rather than lattice supports to minimize bird perching and nesting opportunities;
- 9) If taller turbines (top of rotor-swept area is greater than 199 feet above ground level) require lights for aviation safety, the minimum amount of lighting specified by the Federal Aviation Administration (FAA) should be used. Unless otherwise requested by the FAA, only white strobe lights should be used at night, and should be of the minimum intensity and frequency of flashes allowable. Red lights should not be used, as they appear to attract night-migrating birds at a higher rate than white lights;
- 10) Adjust tower height to reduce risk of strikes in areas of high risk for wildlife.

The full text of the guidelines is available at <http://www.fws.gov/habitatconservation/wind.pdf>. The Service believes that implementing these guidelines may help reduce mortality caused by wind turbines. We encourage you to consider these guidelines in the planning and design of the project. We particularly encourage placement of turbines away from any large wetland, stream corridor, or wooded areas, and avoiding placing turbines between nearby habitat blocks. If this proposal is to move forward, we strongly recommend that on-the-ground surveys using radar, infrared, and/or acoustic monitoring be conducted during the peak of spring and fall bird migrations and during the breeding season over a period of several years (consistent with the Service's *Interim Guidelines, op. cit.*) to identify breeding and feeding areas and migration stopover sites. Observations made from greater than ¼ mile of target areas are likely to be insufficient to accurately assess bird use of the landscape, particularly if the observer is moving. Generalized ground research survey protocols, such as those followed in the Waterfowl Breeding Population and Habitat Survey (Smith 1995) and the North American Breeding Bird Survey (Pardieck 2001), among others, often do not accept observations made at greater than ¼ mile from the observer due in part to high probabilities of missed detections (R. Russell, personal communication). Furthermore, spring and fall raptor migration surveys may be necessary, as will surveys to document movement patterns of bald eagles that may use the project area or surrounding habitat. We request that any on-the-ground survey protocols are consistent with the Service's *Interim Guidelines* (2003), and be coordinated with this office and with the Minnesota Department of Natural Resources prior to implementation.

Pre-construction Surveys

The Service recommends that Getty Wind and their consultants conduct rigorous assessments of bird and bat use of the area before proceeding with project design (i.e., preliminary siting of specific turbines). We strongly recommend development of a protocol for bird/bat surveys at this site, and specific consideration should be given to the potential for occurrence of marbled godwit and upland sandpiper within the proposed project area. We encourage Getty Wind to maintain consistency with other wind farm survey protocols, thus allowing us to compare results with other wind farm survey data. These comparisons will potentially provide valuable information that can be applied in future wind farm/turbine macro- and micro-siting.

In addition to on-the-ground (point or transect) surveys, we recommend that the assessments include the use of mobile, horizontally- and vertically-scanning radar to study the direction, altitude, and numbers of flying animals moving through and within the project area during the fall and spring migration of birds and bats, and the breeding period of birds in the area. We recommend that radar be employed 24 hours a day, 7 days a week during migration, and at a minimum from dawn to dusk during the breeding period. Radar studies are providing useful information in evaluating bird and bat activity at wind generation sites in Wisconsin, Vermont, Massachusetts and other locations. The use of radar coupled with ground-truthing (surveys) can provide a more complete assessment of bird and bat use of a potential wind project area than point counts or other traditional survey methods alone. Such information could inform project design and minimize potential mortality associated with the project.

We recommend installation of two AnaBat SDI detectors per meteorological tower to be used within the project area, and data should be collected from May 15 - November 15, 2010 and 2011. One AnaBat detector should be mounted at 5 meters above ground, and the other should be mounted as close to the rotor-swept area as possible. The AnaBat's sensitivity should be adjusted to detect a calibration tone at 20 meters. AnaBat units must monitor from 0.5 hour before sunset until 0.5 hour after sunrise. This will help to gauge bat activity and to some degree, to determine bat species/guild composition within the project area during spring and fall migration and the maternity season.

Post-construction Surveys

The Service recommends the project be monitored post-construction to determine impacts to migratory birds and bats. A specific post-construction monitoring plan should be prepared and reviewed by the Service and should include a scientifically robust, peer reviewed methodology of mortality surveys. Generally the Service recommends that surveys be conducted for a minimum of three years following construction to assess impacts to birds and bats. The duration of post-construction surveys is project specific and will be determined based upon pre-construction survey results. We also recommend that the post-construction mortality studies be conducted by an independent third party contractor with expertise in bird/bat mortality monitoring. Results of mortality surveys and other forms of monitoring should be used to adjust operations to reduce mortality if necessary and feasible, as well as improve design and siting of future wind generation facilities. **The Developer or its contractor should provide to this**

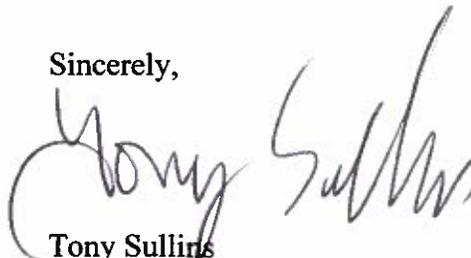
office each year, no later than December 31, copies of annual bird/bat mortality monitoring reports.

Infrastructure Considerations

Development of transmission infrastructure associated with wind facilities also poses risks to wildlife. These risks include potential avian mortality, particularly electrocution of raptors (hawks, eagles, kites, falcons, and owls), that could occur when they attempt to perch on uninsulated or unguarded power poles. Recently published information about which types of power line poles and associated hardware (e.g., wires, transformers and conductors) pose the greatest danger of electrocution to raptors and what modifications can be made to reduce this threat can be found on the internet at <http://www.aplic.org/>.

Thank you for the opportunity to provide comments on this proposed project. Please contact me at (612) 725-3548, ext. 2201, or Rich Davis, Fish and Wildlife Biologist, at (612) 725-3548, ext. 2214, if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "Tony Sullins". The signature is written in a cursive style with a large, looping initial "T".

Tony Sullins
Field Supervisor

cc: Beverly Meyer, USFWS Litchfield WMD
Kevin Mixon, MN DNR