

Bauske, Shelly A.

From: Seck, Timothy [Timothy.Seck@iberdrolausa.com]
Sent: Wednesday, May 13, 2009 3:44 PM
To: -Info-Public Service Commission
Cc: Lein, Jerry R.; Emery, Sarah; Powers, Keith; Mike Manning
Subject: Change in Structure Locations: Case No. PU-05-305
Attachments: PSC Filing Narrative_(4)_bm.docx; Rugby_OHT_PermitPoles20090508_2.pdf

Iberdrola Renewables is in the process of initiating the second phase of construction on the Rugby Wind Project including the construction of the 9.5 mile transmission line that was permitted in Case No. PU-05-305. Iberdrola hopes to start construction of the 230 kV line as early as June 1, 2009. As per the permit, Iberdrola previously submitted a plan and profile in 2005 for the proposed 230 kV transmission line. Iberdrola has recently completed a refinement of the transmission line structure locations that has caused a number of shifts in the proposed structure locations as indicated in the attached memo and maps. The majority of the shifts are meant to put the proposed transmission structures in closer alignment with the existing Xcel line which will make it easier for farmers to cultivate around the structures. The remaining few shifts were designed to either avoid wetlands further delineated, ensure safe crossings of the railroad and better spacing going out of the Iberdrola substation.

A plan and profile is expected to be available electronically to the Commission on Friday of this week with a hard copy available on Monday of next week.

Iberdrola appreciates the Commission's consideration of this filing. Please do not hesitate to contact me if I can provide additional information.

Sincerely,

Tim Seck



Tim Seck
Director, Wind Development
2221 Riverwood Place St. Paul, MN 55104
612.214.0358 Office/Cell



In the interests of the environment, please print only if necessary and recycle

This message is intended for the exclusive attention of the address(es) indicated. Any information contained herein is strictly confidential and privileged, especially as regards person data, which must not be disclosed. If you are the intended recipient and have received it by mistake or learn about it in any other way, please notify us by return e-mail and delete this message from your computer system. Any unauthorized use, reproduction, alteration, filing or sending of this message and/or any attached files to third parties may lead to legal proceedings being taken. Any opinion expressed herein is solely that of the author(s) and does not necessarily represent the opinion of Iberdrola. The sender does not guarantee the integrity, speed or safety of this message, not accept responsibility for any possible damage arising from the interception, incorporation of virus or any other manipulation carried out by third parties.

86 **PU-05-305** Filed: 5/13/2009 Pages: 14
Email, List and Maps of Structure Location Changes

Structure locations for the 230 kV overhead transmission line for the Rugby Wind Farm project were filed with the North Dakota Public Services Commission (PSC) on September 23, 2005. During the final design process, some of these structure locations have moved due to design refinements, landowner requests, and regulatory requirements. Below is a table which outlines the changes to structure locations incorporated into the final design. Structure moves under 10 feet were not included.

Table 1. Structure Location Changes between 2005 Filing and 2009 Design for 230 kV Overhead Transmission

Structure Number	Distance Moved (ft)	Direction	Move Description
1	New		Design Refinement: Pole next to substation.
2	58.4	SW	Design Refinement: Substation interconnection point required line deflection to West.
3	126.9	SW	Design Refinement: Substation interconnection point required line deflection to West.
4	135.1	NW	Design Refinement: Substation interconnection point required line deflection to West. Move structure to be in better alignment with existing 230 kV structure.
5	24.4	W	Design Refinement: Substation interconnection point required line deflection to West. Remains in-line with Xcel structure.
6	41.4	W	Design Refinement: Substation interconnection point required line deflection to West. Remains in-line with Xcel structure.
7	42.4	W	Design Refinement: Substation interconnection point required line deflection to West. More in-line with Xcel structure. In-line with existing line structure.
8	46.0	W	Design Refinement: Substation interconnection point required line deflection to West. In-line with existing structure.
10	54.6	S	Design Refinement. More in –line with existing line structure.
11	51.0	S	Design Refinement. More in-line with existing structure.
12	61.6	S	Design Refinement: Spread span changes for 13-14 over multiple poles.

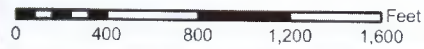
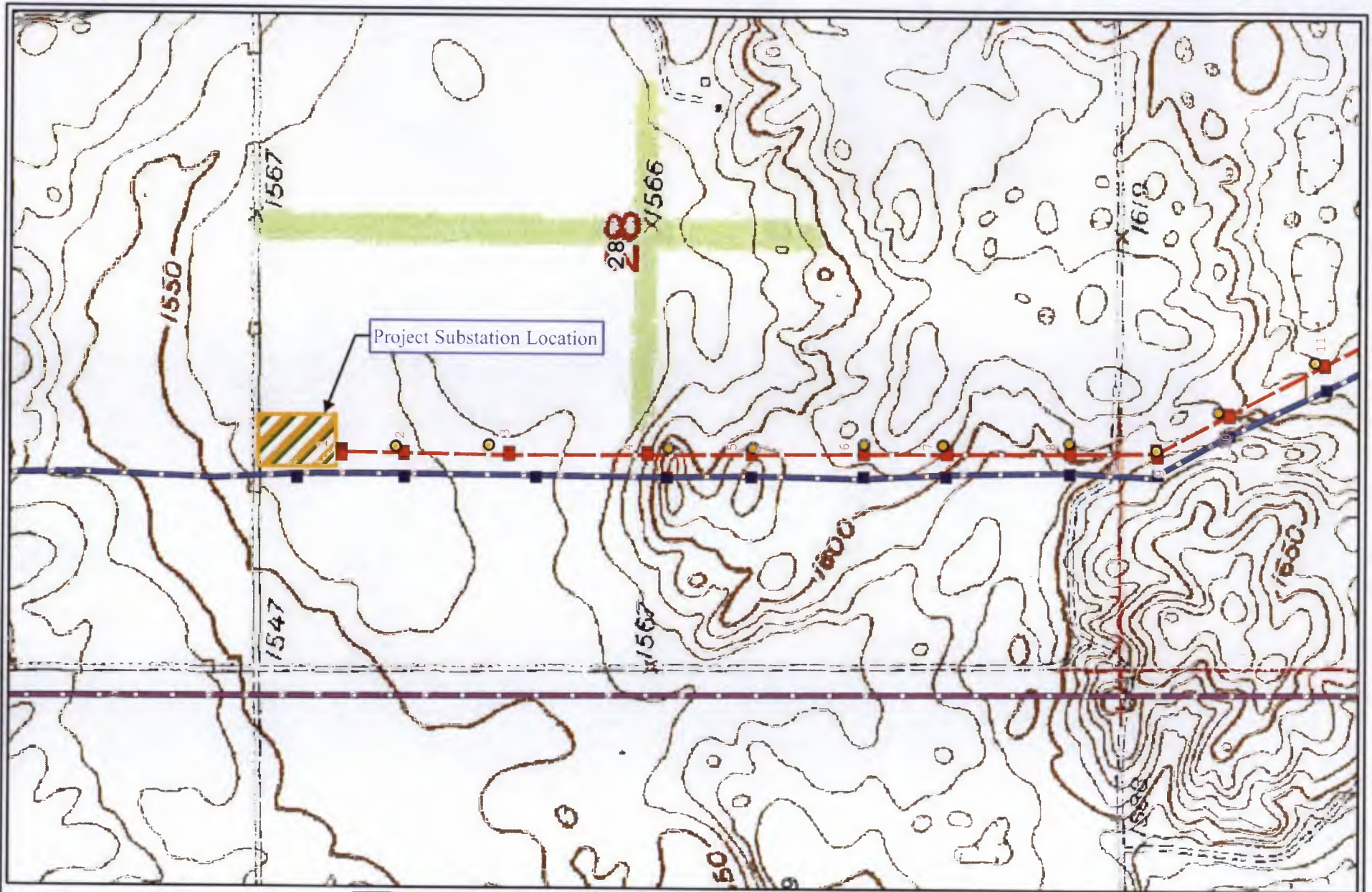
13	206.8	SE	Equalized distance between adjacent structures. Structure moved to field edge to minimize span across USFWS wetland easement.
14	282.1	SE	Structure moved out of FWS Wetland.
15	60.3	SE	Design Refinement. More in-line with existing structure.
16	53.7	SE	Design Refinement. More in-line with existing structure.
17	74.4	SE	Design Refinement. More in-line with existing structure.
18	62.7	NW	Design Refinement. More in-line with existing structure.
19	53.4	SE	Design Refinement. More in-line with existing structure.
21	64.0	SE	Design Refinement. More in-line with existing structure.
22	52.7	SE	Design refinement to reduce long span length to structure 23.
23	New		Structure added to reduce span length between structures 22 and 24.
24	52.2	SE	Design Refinement. More in-line with existing structure.
25	12.1	N	Design Refinement. Remains in-line with existing structure.
26	17.0	S	Design Refinement. Remains in-line with existing structure.
27	18.8	W	Design Refinement. Remains in-line with existing structure.
28	13.8	N	Design Refinement. Remains in-line with existing structure.
29	21.4	N	Design Refinement. Remains in-line with existing structure.
30	36.7	N	Design Refinement.
31	32.1	N	Design Refinement. Remains in-line with existing structure.
32	13.3	S	Design Refinement. Remains in-line with existing structure.
33	26.7	S	Design Refinement. Remains in-line with existing structure.
34	21.9	W	Design Refinement. Remains in-line with existing structure.
35	22.1	SW	Design Refinement. Remains in-line with existing structure.

37	29.2	N	Design Refinement.
38	17.0	S	Design Refinement. Remains in-line with existing structure.
41	13.2	SW	Design Refinement. Remains in-line with existing structure.
42	21.1	W	Design Refinement. Remains in-line with existing structure.
46	31.7	NW	Design Refinement.
47	55.7	W	Design Refinement. More in-line with existing structure.
48	38.8	W	Design Refinement. More in-line with existing structure.
49	54.6	W	Design Refinement. More in-line with existing structure.
50	53.4	W	Design Refinement. More in-line with existing structure.
51	47.2	W	Design Refinement. More in-line with existing structure.
52	18.5	NE	Design Refinement.
62	13.2	NE	Design Refinement.
63	21.0	NE	Design Refinement.
64	20.6	NE	Design Refinement.
67	12.3	S	Design Refinement.
68	41.6	S	Design Refinement.
69	27.5	N	Design Refinement.
70	81.9	N	Design Refinement. Equalize span between 69-71.
71	118.8	N	Design refinement to reduce span length to structure 70, while keeping structure 71 out of wetland.
72	New		Structure added to reduce span length from structures 71-73 for road and BNSF Railway crossings. Structure placement limited in this area due to railroad easement.
73	27.0	S	Design Refinement.
75	10.7	S	Design Refinement.

76	21.9	S	Design Refinement.
77	59.6	N	Design Refinement.
78	29.2	S	Design Refinement.
80	24.0	S	Design Refinement.
82	16.2	N	Design Refinement.
83	14.8	N	Design Refinement.
84	11.4	S	Design Refinement.

The majority of the changes in structure placement for the project are a results of minor engineering refinements generated during the final design process. Only twenty-two of the sixty-two (35%) changes to previous structure locations were over 50 feet.

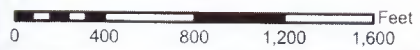
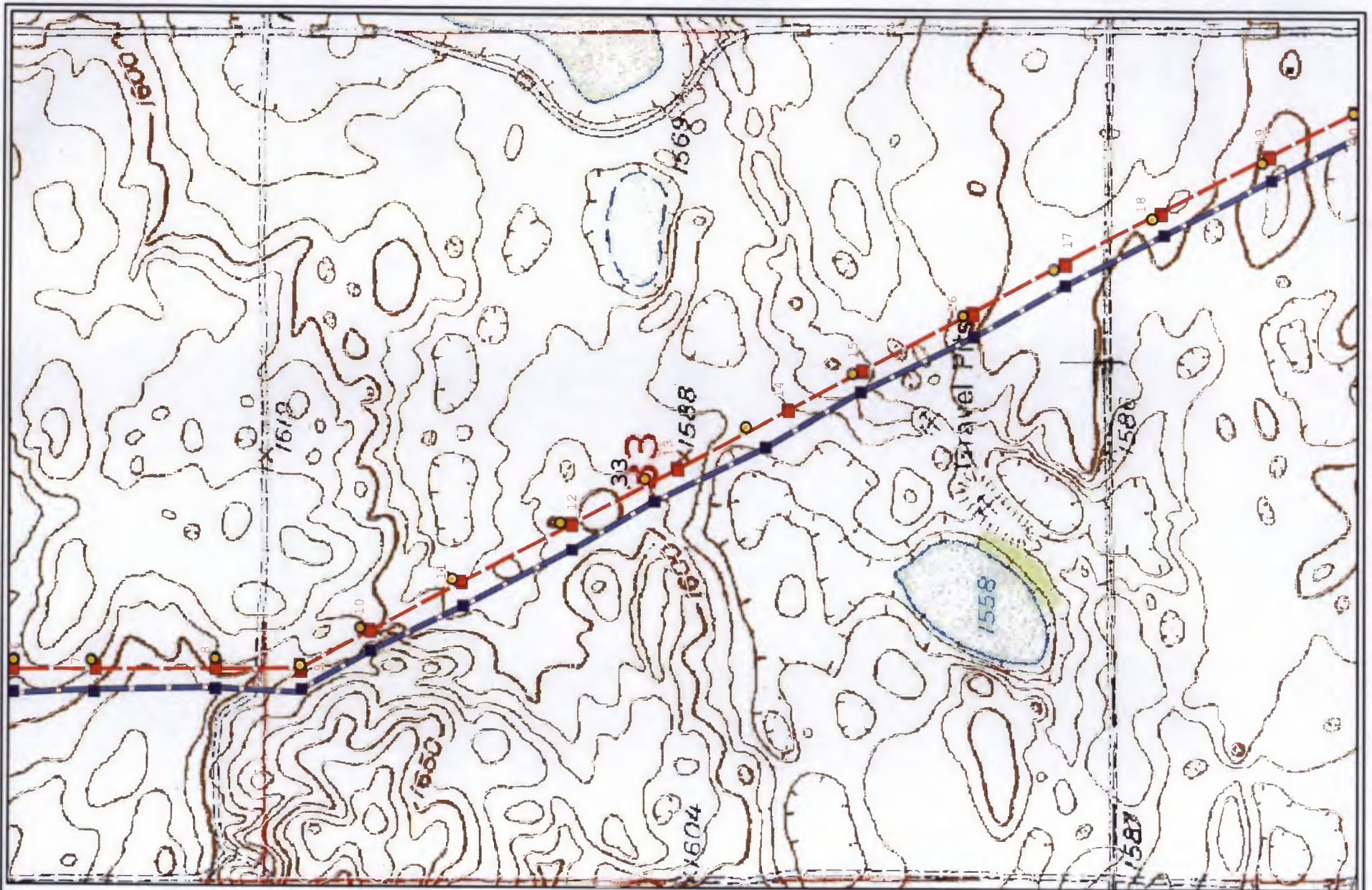
Additionally, three new structures were added to the layout. Structure 1 was added adjacent to the substation. Structure 23 was added to reduce the total span length between structures 22 and 24. Structure movement in this area was restricted by a road crossing and a nearby residence. Structure 72 was added to reduce the total span length between structures 71 and 73. Structure movement in this area was restricted by a railroad crossing and a USACE jurisdictional wetland.



Legend	
	2005 PSC Permit Pole Locations
	Existing OHT Pole Locations
	Proposed 230 kV Pole Locations
	Proposed Substation Location
	Proposed 230 kV Transmission Line
	Existing 115 kV Transmission Line
	Existing 230 kV Transmission Line

Figure 1-1

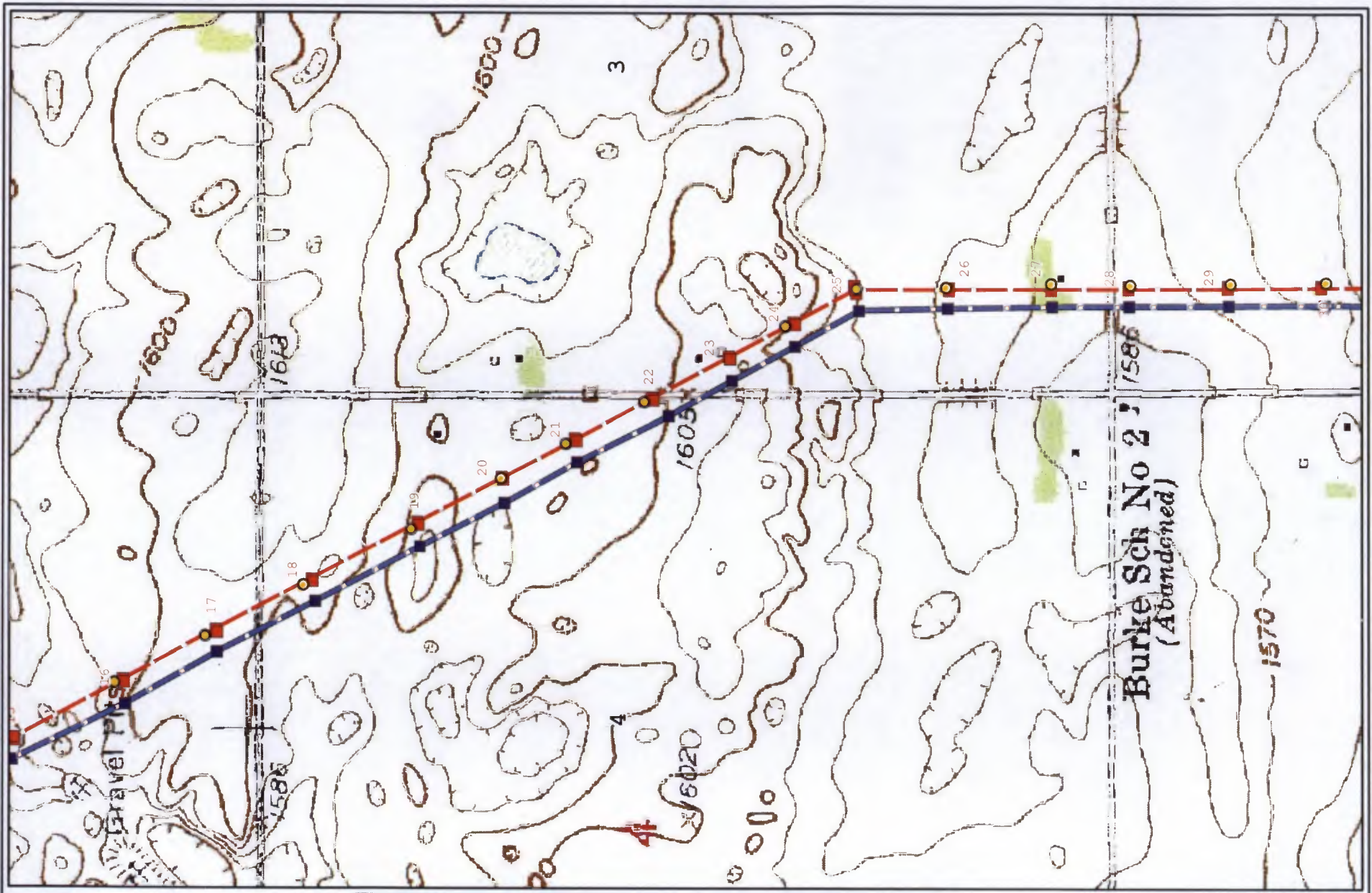
2005 Permit and 2009 Design Pole Locations Rugby Wind Farm



Legend	
	2005 PSC Permit Pole Locations
	Proposed 230 kV Transmission Line
	Existing 230 kV Transmission Line
	Existing 115 kV Transmission Line
	Proposed 230 kV Pole Locations
	Existing OHT Pole Locations
	Proposed Substation Location

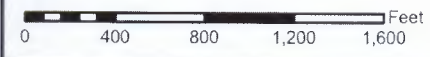
Figure 1-2

2005 Permit and 2009 Design Pole Locations Rugby Wind Farm



HDR

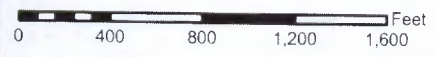
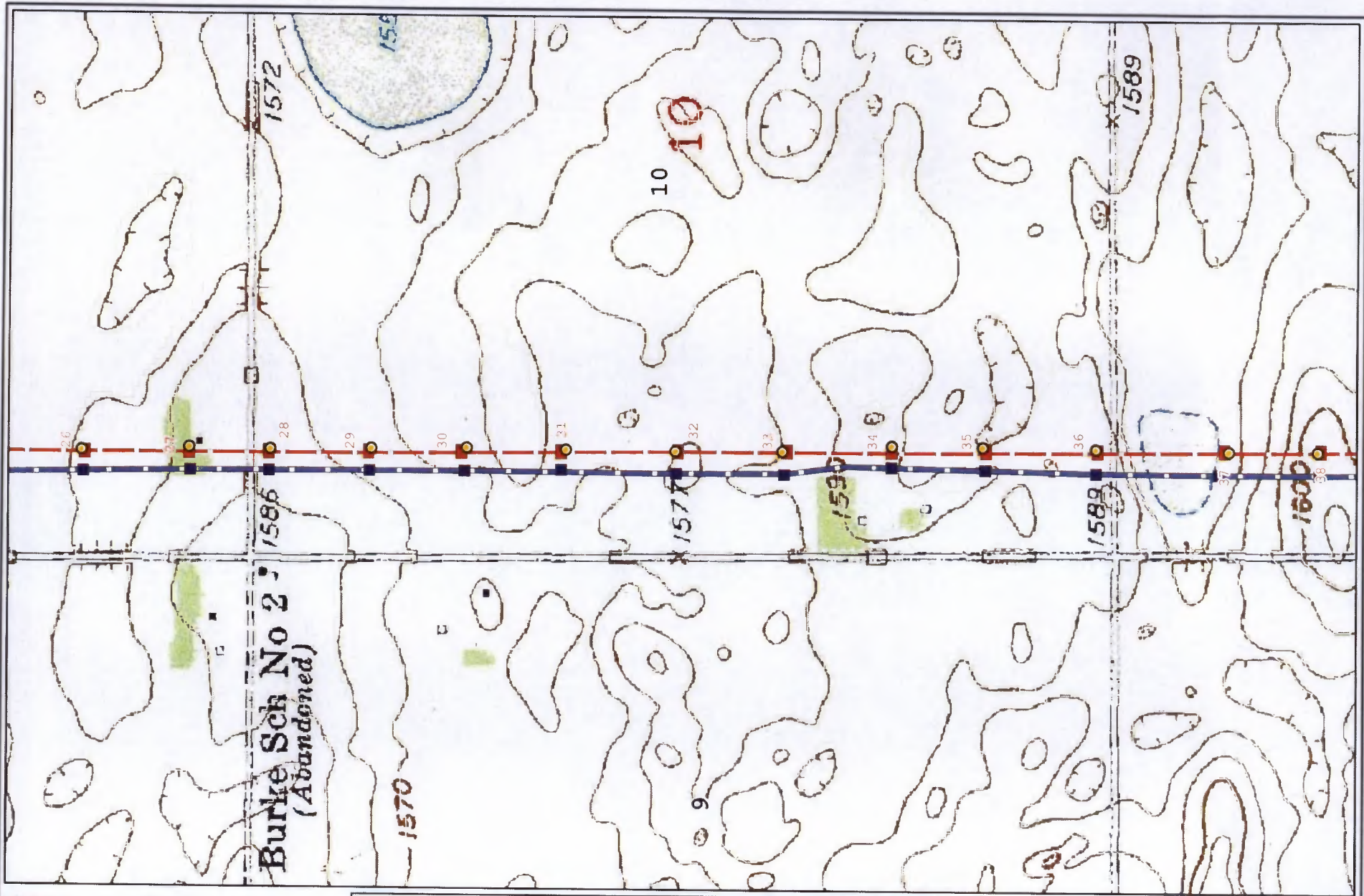
IBERDROLA RENEWABLES



Legend	
	2005 PSC Permit Pole Locations
	Existing OHT Pole Locations
	Proposed 230 kV Pole Locations
	Proposed Substation Location
	Proposed 230 kV Transmission Line
	Existing 115 kV Transmission Line
	Existing 230 kV Transmission Line

Figure 1-3

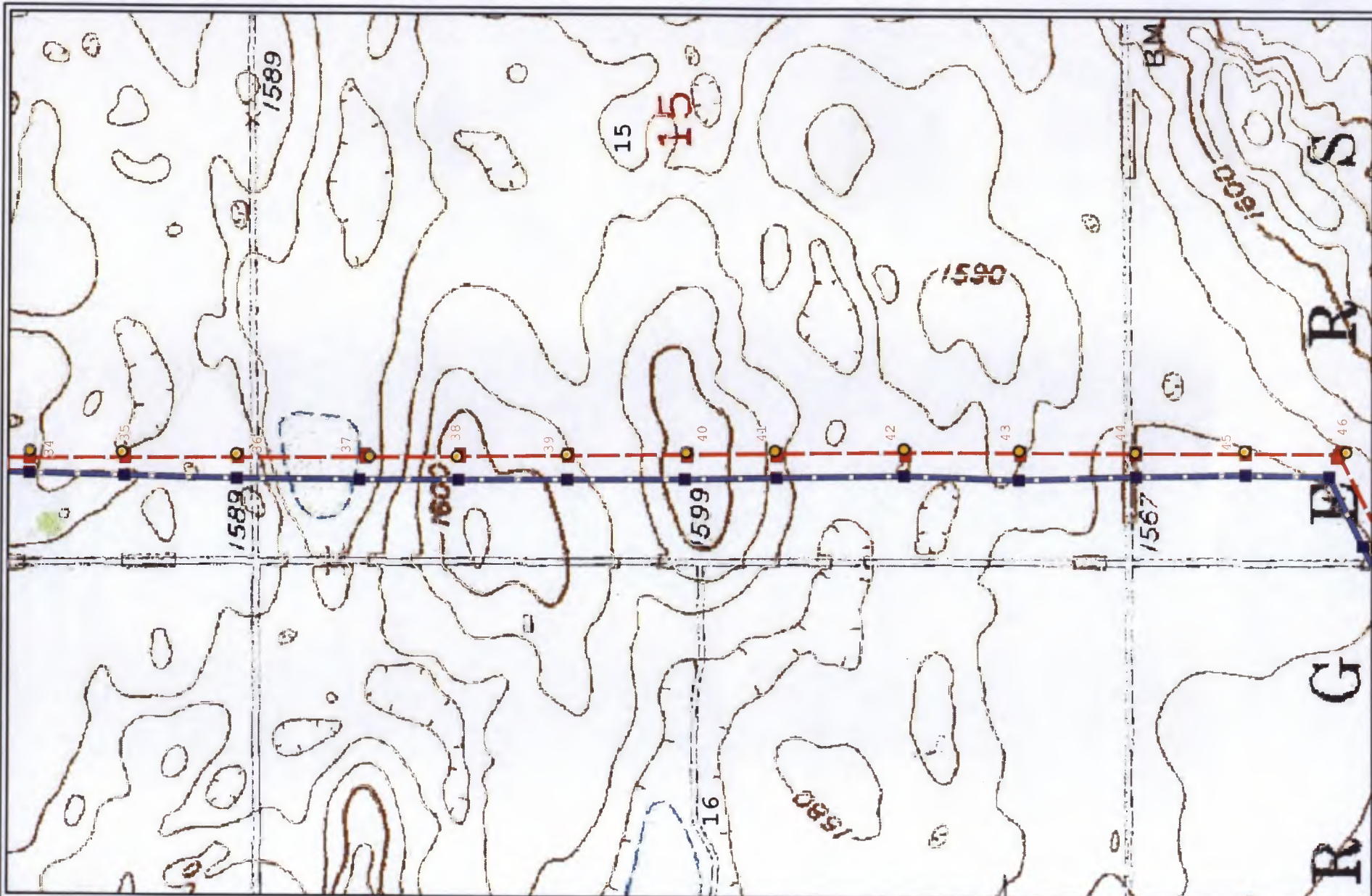
2005 Permit and 2009 Design Pole Locations Ruby Wind Farm



Legend	
	2005 PSC Permit Pole Locations
	Existing OHT Pole Locations
	Proposed 230 kV Pole Locations
	Proposed Substation Location
	Proposed 230 kV Transmission Line
	Existing 115 kV Transmission Line
	Existing 230 kV Transmission Line

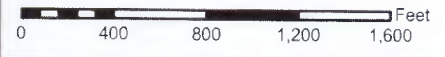
Figure 1-4

2005 Permit and 2009 Design Pole Locations Rugby Wind Farm



HDR

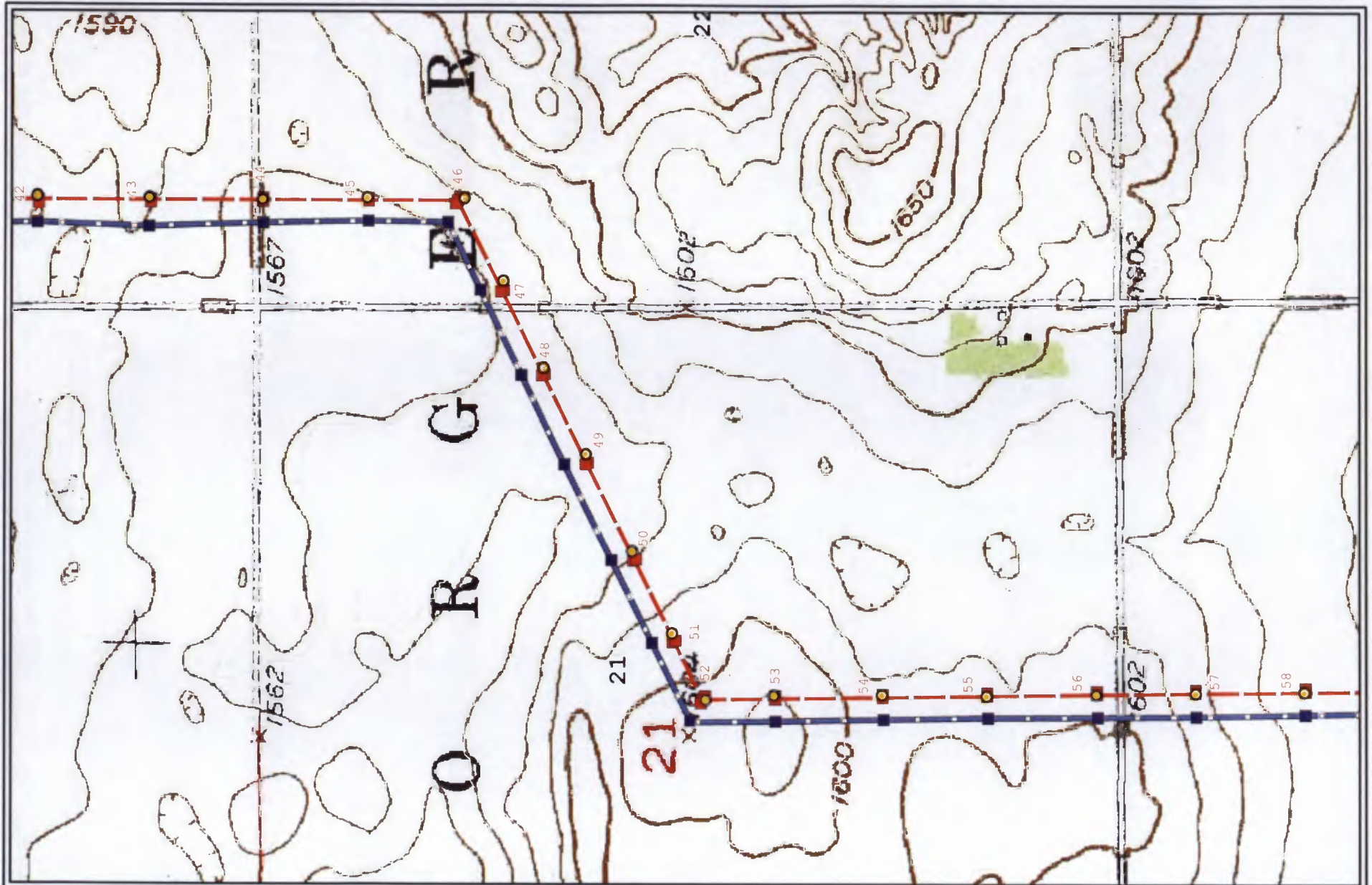
**IBERDROLA
RENEWABLES**



Legend	
	2005 PSC Permit Pole Locations
	Existing OHT Pole Locations
	Proposed 230 kV Pole Locations
	Proposed Substation Location
	Proposed 230 kV Transmission Line
	Existing 115 kV Transmission Line
	Existing 230 kV Transmission Line

Figure 1-5

2005 Permit and 2009 Design
Pole Locations
Rugby Wind Farm



HDR

IBERDROLA
RENEWABLES



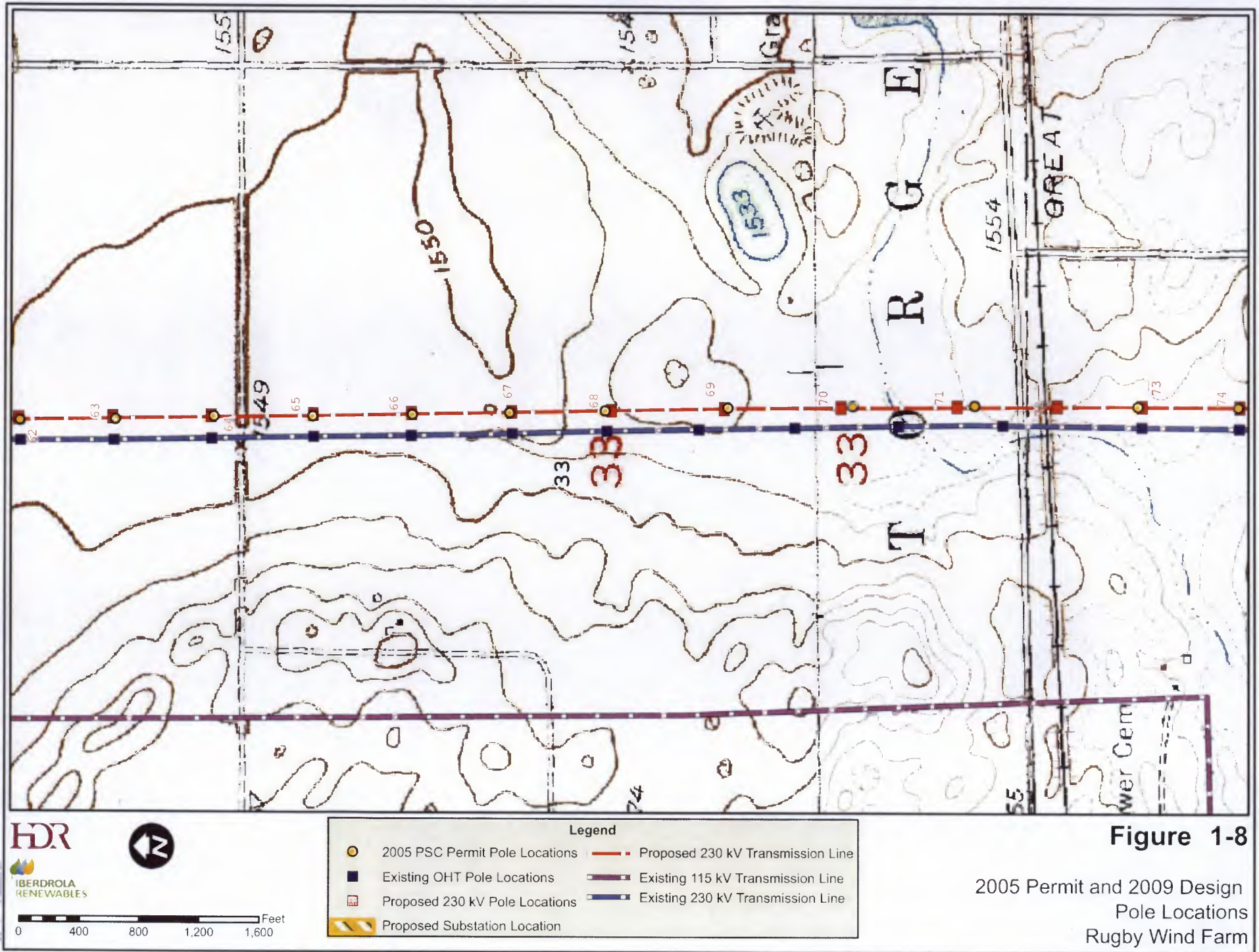
0 400 800 1,200 1,600 Feet

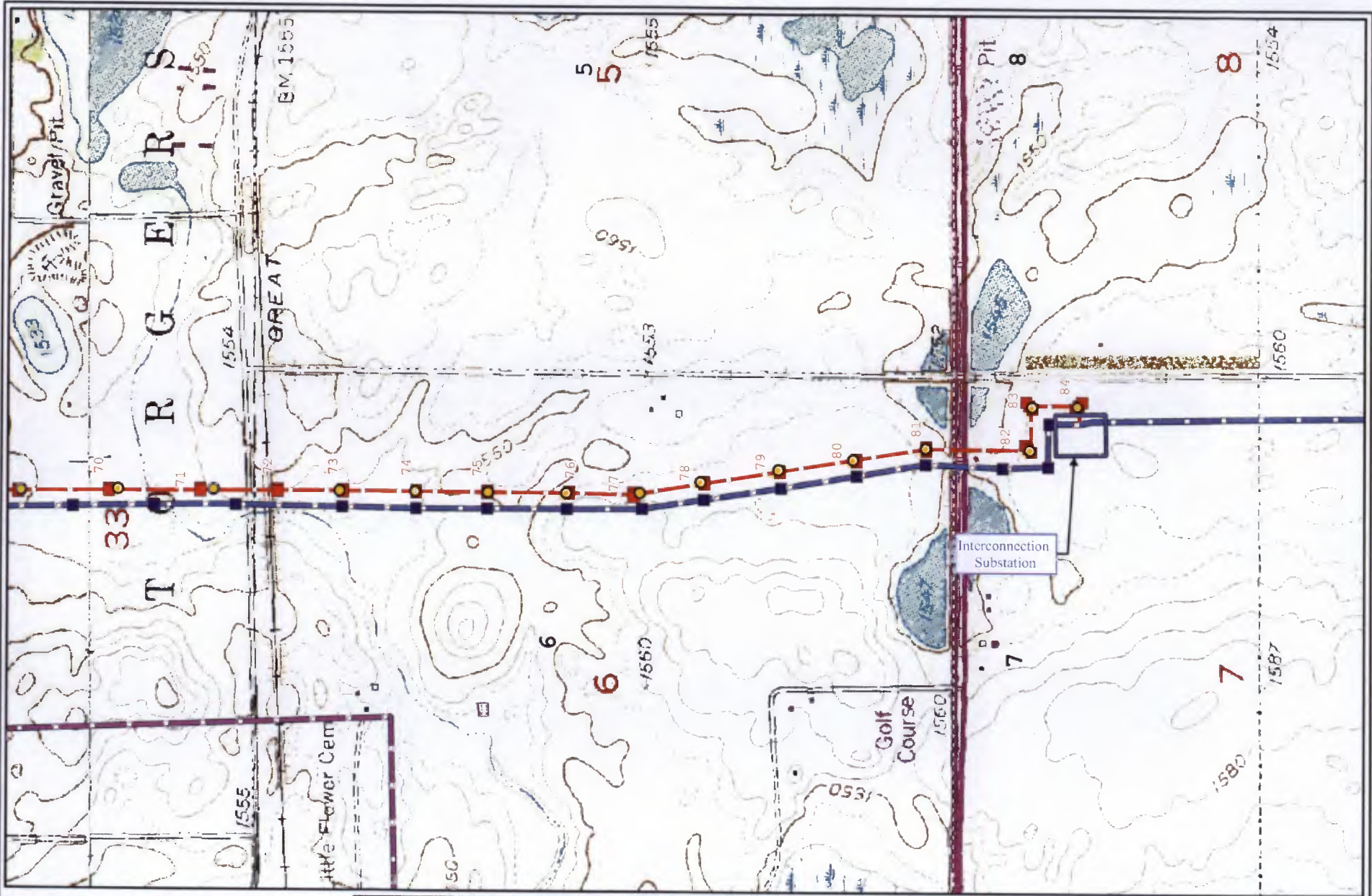
Legend

2005 PSC Permit Pole Locations	Proposed 230 kV Transmission Line
Existing OHT Pole Locations	Existing 115 kV Transmission Line
Proposed 230 kV Pole Locations	Existing 230 kV Transmission Line
Proposed Substation Location	

Figure 1-6

2005 Permit and 2009 Design
Pole Locations
Rugby Wind Farm





Legend	
	2005 PSC Permit Pole Locations
	Existing OHT Pole Locations
	Proposed 230 kV Pole Locations
	Proposed Substation Location
	Proposed 230 kV Transmission Line
	Existing 115 kV Transmission Line
	Existing 230 kV Transmission Line

Figure 1-9

2005 Permit and 2009 Design Pole Locations Rugby Wind Farm