BUFFALO RIDGE II WIND FARM

,

## Appendix G Cultural Resources

IBERDROLA RENEWABLES

APPENDIX G

October 2008

.

South Dakota Codified Laws 49-41B-11(11) and 49-41B-22 state that:

"The applicant shall include an identification and analysis of the effects the construction, operation, and maintenance of the proposed facility would have on the anticipated affected area including ...a forecast of the impact on landmarks and cultural resources of historic, religious, archaeological, scenic, natural, or other cultural significance."

In order to meet this identification and analysis requirement, in May, August, and October 2008 the Applicant sponsored a desktop review of exitisting cultural resources records on file at the:

- South Dakota Archaeological Research Center (ARC) (134 locations)
- South Dakota State Register of Historic Places (0 locations), and;
- National Register of Historic Places (0 locations).

The Applicant reviewed these existing records within the entire Project boundary. Table 1 and Table 2 list the properties identified during that desktop review.

 Table 1

 Inventoried archaeological site locations within the Buffalo Ridge II Project

 boundary

County	Site Number	Site Description	Township- Range- Section	Comments
Brookings	39 <b>BK0</b> 004	Native American artifact scatter	T112N, R48W, S35	Unevaluated
Brookings	39BK0010	Unknown faunal/paleontological	T111N, R47W, S19	Unevaluated
Brookings	39BK0063	Native American isolated find	T112N, R49W, S25	Not Eligible
Brookings	39BK0066	Native American isolated find	T112N, R48W, S34	Not Eligible
Brookings	39BK0067	Native American isolated find	T112N, R48W, S34	Unevaluated
Brookings	39BK0070	Euro-American school foundation	T111N, R48W, S4	Unevaluated
Brookings	39BK0071	Native American isolated find	T111N, R48W, S4	Not Eligible
Brookings	39BK0088	Native American isolated find	T112N, R48W,	Not Eligible

County	Site	<u></u>	Township-	
	Number	Site Description	Range- Section	Comments
			S28	
Brookings	39BK0136	Native American artifact scatter	T111N, R48W, S24	Not Eligible
Brookings	39BK0138	Native American isolated find	T111N, R48W, S13	Not Eligible
Brookings	39BK0147	Native American isolated find	T111N, R48W, S25	Not Eligible
Brookings	39BK0148	Native American isolated find	T111N, R48W, S25	Not Eligible
Brookings	39BK0150	Native American artifact scatter	T111N, R48W, S25	Not Eligible
Brookings	39BK0151	Native American isolated find	T111N, R48W, S24	Not Eligible
Brookings	39BK0152	Native American isolated find	T111N, R48W, S24	Not Eligible
Brookings	39BK0153	Native American artifact scatter	T111N, R48W, S13	Not Eligible
Brookings	39BK0154	Native American isolated find	T111N, R48W, S13	Not Eligible
Brookings	39BK0155	Native American isolated find	T111N, R48W, S13	Not Eligible
Brookings	39BK0157	Euro-American artifact scatter	T111N, R48W, S24	Not Eligible
Brookings	N/A	Probable Native American mound or earthwork locations	T112N, R48W, S36; T111N, R48W, S1	Survey ABK-0014 (Lewis); need confirmation of location and condition
Deuel	39DE0003	Native American artifact scatter	T113N, R48W, S31	Unevaluated
Deuel	39DE0004	Euro-American,	T113N,	Unevaluated

County	Site Number	Site Description	Township- Range- Section	Comments
		Native American artifact scatter(s)	R49W, S25	
Deuel	39DE0010	Native American stone circle	T113N, R48W, S34	Unevaluated

 Table 2

 Inventoried standing structure locations within the Buffalo Ridge II Project boundary

County	SHPO ID	Function	Township-Range- Section	Eligibility
Brookings	BK0000009	Bridge	T112N, R48W, S30	Not Eligible
Brookings	BK00000014	Bridge	T112N, R48W, S32	Eligible
Brookings	BK00000192	Agricultural/ Subsistence	T111N, R47W, S30	Unevaluated
Brookings	BK00000193	Agricultural/ Subsistence	T111N, R47W, S30	Unevaluated
Brookings	BK00000386	Agricultural/ Subsistence	T111N, R47W, S19	Unevaluated
Brookings	BK00000674	Agricultural/ Subsistence	T112N, R48W, S30	Unevaluated
Brookings	BK00000681	Agricultural/ Subsistence	T112N, R48W, S33	Unevaluated
Brookings	BK00000682	Agricultural/ Subsistence	T112N, R48W, S33	Unevaluated
Brookings	BK00000683	Agricultural/ Subsistence	T112N, R48W, S34	Unevaluated
Brookings	BK00000684	Agricultural/ Subsistence	T112N, R48W, S34	Unevaluated
Brookings	BK00000685	Agricultural/ Subsistence	T112N, R48W, S35	Unevaluated
Brookings	BK00000686	Agricultural/ Subsistence	T112N, R48W, S35	Unevaluated
Brookings	BK00000751	Bridge	T112N, R48W, S29	Unevaluated
Brookings	BK00000764	Agricultural/ Subsistence	T112N, R48W, S2	Unevaluated
Brookings	BK00000774	Agricultural/ Subsistence	T112N, R48W, S1	Unevaluated
Brookings	BK00000776	Agricultural/ Subsistence	T112N, R48W, S30	Unevaluated
Brookings	BK00000779	Agricultural/ Subsistence	T112N, R49W, S14	Unevaluated

County	SHPO ID	Function	Township-Range- Section	Eligibility
Brookings	BK00000795	Agricultural/ Subsistence	T112N, R49W, S23	Unevaluated
Brookings	BK00000796	Agricultural/ Subsistence	T112N, R49W, S24	Unevaluated
Brookings	BK00000797	Agricultural/ Subsistence	T112N, R49W, S24	Unevaluated
Brookings	BK00000798	Agricultural/ Subsistence	T112N, R49W, S25	Unevaluated
Brookings	BK00000799	Agricultural/ Subsistence	T112N, R49W, S25	Unevaluated
Brookings	BK00000800	Agricultural/ Subsistence	T112N, R49W, S25	Unevaluated
Brookings	BK00000882	Agricultural/ Subsistence	T112N, R48W, S29	Unevaluated
Brookings	BK00000893	Agricultural/ Subsistence	T112N, R49W, S11	Unevaluated
Brookings	BK00000895	Agricultural/ Subsistence	T112N, R49W, S1	Unevaluated
Brookings	BK00000896	Agricultural/ Subsistence	T112N, R49W, S2	Unevaluated
Brookings	BK00000897	Agricultural/ Subsistence	T112N, R49W, S2	Unevaluated
Brookings	BK00000898	Agricultural/ Subsistence	T112N, R49W, S4	Unevaluated
Brookings	BK00000899	Agricultural/ Subsistence	T112N, R49W, S4	Unevaluated
Brookings	BK00000904	Agricultural/ Subsistence	T112N, R49W, S10	Unevaluated
Brookings	BK00000906	Agricultural/ Subsistence	T112N, R49W, S11	Unevaluated
Brookings	BK00000907	Agricultural/ Subsistence	T112N, R49W, S11	Unevaluated
Brookings	BK00000908	Agricultural/ Subsistence	T112N, R49W, S12	Unevaluated
Brookings	BK00000910	Agricultural/ Subsistence	T112N, R49W, S26	Unevaluated
Brookings	BK00000911	Agricultural/ Subsistence	T112N, R48W, S2	Unevaluated
Brookings	BK00000912	Agricultural/ Subsistence	T112N, R48W, S2	Unevaluated
Brookings	BK00000913	Agricultural/ Subsistence	T112N, R48W, S2	Unevaluated
Brookings	BK00000914	Agricultural/ Subsistence	T112N, R48W, S4	Unevaluated
Brookings	BK00000926	Agricultural/ Subsistence	T112N, R49W, S1	Unevaluated
Brookings	BK00000928	Agricultural/ Subsistence	T112N, R48W, S5	Unevaluated
Brookings	BK00000940	Agricultural/ Subsistence	T112N, R48W, S18	Unevaluated

 $\{ \bar{} \}$ 

County	SHPO ID	Function	Township-Range- Section	Eligibility
Brookings	BK00000941	Agricultural/ Subsistence	T112N, R48W, S18	Unevaluated
Brookings	BK00000942	Domestic	T112N, R48W, S19	Unevaluated
Brookings	BK00000943	Agricultural/ Subsistence	T112N, R48W, S20	Unevaluated
Brookings	BK00000944	Agricultural/ Subsistence	T112N, R48W, S20	Unevaluated
Brookings	BK00000945	Agricultural/ Subsistence	T112N, R48W, S20	Unevaluated
Brookings	BK00000946	Agricultural/ Subsistence	T112N, R48W, S21	Unevaluated
Brookings	BK00000947	Agricultural/ Subsistence	T112N, R48W, S21	Unevaluated
Brookings	BK00000948	Agricultural/ Subsistence	T112N, R48W, S22	Unevaluated
Brookings	BK00000949	Domestic	T112N, R48W, S4	Unevaluated
Brookings	BK00000950	Agricultural/ Subsistence	T112N, R48W, S22	Unevaluated
Brookings	BK00000951	Agricultural/ Subsistence	T112N, R48W, S16	Unevaluated
Brookings	BK00000953	Bridge	T112N, R48W, S26	Unevaluated
Brookings	BK00000954	Agricultural/ Subsistence	T112N, R48W, S25	Unevaluated
Brookings	BK00000955	Agricultural/ Subsistence	T112N, R48W, S25	Unevaluated
Brookings	BK00000957	Agricultural/ Subsistence	T112N, R48W, S28	Unevaluated
Brookings	BK00000958	Agricultural/ Subsistence	T112N, R48W, S28	Unevaluated
Brookings	BK00000959	Agricultural/ Subsistence	T112N, R48W, S28	Unevaluated
Brookings	BK00000961	Agricultural/ Subsistence	T112N, R48W, S22	Unevaluated
Brookings	BK00000962	Agricultural/ Subsistence	T112N, R48W, S11	Unevaluated
Brookings	BK00000964	Agricultural/ Subsistence	T112N, R48W, S6	Unevaluated
Brookings	BK00000965	Agricultural/ Subsistence	T112N, R48W, S6	Unevaluated
Brookings	BK00000966	Agricultural/ Subsistence	T112N, R48W, S6	Unevaluated
Brookings	BK00000967	Agricultural/ Subsistence	T112N, R48W, S6	Unevaluated
Brookings	BK00000968	Agricultural/ Subsistence	T112N, R48W, S8	Unevaluated
Brookings	BK00000969	Agricultural/ Subsistence /Subsistence	T112N, R48W, S9	Unevaluated
Brookings	BK00000970	Agricultural/ Subsistence	T112N, R48W, S9	Unevaluated

County	SHPO ID	Function	Township-Range- Section	Eligibility
Brookings	BK00000971	Agricultural/ Subsistence	T112N, R48W, S9	Unevaluated
Brookings	BK00000972	Bridge	T112N, R48W, S19	Unevaluated
Brookings	BK00000973	Agricultural/ Subsistence	T112N, R48W, S10	Unevaluated
Brookings	BK00000981	Agricultural/ Subsistence	T112N, R48W, S14	Unevaluated
Brookings	BK00000983	Agricultural/ Subsistence	T112N, R48W, S14	Unevaluated
Brookings	BK00000984	Domestic	T112N, R48W, S4	Unevaluated
Brookings	BK00000985	Agricultural/ Subsistence	T112N, R48W, S9	Unevaluated
Brookings	BK00001141	Education	T112N, R48W, S28	Unevaluated
Brookings	BK00001385	Agricultural/ Subsistence	T111N, R47W, S6	Unevaluated
Brookings	BK00001386	Agricultural/ Subsistence	T111N, R47W, S6	Unevaluated
Brookings	BK00001391	Agricultural/ Subsistence	T111N, R47W, S7	Unevaluated
Brookings	BK00001401	Agricultural/ Subsistence	T111N, R47W, S7	Unevaluated
Brookings	BK00001639	Agricultural/ Subsistence	T112N, R48W, S28	Unevaluated
Brookings	BK00001897	Agricultural/ Subsistence	T112N, R48W, S36	Unevaluated
Brookings	BK00002180	Bridge	T112N, R48W, S6	Not Eligible
Brookings	BK00002181	Bridge	T112N, R48W, S30	Not Eligible
Brookings	BK00002183	Bridge	T112N, R48W, S32	Not Eligible
Brookings	BK00002188	Bridge	T112N, R48W, S23	Not Eligible
Brookings	BK00002189	Bridge	T111N, R48W, S12	Not Eligible
Brookings	BK00002192	Bridge	T111N, R47W, S7	Not Eligible
Brookings	BK00002193	Bridge	T112N, R47W, S31	Not Eligible
Deuel	DE0000009	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE00000010	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE0000071	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE00000072	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE0000073	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE00000074	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE00000075	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE0000076	Commercial/Residential	T113N, R48W, S30	Not Eligible
Deuel	DE00000078	Commercial/Residential	T113N, R48W, S30	Eligible
Deuel	DE00000141	Commercial/Residential	T113N, R48W, S35	Not Eligible
Deuel	DE00000142	Commercial/Residential	T113N, R48W, S35	Not Eligible

County	SHPO ID	Function	Township-Range- Section	Eligibility
Deuel	DE00000143	Commercial/Residential	T113N, R48W, S35	Not Eligible
Deuel	DE00000144	Commercial/Residential	T113N, R48W, S35	Not Eligible
Deuel	DE00000145	Commercial/Residential	T113N, R48W, S35	Not Eligible
Deuel	DE00000146	Commercial/Residential	T113N, R48W, S26	Not Eligible
Deuel	DE00000147	Commercial/Residential	T113N, R48W, S26	Eligible
Deuel	DE00000148	Education	T113N, R48W, S26	Not Eligible
Deuel	DE00000149	Commercial/Residential	T113N, R48W, S26	Eligible
Deuel	DE00000153	Commercial/Residential	T113N, R48W, S35	Not Eligible
Deuel	DE00000157	Commercial/Residential	T113N, R48W, S35	Not Eligible
Deuel	DE00000160	Commercial/Residential	T113N, R48W, S26	Not Eligible
Deuei	DE00000170	Bridge	T113N, R49W, S28	Not Eligible

Previous cultural resource surveys within the Project footprint identified 21 resources and 2 probable resource locations. The 23 resources include:

- 18 Native American artifact scatters and/or isolated finds. Fourteen of these resources have been recommended or determined through consensus to be not eligible for listing on the National Register of Historic Places (NRHP). Four have not been evaluated for listing on the NRHP;
- Two historic-period, Euro-American artifact scatters and/or foundations. One of these resources has been recommended or determined through consensus to be not eligible for listing on the NRHP. The other has not been evaluated for listing on the NRHP;
- One reported faunal/Paleontological location of unknown origin. It has not been evaluated for listing on the NRHP;
- One probable stone circle location that has not been confirmed, and;
- One probable location of a group of earthworks reported in the T.H. Lewis Notes for Brookings County.

Standing structures locations in the Project footprint were previously inventoried, and some were evaluated for listing on the NRHP. These 111 structure locations, each recorded with a binomial as an individual structure or as a distinct, cohesive unit, illustrate a typical cross-section of rural, Euro-American functional types, including:

- 73 agricultural/subsistence locations, each not yet evaluated for listing on the NRHP;
- 20 commercial/residential locations, namely nine in the town of Toronto (one is eligible) and 11 in nearby Astoria (two are eligible);
- 13 bridges, namely one recommended or determined through consensus to be eligible for listing on the NRHP, nine recommended or determined through consensus to be not eligible for listing on the NRHP, and three not yet evaluated for listing on the NRHP;

 $\left\{ \begin{array}{c} \\ \end{array} \right\}$ 

## **Cultural Resources**

£À

- Three domestic locations, each not yet evaluated for listing on the NRHP, and
- Two educational locations not yet evaluated for listing on the NRHP.

In recognition that Project activities may coincide with as yet unidentified archaeological resources, the Applicant currently sponsors an inventory for and evaluations of archaeological properties that may exist within proposed construction limits in the Project footprint. This archaeological investigation, contracted to the Archaeology Laboratory, Augustana College (ALAC), is ongoing and will be documented in a technical report that will meet state and federal technical standards (Archaeology Laboratory, Augustana College pending 2008). The Applicant directed the ALAC to document each resource's integrity and significance and, with this information, recommend resources eligible for listing on the NRHP.

The applicant will attempt to physically avoid unevaluated resources or resources listed on or eligible for listing on the NRHP (as recommended by our consultant). Should the Applicant identify a coincidence among construction or operations limits and any known resource, the Applicant will engage the ARC and the South Dakota Historic Preservation Office in writing, requesting them to review the ALAC's recommendations regarding NRHP eligibility and work with the Applicant to resolve the coincidence. This resolution may include, but should not necessarily be limited to, the following actions:

- Development of construction or operations measures to avoid the resource;
- Development of construction or operations best management practices to minimize impact to the resource, or
- Development of a field investigation plan to recover data from the resource that may be lost due to construction or operations activities.