

Geoarchaeological Evaluation for Phase I Survey

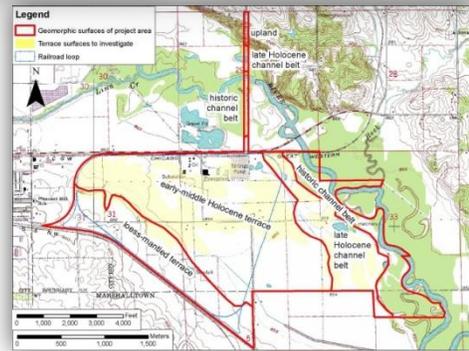
Sutherland Generating Station, Unit 4 Expansion – Marshall County, Iowa

Louis Berger Company, Inc.

Marshall County, Iowa
2003

EarthView Environmental, Inc. (EVE) conducted a geoarchaeological assessment of the proposed Unit 4 Expansion of the Sutherland Generating Station in Marshall County, Iowa. EVE worked under contract with the Louis Berger Group, Inc., Marion, Iowa (LBG), to meet the requirements of a research plan prepared by LBG and the University of Iowa Office of the State Archaeologist (OSA) and approved by the Iowa State Historic Preservation Office (SHPO).

The purpose of the investigation was to determine the potential for buried archaeological sites to occur within the proposed project's Area of Potential Effect, and to provide LBG archaeologists with recommendations for the depth of subsurface testing. An evaluation of aerial photos and soil maps identified additional areas with subsurface potential where little or no subsurface testing for buried sites had been done. These areas were the focus of the investigations conducted by EVE.



Fieldwork consisted of extracting solid, continuous cores, using a Giddings hydraulic drill rig mounted on a John Deere Gator. Holocene-age surfaces along the proposed gas pipeline extending north from the primary project area were not accessible to the drill rig, and were investigated by hand coring with a manual bucket auger. Cores were described using standard NRCS terminology, identifying soil horization and sedimentary depositional environments.

EVE's work revealed a complex series of ridges and swales resulting from point bars on an ancient surface of the Iowa River. The ridges were underlain by better

drained soils that would have been better suited for prehistoric campsites than the swales, which had poorly drained soils. Soil characterization in terms of the frequency of groundwater saturation is important not only in geoarchaeology but also in wetland delineation, another service offered by EVE. It is an excellent example of our interdisciplinary expertise. We provide a diverse, but often overlapping, range of services to meet your natural and cultural resource consulting needs.



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