BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY BASIN ELECTRIC POWER COOPERATIVE FOR AN ENERGY CONVERSION FACILITY PERMIT FOR THE DEER CREEK STATION PROJECT COMBINED-CYCLE NATURAL GAS ENERGY CONVERSION FACILITY AND ASSOCIATED INFRASTRUCTURE, INCLUDING A WATER SUPPY SYSTEM AND ELECTRIC TRANSMISSION SYSTEM	)	**DOCKET NUMBER EL09-015** **CERTIFICATE OF SERVICE**
IN THE MATTER OF THE APPLICATION BY BASIN ELECTRIC POWER COOPERATIVE, INC. FOR AN ENERGY CONVERSION FACILITY SITING PERMIT FOR A NATURAL GAS PIPELINE TO SUPPORT THE DEER CREEK STATION PORJECT	)	**DOCKET NUMBER HP09-002** **CERTIFICATE OF SERVICE**

I hereby certify that the Record of Decisions (Rural Utilities Service and Western Area Power Administration) and the Deer Creek Station Project's Emergency Response Plan per the Stipulations and Orders for Deer Creek Station were served upon all required parties listed below on the 22nd day of July 2010, electronically to their last known e-mail address:

MS PATRICIA VAN GERPEN
patty.vangerpen@state.sd.us

MR TIM BINDER
tim.binder@state.sd.us

MS KAREN E CREMER
karen.cremer@state.sd.us

MR CRIS MILLER
cmiller@bepc.com

MR NATHAN SOLEM
nathan.solem@state.sd.us

MR GAVIN MCCOLLAM
gmccollam@bepc.com

MR BRIAN ROUNDS
brian.rounds@state.sd.us

MS CASEY JACOBSON
cjacobson@bepc.com

MS STACY SPLITTSTOESSER
stacy.splittstoesser@state.sd.us

MS VICKI BUSETH
elections@brookingscountysd.gov

MS PAM LYNDE
plynde@itctel.com

MR DONALD LARSON
dlarson@brookingscountysd.gov

MR DAROLD HUNT
plynde@itctel.com

MS VICKI OVALL
kay_dyl_gram@hotmail.com

MR ANDY STUDER
cityofaurora@itctel.com

MS SHARI THORNES
sthornes@cityofbrookings.org

MR DAVE HUEBNER
dhuebner@itctel.com

MR DAVID LANDSMAN
cityelk@itctel.com

MR.TONY SIMONS
tony.simons@k12.sd.us

MS SHERYL BROWN
whitesd@heartlandpower.org

MR BRETT KOENECKE
koenecke@magt.com

MR. ROBERT W. HILL
rhill@brookingscountysd.gov

MR. DENNIS FALKEN
dfalken@brookingscountysd.gov

MR. GREGG JONGELING
jong@swiftel.net

BASIN ELECTRIC POWER COOPERATIVE

By: _____

Cris Miller
Senior Environmental Project Administrator
1717 East Interstate Avenue
Bismarck, ND 58503-0564
Phone: (701) 557-5635
cmiller@bepc.com

(This page left blank intentionally)

Department of Energy
Western Area Power Administration
P.O. Box 281213
Lakewood, CO 80228-8213

JUN 30 2010

MEMORANDUM FOR CLARA BARLEY, GC-71, WASHINGTON, DC

FROM: TIMOTHY J. MEEKS
ADMINISTRATOR

SUBJECT: Publication of Notice in the *Federal Register*

Please arrange for the publication of the attached Record of Decision for the Deer Creek Station Energy Facility Project in the *Federal Register.*

If you have any questions, please contact Shellie Scott at (202) 586-5581.

Attachment

cc:
Director of NEPA Policy and Compliance, GC-54, Washington, DC
Assistant General Counsel for Environment, GC-51, Washington, DC
Assistant General Counsel for Legislative and Regulatory Law, GC-71, Washington, DC
(w/copy of attachment)

APPROVED AS TO LEGAL SUFFICIENCY

Liova D. Juárez
General Counsel

6450-01-P

DEPARTMENT OF ENERGY

Western Area Power Administration

Deer Creek Station Energy Facility Project (DOE/EIS-0415)

AGENCY: Western Area Power Administration, DOE.

ACTION: Notice of Record of Decision and Floodplain Statement of Findings.

SUMMARY: The Western Area Power Administration (Western) received a request from Basin Electric Power Cooperative (Basin Electric) to interconnect its proposed Deer Creek Station Energy Facility Project (Project) to Western's transmission system. Basin Electric's Project includes the construction of a new 300-megawatt (MW) natural gas-fired combined-cycle generation facility in Brookings County, South Dakota, approximately 13.2 miles of new natural gas supply pipeline, a 0.75-mile transmission line, two water wells, a 1.25-mile water supply line, and 1 mile of local road improvements.

Western considered the interconnection request under the provisions of its Open Access Transmission Service Tariff (Tariff), along with the information in the environmental impact statement (EIS) and all comments received, and has made the decision to allow Basin Electric's request to interconnect at Western's existing White Substation. The U.S. Department of Agriculture, Rural Utilities Service (RUS), also received a request from Basin Electric for financial assistance for the Deer Creek Station Energy Facility Project. RUS is a cooperating agency in the EIS process.

FOR FURTHER INFORMATION CONTACT: Please contact Mr. Matt Marsh, National Environmental Policy Act (NEPA) Document Manager, Western Area Power

Administration, P.O. Box 35800, Billings, MT 59107; telephone (406) 247-7385 or e-mail DeerCreekStationEIS@wapa.gov for additional information concerning the Project. For general information on the Department of Energy's (DOE) NEPA review process, please contact Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance, GC-54, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585; telephone (800) 472-2756.

SUPPLEMENTARY INFORMATION: Western is a Federal agency within the DOE that markets and transmits wholesale electrical power through an integrated 17,000-mile, high-voltage transmission system across 15 western states. Western received a request from Basin Electric to interconnect their proposed Project to Western's transmission system. Basin Electric's Project is located within Western's Upper Great Plains Region, which operates and maintains nearly 100 substations and nearly 7,800 miles of Federal transmission lines in Minnesota, South Dakota, North Dakota, Montana, Nebraska, and Iowa.

Western published a Notice of Intent to prepare an EIS for the project on February 6, 2009 (74 FR 6284). A Notice of Availability of the Draft EIS was published by the Environmental Protection Agency (EPA) on February 5, 2010 (75 FR 6026), and a Notice of Availability of the Final EIS was published by EPA on May 28, 2010 (75 FR 30022).

Western's Purpose and Need

Western's need for action is triggered by Basin Electric's interconnection request. Western's Tariff describes the conditions necessary for access to its transmission system. Western provides an interconnection if there is available capacity on the transmission

system, while considering transmission system reliability and power delivery to existing customers, and the applicant's objectives.

Western's Proposed Action

Western's Federal involvement is limited to consideration of Basin Electric's interconnection request for their Project, under the provisions of the Tariff. Western's Proposed Action is to interconnect the Project to Western's transmission system. This involves adding a transformer bay to the White Substation and making other minor system modifications within the substation.

Applicant's Purpose and Need

Basin Electric's 2007 Power Supply Analysis (PSA) indicated that additional intermediate capacity would be needed by mid-2012 to meet its members' growing energy demand. Based on the PSA, a 700- to 800-megawatt (MW) capacity deficit is projected in the eastern portion of Basin Electric's service area by the year 2014. Basin Electric is proposing to meet this increased demand by implementing a resource expansion plan that includes 200 MW of peaking generation, 300 MW of wind generation, 250 MW of intermediate generation, and 600 MW of baseload generation.

Applicant's Proposed Project

As an intermediate capacity unit, Basin Electric's proposed Project would be cycled at low load periods, such as evenings and weekends. The unit would be capable of rapidly responding to load swings of the system. The Project has been sized for 300 MW in order to meet the 250-MW intermediate power supply need and have a 50-MW reserve to meet peak intermediate needs. The advantage of siting such a project in Brookings County is that wind generation on the grid in this area can be integrated with the

combined-cycle natural gas generation. During periods of high wind generation, gas-fired generation can be reduced. During periods of low wind generation, the gas-fired generation will be available to back up the wind generation.

The Project would use combined-cycle technology, in which a gas turbine powers an electric generator. Under the combined-cycle configuration, the exhaust from the combustion turbine generator passes through a heat recovery steam generator that extracts heat from the turbine exhaust. The waste heat is used to generate steam that then passes through a steam turbine generator.

Alternatives Considered

The EIS reviewed the options considered by Basin Electric in its PSA. Western has no decision-making authority over these options. Western's Federal involvement is limited to the determination of whether to allow the interconnection of Basin Electric's Project. For the purposes of furthering environmental decision making, the EIS evaluated three alternatives. Under the No Action Alternative, Western would not execute an interconnection agreement with Basin Electric. Given the lack of a Western interconnection, Basin Electric could not construct its Project as proposed. However, as Basin Electric is a regulated utility having load growth responsibility, it is reasonable to expect that it would construct a similar generation facility somewhere in eastern South Dakota. Such a facility may not connect to a Federal transmission system, involve Federal financing, or have any other Federal nexus that would require a NEPA process.

Under the Proposed Action, Western would execute an interconnection agreement. Basin Electric would construct a 300-MW combined-cycle combustion turbine natural gas generating facility and supporting infrastructure at one of two alternative sites in

eastern South Dakota. The EIS analyzed the two alternative sites as White Site 1 and White Site 2. The sites were selected because of their proximity to a natural gas supply, to a Western transmission line, to a water supply, and constructability.

White Site 1 is located approximately six miles southeast of White, South Dakota, in the northeast quarter of Section 25, Township 111 North, Range 48 West, of the Fifth Principal Meridian, Brookings County. The footprint of the White Site 1 power generation facility would take up 40 acres of a 100-acre site. To provide natural gas, a 13.2-mile natural gas line would be constructed from the site to access the Northern Border Pipeline in Deuel County, South Dakota. Electricity generated by the facility would be transmitted to Western's White Substation by a 0.75-mile long, 345-kV transmission line. Cooling water would be provided by two wells located near Deer Creek, and the water would be transmitted to the site by a 1.25-mile water pipeline.

White Site 2 is located approximately four miles east-northeast of White, South Dakota, in the northwest quarter of Section 2, Township 111 North, Range 48 West, of the Fifth Principal Meridian, Brookings County. In addition to a 40-acre generation facility footprint, White Site 2 would also involve substation construction that would occupy an additional six acres. To provide natural gas, a 10-mile natural gas pipeline would be constructed from the site to access the Northern Border Pipeline in Deuel County. Electricity generated by the facility would be transmitted from the new substation to a Western transmission line located 0.5 miles from the site. Cooling water would be provided by municipal water supply. A water line extension of one mile would be constructed to the site.

White Site 1 is convenient to the White Substation, is further away from occupied residences, and has better drainage than White Site 2. White Site 2 would require construction of a substation for interconnection. As a result, Basin Electric selected White Site 1 as its preferred site.

Environmentally Preferred Alternative

As required by 40 CFR 1505.2(b), Western has identified an environmentally preferred alternative: the No Action Alternative. Under this alternative, Western would deny the interconnection request and not modify its transmission system to interconnect the Project with its transmission system. Under this alternative it is assumed that Basin Electric's proposed Project would not be built and associated environmental impacts would not occur. However, Western must respond to Basin Electric's interconnection request under the terms of the Tariff. The Tariff and underlying Federal Energy Regulatory Commission Orders mandating open access to transmission systems establish conditions under which interconnection requests must be considered, including a NEPA review.

Under the No Action Alternative, Basin Electric's purpose and need would not be met. Basin Electric, as a regulated utility with load growth responsibility, would have to find an alternate means to meet the increase in intermediate generation demand for electric power in the eastern portion of its service area. It is reasonable to expect that Basin Electric would construct a similar generation facility somewhere in eastern South Dakota that may or may not have a Federal nexus requiring NEPA review and consideration of mitigation efforts as a part of that review.

Environmental Impacts

The analysis in the EIS demonstrated that Basin Electric's Project would have no impacts or minimal impacts on geology, farmland, environmental justice, recreation, visual, and cultural resources. Expected impacts on other environmental resources are discussed below.

Air emissions from the Project would be those expected from a modern natural gas-fueled power plant, and would be less than applicable emissions standards for carbon monoxide (CO), nitrogen oxides (NO_x), and particulates less than 10 microns in diameter (PM_{10}). The facility would also not be a major source of hazardous air pollutants, and construction-related emissions and transportation-related emissions would be minor. Greenhouse gas emissions from operation of the Project would be approximately one million metric tons of carbon dioxide (CO_2) equivalents per year. To put these greenhouse gas emissions in perspective, if 300 MW of energy were to be produced using a traditional subcritical pulverized coal boiler, the emissions of CO_2 equivalents would increase almost 4-fold, up to a projected 3.8 million metric tons. In addition, the Project is being constructed to complement renewable generation in the area, specifically wind energy generation, which would further facilitate reduction in overall greenhouse gas emissions. Electricity from this source would normally be generated on an intermittent basis when wind energy is not available.

Water resources concerns are related to erosion and sedimentation, and groundwater. Crossings of streams and wetlands by gas pipelines and waterlines have been minimized to the extent practicable by careful routing. Where crossings are unavoidable, construction would meet all permit conditions of the U.S. Army Corps of Engineers and

State water quality agencies. The impacts to streams and wetlands from the Project would be temporary in nature, and were determined to be not significant. Construction-site storm-water management would also meet all State and Federal regulations. Groundwater for plant cooling water would be pumped from the Big Sioux aquifer in the Deer Creek floodplain near the Project site. Initial pump tests indicate that Deer Creek would not be affected by drawdown. Biological resources concerns in this mostly agricultural area are mostly related to small crossings of native prairie by the gas pipeline corridor. Two locations contain native prairie forb and warm season grass communities. These locations are potential habitat for the Dakota skipper, a candidate for listing under the Endangered Species Act. Impacts in these areas are expected to be temporary and the prairie would be restored following pipeline trenching.

Traffic and noise were also identified as potential impacts. While the local road network provides adequate capacity to meet projected traffic demands, access to the site would be on unpaved county and township roads. Peak traffic is estimated at 360 one-way trips to the site. Maximum noise levels are projected to increase, but not significantly over background levels. Noise levels would be below U.S. Housing and Urban Development guidelines.

Public Involvement

A Notice of Intent (NOI) describing the proposed action was published in the Federal Register on February 6, 2009 (74 FR 6284). The NOI announced the intent to prepare an EIS on the Project, described the proposal, provided scoping meeting locations and dates, started a 30-day comment period, and provided contacts for further information about the Project and for submitting scoping comments. The public scoping meeting was held at

White, South Dakota, on February 24, 2009. A total of 12 written comments from agencies and two written comments from individuals were received in response to the NOI. Western responded to these comments in the Draft EIS.

A Notice of Availability of the Draft EIS was published by the EPA in the Federal Register on February 5, 2010 (75 FR 6026). A public hearing to receive comments on the Draft EIS was held in White, South Dakota on February 25, 2010. While eighteen people attended the public hearing, none wished to comment for the record, and no comments on the Draft EIS were received from the public during the public comment period. Western received comments on the Draft EIS from a number of Federal and State agencies. The U.S. Environmental Protection Agency (EPA) indicated that the document adequately disclosed the environmental impacts of the alternatives and no further data collection is necessary and identified opportunities for additional mitigation. While the U.S. Department of the Interior indicated that they had no comments, the U.S. Fish and Wildlife Service (USFWS) concurred that the Project will not adversely affect federally-listed endangered and threatened species. In addition, the South Dakota Department of Game, Fish and Parks (SDGFP) provided technical corrections to the treatment of state-listed species and their distribution.

Because no substantive changes were needed to the Draft EIS, Western did not republish the Draft EIS but instead issued the comments, responses, and changes to the document, with a new cover sheet, as the Final EIS pursuant to 40 CFR part 1503.4(c). The complete Final EIS is composed of both the Draft EIS and the responses to comments found in the Final EIS. The mitigation measures for air quality recommended by the EPA in their comments on the Draft EIS have been adopted. The EPA provided

comments on the Final EIS with concerns about groundwater withdrawal and monitoring. Additional details about groundwater issues are presented in the *Groundwater Mitigation* section below.

Mitigation Measures

Through public and agency participation in the NEPA process, Basin Electric has altered the design of the Project to minimize impacts to the environment. Best Management Practices will be used for sediment and erosion control, as described in a Project-specific Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasure Plan, South Dakota Department of Environment and Natural Resources (SDDENR) General Permit for Storm Water Discharges with Industrial Activities, and SDDENR General Permit for Storm Water Discharges from Construction Activities. Other Project specific mitigation measures are identified in the Draft EIS document for each resource category and in the Final EIS response to comments. Basin Electric's Standard Mitigation Measures for the Project are listed in Appendix F of the Draft EIS. Project-specific mitigation measures, to be implemented as conditions of this decision, are listed below.

Air Quality Mitigation

A dust control plan will be implemented for use of unpaved county and township roads in the plant vicinity. The air permit is expected to be issued in summer 2010. The draft permit establishes limits for NO_x, CO, PM_{10}, total sulfur content for natural gas and fuel oil to be used, opacity levels, and start up and shut down operations. Basin Electric will comply with all conditions and limits in the final air permit.

Groundwater Mitigation

The 2 groundwater production wells will be located approximately 275 feet from Deer Creek. Based on the typical hydraulic characteristics of the Big Sioux aquifer the cone of influence around the production wells would be 21 to 112 feet at a pumping rate of 125 gallons per minute. Only one production well will be in service at any given time. A minimum buffer of 163 feet between the edge of the cone of influence and Deer Creek will thus be preserved. Two pumping tests will determine the actual extent of the cone of influence, which is expected to fall within the range identified above. Pumping tests will be performed during the initial pumping of the first production well and during the period of maximum withdrawal at Project start-up to fill the on-site water storage tank. Monitoring will take place at least every hour during these testing periods. Two groundwater monitoring wells would be left in place between the two production wells and Deer Creek. Given the existing data and buffer between the production well and Deer Creek, no impacts to Deer Creek are anticipated. If the cone of influence is larger than anticipated, Basin Electric will reassess the potential for impacts to Deer Creek in conjunction with Western.

Wetlands Impact Avoidance and Mitigation

The Project site, gas pipeline, transmission line and water line have the potential to impact wetlands. The Project area contains pothole wetlands, wetland swales (some of which are cultivated) and creeks. Construction in wetlands will be avoided to the extent practicable. Where impacts to wetlands are unavoidable, construction will be performed so that any impacts are minimized. Wetland areas are very common in the Project area, so complete avoidance is not possible.

Construction of Basin Electric's Project would impact 8.74 acres of wetlands along the natural gas pipeline and water pipeline alignments. In addition, construction of the access road into the power generation facility would permanently impact 0.02 acre of wetlands, and temporarily impact an additional 0.02 acre. All of the Project impacts will occur to drainage wetlands classified as riverine, according to the Natural Resources Conservation Service Hydrogeomorphic Classification System for wetlands. Similar wetland areas in the Project area are often cultivated when located in cropland, especially in dry years.

The following water body crossing procedures will be used. Hazardous and regulated materials, chemicals, fuels, and lubricating oils would not be stored and concrete coating activities would not be performed within 100 feet of any intermittent creek or other water body. All construction equipment would be refueled at least 100 feet from any water body. All spoil from creek crossings would be placed in the construction right-of-way (ROW) at least 10 feet from the water's edge, if present. Sediment barriers would be used to prevent the flow of spoil material into the water body. Where possible and practical, any large wetlands and perennial streams will be horizontally directional drilled (HDD). Drilling equipment and bell holes (entrance and exit pits) will be placed at least 25 feet away from the edge of any waterways and wetlands. Soil excavated from the bell holes will be backfilled and stabilized. Where HDD is not used, trenching will be accomplished by minimizing the extent of construction equipment usage in wetland areas and limiting equipment travel and use to the existing ROW. Equipment crossing of wetlands will be completed through use of timber mats if rutting in excess of four inches occurs. Impermeable material such as clay rich soils or sand bag trench blocks will be

placed as soil block within the ditch at the entry and exit points of each individual wetland complex so as to minimize the potential of inadvertent drainage of the wetland area.

The following is a general list of procedures to be utilized to reduce wetland impact in areas where open-cut trench crossings in wetland areas will occur. The duration of construction-related disturbance within wetlands will be minimized by means of timely construction during the historically dry periods of the year, typically in the fall. If standing water or saturated soils are present, low ground-weight construction equipment will be used or normal equipment would be operated on timber riprap, prefabricated equipment mats, or geotextile fabric overlain with gravel. Geotextile fabric used for this purpose will be strong enough to allow removal of all gravel and fabric from the wetland. The top 12 inches of topsoil will be segregated from the area disturbed by trenching, except in areas where standing water or saturated soils are present. Once the trench has been backfilled, the segregated topsoil will be used to cover the trench. Impermeable material such as clay rich soils or sandbags will be placed as trench blocks at the entry and exit points of each individual wetland complex to minimize the potential of inadvertent drainage of the wetland area.

Temporary sediment barriers will be used to stop or reduce the flow of sediment coming into wetland locations. These barriers will be constructed of materials such as silt fence, staked hay or straw bales, or sand bags depending on conditions present and the most effective barrier for those conditions. Temporary sediment barriers will be installed as necessary at the base of slopes until disturbed vegetation has been reestablished.

During pipeline installation, the welding of a pipe string will be done at the edge of the wetland and the completed section will be pulled or pushed across (or under, if HDD is used) the wetland and tied into the rest of the pipeline. During wetland disturbance, erosion control structures will be placed as necessary to prevent flow of soil from spoil piles into undisturbed wetland areas. If the wetland has a vegetative mat that can be saved in large segments, the mat will be saved for replacement over the backfilled trench to help re-establish vegetation more rapidly. Once construction has been completed, wetland areas will be restored by grading, which will return the area's drainage patterns to pre-construction contours. Excess backfill will be disposed of on dry land in the ROW rather than on wetland areas. Excess backfill will not be placed on any wetland or floodplain area.

Restoration will be undertaken for temporary impacts to jurisdictional wetlands. Mitigation measures for temporary impacts may include placement of a horizontal marker (e.g., fabric, certified weed-free straw, etc.) to delineate the existing ground elevation of wetlands that would be temporarily filled during construction. Following construction, mitigation measures will include removal of temporary fill, recontouring to the original site elevations, and then reseeding using native plant species to reestablish a prevalence of hydrophytic vegetation. Revegetation protocols typically will make use of plant species currently growing in the affected wetlands.

Biological Mitigation

SDGFP will be consulted if any active raptor nests were discovered within 0.25 miles of any of the Project facilities during construction. To ensure that impacts to the Dakota skipper are avoided, pipeline construction will not take place in the two locations of

Dakota skipper suitable habitat during the growth and blooming period for the nectar source of the adult butterfly (May-July), which includes the summer breeding period of the butterfly. Nesting bird surveys will be completed prior to ground disturbance activities in accordance with protocols developed in consultation with Western and the USFWS. The seed mix and specifications for native plantings in disturbed area will be developed by Basin Electric, based on the NRCS-recommended seed mixes.

Traffic and Roadway Mitigation

Traffic signage changes and intersection improvements will be implemented to manage the temporary increase in traffic volumes and loads during construction and for deliveries that will occur during Project operations.

Noise Mitigation

Basin Electric will conduct a post-construction operational noise assessment to be completed by an independent third-party noise consultant, approved by the South Dakota Public Utilities Commission, to show compliance with the noise levels according to the predictive model used in the noise analysis. The noise assessment will be performed in accordance with American National Standards Institute (ANSI) B133.8 – Gas Turbine Installation Sound Emissions. The results of that analysis will be evaluated by Basin Electric to determine if any modifications to the proposed facilities or operations are needed.

Consultation

Western is the lead Federal agency for compliance with Section 106 of the National Historic Preservation Act. By letter of May 10, 2010, the South Dakota State Historic Preservation Officer concurred that no historic properties would be affected by the

Project. RUS is the lead Federal agency for compliance with Section 7 of the Endangered Species Act. A biological assessment was prepared and submitted with a determination that the Project may effect, but would not likely adversely affect listed species. As stated above, the USFWS concurred with this determination.

Floodplain Statement of Findings

In accordance with 10 CFR part 1022, Western considered the potential impacts of the Project on floodplains and wetlands. The natural gas pipeline for Basin Electric's Project would cross 100-year floodplains in eight places. There are no pipeline routes that would completely avoid floodplains, given the locations that existing pipelines would need to be tapped and drainage patterns in the region. As a result, there is no practicable alternative to construction of a natural gas pipeline in floodplains. In addition, the wells producing cooling water would be located in the floodplain of Deer Creek. Total impacts to the floodplain from the well facilities would be an approximately 200-foot by 200-foot area for two individual wellheads, a monitoring well, and an 8-by-10 foot control building. The access road, wells, and control building would be contoured to an elevation of one foot above the 100-year flood elevation. Consistent with the requirements of the National Flood Insurance Program, the building would be watertight and utilities would be capable of resisting flood damage. Because all other available water well supply sites are located in the Deer Creek floodplain, there is no practicable alternative to locating this site within the floodplain.

Permanent impacts to wetlands of 0.02 acres would occur on the Project site due to construction of facilities. Temporary impacts to wetlands would occur due to construction of the proposed Project facilities, including the Project site (0.02 acres),

water pipeline (5.86 acres), and natural gas pipeline (2.88 acres). Impacts have been minimized by changing the site layout, use of HDD, and by construction of facilities adjacent to existing linear features such as county and township roads. Where unavoidable, impacts are minimized by use of pads for heavy equipment and restoration to preconstruction contours. There are no pipeline routes that completely avoid wetlands, given the locations that existing pipelines would need to be tapped and the constraints of the Project site. As a result, there is no practicable alternative to construction in wetlands. Project facilities in the floodplain would not impound or impede drainage of flood flows, or increase the severity of or damage from any flood flows.

Decision

Western's decision is to allow Basin Electric's request for interconnection at the White Substation in South Dakota and to complete modifications to the substation to support the interconnection.[1] Western's decision to grant this interconnection request satisfies the agency's statutory mission and Basin Electric's objectives while minimizing harm to the environment. An interconnection agreement will be executed in accordance with Western's Tariff.

Basin Electric has committed to minimize its proposed Project's impact on the environment through the Project's design, the use of pollution control technology, and the implementation of mitigation measures as incorporated in the Project description and summarized above. Western will adhere to its own standard mitigation measures for all modifications within White Substation. Western conditions its approval of Basin

[1] Western's authority to issue a record of decision for integrating transmission facilities is pursuant to authority delegated on October 4, 1999, from the Assistant Secretary for Environment, Safety and Health to Western's Administrator.

Electric's request to interconnect to Western's transmission system upon the adoption and implementation of the mitigation measures as described in the Final EIS.

This decision is based on the information contained in the Deer Creek Station Energy Facility Project Final EIS (DOE/EIS-0415). The EIS and this ROD were prepared pursuant to the requirements of the Council on Environmental Quality Regulations for Implementing NEPA (40 CFR parts 1500-1508), DOE Procedures for Implementing NEPA (10 CFR part 1021), and DOE's Floodplain/Wetland Review Requirements (10 CFR 1022). Full implementation of this decision is contingent upon the Project obtaining all applicable permits and approvals.

Dated: JUN 30 2010

Timothy J. Meeks
Administrator

(This page left blank intentionally)

RECORD OF DECISION

Deer Creek Station Energy Facility Project
Brookings and Deuel Counties, South Dakota

RURAL UTILITIES SERVICE
U.S. Department of Agriculture

Basin Electric Power Cooperative
North Dakota 45

Prepared by:
Engineering and Environmental Staff
Rural Utilities Service

July 2010

I. Summary of the Agency's Decision

The Rural Utilities Service (RUS) has received a request from Basin Electric Power Cooperative (Basin Electric) for financial assistance in constructing the proposed Deer Creek Station Energy Facility project (Project). The Western Area Power Administration (Western) also has received a request from Basin Electric to provide interconnection services with Western's transmission system. RUS and Western have prepared an Environmental Impact Statement (EIS) in response to these requests pursuant to the National Environmental Policy Act of 1969 (NEPA) (U.S.C. 4231 et seq.) and in accordance with the Council on Environmental Quality's (CEQ) regulations for implementing NEPA (40 CFR Parts 1500-1508), RUS's NEPA implementing regulations, Environmental Policies and Procedures (7 CFR part 1794), and Western's NEPA implementing regulations (10 CFR Part 1021).

Basin Electric proposes to construct a new 300-megawatt (MW) natural gas-fired generation facility in Brookings County, South Dakota. Other related actions that would be constructed by Basin Electric include 13.2 miles of natural gas pipeline, a 0.75-mile 345-kV transmission line, two water production wells, a 1.25-mile water supply line, and one mile of local road improvements in Brookings and Deuel Counties, South Dakota.

Western published a Notice of Intent to prepare an EIS on February 6, 2009. RUS issued notices in the Federal Register announcing availability of the Draft EIS on February 26, 2010, and the Final EIS on June 11, 2010. The U.S. Environmental Protection Agency acknowledged receipt of the Draft EIS on February 5, 2010, and the Final EIS on May 28, 2010, from Western in the Federal Register.

Western was the lead federal agency in the preparation of the EIS as defined at 40 CFR 1501.5; RUS was a cooperating agency. Because RUS and Western will be making separate and distinct decisions regarding their actions (i.e., Western's decision relates to execution of an interconnection agreement and RUS's decision relates to whether or not to provide financial assistance), both agencies have decided to issue separate Records of Decision (RODs). RUS has considered Basin Electric's purpose and need and has evaluated reasonable alternatives to its proposed Project, its potential impacts to the environment, financial and engineering

constraints, and associated issues and finds that the EIS is consistent with federal regulations and meets the standard for an adequate statement.

II. Introduction

Basin Electric's proposed Project is to construct, own, operate, and maintain the Deer Creek Station Energy Facility, a 300 MW combined-cycle natural gas generation facility, water pipeline, a transmission line, transmission interconnection(s), and other associated facilities, in Brookings and Deuel Counties, South Dakota. The purpose of the proposed Project is to help serve increased load demand for electric power in the eastern portion of Basin Electric's service area. Basin Electric's eastern service area includes western Nebraska, northwestern and central Iowa, portions of southern Minnesota, all of South Dakota, portions of eastern Montana, and western and central North Dakota. The need for additional generating capacity is driven by the increasing electrical power usage of its member cooperatives. Between 1999 and 2006, Basin Electric's total system peak demand increased 752 MW from 1,195 MW to 1,947 MW, or approximately 107 MW per year. In 2007, Basin Electric prepared a forecast showing load and capability surpluses/deficits through the year 2021. The forecast predicted that by 2014, there will be a deficit of 800-900 MW in the eastern portion of its service area.

Basin Electric proposes to meet increased energy demand of its member cooperatives by implementing a resource expansion plan that includes 200 MW of peaking generation, 300 MW of wind generation, 250 MW of intermediate generation, and 600 MW of baseload generation. The proposed Project would be constructed to meet intermediate generation needs and has been sized for 300 MW in order to meet the intermediate power supply need and have a 50 MW reserve. The advantage of siting the proposed Project in Brookings County is that wind generation on the grid in this area can be integrated with the combined-cycle natural gas generation. During periods of high wind generation, gas-fired generation can be reduced. During periods of low wind generation, the gas-fired generation would be available to back up the wind generation.

This document is RUS's ROD for the EIS prepared for Basin Electric's proposed Project. The ROD states the decision, the rationale for the decision, and all alternatives considered in

reaching the decision. It also includes a discussion of preferences among alternatives based on relevant factors and describes how those factors were balanced in reaching the decision.

III. Background

To meet Basin Electric's projected demand for intermediate power, Basin Electric has submitted an application to RUS for a loan guarantee for the construction of an electric generating source and related facilities.

As part of the loan application process, Basin Electric was required to prepare an Alternatives Evaluation and Site Selection Study (7 CFR 1794.51[c]). This study was reviewed and approved by RUS, and was posted on the agency's website in February 2010. Its information and analyses were incorporated into the EIS and have been considered in the RUS decision.

IV. Alternatives Development and Evaluation

A. Alternatives Dismissed from Detailed Consideration

A list of the alternatives reviewed prior to this decision follows. The list contains the alternatives evaluated in chapter 2 of the EIS and eliminated from further study and the rationale for their elimination. These alternatives were determined not to be reasonable in meeting the purpose and need of the proposed Project for the reason(s) stated.

Alternatives Eliminated from Further Study

Generation Sources	Rationale for Elimination
Demand Side Management (energy conservation, energy efficiency, and load management)	The current 6 to 10 MW of load management, even if increased greatly, would not offset the need for new intermediate capacity of 250 MW.
Repowering/Uprating of Existing Generation Units	An estimated 15 to 20 MW of additional generation is available from this strategy; even if increased greatly, this would not offset the need for new intermediate capacity of 250 MW.
Participation in Another Utility's Generation Project	This could help meet a portion of the long-term need, but would not meet the need for short-term intermediate capacity.
Short-term Purchased Power	Short-term proposals were more costly than Basin Electric's self-build options
Long-term Purchased Power	Conventional long-term power purchase proposals were more costly than Basin's self-build options.
Wind	Wind is not an on-call resource and is not capable of providing intermediate needs on its own
New Transmission Capacity	Transmission would have to be built to bring in power from outside of Basin Electric's service area, creating unnecessary long-distance transmission costs
Renewable Energy Resources	Wind is not an on-call resource and is not capable of providing intermediate needs on its own; solar is expensive and is also not an on-call resource; hydroelectric in the Midwest can be variable due to drought; other forms of renewable energy are more cost-effective in baseload rather than intermediate operation or are not available in South Dakota
Fossil Fuel Generation	Simple cycle combustion turbines are suitable for peaking but are more costly than combined cycle systems; microturbines would not provide enough power to meet intermediate needs; coal facilities are not suitable for intermediate power needs
Nuclear Power	Nuclear is not suitable for quick start-up or shut down needed for an intermediate load facility
Facility Locations	
Groton Site, Brown County, SD	Property and transmission constraints due to previous installation of two simple-cycle peaking facilities
Watertown Site, Deuel County, SD	No nearby substation
White Site 3, Brookings County, SD	Site was not large enough for a combined cycle combustion turbine facility
Water Well Supply Sites	
Water Well Supply Site A	Site did not offer adequate pumping rates or aquifer recharge

B. Alternatives Evaluated in Detail

The EIS provided a detailed analysis of the following alternatives:

- No Action Alternative
- Action Alternatives
    - White Site 1
    - White Site 2

Under the No Action Alternative, RUS would not approve financing, and Basin Electric would not likely construct its proposed Project. Given that Basin Electric is a regulated utility that is responsible for responding to load growth by supplying power, it is reasonable to expect that Basin Electric would construct a similar generation facility elsewhere in eastern South Dakota. Such a facility may not connect to a federal transmission system, involve federal financing, or have another federal nexus and, therefore, would not be required to prepare an environmental review document in accordance with NEPA.

Under the Action Alternatives (White Site 1 and White Site 2), Western would execute an interconnection agreement with Western, and RUS would consider financing the proposed Project. Basin Electric would construct a 300-MW combined-cycle combustion turbine natural gas generating facility and supporting infrastructure at one of two alternative sites in eastern South Dakota. The EIS analyzed the two alternative sites as White Site 1 and White Site 2. The sites were selected because of their proximity to a natural gas supply, proximity to a Western transmission line, proximity to a water supply, and constructability.

White Site 1 is located approximately six miles southeast of White, South Dakota, in the northeast quarter of Section 25, Township 111 North, Range 48 West, of the Fifth Principal Meridian, Brookings County. White Site 2 is located approximately 4 miles east-northeast of White, South Dakota, in the northwest quarter of Section 2, Township 111 North, Range 48 West, of the Fifth Principal Meridian, Brookings County.

The footprint of the White Site 1 power generation facility would encompass 40 acres of a 100-acre site. To provide natural gas, a 13.2-mile natural gas line would be constructed northward

from the site to access the Northern Border Pipeline in Deuel County, South Dakota. Electricity generated by the facility would be transmitted south to Western's White Substation by a 0.75-mile long, 345-kV transmission line. Cooling water would be provided by a well located near Deer Creek, and the water would be transmitted northward to the site by a 1.25-mile water pipeline.

In addition to a 40-acre generation facility footprint, White Site 2 would also involve substation construction that would occupy an additional six acres. To provide natural gas, a 10-mile natural gas pipeline would be constructed northward from the site along 481st Avenue to access the Northern Border Pipeline in Deuel County. Electricity generated by the facility would be transmitted east of the site from the new substation to a Western transmission line located 0.5 miles from the site. Cooling water would be provided by municipal water supply. A water line extension of one mile would be constructed along 202nd street from 481st Avenue east to the site.

C. Alternatives Not Selected and RUS's Rationale

The No Action Alternative does not meet the proposed Project's purpose and need. It would distribute and perhaps disperse environmental impacts associated with constructing a similar generation facility or facilities at other locations in eastern South Dakota to meet the needs of Basin Electric's member cooperatives. The No Action Alternative would expose Basin Electric and its member cooperatives to higher prices by purchasing power on the volatile open electric market.

The Action Alternative at White Site 2 would require the construction of a new substation for interconnection to the grid. It is closer to occupied residences and has site conditions (e.g., terrain and drainage patterns) that are less suitable for the type of development being proposed.

D. RUS's Preferred Alternative

The Action Alternative at White Site 1 is located approximately 0.5-miles from the White Substation, is further away from occupied residences, and has more suitable site conditions than White Site 2. Accordingly, RUS has selected the Action Alternative at White Site 1 as its preferred alternative.

E. Environmentally Preferred Alternative

The identification of an environmentally preferred alternative is required by NEPA (40 CFR 1505.2(b). The environmentally preferred alternative is that alternative which has the least impact on the physical and biological environment and which best protects, preserves, and enhances historic, cultural, and natural resources. Economic, social, technical, and agency mission factors are not considered in the identification of this alternative. The No Action Alternative best meets this definition. Under this alternative, RUS would not provide financing, and Basin Electric would not likely construct its proposed Project. However, it is possible that adverse environmental effects could occur at other locations where facilities might need to be modified and constructed to supply the power that Basin Electric would need for its member cooperatives.

V. Public Involvement

A. Scoping

A Notice of Intent (NOI) describing the proposed Project was published in the Federal Register (FR) on February 6, 2009, (74 FR 6284-6286) by Western. The NOI announced the intent to prepare an EIS for the proposed Project, described the proposed Project, provided scoping meeting locations and dates, started a 30-day comment period, and provided contacts for further information about the proposed Project and for submitting scoping comments. The NOI also acknowledged that RUS may be a cooperating agency. The public scoping meeting was held in White, South Dakota, on February 24, 2009. A total of twelve written comments from agencies and two written comments from individuals were received in response to the NOI.

B. Draft EIS

RUS published its Notice of Availability (NOA) for the Draft EIS in the Federal Register on February 26, 2010 (75 FR 8895-8896). The U.S. Environmental Protection Agency (USEPA) published its receipt of the Draft EIS in the Federal Register on February 5, 2010 (75 FR 6026-6027). The 45-day public comment period began on this date. Western, as lead agency, held a public meeting to receive comments on the Draft EIS in White, South Dakota, on February 25, 2010; RUS representatives were in attendance. Because the proposed Project may involve action in floodplains or wetlands, RUS's NOA also served as notice of a proposed floodplain or wetland action by RUS consistent with Executive Orders 11988 and 11990.

C. Final EIS

USEPA published its receipt of the Final EIS in the Federal Register on May 28, 2010. RUS published its NOA of the Final EIS in the Federal Register on June 11, 2010. The 30-day comment period ended on June 28, 2010.

VI. Comments Received

A. Responses to Issues Raised

Western and RUS received comments on the Draft EIS from the USEPA in a letter dated March 11, 2010; from the U.S. Department of the Interior, dated March 11, 2010; and from the South Dakota Department of Game, Fish and Parks dated March 18, 2010. In response to a Biological Assessment prepared for the proposed Project, the U.S. Fish and Wildlife concurred on March 10, 2010, that the proposed Project will not adversely affect federally listed endangered and threatened species. The Department of the Interior had no comments, while the Department of Game, Fish and Parks provided technical corrections to the discussion of state-listed species and their distribution. In addition, the Department of Game, Fish and Parks recommended that disturbed areas should be re-vegetated using native seed sources and suggested that the Natural Resources Conservation Service Plant Materials Center in Bismarck, ND, should be used as a source for gathering information about native plantings. The USEPA comments on the Draft EIS indicated that the document adequately disclosed the environmental impacts of the

alternatives and that no further data collection is necessary; however, the USEPA identified opportunities for additional mitigation. Because no substantive changes were needed to the Draft EIS, Western and RUS did not republish the Draft EIS but instead issued the comments, responses, and changes to the document, with a new cover sheet, as the Final EIS, as allowed by 40 CFR Part 1503.4(c) and RUS's Environmental Policies and Procedures (7 CFR 1794.61[c]). Most comments resulted in technical corrections to the EIS.

Western and RUS received one comment on the Final EIS from the USEPA in a letter dated June 28, 2020. The USEPA expressed concerns with groundwater withdrawal and monitoring associated with operation of the proposed Project. Western submitted a letter to the USEPA in response to the comment. Both letters are included as **Attachment 1, Comments on the Final Environmental Impact Statement**.

Issues raised with respect to the Draft EIS and Final EIS are addressed below:

1. Groundwater monitoring

Two temporary and two permanent groundwater monitoring wells would be installed to provide initial monitoring and to provide additional geotechnical information related to site characteristics. Test wells indicated that a cone of influence on the water table from an operating well would be approximately 21 to 112 feet when used at a pumping rate of 125 gallons per minute. Basin Electric plans to place production wells at least 275-feet away from Deer Creek. Only one production well would be in service at any given time. A minimum buffer of 163 feet between the edge of the cone of influence and Deer Creek would be established. Two forthcoming pumping tests will determine the actual extent of the cone of influence, which is expected to fall within the previously identified range. Pumping tests would be performed during the initial pumping of the first production well and during the period of maximum withdrawal (i.e., proposed Project start-up to fill the on-site water storage tank). Monitoring would take place at a minimum of every hour during these testing periods. Two groundwater monitoring wells would be left in place between the two production wells and Deer Creek. These activities would be in compliance with water use and water rights permits that Basin

Electric would acquire from the South Dakota Department of Environment and Natural Resources (SDDENR).

2. Wetland monitoring and mitigation

For the installation of pipelines, large wetlands and perennial streams would be horizontally directional drilled. Other wetlands would be trenched in accordance with the conditions of a Nationwide Permit No. 12, Utility Lines, from the U.S. Army Corps of Engineers. To reduce wetland impacts in areas where open-cut trenching is used, Basin Electric proposes to: perform construction during historically dry periods; operate equipment on timber riprap, mats, or geotextile fabric to reduce soil compaction and rutting; segregate topsoil during trenching; and place impermeable material (e.g., clay-rich soils, sandbags, etc.) as trench blocks to avoid inadvertent drainage.

3. Indirect greenhouse gas emissions

There are no rigorous estimates available for the indirect emissions of greenhouse gases during development, processing, and transport of natural gas, or the emissions during the manufacture and construction of natural gas power plant building materials. The proposed Project is being constructed to complement wind generation in the area and would operate when wind is not blowing or generation is not available at the capacity necessary to fulfill demand. Indirect emissions from wind turbine manufacture and transport will likely offset these emissions over the life cycle of the wind facility by the energy generated.

4. Demand-side management

Basin Electric and its member cooperatives are engaged in a variety of conservation and energy efficiency programs. This includes but is not limited to: issuing low interest loans to consumer for energy efficiency improvements and high efficiency water heaters; providing incentives to use heat pumps as a primary or secondary source of heating and cooling; using storage heat systems that utilize off-peak power to store heat in high-density bricks; providing energy audits either on-site or through online calculators; offering compact fluorescent lighting for sale to consumers; and providing assistance to a program for photovoltaic panels to operate remote livestock watering systems. This combination of programs lessens overall electricity demand

but does not provide an offset for the intermediate loads to which the proposed Project is responding.

5. Noise mitigation

As part of its commitment to ensure that noise from the proposed Project does not adversely impact nearby receptors, Basin Electric would commission a post-construction operational noise assessment to review compliance with noise levels predicted by the model used in the noise analysis. The results of the post-construction assessment would be evaluated and modifications to the proposed facilities or operations would be implemented in coordination with the South Dakota Public Utilities Commission.

B. Changes from the Draft EIS to the Final EIS

The discussion below summarizes the responses to issues raised by document section. In addition, factual corrections were also made; these are included below. No further agency responses are needed beyond the responses summarized below and are included in the Final EIS

Section 1.1, Transmission System Upgrades

RUS engineering staff reviewed the out-of-queue system impact study completed in May 2010 for the proposed Project and accepted the findings that minor equipment upgrades would be needed at the existing substation. Operational guidelines would be implemented to avoid negative transmission system reliability impacts. The substation upgrades and operational guidelines would not incur environmental impacts. This information was added to the Final EIS.

Section 1.4, Authorizing Actions

Table 1-1 was revised to delete reference to a National Pollutant Discharge and Elimination System (NPDES) permit and replaced with a reference to a Surface Water Discharge Permit and Stormwater Construction Permit at the request of the SDDENR.

Section 3.4, Biological Resources

A revised Table 3-4 was added to reflect revisions to the state-listed status of the Dakota skipper and the river otter.

Section 4.1, Air Resources

Additional information regarding monitoring efforts, potential emissions and potential impacts to air quality was added to the EIS. Tables of detailed emissions from the combined cycle combustion turbine, emergency diesel generator, and emergency fire pump were added. Visibility modeling results and Best Available Control Technology Analysis and proposed emission limits provided by the SDDENR were included.

Section 4.3, Water Quality, Floodplain, and Groundwater Resources

Additional information requested by the USEPA on groundwater monitoring procedures was added to the EIS. Section 4.3.2.1.1, Surface Water, was amended to reference the South Dakota General permit for Stormwater Discharge Associated with Construction Activities, the Surface Water Discharge Permit, and a Permit to Appropriate Water for use in dewatering and hydrostatic testing.

Section 4.4, Wetlands and Streams

As requested by the USEPA, a table providing detailed information on where horizontal directional drilling would take place was added, along with wetland maps showing the location of the proposed drilling. Details of wetland crossing procedures were also added.

Section 4.5, Biological Resources

Section 4.5.3.2.2, State-listed Species, was revised to add the bald eagle and the river otter, as requested by the South Dakota Department of Game, Fish and Parks.

Section 5.0, List of Agencies, Organizations and Persons to Whom Copies of the Statement Have Been Sent

An updated distribution list was included.

Appendix C, Partial Listing of Wildlife Observed or Known to Occur Near the Proposed Project

The black-footed ferret and Baird's sparrow were deleted from the table, as requested by South Dakota Department of Game, Fish and Parks.

Appendix E, Special Status Species Habitat Descriptions

A habitat description for the state-listed river otter was added.

Other

A public hearing summary for the February 25, 2010 meeting was added. A disclosure statement was executed specifying that the EIS contractor had no financial or other interest in the outcome of the project, as required by 40 CFR Part 1506.5(c).

VII. Summary of Environmental Effects

The analysis documented in the EIS demonstrated that the proposed Project would have no impacts or minor impacts on geology, farmland, environmental justice, recreation, visual, and cultural resources. Expected impacts on other environmental resources are discussed below.

Air emissions from the proposed Project would be those expected from a natural gas-fueled power plant and would be less than the modeling and monitoring significance levels for carbon monoxide, nitrogen oxides, and particulates. The facility would also not be a major source of hazardous air pollutants, and construction-related emissions and transportation-related emissions would be minor. Greenhouse gas emissions from operation of the proposed Project would be approximately one million metric tons of carbon dioxide (CO_2) equivalents per year. If the 300 MW of energy was to be produced using a traditional subcritical pulverized coal boiler, the emissions of CO_2 equivalents would increase almost 4-fold, up to a projected 3.8 million metric tons. In addition, the proposed Project is being constructed to complement wind generation in the area. Electricity from this source normally would be generated on an intermittent basis when wind energy is not available.

Water resource concerns are related to erosion, sedimentation, and groundwater. Crossings of streams and wetlands by gas pipelines and waterlines would meet all permit conditions of the U.S. Army Corps of Engineers and state water quality agencies. The impacts to streams and wetlands from the proposed Project would be temporary in nature. Construction site stormwater management would also meet all state and federal regulations. Groundwater for plant cooling water would be pumped from an alluvial aquifer in the Deer Creek floodplain near the proposed Project site, and the aquifer level would be carefully monitored to ensure that impacts to Deer Creek and other potential groundwater users are avoided.

Biological resource concerns in this predominately agricultural area are mostly related to small crossings of native prairie by the pipeline corridor. Two locations contain native prairie forb and warm season grass communities. These locations are potential habitat for the Dakota skipper, a candidate for listing under the Endangered Species Act. Impacts in these areas are expected to be temporary and the vegetation would be restored following pipeline trenching.

Traffic and noise were also identified as potential impacts. While the local road network provides adequate capacity to meet projected traffic demands, access to the site would be on unpaved county and township roads. Peak traffic is estimated at 360 one-way trips to the site. The maximum increase in noise levels is projected to increase, but not significantly, over background levels. Noise levels would be below the U.S. Department of Housing and Urban Development's development guidelines.

VIII. RUS Decisions and Rationale for Decisions

RUS decisions must comply with all relevant federal and state environmental regulations. These regulations are listed in Table 1-1 of the EIS.

A. Decisions

This ROD documents findings specific to the proposed action, which is the construction and operation of Basin Electric's Deer Creek Station Energy Facility at White Site 1. Basin Electric's proposed Project includes a 300-MW natural gas-fired combined cycle generation facility and all on-site facilities needed to operate the plant. Off-site facilities include a natural gas pipeline, a

transmission line, two water production wells, a water supply line, and transportation improvements.

RUS has made the following decisions:

- Based on an evaluation of the information and impact analyses presented in the Final EIS, including the evaluation of all alternatives, and in consideration of the agency's Environmental Policies and Procedures (7 CFR Part 1794), RUS finds that the overall impact analysis and evaluation of reasonable alternatives is consistent with NEPA. In the Final EIS, RUS, in cooperation with Western, identified the Action Alternative at White Site 1, including certain conditions and requirements, as its preferred alternative. In this ROD, RUS identifies the Final EIS preferred alternative as its selected alternative, with further modifications, requirements, and conditions as set forth in **Attachment 2, Mitigation and Environmental Impact Reduction Measures**. This ROD, subject to conditions, concludes the RUS's environmental review process in accordance with its Environmental Policies and Procedures.
- A review and analysis of the selected alternative's justification, associated engineering studies, and preliminary financial information has led to RUS's concurrence with the selected alternative's purpose and need.

RUS hereby agrees to the above and the consideration of Basin Electric's loan application may proceed. The following condition applies:

1. Basin Electric will implement the selected alternative as described in this ROD, with further details as described for the preferred alternative in the Final EIS. This includes, but is not limited to, those actions incorporated into the selected alternative to reduce or eliminate impacts and any mitigation measures that the Final EIS and this ROD state will be implemented.

B. Rationale and Compliance with Legal and Policy Mandates

This section explains how the selected alternative, as defined in the Final EIS and in this ROD, satisfies RUS's statutory, regulatory, and policy mandates.

1. National Environmental Policy Act

In the Final EIS, RUS has fully considered all reasonable alternatives to the proposed action and concluded that the selected alternative, construction and operation of the Deer Creek Station Energy Facility at White Site 1, best meets the purpose and need of the proposed Project. The agency has met the requirements of NEPA and agency policies and procedures for public involvement. This has included responses to requests for information from concerned individuals, non-governmental organizations, and state and other federal agencies. The impacts, actions, and mitigation to reduce them are provided in the Final EIS and summarized in **Attachment 2, Mitigation and Environmental Impact Reduction Measures**, to this ROD. Basin Electric will be responsible for implementation of these measures, with RUS and Western oversight.

2. National Historic Preservation Act

Western was the lead agency for compliance with Section 106 of the National Historic Preservation Act, acting on behalf of RUS to fulfill our collective responsibilities. The established Area of Potential Effect was surveyed for historic properties, and consulting parties including Indian tribes, have reviewed the results of the survey. Western made a finding that no historic properties would be affected by the proposed Project's preferred alternative. On May 10, 2010, the South Dakota State Historic Preservation Officer concurred with Western's finding.

3. Endangered Species Act

RUS was the lead agency for compliance with Section 7 of the Endangered Species Act. A Biological Assessment (BA) for the proposed Project was prepared and submitted to the U.S. Fish and Wildlife Service. The BA included the following determinations:

- The proposed Project may affect but is not likely to adversely affect the Western prairie fringed orchid (*Platanthera praeclara*), Dakota skipper (*Hesperia dacotae*), and Topeka shiner (*Nostropis Topeka*).
- The proposed Project will have no effects to the American Burying Beetle (*Nicrophorus americanus*).

On March 10, 2010, the U.S. Fish and Wildlife Service concurred with these determinations.

4. Executive Order 11988, Flood Plain Management

The natural gas pipeline for the proposed Project would cross 100-year floodplains in eight places. There are no pipeline routes that would completely avoid floodplains, given the locations of where existing pipelines would need to be tapped and the drainage patterns in the region. As a result, there is no practicable alternative to construction of a natural gas pipeline in the floodplain. In addition, production wells providing cooling water would be located in the floodplain of Deer Creek. Total impacts to the floodplain from the well facilities would be an approximately 200-foot by 200-foot area for two production wells, two monitoring wells, and an 8-by-10 foot control building. The access road, wells, and control building would be contoured to an elevation of one foot above the 100-year flood elevation. Consistent with the requirements of the National Flood Insurance Program, the building would be watertight and utilities would be capable of resisting flood damage. Because all other available water well supply sites are located in the Deer Creek floodplain, there is no practicable alternative to locating this site within the floodplain.

5. Executive Order 11990, Protection of Wetlands

Permanent impacts to wetlands (0.02 acres) would occur on the proposed Project site due to construction of facilities. Temporary impacts to wetlands would occur due to construction of the proposed Project facilities, including the Project site (0.22 acres), water pipeline (5.86 acres), and natural gas pipeline (2.88 acres). Impacts have been minimized by changing the site layout, using horizontal directional drilling, and constructing facilities adjacent to existing linear features such as county and township roads. Where impacts are unavoidable, impacts would be minimized by the use of pads for heavy equipment and the restoration of wetland topography to pre-construction contours in accordance with a Nationwide Permit No. 12, Utility Lines, from the U.S. Army Corps of Engineers. Given the locations of where existing pipelines would need to be tapped and the constraints of the proposed Project site, there are no pipeline routes that would completely avoid wetlands. As a result, there is no practicable alternative to construction in wetlands.

6. RUS Loan Review

This ROD is not a decision on Basin Electric's loan application and therefore not an approval of the expenditure of federal funds. The ROD concludes the agency's environmental review process in accordance with NEPA and RUS's Environmental Policies and Procedures (7 CFR Part 1794). The ultimate decision as to loan approval depends upon the conclusion of this environmental review process plus financial and engineering analyses. Issuance of the ROD will allow these reviews to proceed.

IX. Right to Administrative Review

This Record of Decision concludes the agency's environmental review process pursuant to the National Environmental Policy Act and the RUS's Environmental Policies and Procedures (7 CFR Part 1794). There are no provisions to appeal this decision. Legal challenges to the ROD may be filed in federal district court under the Administrative Procedures Act.

X. Approval

This Record of Decision is effective on signature.

Dated: JUL 15 2010

JONATHAN ADELSTEIN
Administrator
Rural Utilities Service

Contact Person

For additional information on this Record of Decision or the Final Environmental Impact Statement, please contact Ms. Lauren McGee, Environmental Scientist, at USDA, Rural Utilities Service, 1400 Independence Avenue, SW., Stop 1571, Washington DC 20250-1571; telephone: (202) 720-1482; fax: (202) 690-0649; or e-mail: ***lauren.mcgee@wdc.usda.gov.***

Attachment 1, Comments on Final Environmental Impact Statement

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
http://www.epa.gov/region08

Ref: EPR-N

JUN 28 2010

Mr. Matt Marsh
NEPA Project Manager
Western Area Power Administration
P.O. Box 35800
Billings, MT 59107-5800

Re: Deer Creek Station Energy Facility Project
Final Environmental Impact Statement
CEQ #20100030

Dear Mr. Marsh:

In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4332(2)(C), and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the Final Environmental Impact Statement (Final EIS) prepared by Western Area Power Administration (WAPA) for the Deer Creek Station Energy Facility Project (Deer Creek) in Brookings County, South Dakota.

EPA appreciates the additional information regarding groundwater, wetland, noise and air quality impacts included in the Final EIS in response to our March 11, 2010, comments on the Draft EIS. While the Final EIS addresses many of our questions and concerns, EPA remains concerned about the potential groundwater and surface water impacts from the production water wells. Based on the additional information included in the Final EIS, EPA has several recommendations regarding the well placement, monitoring and mitigation of the groundwater and surface water impacts which are detailed below.

Based on the more detailed information from the Test Well Report and Final EIS, EPA is specifically concerned that the groundwater well may not be placed far enough away from Deer Creek to avoid impacts to surface flows and adjacent wetlands. The Test Well Report indicates that a cone of influence for an operating well would be approximately 112 feet. As a result, Basin Electric would place the first production well at least 150 feet away from Deer Creek (Final EIS, page EPA-2). This would provide a minimum 38 foot buffer between the estimated cone of influence and Deer Creek. If the 112 feet cone of influence was determined based on the 30 gallon per minute pump test conducted over six hours, as is suggested by the Draft EIS (page 4-18), EPA does not believe that a 38 foot buffer will be sufficient to protect against drainage of Deer Creek and adjacent wetlands. WAPA and Basin Electric should consider a more extensive buffer zone from Deer Creek, to provide a greater margin for error and better ensure that the

production well will not impact the surface water and/or wetlands neighboring the creek.

The commitment to place the groundwater well at least 150 feet away from Deer Creek is more ambiguous than previously provided in the Draft EIS. The Draft EIS indicated that the groundwater wells would be placed approximately 280 feet from Deer Creek (Draft EIS, p 4-17). It is unclear to EPA whether the well location has potentially moved closer to Deer Creek or whether the location is pending the refined hydrologic site characterization. The Final EIS indicates that additional pump tests will be performed for the production wells. EPA recommends the additional pump tests be conducted at a higher draw down and for a longer timeframe to reflect the maximum potential withdrawal rate of 125 gallons per minute. The additional pump tests may assist Basin Electric and WAPA in locating the groundwater well far enough away from Deer Creek so as to ensure it will not have any impacts to surface flow and wetlands.

EPA supports the inclusion of two temporary and three permanent monitoring wells to detect any potential hydrology issues which may influence the stream or wetlands adjacent to the groundwater well installation site. Monitoring will be an important tool in ensuring there are no impacts to neighboring wetlands and Deer Creek. As noted in our comments on the Draft EIS, EPA recommends a monitoring strategy and framework be clearly identified at the outset. The strategy should include more detailed information on the monitoring time frame, including when the monitoring will occur, how often, and by whom. EPA suggests WAPA consider monthly monitoring in the first year and quarterly thereafter. In addition, EPA specifically recommends the monitoring strategy include more detailed information on the threshold or action trigger that may initiate the need to seek alternative water sources for the project. EPA further recommends the strategy include additional monitoring of stream flows in Deer Creek and neighboring wetlands. EPA recommends the monitoring strategy be developed and included in the Record of Decision.

If you have any questions regarding our comments on the Final EIS, please contact me at 303-312-6004 or Joyel Dhieux, the Lead NEPA Reviewer for this project, at 303-312-6647. EPA Region 8 hydrologist, Mike Wireman, is also available to answer any questions and may be reached at 303-312-6719.

Sincerely,

Larry Svoboda
Director, NEPA Program
Office of Ecosystems Protection and Remediation

cc: Theresa Martin, U.S. Army Corps of Engineers

Department of Energy
Western Area Power Administration
Upper Great Plains Customer Service Region
P.O. Box 35800
Billings, MT 59107-5800

JUN 30 2010

B0401.BL

Mr. Larry Svoboda, Director, NEPA Program
Office of Ecosystems Protection and Remediation
Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Dear Mr. Svoboda:

This letter is in response to your June 28, 2010, letter providing comments on the Deer Creek Station Energy Facility Project (Project) Final Environmental Impact Statement (Final EIS), your tracking number #20100030. Western Area Power Administration (Western) would like to respond to each of your comments in detail, and clarify the situation regarding Basin Electric Power Cooperative's (Basin Electric) water wells associated with the proposed Project.

Basin Electric plans to install two groundwater production wells that would be used to provide water for the power generation Project. For reliable operation of the Project, two production wells are required in case one well is offline due to maintenance or pump failure; however, only one well would be in operation at any given time. The initial production well would be located 275 feet from Deer Creek, not 150 feet. Based on prior data from previous wells in the Big Sioux aquifer, the expected cones of influence could range between 21 and 112 feet. Pump tests conducted on the first production well would determine the actual cone of influence for that well. The geophysical characteristics of the aquifer determine the cone of influence at a given pumping rate, so once determined by the pump test, the extent of the cone of influence would not be expected to change significantly.

Banner and Associates, Inc. (Banner), an independent water resource consultant with local expertise, conducted the test well analysis at a 30 gallon-per-minute (gpm) rate from a 4-inch test well over a 6-hour period. The test well was located 130 feet from Deer Creek, and the actual draw-down was 4 feet 1 inch, with recovery to pre-test static level in less than 2 minutes. There is no reason to believe the cone of influence from the production well would exceed the typical observed range for the Big Sioux aquifer, but should that be the case, the production well location at 275 feet away would ensure that the cone of influence would not extend to Deer Creek. The Water Rights Program of the South Dakota Department of Environment and Natural Resources, the regulating authority for water appropriations and groundwater wells in the State, issued Basin Electric a Water Appropriations Permit for the Project at a maximum pumping rate of 125 gpm, based on the test well pumping data and the Department's familiarity with the Big Sioux aquifer.

The initial pumping test on the first production well would be conducted at a 125 gpm rate for 12 hours, or until the water level stabilizes in the well for a period of 3 hours. The typical pumping rate, once the Project is operational, would be 100 gpm and then only when the power plant is operating. As an intermediate power generation resource supporting renewable energy generation, the power plant would only be operated intermittently. The cone of influence at 100 gpm would, of course, be smaller than that measured for the pumping test. Basin Electric would install two permanent and two temporary monitoring wells for the pumping test. These wells would be located approximately 50 feet and 150 feet from the production well, and between the production well and Deer Creek. The outermost monitoring wells would be 125 feet from Deer Creek, but no water would be pumped from these wells for the Project. The wells at 50 feet would be expected to indicate the level of draw-down. The outer wells may or may not show draw-down at the 125 gpm rate. If they do not show any change, then they would verify that the cone of influence from the production well would not extend as far as 150 feet, and certainly not as far as Deer Creek.

Another pump test would be performed during the initial plant start-up phase. This test would be conducted during the anticipated maximum water withdrawal volume per filling event for the Project. Approximately 600,000 gallons of water would be required for the start-up of the power plant. While this is under way, Banner would perform a second pump test over several days to verify that the Project would not influence Deer Creek through water withdrawals. Results of the pumping tests would be used to verify the hydraulic assumptions of the Big Sioux aquifer formation, determine the radius of the cone of influence, and help determine the appropriate location for the second production well. Western anticipates that this second well would be located approximately the same distance away from Deer Creek, but it could be located a little closer if testing on the first well defines a cone of influence smaller than the upper end of the identified range. After the completion of these two pumping tests, two of the monitoring wells would be permanently capped if they are shown to be outside the production well's cone of influence.. Basin Electric does not plan to record ground water levels on a continuous or periodic basis, since the two pumping tests would establish the extent of the cone of influence and, therefore, the lack of possible effect on Deer Creek.

Should the pumping tests indicate the cone of influence would somehow reach Deer Creek, Basin Electric would need to consider alternatives to the current plan. However, given the existing data and substantial buffer between the production well and Deer Creek, that possibility is extremely remote.

Your office recommended that additional monitoring of stream flows in Deer Creek and neighboring wetlands be considered. Only one wetland is located near the well site and it is approximately the same distance away as Deer Creek. This wetland is classified as non-jurisdictional and is a drainage that is in farm production during most years. The cone of influence would not reach this drainage, even under the maximum withdrawal pumping test. Western believes that monitoring stream flows or the wetland would be unproductive as many other factors such as precipitation and climatic conditions influence surface water conditions,

and it would not be possible to net out these other variables to determine what effect, if any, the Project was having. Determination of the cone of influence through the pumping tests will establish with sufficient certainty whether the Project would have any effect on these areas. Consequently, Western does not see the need to conduct such monitoring, and Basin Electric is not planning to monitor stream flows in Deer Creek or conditions in the drainage.

Western appreciates your comments on the Deer Creek Station Energy Facility Project Final EIS, and we hope that this letter and a June 29, 2010, conference call with Ms. Joyel Dhieux, of your staff, have fully addressed your concerns. If you have any further questions, please contact me at (406) 247-7385 and I will be happy to furnish additional information.

Sincerely,

Matt Marsh

Matt Marsh
NEPA Project Manager

Attachment 2. Mitigation and Environmental Impact Reduction Measures

Through public and agency participation in the NEPA process, Basin Electric has incorporated measures to minimize its harm to the environment in the design, construction, and operation of the proposed Project. Best Management Practices will be used for sediment and erosion control, as described in a Stormwater Pollution Prevention Plan and Spill Prevention Control and Countermeasure Plan.

Project-specific mitigation and environmental impact reduction measures, to be implemented as conditions of this decision, are listed below:

Air Quality Mitigation

A dust control plan will be implemented for use of unpaved county and township roads in the plant vicinity.

Basin Electric will comply with all conditions and limits in the final Prevention of Significant Deterioration (PSD) air permit for the Deer Creek Station, pending issuance from the SSDENR.

The draft permit sets the following emission limits for nitrogen oxides (NO_x) at:

1) 3.0 parts per million by volume on a dry basis corrected to 15% oxygen; compliance is based on a 3-hour average using the continuous emission monitoring system; and

2) 25.8 pounds per hour; compliance based on a 3-hour average using the continuous emission monitoring system; this limit is based on 3.0 parts per parts per million by volume on a dry basis corrected to 15% oxygen (~ 0.0111 pounds per million Btu) at maximum capacity

The draft permit sets the following emissions limits for carbon monoxide (CO) at:

1) 2.0 parts per million by volume on a dry basis corrected to 15% oxygen; compliance based on a 3-hour average using the continuous emission monitoring system; and

2) 10.5 pounds per hour; compliance based on a 3-hour average using the continuous emission monitoring system; this limit is based on 2.0 parts per million by volume on a dry basis corrected to 15% oxygen (~ 0.0045 pounds per million Btu) at maximum capacity

The draft permit sets the following emission limits for particulate matter 10 microns in diameter or less (PM_{10}) at:

1) 0.01 pounds per million Btu; compliance based on a 3-hour average using a performance test;

2) 18.6 pounds per hour for the combustion turbine only; compliance based on a 3-hour average using a performance test;

3) 23.2 pounds per hour for the combustion turbine and duct burner; compliance based on a 3-hour average using a performance test; and

4) Fuel usage limited to pipeline natural gas with the sulfur content of the natural gas defined.

The limits during startup and shutdown are proposed as follows in the draft permit:

Pollutant	lb/SU(SD)	Maximum Hours of Operation for SU/SD (Hours per Year)	Total Annual Emissions (normal operation + SU/SD) (Tons per Year)
NO_x	**220**	**708**	**117**
CO	**840**	**708**	**143**
PM_{10}	**18.6 lb/hr CT only 23.2 lb/hr CT +DB**	**708**	**80**

Groundwater Mitigation

Two monitoring wells will be left in place between the two production wells and Deer Creek. If impacts are noted to the hydrologic conditions at Deer Creek, Basin Electric will develop a mitigation plan in conjunction with Western, RUS, the U.S. Fish and Wildlife Service, and other applicable state resource agencies for any hydrologic and biological impacts to Deer Creek.

Wetlands Impact Avoidance and Mitigation

Construction in wetlands will be performed so that the disturbance to wetlands is avoided and if not avoided, so that any impacts are minimized. The following water body crossing procedures will be used:

- Hazardous materials, chemicals, fuels, and lubricating oils will not be stored and concrete coating activities will not be performed within 100 feet of any intermittent creek or other water body.
- All construction equipment will be refueled at least 100 feet from any water body.
- All spoil from creek crossings will be placed in the construction right-of-way at least 10 feet from the water's edge, if present. Sediment barriers will be used to prevent the flow of spoil material into the water body.

Where possible and practical, any large wetlands and perennial streams will be horizontally directional drilled. Drilling equipment and bell holes (entrance and exit pits) will be placed at least 25 feet away from the edge of any waterways and wetlands. Soil excavated from the bell holes will be backfilled and stabilized.

Where horizontal directional drilling is not used, trenching will be accomplished by minimizing the extent of construction equipment usage in wetland areas and limiting equipment travel and use to the existing right-of-way. Equipment crossing of wetlands will be completed through use of timber mats if rutting in excess of four inches occurs. Impermeable material such as clay rich soils or sand bag trench blocks will be placed as soil block within the ditch at the entry and exit points of each individual wetland complex to minimize the potential of inadvertent drainage of the wetland area.

The following is a general list of procedures to that will be used to reduce wetland impact in areas where open-cut trench crossings would occur.

- The duration of construction-related disturbance within wetlands will be minimized by means of timely construction during the historically dry periods of the year, typically in the fall.
- If standing water or saturated soils are present, low ground-weight construction equipment will be used or normal equipment would be operated on timber riprap, prefabricated equipment mats, or geotextile fabric overlain with gravel. Geotextile fabric

used for this purpose will be strong enough to allow removal of all gravel and fabric from the wetland.

- The top 12 inches of topsoil will be segregated from the area disturbed by trenching, except in areas where standing water or saturated soils are present. Once the trench has been backfilled, the segregated topsoil will be used to cover the trench.
- Impermeable material such as clay rich soils or sandbags will be placed as trench blocks at the entry and exit points of each individual wetland complex to minimize the potential of inadvertent drainage of the wetland area.

Temporary sediment barriers will be used to stop or reduce the flow of sediment into wetland locations. These barriers will be constructed of materials such as silt fence, staked hay or straw bales, or sand bags depending on the conditions present and the most effective barrier for the conditions. Temporary sediment barriers will be installed as necessary at the base of slopes until vegetation that has been disturbed is re-established.

During pipeline installation, the welding of a pipe string will be done at the edge of the wetland and the completed section will be pulled or pushed across the wetland and tied into the rest of the pipeline. During wetland disturbance, erosion control structures will be placed as necessary to prevent flow of soil from spoil piles into undisturbed wetland areas. If the wetland has a vegetative mat that can be saved in large segments, the mat will be saved for replacement over the backfilled trench to help re-establish vegetation more rapidly. Once construction has been completed, wetland areas will be restored by grading, which will return the area's drainage patterns to pre-construction contours. Excess backfill will be disposed of on dry land in the right-of-way rather than on wetland areas. Excess backfill will not be placed on any wetland or floodplain area.

Restoration will be undertaken for temporary impacts to jurisdictional wetlands. Mitigation measures for temporary impacts may include placement of a horizontal marker (e.g., fabric, certified weed-free straw, etc.) to delineate the existing ground elevation of wetlands that would be temporarily filled during construction. Following construction, mitigation measures will include removal of temporary fill, re-contouring to the original site elevations, and then re-seeding using native plant species to re-establish a prevalence of hydrophytic vegetation. Re-vegetation protocols typically will make use of plant species currently growing in the affected wetlands.

Biological Mitigation

South Dakota Game, Fish and Parks will be consulted if any active raptor nests are discovered within 0.25 miles of any of the proposed Project facilities during construction. To ensure that impacts to the Dakota skipper are avoided, pipeline construction will not take place in the two locations of Dakota skipper suitable habitat during the growth and blooming period for the nectar source of the adult butterfly (May-July), which includes the summer breeding period of the butterfly.

The seed mix and specifications for native plantings in disturbed area will be developed by Basin Electric, based on seed mixes recommended by the Natural Resource Conservation Service and approved by Western.

Traffic and Roadway Mitigation

A delivery route for construction materials will be designated to limit traffic to suitable roads. At the intersection of 484th Avenue and 207th Street, the following sign changes will be made during the construction period:

- Remove the stop sign on northbound 484th Avenue at the 207th Street intersection
- Install a yield sign for westbound 207th Street traffic at 484th Avenue
- Install a changeable message board on westbound 207th Street approximately 100 yards prior to 484th Avenue intersection for a period of 60 days to advise motorists of the new intersection traffic controls
- Install a new construction traffic warning sign along westbound 207th at the intersection with 484th Street

Gravel surfaces at approaches to intersections along the designated primary access routes will be improved and maintained to eliminate wash boarding and rutting that occur from deceleration, acceleration, turning movements, and added use during construction. The intersection segments will be improved and maintained to the extent necessary to provide the adequate tapers and radii for semi-trailer movements, which may require local ditch grading and location adjustment. Any additional grading outside of areas not previously surveyed or outside of existing ditches will require biological and cultural resource surveys.

Noise Mitigation

Basin Electric will conduct a post-construction operational noise assessment to be completed by an independent third-party noise consultant, approved by the South Dakota Public Utilities Commission, to show compliance with the noise levels according to the predictive model used in the noise analysis. The noise assessment will be performed in accordance with American National Standards Institute (ANSI) B133.8 – Gas Turbine Installation Sound Emissions. The results of that analysis will be evaluated by Basin Electric to determine if any modifications to the proposed facilities or operations are needed.

(This page left blank intentionally)

Deer Creek Station Project
Emergency Procedures

EMERGENCY PROCEDURES
FOR THE DEER CREEK STATION PROJECT

1. The Boldt Company Project Emergency Response

In order to facilitate a prompt and orderly response to site emergencies, contractors shall comply with the emergency procedures outlined in this section.

In the event of an emergency requiring an ambulance, police or fire assistance, the local responders will be contacted by dialing 911 from any phone on site. The Boldt Company will have a jobsite trailer on site but there will not be a telephone set up for the project. The Boldt Project Superintendent, Ralph Donato will have a cell phone, (920) 850-9325, available to assist any subcontractors with needed emergency response.

Brookings Hospital, *Hospital: General Acute Care, located at* 300 22nd Ave, Brookings, SD 57006 will supply medical treatment for all Boldt employees – Phone number - 605-692-6351. Non-emergency phone number for the Brookings, SD Police Department is 605-692-2113 and for the Brookings, SD Fire Department is 605-6922113. All Emergency response is to phone number is 911.

Driving directions to the project are as follows:

Start out going EAST on W MAIN ST/W 3RD ST to S LINCOLN Ave.	0.2 miles
Turn RIGHT onto S HOOKER AVE/CR-25. Continue to Follow CR-25	0.5 miles
Turn RIGHT onto SD-30/204TH ST	5.6 miles
Merge onto I-29 S via the ramp on the LEFT toward BROOKINGS	7.7 miles
Take the US-14 exit, EXIT 132, toward I-29-BL/BROOKINGS/HURON	0.3 miles
Turn RIGHT onto US-14 W	0.4 miles
Turn LEFT onto 22ND AVE	0.3 miles
300 22ND AVE is on the LEFT	

2. Introduction

In any emergency situation with The Boldt Company, the emergency response will take the form of an Incident Command System. The (The Boldt Company) Project Manager will assume the role of Incident Commander. In his or her absence, The Boldt Company Project Field Manager will assume this role. In his or her absence, the next highest-ranking The Boldt Company Manager will assume the role. In the absence of any The Boldt Company Personnel, the affected contractor shall implement the system.

Regardless of who assumes the role of Incident Commander, all personnel on the project shall obey his/her requests. Contractor personnel shall assist only as directed by the Incident Commander. The Incident Commander may ask for equipment to assist in the emergency. In this case, the contractor shall provide any necessary equipment.

3. Medical Emergency Response

If an injury occurs which requires emergency assistance, the respective contractor's must notify The Boldt Company of the situation.

During normal working hours, the contractor shall alert the site First Aid Station and The Boldt Company Site Safety Manager. If the injury occurs after hours, the contractor shall alert the onsite The Boldt Company Supervisor. The individual reporting the emergency should be prepared to relay the following information:

- Type of emergency.
- Severity of emergency.
- Name and telephone number of the person making the call.

The individual shall not break communication until directed to do so. The contractor shall, in any emergency situation, notify the Boldt Company Site Safety Manager, regardless of time of day.

3.1 "Code Red"

3.1.1 Medical Emergency Plan

In the event of a medical emergency, the call words "Code Red" shall be used to alert all personnel carrying a radio on the project. There shall be a designated channel, Boldt Channel 1, which will be used as a "Code Red" channel. During a called "Code Red", only emergency information shall be communicated on the designated channel.

During a "Code Red" the caller must be clear and precise in giving the location of the incident. Also, a brief description of the incident and the possible assistance needed. The caller shall verify that they have been heard, and that assistance is on the way. The person that verifies the caller has been heard shall inform other channels that a "Code Red" is in progress.

Designated first-aid and CPR certified personnel shall respond to the emergency location to give emergency medical treatment. If additional medical treatment is necessary, (i.e. 911 dispatch) an assigned individual shall call emergency personnel (EMS).

There shall be assigned individuals that shall maintain a clear path through the construction and flag/escort in emergency vehicles. Radios shall be carried at <u>all</u> times. This is vital as it may become necessary to re-route emergency vehicles.

Once the EMS arrives on-site, project personnel shall assist as directed/requested by EMS personnel. "Code Red" shall remain in effect until treatment is complete or until personnel being treated are safely off-site. At that time, the designated management representative shall call "Code Red Clear." During the "Code Red," any other personnel previously using the channel designated as the "Code Red" channel shall use another designated channel until the "Code Red Clear" is issued. Radio communication on the "Code Red" channel <u>shall</u> be exclusively for involved rescue/treatment personnel or coordination of EMS.

All incoming vehicles shall be detained at the gate/entrance until the "Code Red" is cleared. This will keep traffic clear for EMS vehicle.

3.1.2 Evacuation Plan

Our evacuation plan will utilize the "Code Red" procedure. In the event a site evacuation is needed, a designated representative of The Boldt Company will call a "Code Red" and inform all personnel carrying radio's to evacuate their crews to the designated area. The designated area will be outside the guard shack in the parking area. Following an evacuation, each foreman/supervisor shall conduct a head-count of their respective crew. The foremen shall notify the Incident Commander of any missing employees. The crews will remain in the designated area

until a “Code Red Clear” has been called and then employees may proceed back to work.

4. Fire and Hazardous Materials Emergency Plan

If a fire or hazardous material spill occurs, the contractor shall use his/her in-house emergency notification system to alert the contractor's supervisors of the situation.

Minor Emergency

If it is safe to do so, the contractor should assess the situation and extinguish the fire or clean up the spill. The contractor should then report the incident to The Boldt Company Site Safety Manager or designee.

Major Emergency

During normal working hours, the contractor shall alert The Boldt Company safety personnel or designee and inform them of the situation. If the fire or spill occurs after hours, the contractor shall call the onsite The Boldt Company supervisor. The individual should be prepared to relay the following information:

- Type of emergency
- Location
- Severity of emergency
- Name and telephone number of the person making the call

During normal working hours, The Boldt Company Safety personnel will relay the information to project management and summon offsite assistance. The Boldt Company Project Management shall assemble and determine if the emergency is severe enough to require an evacuation of employees. The construction work force shall be notified to evacuate by direct communication from The Boldt Company through the use of site radios and telephones. Depending on the severity and response required, some or all of the work areas may be shut down.

Upon hearing the announcement, all personnel shall report to the designated evacuation area unless otherwise directed. Contractors shall account for their personnel and report any missing person to The Boldt Company. All personnel shall remain in these evacuation areas until released by The Boldt Company Project Manager or designee.

Responses and evacuations related to fire and hazardous materials will also utilize the “Code Red” procedure outlined in Section 3.1.

4.1 Spill Response

Each contractor shall provide enough spill control and clean-up materials necessary to handle the volume of materials they bring on site. A “Spill Control Program” shall be developed by each contractor.

All small chemical spills shall be cleaned up immediately. Spills shall only be cleaned up if there is a relatively low hazard to those cleaning the spill. The person who cleans the spill shall notify his/her supervisor, who, in turn, will notify the contractor safety representative. The supervisor/safety representative shall see that the material is properly disposed of.

Any chemical spill shall be immediately reported to The Boldt Company Project Manager/ Incident Commander. The spill shall be contained as much as possible. The Incident Commander shall determine what emergency assistance is required to control or clean up the spill. The contractor responsible for the spill shall be solely responsible for the proper cleanup. The Boldt Company

Project Manager or his designee may direct the cleanup efforts. If it is determined that the spill was due to negligence, the contractor may be back charged for the cost of the cleanup. In any spill, immediate steps shall be taken to control the spill and prevent contamination of the local environment.

5. Severe Weather Procedures

The Boldt Company will monitor possible severe weather conditions by using local weather stations, the Internet, or other reliable means. When severe weather is imminent, the following procedures will be followed:

Thunderstorm/Lightning

In the event of a severe thunderstorm, employees will be informed to seek shelter through the use of site radios and telephones or other established communications means. Upon hearing the announcement, employees shall assemble in their designated areas and remain there until the all clear is sounded. The Deer Creek Station Management staff will make the determination as to when and where employees are to seek shelter. This determination will be based upon the best available weather resource such as the website: weatherunderground.com. This website documents frequency and location of recent lightning strikes in the project area and provides a direction for storm movement.

High Winds

Weather conditions may create hazards that can impact the ability to complete crane lifting operations. Wind effects must be considered prior to a lift, especially if the wind loads are significant. A lift cannot take place when **sustained** wind speeds are in excess of thirty miles per hour, unless approved by the specific crane manufacturer. Speeds more than twenty miles per hour need to be considered when lifting large surface area components. The Deer Creek Station Management staff will monitor wind speeds and make necessary decisions relating to lifting practices in conjunction with the crane operator and rigging superintendent.

Tornado

In the event of a tornado warning, employees shall assemble at the designated shelter. Employees will be given notice to take shelter by 2-way radio or telephone communication.

"A tornado warning has been issued for this area. Please report to your designated shelter." Designated shelters will be pre-planned and communicated to employees as determined at various different times throughout the project.

If a tornado may hit the site, The Deer Creek Station Project Managers will assemble an evaluation team. If the situation does not allow time for a team to assemble and meet, the Project Manager shall assume control and direct actions to be taken.

The evaluation team or The Deer Creek Station Project Managers shall determine what actions are necessary to secure the site and personnel from the inclement weather. If there is enough notice of the incoming storm, the Project Manager may have contractor personnel called at home on off-hours to secure the site. All securing of material and site preparation for inclement weather shall be the responsibility of the contractor and no compensation will be granted.

Contractors shall be responsible for their personnel and report anyone missing to The Boldt Company. All personnel shall remain in the designated shelter area until released by the Project Manager or designee.