



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION 8**

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**DENVER, CO 80202-1129**

**Phone 800-227-8917**

**<http://www.epa.gov/region08>**

**JUN 19 2012**

Ref: 8P-AR

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mark Sattelberg, Field Supervisor  
U.S. Fish & Wildlife Service  
Ecological Services Wyoming Field Office  
5353 Yellowstone Road, Suite 308A  
Cheyenne, WY 82009

Re: Biological Evaluation for Cheyenne Light, Fuel &  
Power PSD Permit: Cheyenne Prairie Generating  
Station 220 MW Combustion Turbine Project:  
Laramie County, Wyoming

Dear Mr. Sattelberg:

Enclosed is a biological evaluation (BE), pursuant to Section 7 of the Endangered Species Act (ESA), pertaining to the proposed issuance by the Region 8 office of the U.S. Environmental Protection Agency (EPA) of a federal Prevention of Significant Deterioration (PSD) permit under the Clean Air Act (CAA), to Cheyenne Light, Fuel & Power (CLF&P), a wholly owned subsidiary of the Black Hills Power & Light Co. (Black Hills Corp. or the Company), for the construction of the Cheyenne Prairie Generating Station (CPGS) in Laramie County, Wyoming. Consistent with Section 7 of the ESA, 16 U.S.C. §1536 and its implementing regulations at 50 CFR part 402, we are requesting your written concurrence with our determination that EPA's issuance of a CAA PSD permit for the proposed project may affect, but is not likely to adversely affect the Preble's meadow jumping mouse, the Ute ladies'-tresses and the Colorado butterfly plant.

On August 11, 2011, EPA initiated the ESA Section 7 consultation process by contacting your office and requesting information regarding listed species and/or designated critical habitat in the project area. On September 13, 2011, your office provided the requested information and recommendations for protective measures. We very much appreciate the assistance provided by the Fish and Wildlife Service (FWS or Service) with regard to this project. The list provided in the FWS September 13, 2011, letter identified the Preble's meadow jumping mouse, the Colorado butterfly plant, and Ute ladies'-tresses as listed species or their designated critical habitat that may be present in the proposed project area. The letter also identified the Black-tailed Prairie Dog and wetlands/riparian areas as species or resources of concern, and addressed migratory birds. EPA transmitted this information to the permit applicant to facilitate the Service's recommendation for a site specific survey of the proposed location and adjacent



lands as well as other recommended measures. On March 2, 2012, Black Hills Corp. sent a letter to EPA summarizing the Company's approach to avoid impacts to listed species and other resources of concern. The letter also attached an evaluation prepared by the Company's consultants based on a survey conducted on December 16, 2011 (February 14, 2011, Western EcoSystems Technology, Inc. (WEST) report).

#### Proposed Project Summary Description

Black Hills Corp. is requesting a PSD permit for the construction of a 220-megawatt natural gas fired combustion turbine electric utility generating station to be located approximately seven miles east of I-25 in Cheyenne, WY, adjacent to the water treatment plant south of I-80. The proposed project includes the installation of five 40-megawatt natural gas combustion turbine generators along with associated towers, heaters, emergency generator, and infrastructure including electrical transmission lines, natural gas pipelines, and wastewater pipelines. Approximately 1.75 miles of 115-kilovolt transmission line will be installed to connect the facility to the grid at a point east of the facility. The project would be supplied by an approximately 10-mile long natural gas pipeline originating at a metering station in southern Laramie County and terminating at the project site.

#### EPA Draft CAA PSD Permit

Since the site is located in the state of Wyoming, which is currently governed by a Federal Implementation Plan for greenhouse gas (GHG) PSD permitting, EPA is the permitting authority for this GHG PSD permit. The PSD rules at 40 CFR §52.21(a)(2)(iii) provide: "No new major stationary source or major modification to which the requirements of paragraphs (j) through (r)(5) of this section apply shall begin actual construction without a permit that states that the major stationary source or major modification will meet those requirements. The Administrator has the authority to issue any such permit." EPA's issuance of a CAA PSD permit is a federal action for which, under Section 7 of the ESA, EPA must, in consultation with FWS, ensure that the action is not likely to jeopardize the continued existence of any endangered or threatened species or destroy or adversely modify its designated critical habitat.

Air pollutants that will be emitted from the proposed CPGS and require PSD review for the purposes of EPA's action include GHG (carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>)). The project will also require PSD review by the Wyoming Department of Environmental Quality (WDEQ), which is the permitting authority for all other New Source Review (NSR) pollutants (such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM), particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>), volatile organic compounds (VOC), ozone, lead, fluorides, sulfuric acid mist, and hydrogen sulfide). PSD review is required for NO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, CO, VOC, and ozone as these pollutants are projected to be emitted in levels above their PSD significance thresholds. WDEQ's issuance of its PSD permit is not a federal action for ESA purposes.

#### Species and Designated Critical Habitat That May Be Present In Project Area - Assessment of Potential Impacts and Mitigation Measures

On December 16, 2011 WEST, a consultant for Black Hills Corp., visited the proposed project site to assess the habitat suitability for the three federally listed threatened species. WEST personnel surveyed the parcel that will contain the facility, as well as the three primary drainages that intersect the proposed pipeline corridor. The survey focused on Crow Creek, within the pipeline corridor, as the primary area



of concern for potential occurrence of any of the three listed species because it is the only perennial creek, and all of the threatened species are dependent upon moist riparian habitats which are nonexistent within the gas plant project site.

#### Preble's Meadow Jumping Mouse

The Preble's meadow jumping mouse (Preble's) is a small rodent in the Zapodidae family and is one of twelve recognized subspecies of the species *Z. hudsonius*, the meadow jumping mouse. Preble's are 7 to 10-inches in length including a 4 to 6-inch bicolor tail, large hind feet adapted for jumping, and a distinct dark stripe down the middle of its back that is bordered on either side by gray to orange-brown fur. The diet of the Preble's consists of seeds, fruits, fungi, and insects. Preble's are primarily nocturnal or crepuscular, but have been observed during daylight. Hibernation occurs from October to May in small underground burrows the mouse excavates several centimeters underground. Preble's exhibit a preference for lush vegetation along watercourses or herbaceous understories in wooded areas within close proximity to water. They occur in low undergrowth consisting of grasses, forbs, or a mix of both; in wet meadows and riparian corridors; or where tall shrubs and low trees provide adequate cover. Additionally, Preble's have been documented to use uplands as least as far out as 330 feet beyond the 100-year floodplain. In Wyoming, Preble's have been documented in five counties, including in Laramie County, where the proposed project will be located.

The FWS September 13, 2011, letter recommended that if the proposed project will result in a disturbance to suitable habitat within any of the five counties, surveys should be conducted by knowledgeable biologists trained in conducting such surveys, prior to any action. WEST personnel, including J. Thompson who holds a FWS permit for Preble's meadow jumping mouse, conducted a survey on December 16, 2011, and found potentially suitable habitat for Preble's along Crow Creek but not at the proposed facility site. The WEST report, dated February 14, 2012, set forth as one of four possible mitigation scenarios, directionally boring the pipeline beneath Crow Creek in consultation with FWS. Black Hills Corp.'s March 2, 2012 letter states that it intends to directionally bore under the potential Preble's riparian habitat at Crow Creek. Based on the underlying documentation and the Company's commitment to directionally bore underneath the potential habitat, EPA concludes that the proposed project may affect, but is not likely to adversely affect the Preble's meadow jumping mouse.

#### Colorado Butterfly Plant

The Colorado butterfly plant (*Gaura neomexicana coloradensis*) is a perennial herb endemic to moist soil in wet meadows of flood plain areas. This plant occurs in southeastern Wyoming, north-central Colorado, and extreme western Nebraska between elevations of 5,000 and 6,400 feet. The Colorado butterfly plant has small (5-14 mm) white flowers that turn pink or reddish with age. This species flowers from June through October and produces fruit from July to October. This plant will continue to flower until the first frost of the year. These plants are often found in low depressions or along bends in wide meandering stream channels a short distance upslope of the actual channel. Critical habitat is designated for Colorado butterfly plant in specific wet meadows and riparian areas within Laramie and Platte Counties of Wyoming (see 50 CFR 17.96(a)), however there is no designated critical habitat located in the project site area or pipeline corridor, as shown by Figure 2 in the WEST report.

The FWS September 13, 2011, letter recommended that surveys be conducted during flowering, which normally occurs in July and August, by knowledgeable botanists trained in conducting rare plant surveys. WEST personnel, including G. Johnson who is described as highly experienced with this plant species, conducted a survey on December 16, 2011. Black Hills Corp. describes the WEST report as



finding no suitable habitat at the project facility site, but potential suitable habitat in the Crow Creek riparian area and Porter Draw. Black Hills Corp. commits to implementing the FWS recommendation of a one-time survey for the Colorado butterfly plant at the Crow Creek and Porter Draw locations during the summer of 2012 to confirm or deny the presence of the species where the pipeline will cross. The results of the Company's study should be transmitted to both FWS and EPA. In addition, Black Hills Corp.'s March 2, 2012, letter states that it intends to directionally bore under the potential riparian habitat at Crow Creek to avoid adverse impact to the Colorado butterfly plant. The Company also states if the species is present in the vicinity of where the pipeline will cross at Porter Creek, it will avoid or drill under the area where the plants are located.

Based on the potential that the Colorado butterfly plant may be present at the Crow Creek or Porter Draw locations; the WEST report; the Black Hills Corp.'s commitment to conduct an additional survey in the summer of 2012; the Company's commitment to directionally bore in order to avoid any potential adverse effects at Crow Creek; and the Company's commitment to avoid or drill under the plants if they are found at Porter Draw in the upcoming survey; EPA concludes that the proposed project may affect, but is not likely to adversely affect the Colorado butterfly plant. Based on the commitments noted above and the current assessment that there is a lack of the presence of designated critical habitat in the project area, EPA concludes that the proposed project will have no effect on the Colorado butterfly plant designated critical habitat.

#### Ute Ladies'-tresses

Ute ladies'-tresses (*Spiranthes diluvialis*) is a perennial, terrestrial orchid, 8 to 20 inches tall, with white or ivory flowers clustered into a spike arrangement at the top of the stem. Ute ladies'-tresses typically blooms from late July through August; however, depending on location and climatic conditions, it may bloom in early July or still be in flower as late as early October. Ute ladies'-tresses is endemic to moist soils near wetland meadows, springs, lakes, and perennial streams where it colonizes early successional point bars or sandy edges. Ute ladies'-tresses seem intolerant of shade and small scattered groups are found primarily in areas where vegetation is relatively open. Soils where Ute ladies'-tresses have been found typically range from fine silt/sand, to gravels and cobbles, as well as to highly organic and peaty soil types.

The FWS September 13, 2011, letter recommended that surveys be conducted by knowledgeable botanists trained in conducting rare plant surveys. WEST personnel, including G. Johnson who is described as highly experienced with this plant species, conducted a survey on December 16, 2011. Black Hills Corp. describes the WEST report as finding no suitable habitat for Ute ladies'-tresses at the project/facility site and states that FWS indicated they do not expect the plant to occur in Porter Draw. The Company describes the WEST report as determining that potential suitable habitat for the plant may exist in the Crow Creek riparian area. Black Hills Corp. commits to implementing the FWS recommendation of a one-time survey for the Ute ladies'-tresses at the Crow Creek location during the summer of 2012 to confirm, or deny, the presence of the species where the pipeline will cross. The results of the Company's study should be transmitted to both FWS and EPA. In addition, Black Hills Corp.'s March 2, 2012, letter states that it intends to directionally bore under the potential riparian habitat at Crow Creek to avoid adverse impact to the Ute ladies'-tresses or its potential habitat.

Based on the potential that the Ute ladies'-tresses may be present at the Crow Creek locations; WEST's 2012 survey; the Black Hills Corp.'s commitment to conduct an additional survey in the summer of



2012; and the Company's commitment to directionally bore in order to avoid any potential adverse effects at Crow Creek; EPA concludes that the proposed project may affect, but is not likely to adversely affect the Ute ladies'-tresses.

#### Species and Resources of Concern

The FWS September 13, 2011, letter identifies the black-tailed prairie dog as a species of concern. The Service describes the ecological importance of the black-tailed prairie dog and the benefits of their preservation. The letter indicates that the black-tailed prairie dog is the primary prey species for the black-footed ferret. However, colonies of black-tailed prairie dogs in Wyoming do not currently support any black-footed ferret populations making the need for black-footed ferret surveys unnecessary in Wyoming. However, the Service's letter encourages evaluating black-tailed prairie dog colonies for the potential reintroduction of black-footed ferrets. Black Hills Corp. describes the WEST survey as not finding any prairie dog colonies within the project site area. A memorandum entitled "Raptor Nest and Prairie Dog Colony Survey – Cheyenne Prairie Generating Station Project," dated April 19, 2012, found, no prairie dogs, colonies, or individual burrows present in or near the project area. Black Hills Corp. has committed to conducting a survey for prairie dog colonies on the gas line path it owns in the summer of 2012 and states that if colonies are discovered the Company commits to avoiding impact to the colonies as discussed with FWS.

The FWS letter also identifies the wetlands and riparian areas as resources of concern. Wetlands are important because they perform significant ecological functions which include: (1) providing habitat for numerous aquatic and terrestrial wildlife species; (2) aiding in the dispersal of floods; (3) improving water quality through retention and assimilation of pollutants from storm water runoff; and (4) recharging groundwater aquifers. The letter states that if wetlands may be destroyed or degraded by the proposed action, those wetlands in the project area should be inventoried and fully described in terms of their functions and values. Acreage of wetlands, by type, should be disclosed and specific actions should be outlined to avoid, minimize, and compensate for all unavoidable wetland impacts.

Riparian or streamside areas also are a valuable natural resource. Impacts, including the discharge of wastewater, to these areas should be avoided whenever possible. Riparian vegetation plays an important role in protecting streams, reducing erosion and sedimentation as well as improving water quality, maintaining the water table, controlling flooding, and providing shade and cover. The FWS letter states that in view of their importance and relative scarcity, impacts to riparian areas should be avoided. Any potential, unavoidable encroachment into these areas should be further avoided and minimized. Unavoidable impacts to streams should be assessed in terms of their functions and values, linear feet and vegetation type lost, potential effects on wildlife, and potential effects on bank stability and water quality. Measures to compensate for unavoidable losses of riparian areas should be developed and implemented as part of the project. Finally, the letter recommends development of mitigation plans and implementation of Best Management Practices (BMPs).

To avoid potential impacts to the wetlands/riparian areas, Black Hills Corp. states that it intends to directionally bore underneath Crow Creek and the adjacent riparian area, thus avoiding the wetlands and riparian areas bordering Crow Creek. Black Hills Corp. also states it will secure a Stormwater Construction Permit from the WDEQ and develop a Stormwater Pollution Prevention Plan (SWPPP) implementing BMPs to control stormwater run-off during construction. The facility will also have an Industrial Stormwater Control Permit with a SWPPP that requires BMPs once operation commences. By discharging plant waste water to the Dry Creek Wastewater Facility, Black Hills Corp. intends to



eliminate any stream impacts from discharge, as well as any issues that are associated with septic systems. By avoiding discharge directly to the waters of the United States, Black Hills Corp. is also eliminating the need for a National Pollutant Discharge Elimination System (NPDES) permit for waste water discharge.

#### Migratory Birds

The FWS September 13, 2011, letter includes recommendations to avoid the taking of migratory birds in accordance with the Migratory Bird Treaty Act, 16 U.S.C. § 703 and the Bald and Golden Eagle Protection Act, 16 U.S.C. 668. The Service states that if nesting migratory birds are present in or near the proposed project area, timing is a significant consideration and needs to be addressed in project planning. A FWS contact is provided if nest manipulation is proposed, and the FWS recommended that the proposed project be included within the scope of analysis of the April 5, 2011, Aviation Protection Plan, particularly Section 5.7, to minimize and avoid potential impacts to bird and bat species. Black Hills Corp. discussed two potential active raptor nests (great-horned owl and red-tailed hawk) and one historic nest (species unknown) in the proposed project area. The map that accompanies the WEST report identifies two additional inactive nests. The Black Hills Corp. letter, dated March 2, 2012, states that FWS recommended that construction activity be located greater than 0.125 miles from active great-horned owl nests and 0.25 miles from Swainsons' hawk and red-tailed hawk nests, in order to avoid disturbing the birds.

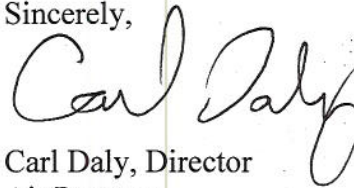
The Black Hills Corp. March 2, 2012, letter also states that the closest existing raptor nest to the proposed project site is 0.36 miles and that the Service has confirmed these nests are outside the distance where disturbance during plant construction would be of concern. Black Hills Corp. commits to further evaluation of the nests and the area surrounding the project site in the spring of 2012 and 2013 prior to, and during, facility construction. Black Hills Corp. should provide this information to FWS and EPA. The letter also states that if surveys reveal potential impacts, the Company will employ measures to avoid the nesting season or spatial distance requirements established for the avian species of concern as discussed with the FWS. With regard to pipeline construction, the Company intends to avoid the nests by implementing the FWS distance recommendations; or otherwise to plan pipeline construction that is in proximity to the nests, to occur outside the nesting season. With regard to ground nesting birds, the Company states that if ground nests are discovered along the natural gas pipeline corridor, it will employ measures of avoidance or other acceptable protective measures. Finally, with respect to migratory birds in general, the Company states its agreement with FWS, and per the Avian Protection Plan, that it will employ the techniques recommended by the Avian Power Line Interaction Committee.

Conclusion

EPA is providing as attachments to this letter: the Black Hills Corp. May 3, 2012 Endangered Species Impacts Assessment; the Memorandum dated April 19, 2012 from CH2M HILL Engineers, Inc. entitled, "Raptor Nest and Prairie Dog Survey-Cheyenne Prairie Generating Station Project"; the Black Hills Corp. March 2, 2012 letter transmitting their February 14, 2012 WEST report; and the Avian Protection Plan, September 6, 2011.

Based on our review of the attached information, as summarized in this letter, and in consultation with FWS staff, EPA has determined that the Agency's issuance of a CAA PSD permit to the CPGS proposed project may affect, but is not likely to adversely affect the Preble's meadow jumping mouse, the Ute ladies'-tresses and the Colorado butterfly plant. EPA requests FWS's written concurrence on this determination. If you have any questions please do not hesitate to contact Christopher Razzazian, of my staff, at (303) 312-6648.

Sincerely,



Carl Daly, Director  
Air Program

Attachments

Cc: Tim Rogers  
Environmental Manager  
Black Hills Corporation  
P.O. Box 1400  
625 Ninth Street  
Rapid City, SD 57709

1. The first part of the report is a summary of the work done during the year. It is a very brief summary, but it gives a good idea of the work done. It is written in a very simple and direct style, and it is very easy to read. It is a very good example of a summary of work done.

2. The second part of the report is a description of the work done during the year. It is a very detailed description, and it gives a good idea of the work done. It is written in a very simple and direct style, and it is very easy to read. It is a very good example of a description of work done.

3. The third part of the report is a list of the work done during the year. It is a very detailed list, and it gives a good idea of the work done. It is written in a very simple and direct style, and it is very easy to read. It is a very good example of a list of work done.

4. The fourth part of the report is a list of the work done during the year. It is a very detailed list, and it gives a good idea of the work done. It is written in a very simple and direct style, and it is very easy to read. It is a very good example of a list of work done.

5. The fifth part of the report is a list of the work done during the year. It is a very detailed list, and it gives a good idea of the work done. It is written in a very simple and direct style, and it is very easy to read. It is a very good example of a list of work done.