II. Environmental Protection Measures

II ENVIRONMENTAL PROTECTION MEASURES

The holder shall commit to stringent monitoring and mitigation requirements to conserve and protect biological and cultural resources. These measures and their implementation are outlined below.

II.1 BIOLOGICAL RESOURCES

To conserve wildlife and understand the relationship and impact of the project on wildlife species, including the greater sage-grouse (SAGR), avian and bat species, and raptors, the holder shall be obligated to institute and implement the following monitoring protocols.

The holder shall implement all biological monitoring identified below by providing funding through a Cooperative Agreement to be signed by the BLM and the Holder per Appendix F of the Final Environmental Impact Statement. The Management Steering Committee (MSC) will agree on how monitoring and mitigation will be implemented to achieve the objectives stated here.

A Technical Steering Committee (TSC) shall provide oversight and guidance regarding monitoring information. The TSC shall include technically qualified representatives of the BLM, Idaho Department of Fish and Game (IDFG), United States Fish and Wildlife Service (USFWS), and the holder. Ex-officio additional members include Idaho Department of Lands, Shoshone-Bannock Tribes, the Shoshone-Paiute Tribes, local SAGR working group, and local community members. The TSC will provide information and management action recommendations to the MSC.

The MSC shall provide management oversight related to further monitoring, project adjustments to reduce biological resource impacts, and mitigation priorities and decisions. The MSC shall include managers with decision making authority representing the BLM, IDFG, USFWS, and the holder.

II.1.1 Greater Sage-grouse

SAGR have been and continue to be the subject of major federal, state, and local concern and conservation strategies throughout the American West, especially Idaho.

SAGR are documented to occur on Cotterel Mountain. There are five active SAGR leks on Cotterel Mountain within the project area. There are two known additional leks within the nearby vicinity of the project area.

To conserve and protect this species, monitoring measures to achieve the objectives identified in the "*Cotterel Mountain Annual Sage-grouse Monitoring Protocol*" shall be conducted. These measures include the following:

(1) Restrict all construction and maintenance activities that occur within 0.5 miles of an active lek between the hours of 4 am and 11 am during the lekking season (mid-March – mid-May).

(2) One field contact representative (FCR) shall be designated prior to the start of construction and approved by the BLM. The FCR will have a background based in biological or ecological studies and monitoring, and shall be responsible for ensuring compliance with protective measures for biological and cultural resources. This individual shall act as the primary resource agency contact. The FCR shall have the authority to halt construction activities if the project is not in compliance with mitigation and Best Management Practices required by the BLM. The FCR will report directly to the BLM Burley Field Office Manager or his authorized representative.

(3) The holder shall fund SAGR breeding, population, and lek studies in accordance with the protocols identified in the "*Cotterel Mountain Annual Sage-grouse Monitoring Protocol*" for a period of at least seven years, beginning with the start up of construction. Monitoring will include SAGR studies to assess impacts associated with construction and operation of the wind power project, including control sites, and studies of mitigation effectiveness. At a minimum, studies to evaluate construction and operation impacts will continue for no less than five years after the beginning of power production.

(4) If monitoring and analysis of the SAGR data indicate a disturbance or decline in the SAGR population on the project area, the TSC shall: 1) determine the design and duration of additional or expanded monitoring necessary to determine the relationship of the project to the disturbance or decline and the overall trend of SAGR population and 2) present these as recommendations to the MSC for decision. The holder shall be responsible for funding all additional monitoring or mitigation actions as decided by the MSC.

II.1.2 Avian Fatality Monitoring

The primary goal of avian fatality monitoring of wind energy developments is to provide information on direct impacts of the project on birds and bats and to reveal any turbines or other project features that are responsible for a significant percentage of the fatalities. This information will then be used to identify potential methods for reducing such significant fatalities. The secondary goal of monitoring is to provide information that can be used to reduce potential risks to birds that could result from subsequent wind energy developments.

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703-712, July 3, 1918, as amended) will be used as a protective management tool, if needed, for any migratory species not otherwise protected at Cotterel Mountain, notably bat species. The MBTA implements various treaties and conventions between the U.S., Canada, Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing, or possessing migratory birds is unlawful. The Act specifically states:

> *Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner to pursue, hunt, take, capture, kill; attempt to take, capture, or kill; possess, offer for sale, sell, offer to barter, barter, offer to purchase, purchase, deliver for*

> *shipment, ship, export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, and part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States and Great Britain for the protection of migratory birds concluded August 16, 1916 (39 Stat. 1702), the United States and the United Mexican States for the protection of migratory birds and game mammals concluded February 7, 1936, the United States and the Government of Japan for the protection of migratory birds and birds in danger of extinction, and their environment concluded March 4, 1972 and the convention between the United States and the Union of Soviet Socialist Republics for the conservation of migratory birds and their environments concluded November 19, 1976. §§ 703*
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> *Subject to the provisions and in order to carry out the purposes of the convention, referred to in section 703 of this title, the Secretary of the Interior is authorized and directed, from time to time, having due regard to the zones of temperature and to the distribution, abundance, economic value, breeding habits, and times and lines of migratory flight of such birds, to determine when, to what extent, if at all, and by what means, it is compatible with the terms of the conventions to allow hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any such bird, or any part, nest, or egg thereof, and to adopt suitable regulations permitting and governing the same, in accordance with such determinations, which regulations shall become effective when approved by the President. §§ 704.*

The U.S. Fish and Wildlife Service (USFWS) Law Enforcement division currently enforces the MBTA. There is a possibility that migratory birds, eggs, or inhabited nests could be inadvertently killed, crushed, or abandoned during construction or operation activities at Cotterel Mountain, and these activities could be considered under the MBTA as a "take" or "kill" and result in a violation of the MBTA.

The holder shall fund avian and bat fatality monitoring using methods that have been implemented at other constructed wind projects in the United States to achieve the objectives identified in the "*Cotterel Mountain Avian Fatality Monitoring Protocol*". These measures will include the following:

(1) Biologists trained in proper search techniques will conduct fatality searches. Fatality searches will be initiated across the entire study area prior to turbine construction to estimate pre-construction natural mortality. Fatality monitoring will be conducted for no less than a period of five years beginning with the start up power production.

(2) The fatality monitoring study will begin once all the turbines are constructed and operational. The following dates will be used to define seasons: (1) spring

migration (March 16 – May 15); (2) breeding season (May 16 – August 15); (3) fall migration (August 16 – October 31) and (4) winter (November 1 – March 15).

(3) All casualties located will be photographed as found and mapped by Global Positioning System (GPS) on a detailed map of the study area that will show the location of wind turbines and associated facilities, such as power lines and towers. Casualties found will then be labeled with a unique identification number, bagged and frozen. A copy of the data sheet for each carcass will be maintained, bagged, and frozen with the carcass. This data sheet copy should remain with the carcass at all times. A certified wildlife veterinary laboratory will conduct gross necropsies of all intact, suitable avian fatalities found associated with a turbine. No bat laboratory necropsies will be conducted.

(4) Casualties or fatalities found by maintenance personnel and others not conducting the formal searches will be documented using a wildlife incidental fatality reporting system. When carcasses of animals are discovered by non-monitoring personnel, a project biologist will be contacted to identify and collect the casualty.

(5) Local wildlife biologists associated with the USFWS, the BLM, and IDFG will be contacted within 24 hours to report the casualties of any species of special concern. These agencies will be notified monthly of casualty findings throughout the duration of the study.

(6) In accordance with the protocols identified in "*Cotterel Mountain Avian Fatality Monitoring Protocol,*" avian fatality monitoring will begin within two weeks of the start of project operation. Fatality monitoring will be conducted on a year round basis, weather permitting. Monitoring will be conducted for a period of at least seven years beginning with the start up of construction. At a minimum, studies to evaluate construction and operation impacts will continue for no less than five years after the beginning of power production.

(7) Summary results of the avian and bat fatality monitoring will be submitted on a monthly basis to the TSC and the BLM, Twin Falls District, Burley Field Office. If during monitoring a significant fatality event is recorded at a single or multiple turbines, the event and the results of that days monitoring will be reported immediately to the BLM. Results regarding each year of avian and bat fatality monitoring will be summarized in an annual report. This report will include the complete data set for all fatality monitoring collected since the beginning of the facility operation. The report will be submitted to the TSC and the BLM Burley Field Office by January 15th of each year.

(8) If the results of the fatality monitoring indicate that individual turbines or groups of turbines or other project features are resulting in significant avian or bat mortalities the following measures will be implemented:

A. The TSC will meet to analyze the data and information, and determine if additional monitoring analysis or investigation is needed.

B. Depending on the results of the analyses, the TSC will advise the Field Office Manager and MSC of the need to modify the operation of a specific turbine or turbines for a specific period of time. For example, if all of the fatalities were of a single species of migrating songbird in the spring, subsequent plans for the following spring would be made. On the other hand, if fatalities were of the same species of a local raptor, a different approach could be recommended.

C. The TSC shall determine if additional monitoring or analysis are necessary to determine if the modification was successful in reducing or eliminating mortality.

D. The TSC shall make appropriate recommendations to the MSC.

E. The holder shall be responsible for funding any additional monitoring deemed necessary by the MSC.

II.1.3 Raptor Monitoring

Monitoring of both resident and migrating raptors will enhance the knowledge of the relationship of wind energy projects to raptors in the Basin and Range province of the American West. Data collected at Cotterel Mountain will provide valuable information that will assist in avoiding or minimizing potential impacts to raptors at other proposed wind energy sites within the Basin and Range province and provide information regarding the relationship of the Cotterel Wind Power Project to migratory raptors.

At Hawk Mountain in the Goshute Mountains, on a similar north-south trending Basin and Range ridge located approximately 120 miles south, southwest of Cotterel Mountain some 60,000 raptors have been banded since 1980. In addition, Hawk Watch International visually identifies some 12,000 to 25,000 raptors at its observatory each year at this location. Because Cotterel Mountain and the Goshutes are part of the same Basin and Range province and on the same raptor migration route, information collected at Cotterel Mountain will be of benefit to both the BLM and other wind energy applicants in the region. Currently the BLM has several wind energy project applications in Nevada and southern Idaho.

The primary goal of raptor monitoring is to collect annual information that will be used to help evaluate the impacts of the project construction and operation on nesting and migrating raptor species in the region. Objectives of the raptor nest studies will be to evaluate numbers and distribution of nesting raptors that may be potentially influenced by the project, and to evaluate potential effects of wind turbines and other project features on nesting success.

The holder shall fund raptor monitoring using methods that have been implemented at other constructed wind projects in the United States in an effort to meet the objectives identified in

the "*Cotterel Mountain Raptor Nesting and Migration Monitoring Protocol*" (Appendix C). These measures include the following:

(1) Helicopter surveys to locate active raptor nests will be conducted within a 2 mile buffer surrounding the outmost edge of the turbine strings. A second helicopter survey will be conducted approximately 29 days later to determine nest success and activity of later season nesters.

(2) Annual migration surveys will utilize the 18 migration survey points established during baseline data collection. Surveys will begin generally in late August and continue through late October. Surveys will be conducted six days a week (Monday through Saturday), starting at 1000 and ending at 1800 each survey-day.

(3) Raptor nesting and migration monitoring will then be initiated prior to and continue through project construction and operation phases. Annual monitoring will continue for at least five years post construction. Monitoring will include studies to assess impacts associated with construction and operation of the wind power project, including control sites, and studies of mitigation effectiveness.

(4) If monitoring and analysis of the nesting and migration data indicate a disturbance or decline in the raptor population on the project area, the TSC shall determine the design and duration of additional or expanded monitoring necessary to determine the relationship of the project to the disturbance or decline and the overall trend of raptor population(s) and it shall present these recommendations to the MSC for decision. The holder shall be responsible for funding all additional monitoring or mitigation actions as decided by the MSC.

(5) Results regarding each year of raptor nesting and migration monitoring will be summarized in an annual report. This report will include the complete data set for all monitoring collected since the beginning of the facility operation. The report will be submitted to the TSC and the BLM Burley Field Office by January 15th of each year.

II.2 CULTURAL RESOURCES

To protect cultural resources, the holder agrees to the following conditions:

(1) Identification and evaluation of historic properties and resolution of adverse effects by avoidance shall be determined through consultation with the BLM, the Idaho State Historic Preservation Officer (SHPO), consulting parties, and Tribes pursuant to Section 106 of the National Historic Preservation Act (NHPA) and implementing regulations at 36 CFR Part 800.

(2) The BLM shall ensure that all historic preservation work is carried out by or under the direct supervision of a person or persons (the Principal Investigator)

meeting, at a minimum, the standards set forth in the Secretary of the Interior's Professional Qualifications (48 FR 44738−44739).

(3) Archaeological monitoring shall be conducted before any subsurface construction or ground-disturbing activity in areas determined by the Principal Investigator and the BLM to be archaeologically sensitive in accordance with a monitoring and discovery plan approved by the BLM and the SHPO.

(4) The Principal Investigator and Biological Monitors shall attend a preconstruction meeting. The construction contract shall state the need for the meeting, and project construction will identify the specific requirements for monitoring. The meeting will allow the archaeological monitors to establish their roles and responsibilities, and protocol and point of contact information with the construction contractors.

(5) Cultural properties discovered during construction shall be reported and treated in accordance with a monitoring and discovery plan approved by the BLM and the SHPO.

(6) If human remains or funerary objects are discovered during construction, construction shall cease immediately in the area of discovery, and the BLM shall be notified by telephone followed by written confirmation. In accordance with the monitoring and discovery plan and Native American Graves Protection and Repatriation Act, the BLM shall notify and consult with Indian Tribes to determine treatment and disposition measures.

(7) The BLM shall ensure that all cultural materials and records resulting from the treatment program are curated in accordance with Idaho BLM State Policy and 36 CFR Part 79.

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