

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (“MOU”) is made, dated and effective as of December 10, 2012 (the “Effective Date”) by and between the **Wyoming Game and Fish Department**, 5400 Bishop Boulevard, Cheyenne, Wyoming 82006 (“WGFD”), **Power Company of Wyoming LLC**, 555 17th Street, Suite 2400, Denver, Colorado 80202 (“PCW”) and **The Overland Trail Cattle Company LLC**, 555 17th Street, Suite 2400, Denver, Colorado 80202 (“TOTCO”). WGFD, PCW and TOTCO are sometimes collectively referred to as the “Parties” and each individually as a “Party”.

RECITALS

A. Since the 1990s, TOTCO has owned and operated one of the largest cattle ranching and agricultural operations in the West. Located south of Rawlins and Sinclair in Carbon County, and headquartered in Saratoga, the Overland Trail Ranch (“Ranch”) encompasses approximately 320,000 acres. The Ranch is in Wyoming’s “checkerboard” country, consisting of about half private land and half federal land managed by the Bureau of Land Management (“BLM”), along with a small percentage of state-owned parcels.

B. PCW is developing a wind farm known as the Chokecherry and Sierra Madre Wind Energy Project (“CCSM Project”). The CCSM Project will be located on approximately 125,000 acres of the Ranch. Total permanent land disturbance, however, for the turbines, access roads and related equipment is estimated to be less than 3% of the project area. The CCSM Project will generate 2,000-3,000 megawatts of clean, renewable wind energy. The BLM released a Final Environmental Impact Statement on July 3, 2012, which describes the CCSM Project in detail and analyses and discloses the impacts of the CCSM Project, including impacts to wildlife species.

C. The Ranch provides current and potential habitat for, among other species, greater sage-grouse, mule deer, and sensitive fish species. TOTCO and WGFD have worked together in the past to maintain, develop and improve wildlife habitat on the Ranch.

D. PCW, TOTCO and WGFD through collaborative efforts want to promote and maintain the availability and use of high quality habitat to sustain and enhance terrestrial and aquatic wildlife populations on the Ranch in conjunction with various land uses, including the continuation of ranching and agricultural operations as well as development of the wind energy resource through construction of the proposed CCSM Project.

E. PCW will file an application with the Wyoming Industrial Siting Division for a Wyoming State permit for the CCSM Project and the Parties want to coordinate and work together to address the permit requirements under the jurisdiction of the WGFD.

AGREEMENT

Now therefore, for and in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and pursuant to authority granted to the Wyoming Game and Fish Commission in §23-1-302(a), Wyo. Stat. Ann., the Parties agree as follows:

1. Landowner Plan. The Parties will cooperate with each other to develop a landowner plan to be included in PCW's Section 109 application, which will be submitted to the Industrial Siting Division ("Landowner Plan"), and that will address the following:
 - a. Greater Sage-Grouse. PCW has committed to no wind development activities within core sage-grouse population areas identified by the State of Wyoming under the Governor's Executive Order 2011-5 (EO 2011-5 Version 3 map) ("Sage-Grouse Core Population Areas"). In addition, PCW has developed and is already implementing The Chokecherry and Sierra Madre Wind Energy Project Sage-Grouse Conservation Plan ("Conservation Plan"). *See Exhibit 1*. PCW submitted the Conservation Plan to the BLM on January 12, 2012, as part of its Plan of Development. Through its Conservation Plan, PCW will implement science-based conservation measures for the greater sage-grouse (*Centrocercus urophasianus*) ("sage-grouse") that are designed to reduce or eliminate current threats as well as protect, restore and enhance habitat of sage-grouse as well as other species of interest on the Ranch and within the CCSM Project site. These conservation measures will insure that vital seasonal and year-long habitats on the Ranch are managed responsibly for the benefit of sage-grouse and that the CCSM Project is developed in a way that complements and furthers federal, state and local goals to conserve the greater sage-grouse.
 - b. Big Game Species. The Parties will cooperate in developing conservation and mitigation measures related to the Baggs Mule Deer Herd and the Platte Valley Mule Deer Herd. Such measures may include: cooperative research with the University of Wyoming; collaring animals to obtain more information on the herd; and monitoring of the habitat. TOTCO has and will continue to cooperate with the WGFD and the University of Wyoming on pronghorn antelope studies by providing access to the Ranch as requested on a case-by-case basis. The CCSM Project is not expected to have an impact on either the Sierra Madre or the Elk Mountain elk herds because the majority of the high quality elk habitat is located within Sage-Grouse Core Population Areas, where no wind development activities will occur.
 - c. Avian and Bat Protection Plan. The Parties will cooperate in developing an avian and bat protection plan for those species under the jurisdiction of the WGFD as directed by the Wind Energy Recommendations for Important and Crucial Habitats. WGFD acknowledges that PCW is working with the U. S. Fish and Wildlife Service ("Service") on a Bird and Bat Conservation Strategy ("BBCS") and an Eagle Conservation Plan ("ECP") that address conservation measures that will avoid, minimize and mitigate potential impacts of the CCSM Project on Service Avian and Bat Trust Species. WGFD acknowledges that, if approved by the Service, the BBCS and ECP will provide adequate protection of Service Avian and Bat Trust Species and that WGFD will not require additional avoidance, minimization or mitigation measures beyond those provided for in the BBCS and ECP for such Trust Species. For avian and

bat species not covered by the BBCS, WGFD and PCW will work together to address identified concerns and develop additional necessary avoidance, minimization and mitigation measures, if any.

d. Aquatic Considerations. PCW has mapped water drainages in the CCSM Project Area and collected baseline data related to water quality, stream morphology, and sedimentation. PCW will continue to work with WGFD regarding appropriate measures to protect perennial streams and aquatic wildlife as directed by the Wind Energy Recommendations for Important and Crucial Habitats.

e. Internal Haul Road. In consideration of the conservation measures to be developed by the Parties and undertaken by PCW and TOTCO under the terms of this MOU, WGFD accepts the location of the internal haul road as generally described by the BLM in the FEIS in its Agency Preferred Alternative. WGFD and PCW will work together to address any impacts from the internal haul road as finally provided for by the BLM in its Record of Decision.

f. Arterial Road. PCW will utilize a portion of existing County Road 505E for the construction, operation and decommissioning of the CCSM Project. County Road 505E crosses lands owned by WGFD legally described as: Township 17 North, Range 88 West, 6th P.M., Carbon County, Wyoming, Section 5, Lot 2. WGFD agrees that PCW may improve the road to include a 24 foot wide gravel driving surface and associated shoulders and ditches, for a total width of 34 feet.

2. Conservation Easement. TOTCO shall execute and record in the real property records of Carbon County, Wyoming, a wind energy development conservation easement covering the lands owned by TOTCO and depicted on *Exhibit 2* to this MOU (“Conservation Easement”). The Conservation Easement shall comply with the provisions of Sections 34-1-201–207, Wyo. Stat. Ann., and shall prohibit in perpetuity wind development activities on the lands subject to the Conservation Easement. TOTCO agrees to execute the Conservation Easement within 90 days following the date that any portion of the CCSM Project achieves commercial operation as defined in the applicable contract for the purchase of power generated by the CCSM Project.

3. CCAA/CCA. In February 2010, PCW submitted an application to the Service for an Enhancement of Survival Permit under Section 10(a)(1)(A) of the Endangered Species Act. The Service is currently reviewing PCW’s draft Candidate Conservation Agreement with Assurances and associated Comprehensive Conservation Plan for the sage-grouse (“Sage-grouse CCAA”). PCW intends to expand its CCAA application to include a Candidate Conservation Agreement (“CCA”) which will apply to the federal lands utilized by the CCSM Project. PCW will continue to use its best efforts to obtain approval of its application from the Service while retaining the right to negotiate the specific terms of the CCAA/CCA with the Service. WGFD agrees to support PCW and TOTCO in its work with the Service towards issuance of a final and effective Section 10(a)(1)(A) permit.

4. Upper Muddy Creek Fish Species. The Upper Muddy Creek Drainage contains invasive fish species that WGFD wishes to remove from the drainage in order to restore native roundtail chub (*Gila robusta*), bluehead sucker (*Catostomus discobolus*), flannelmouth sucker (*Catostomus latipinnis*), mountain sucker *Catostomus platyrhynchus*), Colorado River cutthroat (*Oncorhynchus clarkii pleuriticus*) and speckled dace (*Rhinichthys osculus*) (“Upper Muddy Creek Fish Species”). TOTCO has agreed to provide access to the Upper Muddy Creek drainage¹ to designated WGFD personnel, or their supervised designees from the Bureau of Land Management or U.S. Forest Service, during the term of this MOU for the purpose of conducting fish surveys, the installation and maintenance of fish migration barriers, and performing mechanical and chemical treatments for habitat enhancement.

TOTCO’s grant of access is subject to the following:

a. Within 45 days following the Effective Date of this Agreement, WGFD will provide TOTCO and PCW with information in the form of a memorandum or other agreed upon document setting forth: (i) a description of existing conditions of the Upper Muddy Creek drainage; (ii) baseline population trend data of the Upper Muddy Creek Fish Species; (iii) WGFD efforts undertaken to date to reestablish the Upper Muddy Creek Fish Species; and (iv) planned future efforts by WGFD to improve habitat for the Upper Muddy Creek Fish Species. Based on the WGFD document, PCW will prepare and send to the Service a letter informing the Service that PCW and TOTCO, in cooperation with WGFD, are intending to apply for an Enhancement of Survival Permit for the Upper Muddy Creek Fish Species. The letter will seek the Service’s concurrence on baseline conditions upon which the Enhancement of Survival Permit will be issued; however, TOTCO’s grant of access will not be subject to receiving the Service’s concurrence.

b. WGFD will provide TOTCO with an overall timeline of activities for the project along with an annual work plan which must be approved by TOTCO prior to WGFD initiating field work and any changes in plans must be communicated to TOTCO prior to execution;

c. WGFD will provide TOTCO with a report each year by January 31st which shall summarize the work done under the annual work plan, include the data collected the previous year, and discuss the results of its mechanical and chemical treatments;

d. WGFD personnel shall at all times exercise due care and diligence to avoid damage to the fences, crops, livestock, meteorological towers, and other personal property on the TOTCO and PCW lands, and WGFD shall repair or pay TOTCO and/or PCW for any and all damage caused by its personnel in the exercise of the access rights granted under this MOU.

e. WGFD personnel shall comply with TOTCOs Ranch Rules. *See Exhibit 3.*

¹ For the purposes of this MOU Upper Muddy Creek drainage refers to the portion of the Upper Muddy Creek drainage on TOTCO property.

f. To provide regulatory protection to TOTCO, PCW, and possibly other landowners should any of the Upper Muddy Creek Fish Species be listed or become candidate species for listing under the Endangered Species Act (ESA), WGFD agrees to work with PCW, TOTCO and the Service towards issuance of a final and effective CCAA and CCA providing coverage for the Upper Muddy Creek Fish Species. The parties contemplate that the Upper Muddy Creek Fish Species may be included within the CCAA/CCA for greater sage-grouse.

5. Dispute Resolution. If a dispute arises between the parties under the terms of this MOU then the party shall submit the dispute in writing to the respective signatories to this MOU. The signatories to this MOU or their designees shall meet once for no more than three consecutive days in person at an agreed upon location in an attempt to resolve the dispute. If they are unable to resolve the dispute within 30 days from the date of written notice of a dispute, the party who submitted the dispute to the signatories may declare the dispute irresolvable and shall have the right to terminate the MOU upon written notice to the other party. In the event a signatory to this MOU is no longer employed by the party on whose behalf such signatory executed this MOU, that party shall identify a successor who shall be a person with equivalent managerial authority as the original signatory to this MOU for such party.

6. Term. This MOU shall automatically terminate without any further action of the parties upon the occurrence of any of the following:

- (a) if PCW in its sole discretion elects not to move forward with construction and operation of the CCSM Project for any reason;
- (b) five years from the Effective Date of this MOU, unless extended by mutual agreement of the Parties; or
- (c) pursuant to the terms of paragraph 5 above.

Upon termination of this MOU, no Party shall have any further obligation under the terms of this MOU.

7. Miscellaneous.

7.1 Amendments. None of the terms or conditions of this MOU may be changed, waived, modified or varied in any manner whatsoever unless in writing duly signed by the Parties.

7.2 Waiver. The delay or failure of any Party to enforce any of its rights under this MOU shall not constitute a waiver of any such rights, unless such waiver is signed by an authorized representative of the waiving Party and delivered to the other Party. No custom or practice that may arise between the Parties in the course of operating under this MOU will be construed to waive any Party's rights to either ensure the other Party's strict performance with the terms and conditions of this MOU, or to exercise any rights granted to it under this MOU. Neither Party shall be deemed to have waived any right conferred by this MOU or under any applicable law unless such waiver is set forth in a written document signed by the Party to be bound, and delivered to the other Party. No express waiver by either Party shall be construed as

a continuing waiver of any future rights, including as a result of future breaches or defaults or defaults by the other Party.

7.3 Notices. All notices, requests and demands to or upon the respective Parties shall be in writing (including by email) and shall be deemed to have been duly given and made when delivered by hand (including by courier service), or upon actual receipt, addressed to the addresses set forth below or to such other addresses as may be designated by any Party in a written notice to the other Parties:

Wyoming Game and Fish Department
5400 Bishop Boulevard
Cheyenne, WY 82006
Attention: Dirk Miller
Telephone: 307-777-4559
Facsimile: 307-777-4611
Email: dirk.miller@wyo.gov

TOTCO and/or PCW:
555 17th Street, Suite 2400
Denver, CO 80202
Attention: Roxane Perruso, Vice President and General Counsel
Telephone: 303-299-1342
Facsimile: 303-299-1356
Email: Roxane.Perruso@tac-Denver.com

7.4 Execution and Counterparts. This MOU may be executed in one or more counterparts, each of which will be deemed to be an original of this MOU and all of which, when taken together, will be deemed to constitute one and the same instrument. The exchange of copies of this MOU and of signature pages by facsimile transmission or by PDF's sent via email shall constitute effective execution and delivery of the MOU. Signatures of the Parties transmitted by facsimile or PDF sent by email shall be deemed to be their original signatures for all purposes.

7.5 Governing Law. This MOU shall be construed and enforced in accordance with and the rights of the parties shall be governed by the laws of the State of Wyoming without reference to conflicts of laws' principles.

7.6 Integration. This MOU expresses the entire understanding of the Parties with respect to the subject matter hereof, superseding all negotiations, prior discussions and prior agreements and understandings relating to such matters.

7.7 Severability. In the event that any one or more of the provisions contained in this MOU shall be declared invalid, void or unenforceable, the remainder of the provisions of this MOU shall remain in full force and effect and such invalid, void or unenforceable provisions shall be interpreted as closely as possible to the manner in which it was written.

7.8 Assignment; Binding Effect. This MOU shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns. The parties shall not assign or otherwise transfer any of the rights or delegate any of the duties set out in this MOU without the prior written consent of the other parties, which consent shall not be unreasonably withheld.

7.9 Relationship of Parties. The covenants, obligations and liabilities of the Parties are intended to be several and not joint or collective and nothing herein contained shall ever be construed to create an association, joint venture, trust or partnership on or with respect to any of the Parties. Each Party shall be individually responsible for its own covenants, obligations and liabilities herein provided.

7.10 Construction. The words "this MOU," "herein," "hereby," "hereunder" and words of similar import refer to this MOU as a whole and not to any particular subdivision unless expressly so limited. Unless otherwise expressly indicated, references herein to sections are references to the sections of this MOU. The word "or" is not exclusive, and "including" (and its various derivatives), means "including without limitation." Words in the singular form shall be construed to include the plural and words in the plural form shall be construed to include the singular, unless the context otherwise requires. The section headings herein are for convenience only and shall not affect the construction hereof. In the event an ambiguity or question of intent or interpretation of this MOU arises, this MOU shall be construed as if jointly drafted by the Parties, and no presumption or burden of proof shall arise favoring or disfavoring a Party as a result of authorship or drafting of any provision of this MOU.

7.11 Sovereign Immunity. The State of Wyoming and Game and Fish Commission do not waive sovereign immunity by entering into this MOU and specifically retain all immunities and defenses available to them as sovereigns pursuant to Wyo. Stat. § 1-39-104(a) and all other applicable law. Designations of venue, choice of law, enforcement actions, and similar provisions should not be construed as a waiver of sovereign immunity. The parties agree that any ambiguity in this MOU shall not be strictly construed, either against or for any individual party, except that any ambiguity as to sovereign immunity shall be construed in favor of sovereign immunity.

7.12 Indemnity Language. Each party to this MOU shall assume the risk of any liability arising from its own conduct. No party agrees to insure, defend or indemnify the others.

7.13 Release. WGFD hereby releases TOTCO, PCW, its members, affiliates, employees and agents from any and all damages, claims, causes of action, injuries, property loss or death, known or unknown, foreseen and unforeseen which may arise in any manner from the access granted to WGFD personnel in paragraph 4 above, unless those damages, claims, causes of action, injuries, property loss or death are caused by the gross negligence of TOTCO, PCW, its members, affiliates, employees or agents.

7.14 Authorized Execution. The individuals signing below each represent and warrant (i) that they are authorized to execute this MOU for and on behalf of the Party for whom

they are signing; (ii) that such Party shall be bound in all respects hereby; and (iii) that such execution presents no conflict with any other agreement of such Party.

[signature page follows]

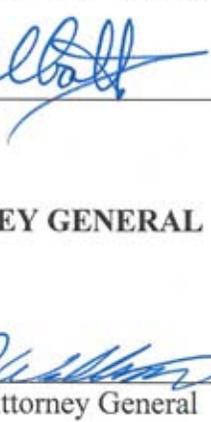
In witness whereof, the duly authorized representatives of the Parties hereto have executed this MOU.

WYOMING GAME AND FISH DEPARTMENT

By: 
Scott Talbot, Director

Date: 11/30/2012

WYOMING ATTORNEY GENERAL
As to form

By: 
David Willms, WGFD Attorney General

Date: 11/30/12

POWER COMPANY OF WYOMING

By: 
Name: Garry L. Miller
Title: Vice President, Land and Environmental Affairs

Date: 12/10/2012

THE OVERLAND TRAIL CATTLE COMPANY

By: 
Name: Garry L. Miller
Title: Vice President, Land and Environmental Affairs

Date: 12/10/2012

EXHIBIT 1

The Chokecherry and Sierra Madre Wind Energy Project Sage-Grouse Conservation Plan

Developed by

Power Company of Wyoming LLC

555 17th St., Suite 2400
Denver, CO 80202

January 2012



Contents

1. Introduction
2. Conservation Status
3. Conservation Strategy
4. Goals and Objectives
5. Conservation Measures
6. Conclusion
7. References

Appendix 1: Sagebrush-Associated Species and Other Species of Interest

1. INTRODUCTION

A sensible clean energy project

Power Company of Wyoming LLC (PCW) is proposing to build one of the world's most significant renewable energy projects. Located in wind-rich Carbon County, Wyoming, the **Chokecherry and Sierra Madre (CCSM) Wind Energy Project** will generate 2,000-3,000 megawatts (MW) of clean, renewable power – enough to support approximately 800,000 U.S. households. This estimated \$4 billion to \$6 billion investment in America's electric system will produce significant supplies of cost-effective clean energy while generating hundreds of good jobs, millions in tax and royalty revenue, and other economic benefits.

The wind project will be situated on portions of the 320,000-acre Overland Trail Ranch (Ranch), owned and operated by The Overland Trail Cattle Company LLC (TOTCO). The nation's best, highest-capacity onshore wind resources are found across the Ranch, which consists of an approximately 50/50 mix of privately owned land interspersed with federal land managed by the Bureau of Land Management (BLM). The wind energy project's utilization of approximately 50% BLM-managed land aligns with federal energy policies and objectives, including the goal outlined in Section 211 of the 2005 Energy Policy Act to develop 10,000 MW of renewable energy projects on federal land managed by the Department of the Interior by 2015; and the Department's goal of developing 10,000 MW of renewable energy on federal land by 2012.

Moreover, although the wind energy project will be located on portions of the private and BLM-managed land on the Ranch, it will result in less than 1% long-term surface disturbance on the Ranch, leaving 99% of the Ranch's vegetation communities intact and available for dedication to wildlife management and conservation.

The CCSM Wind Energy Project will deliver inherent environmental benefits to people and to plant and animal species; wind energy development is recognized as an important component in the nationwide effort to reduce greenhouse-gas emissions and climate effects from burning fossil fuels for energy. For example, the CCSM Wind Energy Project's estimated clean energy generation will reduce carbon dioxide (CO₂) emissions by approximately 7 million metric tons per year, equivalent to taking over 1 million cars off the road. Further, unlike traditional power plants, a wind farm can generate electricity day after day, year after year, decade after decade without creating odors or pollution, without creating toxic waste, and without the need to mine, drill or deliver ongoing fuel supplies.

Finally, the strength of the wind resource and the size of the wind energy project contribute to the strategy set out in the BLM's FPEIS on Wind Energy Development "of extracting the maximum potential wind energy from a given site [which] will minimize the overall environmental impacts." In fact, the wind project's nameplate capacity of up to 3,000 MW is about equal to the nameplate capacity of all the wind plants currently operating in California

(2,965 MW) combined. However, PCW's wind energy project will produce an estimated 30% more energy annually than all of California's current wind plants due to Wyoming's better wind resources and today's opportunities to deploy next-generation wind turbine technology.

A responsible development plan

At the same time, PCW is working to assure that the wind project itself is developed in an environmentally responsible manner. In particular, the CCSM Wind Energy Project will be developed in a way that complements and furthers federal, state and local goals to conserve the greater sage-grouse (*Centrocercus urophasianus*; hereafter sage-grouse). This will be achieved by implementing science-based conservation measures for sage-grouse that will reduce or eliminate current threats as well as protect, restore and enhance habitat of sage-grouse and other species of interest on the Ranch and within the Project Site. These conservation measures will insure that vital seasonal and year-long habitats on the Ranch are managed responsibly for the benefit of the sage-grouse.

Greater sage-grouse

The sage-grouse is considered a sagebrush-obligate species because it depends on sagebrush (*Artemisia* spp.) for a significant portion of its life-history needs (Patterson 1952). Its association with sagebrush is so strong that its overall range closely mirrors that of sagebrush in the western United States and southern Canada (Schroeder et al. 2004). Across their range, sage-grouse have adapted to a wide variety of sagebrush habitat types that naturally vary with regard to vegetative composition, habitat fragmentation, fire frequency and landscape features (e.g., topography). Sage-grouse use other habitat types in their life-cycle, particularly plant communities rich in forbs and insect abundance – such as riparian meadows and agricultural areas – during the brooding season. Their use of these other habitat types often relies on the availability of water resources and proximity to adjacent native sagebrush habitats (Braun 1998).

The sage-grouse is a species known to be vulnerable to various land management activities occurring on the landscape. Despite a population decline of 3.1 percent per year from 1967 to 2007 across its range, trends in recent years indicate that some sage-grouse populations have stabilized or increased with an average decline over the past decade of 1.4 percent (U.S. Fish and Wildlife Service 2008; Western Association of Fish and Wildlife Agencies 2008). The range of the species has been subdivided into seven Management Zones based on vegetation characteristics, and over 50 percent of the known population of sage-grouse occurs in three of those areas, one of which, Management Zone II, includes the Ranch and Project Site (see Connelly et al. 2004; Stiver et al. 2006). The primary threats known today to affect sage-grouse in Management Zone II include energy development, disease, predation and habitat fragmentation, while secondary threats include fire, invasive plant species, pesticide/herbicide use, and grazing and habitat conversion (Service 2008).

To date, peer-reviewed studies specific to wind development and sage-grouse are lacking, and additional research is needed to determine what effects may be occurring and to what degree (Service 2003; Manville 2004; Governor's Sage-Grouse Conservation Team 2004; Strickland 2005; Southwest Wyoming Sage-grouse Working Group 2007; Wyoming Game and Fish Department [WGFD] 2009). Several planning documents and environmental assessments have listed wildlife effects anticipated from wind energy development, but the most common studies about the effect of wind facilities on birds in grassland and shrub-steppe habitats document mortality at specific facilities. A much smaller set of studies document behavioral responses (e.g., changes in flight behavior) or effects on breeding bird density or distribution. Due to the lack of specific wind-related research, studies of other developments involving similar infrastructure components and disturbances have been used to provide some insight into effects of wind energy development on wildlife (Manville 2004; Strickland 2004).

Candidate conservation agreement with assurances

In April 2010, PCW and TOTCO submitted an application to the U.S. Fish and Wildlife Service (Service) for an Enhancement of Survival Permit, as provided for under the Endangered Species Act (ESA). PCW and TOTCO's application included a Candidate Conservation Agreement with Assurances and associated conservation plan (collectively CCAA) addressing primarily sage-grouse, which is a candidate species under the ESA. A CCAA is a voluntary agreement between the Service and a non-federal property owner who agrees to manage lands or waters to remove threats to candidate or proposed species, with assurances that the property owner's conservation efforts will not result in future regulatory obligations that exceed those agreed to at the time the agreement is signed; it authorizes take through a section 10 permit if the species is later listed.

To support the CCAA development and to better understand how to develop the Project in a manner that will conserve sage-grouse and other wildlife species across the Ranch and surrounding areas, PCW implemented an intensive monitoring and research program to better understand sage-grouse use of the Ranch and Project Site and the benefits of conservation measures.¹ Currently PCW is partnering with the WGFD, U.S. Forest Service (USFS), and the University of Missouri to continue to evaluate sage-grouse use of the Ranch and surrounding

¹ The monitoring began in 2010 with the tagging of 40 hen sage-grouse using state-of-the-art global positioning system telemetry. Field researchers support the effort by visiting many of the locations the birds have visited to record habitat characteristics that will enable the identification of important areas for sage-grouse. In 2011, the number of tagged hen sage-grouse was expanded from 40 to 55. In addition, the monitoring program was expanded through funds provided by the National Wind Coordinating Collaborative allowing the tagging of 70 male sage-grouse to evaluate how the male portion of the population uses resources within the Project Site.

land. These comprehensive monitoring efforts include evaluating lek attendance, nesting and brood-rearing success, seasonal habitat use patterns, and several other parameters.

PCW has incorporated a robust monitoring program into its proposed CCAA. The purpose of the CCAA monitoring program would be to gather scientific data on sage-grouse response to various treatments, including the conservation projects and wind energy development, and to establish the conservation uplift anticipated under the CCAA.

The CCAA process itself provides for a detailed technical review and analysis of past, present and future management activities and the conservation activities that will be implemented to conserve and enhance the species and habitats discussed in the CCAA. Using baseline habitat models developed from extensive field mapping and vegetation classification, habitat service metrics and GIS modeling, the CCAA utilizes Habitat Equivalency Analysis (HEA) to evaluate the effects to habitat from wind development and the positive effects to habitat from the conservation measures. The conservation measures and commitments outlined in the CCAA will reduce or eliminate current threats, and protect, restore and enhance the habitat of the species on the Ranch while offsetting effects from wind energy development and ultimately providing a net conservation benefit to sage-grouse. The CCAA is presently being reviewed by the Service's Wyoming Ecological Services Field Office.

Conservation Plan

The remainder of this document outlines in more detail how PCW will implement conservation measures to improve seasonal habitats for sage-grouse under this document, the Conservation Plan (Plan). These measures will have ancillary benefits to BLM sensitive species and other species including sagebrush obligates, grassland endemics, avian species, big game species and aquatic species (**Appendix 1**).

As part of its wind development proposal, PCW commits to implement this Plan. In addition, PCW has entered into a contract with TOTCO under which TOTCO agrees to cooperate with PCW in the implementation of this Plan on Ranch lands and to implement those portions of the Plan that relate to Ranch operations. Finally, PCW will continue to pursue the CCAA described above with the Service, which will provide additional benefits to sage-grouse and other species.

2. CONSERVATION STATUS

In response to petitions to list the sage-grouse as endangered or threatened, the Service completed a 12-month status review in 2005. At that time, the Service determined that listing the sage-grouse was not warranted (70 Federal Register [FR] 2244) and that the sage-grouse did not require protection under the Endangered Species Act of 1973 (ESA). That finding was challenged in the U.S. District Court, District of Idaho. In December 2007, the Court remanded the case to the Service. Initiation of a new status review was announced on February 26, 2008

(73 FR 10218). The 2008 status review took into consideration relevant new information that became available after 2005; however, the Service still found that the sage-grouse did not require protection under the ESA.

In April 2008, separate petitions to list the western greater sage-grouse subspecies (73 FR 23170) and the Mono Basin Area population (73 FR 23173) were filed. The Service found that these petitions presented substantial new information which indicated that listing of the greater sage-grouse under the ESA may be warranted. Status reviews were initiated for both populations. An Interim Status Update was issued on October 31, 2008, along with notice that a 12-month finding (listing decision) would be published by February 26, 2010 (Service 2008). On March 5, 2010, the Service issued their listing decision which found that listing the sage-grouse (rangeland) is warranted but precluded by higher priority listing actions and that listing the western subspecies of sage-grouse is not warranted based on a determination that the western subspecies is not a valid taxon and thus is not a listable entity under the ESA (75 FR 13909).

The determination of whether a species is threatened or endangered requires the Service to evaluate the likelihood of the future persistence of the species, as outlined in the guidelines set forth by the Service in its Policy for Evaluation of Conservation Efforts (PECE) standards. In order to predict future conditions, the Service must consider the future effects (both positive and negative) of ongoing and anticipated human actions. Section 4(b) (1) (A) of the ESA (16 United States Code 1531 et seq.) requires the Service to make a listing determination after taking into account future conservation efforts intended to have positive effects on species (e.g., conservation plans). The PECE is intended to guide the Service in the evaluation of such voluntary efforts.

In addition, Section 4(a) (1) (B) of the ESA states that the Service must evaluate whether any species is an endangered species or a threatened species because of any of five factors:

1. The present or threatened destruction, modification, or curtailment of its habitat or range;
2. overutilization for commercial, recreational, scientific, or educational purposes;
3. disease or predation;
4. the inadequacy of existing regulatory mechanisms; or
5. other natural or human-made factors affecting its continued existence and threats to the species or its habitat.

This Plan was prepared to consider the five listing factors as they relate to the Ranch and Project Site. PCW has implemented conservation measures to minimize or eliminate threats to sage-grouse and its habitat. Section 3 evaluates these conservation measures in relation to the Service's listing criteria.

3. CONSERVATION STRATEGY

PCW recognizes the importance of both species conservation and providing clean, renewable and reliable energy sources for the American public. This Plan demonstrates how the development of clean, renewable wind energy can be balanced with species conservation by implementing science-based conservation measures (Sage-Grouse National Technical Team 2011) that:

1. Minimize effects to all sage-grouse habitat types (nesting, brood-rearing, and winter habitats) important to the conservation of the species and other wildlife species;
2. Provide, enhance, and conserve habitats on the Ranch and in the Project Site to support conservation of sage-grouse populations; and
3. Allow for rapid recovery of the species and its habitat from effects related to the Project.

This Plan addresses threats to sage-grouse and other species; evaluates opportunities for project designs that will avoid, minimize and mitigate effects in high-quality sage-grouse habitat; and sets the standard for development of renewable wind energy resources in an environmentally responsible manner. As part of its conservation commitment, PCW has committed to no development within core sage-grouse population areas identified by the State of Wyoming under the Governor's Executive Order 2011-5 (EO 2011-5 Version 3 map). Areas within the Ranch and outside of the Project Site will be managed to further minimize or reduce threats to sage-grouse and its habitat through the implementation of conservation measures.

4. GOALS AND OBJECTIVES

Conservation and enhancement of sage-grouse and the sagebrush ecosystem will be a primary objective in the future management of the Ranch and Project Site (BLM 2011). Conservation measures can be implemented to conserve current sage-grouse populations across the Ranch and Project Site. This is largely possible because the land and water resources on the Ranch provide the flexibility to enhance and conserve approximately 500 square miles of sage-grouse habitat.

More than 70 percent of this area, including the best sage-grouse habitat on the Ranch, will not be affected by the Project and less than 1% of the Ranch lands will be subject to long-term disturbance. To provide conservation benefits for the sage-grouse and other species of interest (**Appendix 1**), PCW will implement the conservation measures discussed in Section 5 of this Plan.

5. CONSERVATION MEASURES

Effects associated with the Project will be eliminated, minimized, or mitigated by implementation of this Plan on the Ranch and within the Project Site in accordance with the following strategy:

1. Identify conservation strategies and measures to eliminate and minimize the potential threats to sage-grouse;
2. Identify locations throughout the Ranch where habitat conditions will be improved for sage-grouse and other wildlife species;
3. Develop standardized monitoring methods to measure the success of various conservation projects for application at other candidate sites on the Ranch; and
4. Monitor sage-grouse populations throughout the Ranch to assess population trends and behavioral response to conservation projects and wind development activities.

Implementation of conservation measures and monitoring efforts on the Ranch and within the Project Site will occur in a sequenced manner and will include both pre- and post-wind energy development activities. The conservation measures that will be implemented will minimize or remove some existing threats to sage-grouse survival and productivity. These measures are detailed in the following paragraphs.

Vegetation Mapping and Habitat Evaluation - High-resolution vegetation mapping (4 square-meter resolution) was used to evaluate sage-grouse habitat across the Ranch and Project Site. Over 500 vegetation transects were established to quantify a series of vegetation attributes (e.g., sagebrush cover and height, forb abundance, residual grass cover, etc.). This detailed information will be used to evaluate the present level of habitat modification to help determine the scale and location of conservation measures needed to eliminate or minimize threats to sage-grouse.

Land Management - Since the early settlement of the Ranch, various disturbances have occurred on the Ranch and Project Site that may have altered and reduced the quantity and quality of habitat for sage-grouse. These activities include direct conversion of native habitats to agriculture, vegetation management, fire (both natural and prescribed), livestock grazing and associated fencing, water improvement projects, oil and gas development, construction of access roads within the Ranch, installation of anthropogenic facilities (residences, barns, and other outbuildings), and invasion of noxious weeds. Most conversion activities have occurred as part of past management actions on the Ranch and are primarily related to agricultural operations and oil and gas activities. Currently, no active conversion of sage-grouse habitat occurs on the Ranch, and many of the current management actions benefit sagebrush habitat and the species using that habitat, including sage-grouse (e.g. intensive management and rotating pastures)

Core Area Protection - Habitat quality across the Ranch and Project Site was evaluated under the framework of the State of Wyoming's Core Area Strategy as set forth in EO 2011-5. Habitat within the core sage-grouse population areas is identified as the highest quality habitat. No wind resource development will occur in core sage-grouse population areas as set forth in EO 2011-5 Version 3 map.

Lek Monitoring - Under this Plan, PCW will work cooperatively with BLM and WGFD to perform annual lek monitoring within the Ranch in accordance with approved WGFD protocols during pre-construction, construction and for five years post-construction.

Fence Marking and Removal - Fence collisions have been identified as a primary source of mortality for sage-grouse and other bird species (Christiansen 2009). During field monitoring, numerous fences across the Ranch and within the Project Site were identified as potential collision risks, and several collisions were documented along these fences. PCW has removed 10 miles of woven wire and barbed wire fences in high-use areas around sage-grouse leks, nesting areas and brood-rearing habitats. An additional 16 miles of barbed wire fence were marked with reflective bird diverters. No collisions have been documented on the fences that have been marked with diverters; however, fence collisions continue to account for sage-grouse mortalities across the Ranch and Project Site. In 2011, several fence collisions were observed on unmarked fences, including a fence collision of a male sage-grouse within 500 feet of a marked fence.

In accordance with BLM Instruction Memorandum 2012-043 (BLM 2011), PCW will:

1. Evaluate the need for proposed fences, especially those within 1.25 miles of leks that have been active within the past 5 years and in movement corridors between leks and roost locations. PCW will consider deferring fence construction unless the objective is to benefit sage-grouse habitat, improve land health, promote successful reclamation, protect human health and safety, or provide resource protection. If a new fence is constructed, then, where appropriate, mitigation (e.g., proper siting, marking, etc.) will be applied to minimize or eliminate potential effects to sage-grouse as determined in cooperation with the BLM and WGFD (Stevens 2011).
2. To improve visibility, PCW will mark existing fences that have been identified as a collision risk. Prioritizing fences within 1.25 miles of a lek, fences posing higher risks to sage-grouse include those:
 - (a) On flat topography;
 - (b) Where spans exceed 12 feet between T-posts;
 - (c) Without wooden posts; or
 - (d) Where fence densities exceed 1.6 miles of fence per section (640 acres).

Bird Diverters on Meteorological Towers – Similar to fences, guy wires on meteorological monitoring towers pose a collision risk for greater sage-grouse and other bird species. To remove and reduce this risk, PCW has installed bird diverters on the guy wires of all 30+ meteorological towers located throughout the Project Site.

Water Tank Escape Ramps –PCW has worked in collaboration with the Saratoga High School Future Farmers of America chapter to construct metal mesh escape ramps that have been installed in many of the water tanks on the Ranch. Escape ramps reduce the risk of drowning to sage-grouse and other species. PCW will continue to install escape ramps in water tanks across the Ranch where there is an identified risk to wildlife.

Habitat Improvements – PCW is implementing measures to improve sage-grouse habitat conditions. Through enhanced rangeland management and utilizing the flexibility provided by the land and water resources throughout the Ranch, measures are being taken to create and improve nesting and brood-rearing habitats. These measures include enhanced riparian and wetland resource management, maintenance and enhancement of native understory plants, revegetation of burned areas and fallow agricultural fields, sagebrush treatments, and numerous other vegetation enhancement opportunities. The following are the habitat improvement measures specific to the Ranch and Project Site:

- **Wildfire Emergency Stabilization and Burned Area Rehabilitation** – Wildfire, particularly in low-elevation Wyoming big sagebrush systems, has resulted in significant habitat loss primarily because of subsequent invasion by cheatgrass and other exotic plant species (BLM 2011). PCW will work with BLM to prioritize stabilization and burned area revegetation projects to (1) maintain unburned intact sagebrush habitat when at risk from adjacent threats; (2) stabilize soils; (3) reestablish hydrologic function; (4) promote biological integrity; (5) promote plant resiliency; (6) limit expansion or dominance of invasive species; and (7) reestablish native species.

For example, in 2010, a 170-acre wildfire occurred within sage-grouse habitat in the Chokecherry area of the Project Site. Following the fire, PCW seeded portions of the burned area to stabilize soils, reduce the risk of non-native plant invasion, and encourage use by sage-grouse and other wildlife species. Seed mixtures used were designed to maximize sage-grouse foraging opportunities during summer brood-rearing periods to enhance brood survival within the Project Site.

- **Water Improvement Projects** – The primary objective of all water development conservation projects will be to modify water sources to create and enhance natural free-flowing water and wet meadow habitats that are used by sage-grouse for summer and late brood-rearing habitat. Water developments are known to improve sage-grouse brood-rearing habitat (Autenrieth et al. 1982; Hanf et al. 1994). The specific locations of water improvement conservation projects will be determined following pre-construction sage-

grouse monitoring to identify viable water sources that are in or adjacent to habitat that is likely to be used by sage-grouse for brood rearing and will continue for the life of the Project.

Water source modifications may include installation of upland “bubblers” and water diversions to create and enhance natural free-flowing water, enhance wet meadow habitat and flood bottomland draws. “Bubblers” will be supplied with water from both artesian wells and other wells actively pumped by windmills. Other water sources to be developed will be supplied through water diversion pipelines from existing reservoirs and stock tank pipeline networks. Water improvement projects will be completed in a manner to minimize standing water and discourage use by mosquitos, which might carry West Nile virus.

- Agricultural Field Enhancements – There are approximately 2,023 acres of unused agricultural fields in the eastern portion of the Ranch that are currently dominated with either monocultures of crested wheatgrass (*Agropyron cristatum*) and other introduced grass species, or native bunchgrass communities and encroaching shrubs typical of sagebrush steppe habitats. Sage-grouse lek counts and additional observations have identified two active leks within or adjacent to these relict agricultural fields, and surrounding sagebrush habitat is being used for nesting and early brood-rearing habitat. Additional observations have been made during monitoring that sage-grouse are using hayfields (i.e., alfalfa and hay grass species) in the Ranch and the surrounding areas at increased rates during brood-rearing. The primary objectives of the agricultural field enhancement conservation projects are to develop water sources on the eastern portion of the Ranch and establish conditions suitable for year round use as breeding, nesting, brood-rearing, and wintering habitat. This will include, as appropriate, planting of additional sagebrush and/or establishment of high-value forage and cover sources in the relict agricultural fields.
- Removal and Reclamation of Unnecessary Roadways – The primary objectives of the road closure and enhancement conservation projects are to minimize the extent of habitat fragmentation due to the road network across the Ranch. As such, selected roads would be closed and, where practicable, abandoned roadbeds would be reclaimed. Road closure and abandonment effectively increase habitat patch sizes by providing contiguous habitats and removing conduits used by predators and invasive species.

Road closures would target two-track roads that experience periodic yet irregular patterns of vehicular activity across the Ranch. Monitoring efforts have resulted in several observations of grouse mortality on or near two-track roads which serve as conduits and hunting areas for predators. To reduce the effects of roads on the Ranch, selected existing roads will be closed to enhance greater sage-grouse nesting, brood-rearing, and winter habitat. The value of the habitat adjacent to the roadbed would improve in quality due to

the removal of the associated traffic, effectively eliminating any buffer zones previously associated with that road.

- **Noxious and Invasive Plant Species Control** – The primary objectives of the control of noxious and invasive plant species conservation projects are to limit the spread of weedy species into native habitats, promote the establishment of native plant species, and to provide suitable sage-grouse habitat. Sage-grouse prefer native and diverse vegetation cover and well established sagebrush communities. Noxious and invasive plant species often have a competitive advantage over native species and readily establish, thus decreasing plant diversity and reducing sage-grouse habitat quality. Herbicide application or other appropriate treatments will be used for noxious and invasive plant species control. Control measures will be followed by native vegetation seeding. This conservation measure will include the development of protocols for utilization of agricultural chemicals on the Ranch.

Suspension of Hunting – The suspension of sage-grouse hunting on the Ranch, in areas where no public access is permissible, would reduce direct mortality of sage-grouse. Suspension of hunting would only be limited to sage-grouse. Sage-grouse hunting on the Ranch was suspended in 2010 and will remain suspended throughout the life of the Project. Based on observations from the sage-grouse monitoring effort, seven tagged sage-grouse (one in 2010 and six in 2011) have been harvested in surrounding areas where public access is allowed. An additional three sage-grouse mortalities may have potentially resulted from hunting (as determined by the date of last global positioning system transmission and last known location). No tagged sage-grouse have been harvested in areas of the Ranch where no public access is permissible.

Predator Control – During sage-grouse monitoring efforts, predation has been identified as the primary effect to sage-grouse populations on and surrounding the Ranch and within the Project Site. Control measures will be a coordinated effort between PCW, private landowners and the appropriate agencies to reduce predation on sage-grouse. Predation management activities will be performed by PCW operations and/or contract personnel (U.S. Department of Agriculture – Animal and Plant Health Inspection Service) using currently approved techniques, under the direction of and in cooperation with the Service, WGFD and BLM.

6. CONCLUSION

PCW recognizes the importance of both species conservation and providing clean, renewable and reliable energy sources for the American public. PCW aims to maintain and/or increase sage-grouse abundance and distribution by conserving, enhancing or restoring the sagebrush ecosystem upon which populations depend in cooperation with federal, state and local agencies and working groups (Sage-grouse National Technical Team 2011).

This Conservation Plan demonstrates how the development of renewable energy sources can be balanced with species conservation. Under the conservation program, PCW will conserve the current sage-grouse population within the Project Site and, at the same time, allow 2,000 to 3,000 MW of renewable energy to be developed. In particular, the CCSM Wind Energy Project will be developed in a way that complements and furthers federal, state and local goals to conserve the sage-grouse. This Conservation Plan promotes sustainable sage-grouse populations and conservation of habitat through environmentally responsible planning and by incorporating the following principles (BLM 2011):

1. Protection of unfragmented habitats (PCW's commitment to no development within sage-grouse core population areas [EO 2011-5, Version 3 map]);
2. Minimization of habitat loss and fragmentation (CCSM Wind Energy Project long-term footprint is less than 2,000 acres); and
3. Management of habitats to maintain, enhance or restore conditions that meet sage-grouse life history needs (implementation of conservation measures).

This conservation program will address threats to sage-grouse and will set the standard for the development of renewable resources in an environmentally responsible manner. This will be achieved by implementing science-based conservation measures for greater sage-grouse that will reduce or eliminate current threats as well as protect, restore and enhance habitat of sage-grouse and other species of interest on the Ranch and within the Project Site.

7. REFERENCES

- Autenrieth, R.E. 1981. Sage-grouse management in Idaho. Idaho Department of Fish and Game, Wildlife Bulletin 9, Boise, Idaho.
- Bureau of Land Management. 2008. Record of Decision and Approved Rawlins Resource Management Plan for Public Lands Administered by the Bureau of Land Management Rawlins Field Office. December 2008.
- . 2010. BLM Wyoming Sensitive Species Policy and List. March 31, 2010.
- . 2011. Instruction Memorandum No. 2012-043: Greater Sage-Grouse Interim Management Policies and Procedures. Washington, D.C.
- Braun, C.E. 1998. Sage-grouse Declines in Western North America: What Are the Problems. Proceedings of the Western Association of State Fish and Wildlife Agencies 78:139–156.

- Christiansen, T. 2009. Fence Marking to Reduce Greater Sage-grouse (*Centrocercus urophasianus*) Collisions and Mortality near Farson, Wyoming – Summary of Interim Results. Wyoming Game and Fish Department.
- Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver. 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished Report. Cheyenne, Wyoming.
- Hanf, J.M., P.A. Schmidt, and E.B. Groshens. 1994. Sage-grouse in the high desert of central Oregon: Results of a study 1988–1993. U.S. Department of the Interior, Bureau of Land Management, Series P-SG-01, Prineville, OR.
- Governor’s Sage-Grouse Conservation Team. 2004. Greater Sage-grouse Conservation Plan for Nevada and Eastern California. Reno, NV. Available online at <http://www.ndow.org/wild/conservation/sg/resources/WGAsage-grouserreport.pdf>. Accessed December 2011.
- Manville, A.M., II. 2004. Prairie grouse leks and wind turbines: U.S. Fish and Wildlife Service justification for a 5-mile buffer from leks; additional grassland songbird recommendations. Division of Migratory Bird Management, USFWS, Arlington, VA, peer-reviewed briefing paper.
- Patterson, R.L. 1952. The Sage Grouse in Wyoming. Sage Books, Inc., Denver, Colorado.
- Rowland, M.M., M.J. Wisdom, L.H. Suring, and C.W. Meinke. Greater sage-grouse as an umbrella species for sagebrush-associated vertebrates. *Biological Conservation* 129: 323-335.
- Sage-grouse National Technical Team. 2011. A report on National Greater Sage-Grouse Conservation Measures. December 21, 2011. Available online at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2012.Par.52415.File.dat/IM%202012-044%20Att%201.pdf. Accessed December 2011.
- Schroeder, M.A., C.L. Aldridge, A.D. Apa, J.R. Bohne, C.E. Braun, S.D. Bunnell, J.W. Connelly, P.A. Deibert, S.C. Gardner, M.A. Hilliard, G.D. Kobriger, S.M. McAdam, C.W. McCarthy, J.J. McCarthy, D.L. Mitchell, E.V. Rickerson, and S.J. Stiver. 2004. Distribution of Sage-Grouse in North America. *The Condor* 106:363–376.
- Southwest Wyoming Local Sage-grouse Working Group. 2007. Southwest Wyoming Sage-grouse Conservation Assessment and Plan.

- Stevens, B.S. 2011. Impacts on Fences on Greater Sage-Grouse in Idaho: Collision, Mitigation, and Spatial Ecology (Master's Thesis). University of Idaho, Moscow, Idaho.
- Stiver, S.J., A.D. Apa, J.R. Bohne, S.D. Bunnell, P.A. Deibert, S.C. Gardner, M.A. Hilliard, C.W. McCarthy, and M.A. Schroeder. 2006. Greater sage-grouse comprehensive conservation strategy. Western Association of Fish and Wildlife Agencies. Unpublished report. Cheyenne, Wyoming.
- Strickland, D. 2004. Non-fatality and habitat impacts on birds from wind energy development. In Proceedings of the Wind Energy and Birds/Bats Workshop: Understanding and Resolving Bird and Bat Impacts. May 18–19, 2004, edited by S.S. Schwartz, pp. 34–38. RESOLVE, Inc. Washington, D.C. Available online at <http://www.awea.org/pubs/documents/WEBBProceedings9.14.04%5BFinal%5D.pdf>. Accessed December 2011.
- . 2005. Methods and metrics for understanding indirect impacts from wind projects. In Proceedings of the Onshore Wildlife Interactions with Wind Developments: Research Meeting V. Lansdowne, VA November 3–4, 2004, edited by S.S. Schwartz, pp. 49–51. Prepared for the Wildlife Subcommittee of the National Wind Coordinating Committee by RESOLVE, Inc., Washington, D.C. Available online at <http://www.nationalwind.org/events/wildlife/2004-2/proceedings.pdf>. Accessed December 2011.
- U.S. Fish and Wildlife Service (Service). 2003. Interim Guidelines to Avoid and Minimize Wildlife Impacts from Wind Turbines. Washington, D.C. Available online at <http://www.fws.gov/habitatconservation/wind.pdf>. Accessed December 2011.
- . 2008. Greater sage-grouse interim status update. October 31, 2008.
- Western Association of Fish and Wildlife Agencies. 2008. Greater sage-grouse population trends: an analysis of lek count databases 1965-2007. Sage and Columbian sharp-tailed grouse technical committee, Western Association of Fish and Wildlife Agencies.
- Wyoming Game and Fish Department (WGFD). 2006. Sagebrush Ecosystems and Species. Available online at <http://gf.state.wy.us/wildlife/nongame/LIP/Sagebrush/index.asp>. Accessed December 2011.
- . 2009. DRAFT – Recommendations for Wind Energy Development in Crucial and Important Wildlife Habitat. October 2009. Available online at <http://gf.state.wy.us/downloads/pdf/Finalpublicwindenergyrecommendtaionsdraft10.pdf>. Accessed December 2011.

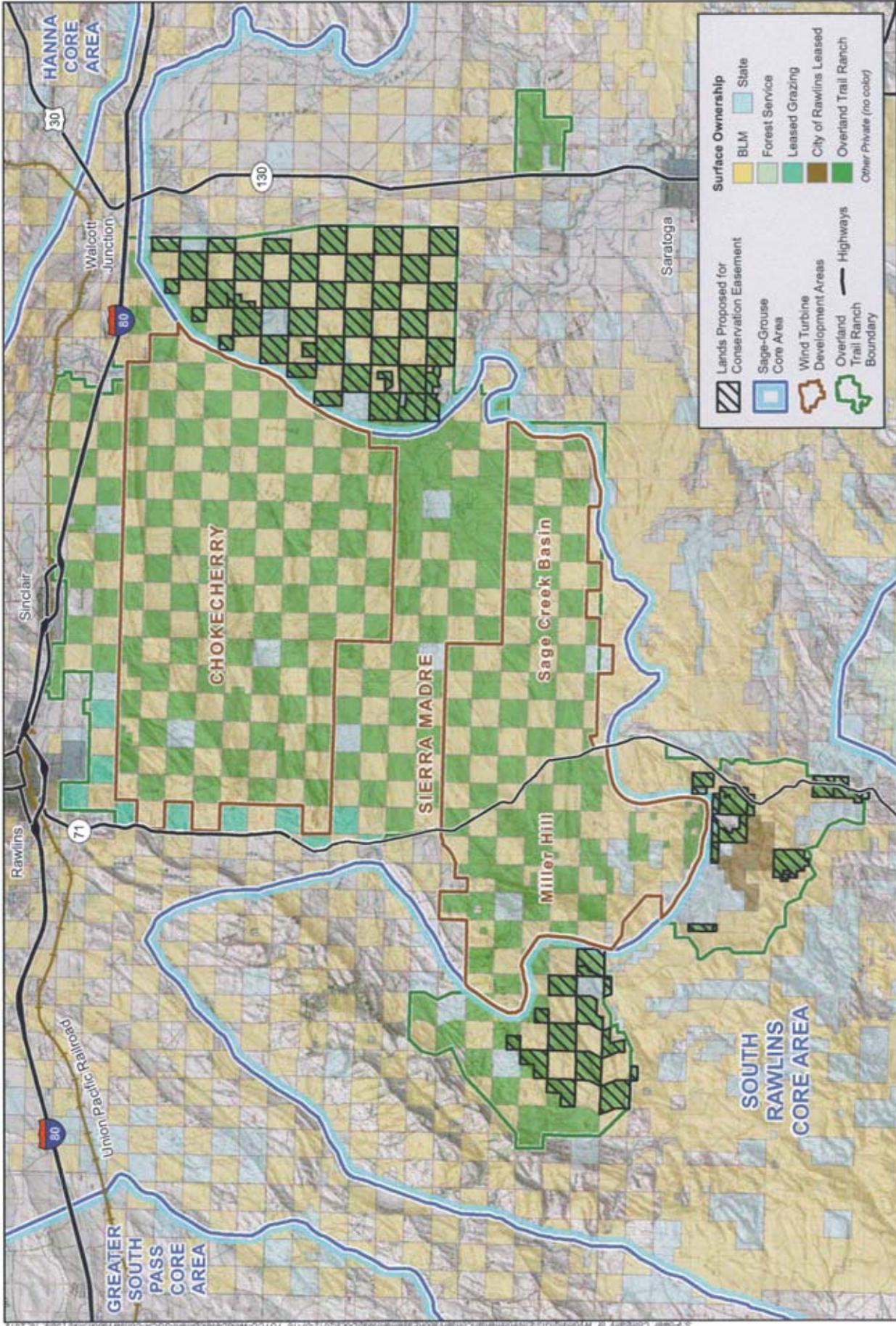
APPENDIX 1
Sagebrush-Associated Species and Other Species of Interest

Common name	Scientific Name	BLM Sensitive
Big Game		
Elk	<i>Cervus canadensis</i>	N
Mule Deer	<i>Odocoileus hemionus</i>	N
Pronghorn	<i>Antilocarpa americana</i>	N
White-tailed deer	<i>Odocoileus virginianus</i>	N
Eagles and raptors		
Bald eagle	<i>Haliaeetus leucocephalus</i>	Y
Ferruginous hawk	<i>Buteo regalis</i>	Y
Golden eagle	<i>Aquila chrysaetos</i>	N
Northern harrier	<i>Circus cyaneus</i>	N
Peregrine falcon	<i>Falco peregrinus</i>	Y
Prairie falcon	<i>Falco mexicanus</i>	N
Swainson's hawk	<i>Buteo swainsoni</i>	N
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	Y
Fish		
Bluehead sucker	<i>Catostomus discobolus</i>	Y
Colorado River cutthroat trout	<i>Oncorhynchus clarki pleuriticus</i>	Y
Flannelmouth sucker	<i>Catostomus latipinnis</i>	Y
Roundtail chub	<i>Gila robusta</i>	Y
Herpetiles		
Common sagebrush lizard	<i>Sceloporus graciosus</i>	N
Great Basin spadefoot	<i>Spea intermontana</i>	Y
Greater short-horned lizard	<i>Phrynosoma hernandesi</i>	N
Prairie rattlesnake	<i>Crotalus viridis</i>	N
Northern leopard frog	<i>Rana pipiens</i>	Y
Mammals		
Merriam's shrew	<i>Sorex merriami</i>	N
Northern grasshopper mouse	<i>Onychomys leucogaster</i>	N
Olive-backed pocket mouse	<i>Perognathus parvus</i>	N
Pygmy rabbit	<i>Brachylagus idahoensis</i>	N
Sagebrush vole	<i>Lemmiscus curtatus</i>	N
Spotted ground squirrel	<i>Spermophilus spilosoma</i>	N
Swift fox	<i>Vulpes velox</i>	Y
White-tailed jack rabbit	<i>Lepus townsendii</i>	N
White-tailed prairie dog	<i>Cynomys leucurus</i>	Y
Wyoming ground squirrel	<i>Spermophilus elegans nevadensis</i>	N
Wyoming pocket gopher	<i>Thomomys clusius</i>	Y

Common name	Scientific Name	BLM Sensitive
<i>Birds</i>		
Baird's sparrow	<i>Ammodramus bairdii</i>	Y
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	N
Brewer's sparrow	<i>Spizella breweri</i>	Y
Columbian sharp-tailed grouse	<i>Tympanuchus phasianellus columbianus</i>	Y
Green-tailed towhee	<i>Pipilo chlorurus</i>	N
Lark sparrow	<i>Chondestes grammacus</i>	N
Loggerhead shrike	<i>Lanius ludovicianus</i>	Y
Mountain plover	<i>Charadrius montanus</i>	Y
Sage sparrow	<i>Amphispiza belli</i>	Y
Sage thrasher	<i>Oreoscoptes montanus</i>	Y
Vesper sparrow	<i>Pooecetes gramineus</i>	N

Sources: Rowland et al. 2006, WGFD 2006, BLM 2008, BLM 2010

EXHIBIT 2



**Sage-Grouse Core Areas, Wind Turbine Development Areas,
and Proposed Conservation Easement**
Overland Trail Ranch | Jul. 16, 2012



S:\Power Company of Wyoming\GIS\Environmental\Conservation\MapDocs\10712-07-18_TORR-WindDevelopment\554-Conservation\1 July 16, 2012

EXHIBIT 3

Exhibit 3

The Overland Trail Ranch Rules

1. You must receive written authorization from the Ranch Manager prior to each time you access the Ranch. To obtain the required written authorization, contact Ranch Manager Aaron Bricker by email at totco@carbonpower.net and copy Kristen Bricker at kbricker@carbonpower.net 24 hours prior to going out on the Ranch and notify him of: (a) the names of personnel who will be accessing the Ranch; (b) the purpose of the access; and (c) when access will occur and for how long.
2. Leave gates as found. If opened, leave open. If closed, leave closed.
3. If a gate cannot be opened, contact the Ranch Manager.
4. No cutting fences.
5. No hunting.
6. No dogs.
7. No camping.
8. Gate codes are to be kept confidential and may not be shared with unauthorized personnel.
9. If driving an unmarked vehicle, then an access pass must be clearly displayed from the inside mirror.
10. No driving on Ranch roads if passage will cause ruts four inches or deeper (BLM standard).
11. Upon commencement of wind farm construction, all visitors must comply with PCW safety and training standards and have required safety equipment.

FIRST AMENDMENT TO MEMORANDUM OF UNDERSTANDING

This First Amendment to Memorandum of Understanding is made, dated and effective as of August 8, 2013 (this "First Amendment") is made by and between **Wyoming Game and Fish Department**, located at 5400 Bishop Boulevard, Cheyenne, Wyoming 82006 ("WGFD"), **Power Company of Wyoming LLC**, located at 555 Seventeenth Street, Suite 2400, Denver, Colorado 80202 ("PCW") and **The Overland Trail Cattle Company LLC** ("TOTCO"). WGFD, PCW and TOTCO are sometimes collectively referred to as a "Party" and collectively as the "Parties".

Agreement

In consideration of the mutual covenants set forth herein and for other good and valuable consideration, the adequacy and receipt of which is hereby acknowledged, the Parties hereby agree as follows:

1. **Memorandum of Understanding.** The Parties have entered into that certain Memorandum of Understanding dated December 10, 2012 (the "MOU"). The Parties now desire to amend the MOU as specifically set forth in this First Amendment.

2. **Section 1.f.** Section 1.f of the MOU is hereby deleted and replaced in its entirety by the following new Section 1.f:

f. **Arterial Road.** PCW will utilize a portion of existing County Road 505E for the construction, operation and decommissioning of the CCSM Project. County Road 505E crosses lands owned by WGFD legally described as: Township 17 North, Range 88 West, 6th P.M., Carbon County, Wyoming, Section 5, Lot 2. WGFD agrees that PCW may improve the road to include a 24 foot wide gravel driving surface plus associated shoulders and ditches. All permanent and temporary disturbances associated with the road would be confined to the existing 80 foot road easement.

3. **Effect of Amendment.** Except as expressly modified by this First Amendment, all terms and conditions of the MOU remain in full force and effect. This First Amendment is incorporated into and made a part of the MOU and is subject to all the terms and conditions of the MOU as modified by this First Amendment.

4. **Authorization.** Each Party represents and warrants that it has all requisite authority to enter into this First Amendment, and that the person executing this First Amendment is duly authorized to do so.

5. **Execution.** This First Amendment may be executed and delivered in one or more counterparts, each of which when executed and delivered shall be an original, and all of which when executed shall constitute one and the same instrument. The exchange of copies of this First Amendment and of signature pages by facsimile or by electronic transmission in .pdf

format shall constitute effective execution and delivery of this First Amendment as to the Parties, and shall be deemed to be their original signatures for all purposes. Any Party that delivers an executed counterpart signature page by facsimile or in .pdf format shall promptly thereafter deliver a manually executed counterpart signature page to each of the other Parties; provided, however, that the failure to do so shall not affect the validity, enforceability or binding effect of this First Amendment.

[Signature page follows]

The Parties have executed this First Amendment as of the date written below, effective as of the date first written above.

WYOMING GAME AND FISH DEPARTMENT



Scott Talbott
Director

Date: 8/16/13

WYOMING ATTORNEY GENERAL
As to form



James Kaste
WGFD Attorney General

Date: 8/13/13

POWER COMPANY OF WYOMING LLC



Garry L. Miller
Vice President, Land and Environmental Affairs

Date: 8.8.2013

THE OVERLAND TRAIL CATTLE COMPANY



Garry L. Miller
Vice President, Land and Environmental Affairs

Date: 8.8.2013