1.0 Purpose and Need

1.1 Introduction

The Power Company of Wyoming, LLC (PCW) proposes to construct and operate a wind energy project south of Rawlins in Carbon County, Wyoming (**Figure 1-1**). PCW filed a Wind Site Testing and Monitoring Application with the Bureau of Land Management (BLM) for the lands encompassing a portion of The Overland Trail Ranch, which is owned and managed by The Overland Trail Cattle Company LLC (TOTCO). The BLM Rawlins Field Office (RFO) administers the public lands within the proposed Application Area. The Overland Trail Ranch consists of approximately 315,000 acres in a checkerboard configuration of public, private, and state land primarily used by TOTCO for livestock grazing. Both PCW and TOTCO are wholly owned affiliates of The Anschutz Corporation. Most, but not all, of the privately held lands are owned by TOTCO.

The proposed project would consist of two wind farm sites located near each other (approximately 9 miles apart) within the Wind Site Testing and Monitoring Application Area – the Chokecherry site and the Sierra Madre site (CCSM) – totaling 222,689 acres of public, private, and state land; however, not all of this land would be used for, or disturbed by, the project. PCW has obtained a wind easement and entered into an agreement with TOTCO to use the private lands for the proposed wind energy project. Additional agreements with other private landowners would be required if PCW planned to use those lands for the project. PCW has applied for the necessary special use lease from the State of Wyoming, Board of Land Commissioners to construct and operate the wind farm on state lands. The Application Area studied in this document includes the entire Wind Site Testing and Monitoring Application Area and Application Areas for rights-of-way (ROWs) of ancillary facilities, collectively referred to as the "Application Area" (**Figure 1-2**). The requested ROW grant is for a term of 30 years with the option to renew the ROW grant and upgrade the wind facility, as necessary.

BLM's Proposed Action (Proposed Action) is to decide whether the area identified in PCW's proposal would be acceptable for development of a wind farm and identify the appropriate development strategy (e.g., development in relation to greater sage-grouse core areas). The BLM has determined that an Environmental Impact Statement (EIS) would be required under the National Environmental Policy Act of 1969 (NEPA; Title 42 United States Code [USC] Section 4321, et seq.) to analyze and disclose the potential environmental impacts of the proposed project for BLM decision-making. Due to the large area considered and substantial number of turbines to be sited, the BLM has decided to go through the NEPA process to establish a strategy for future development. Future siting of wind turbine generators (WTGs) and associated Plans of Development (POD) would be submitted consistent with the strategy adopted in the Record of Decision (ROD) for this EIS. While this broad-scale EIS evaluates a general area, specific impacts will be evaluated in subsequent NEPA analysis based on site-specific proposals within the selected alternative boundary. Additional project approvals are discussed in Section 1.4.

1.2 General Project Description

The Application Area encompasses 222,689 acres located entirely in Carbon County, Wyoming (**Figure 1-2**). The towns of Rawlins and Sinclair are situated north of the Application Area along Interstate Highway 80 (I-80). The Chokecherry site is generally located within Townships 19 North (T19N) and 20 North (T20N), Ranges 85 West (R85W) through 87 West (R87W). The Sierra Madre site is generally located within T16N through T18N, R87W through R89W.

The Application Area occurs primarily within a checkerboard land ownership pattern, with alternating sections of private or state and public land. **Table 1-1** shows the land ownership included in the Application Area. Land ownership within each alternative boundary is provided in Chapter 2.0.

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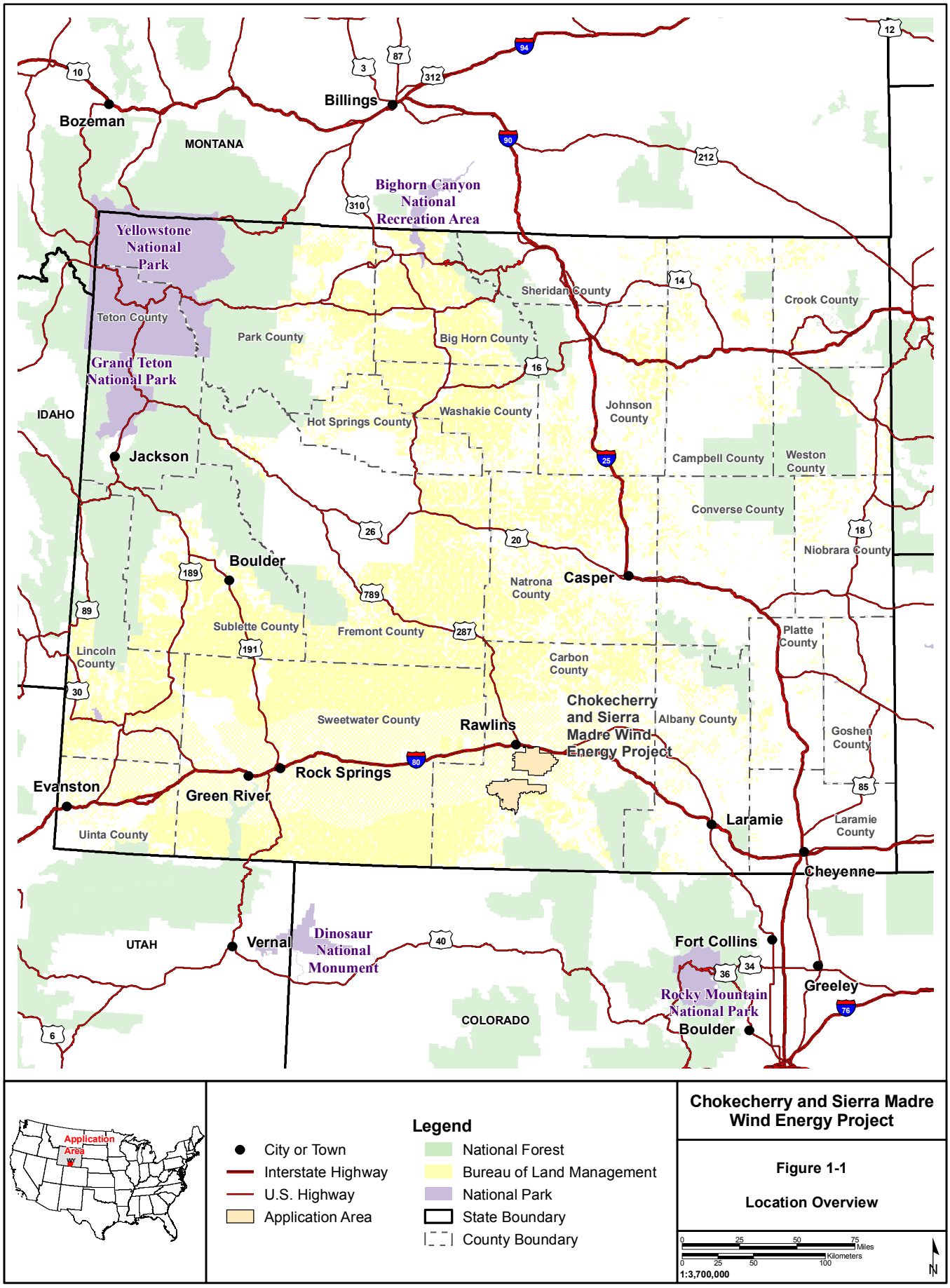

Chokecherry and Sierra Madre Wind Energy Project

Figure 1-1

Location Overview

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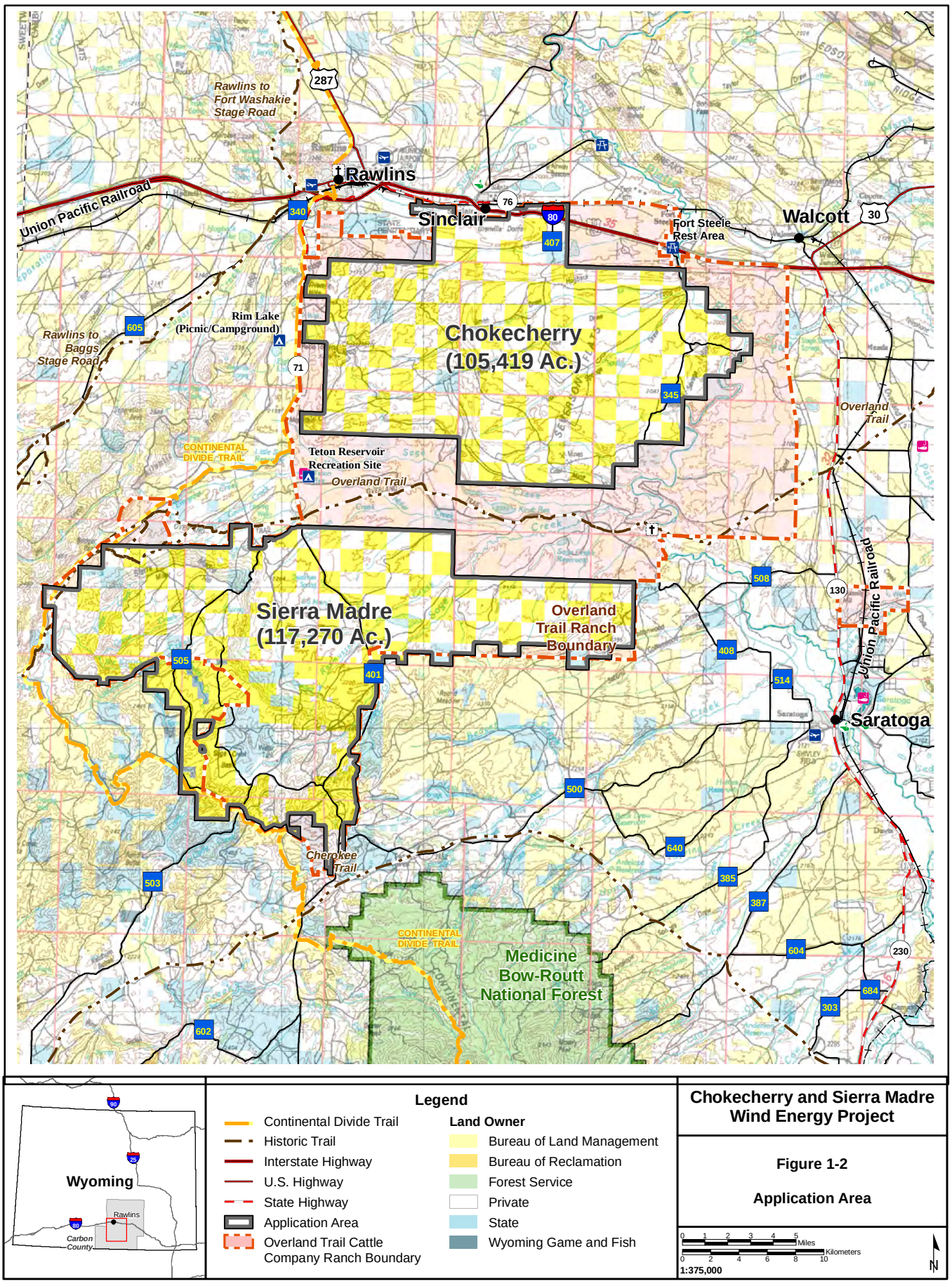


Legend

- Continental Divide Trail
- Historic Trail
- Interstate Highway
- U.S. Highway
- State Highway
- Application Area
- Overland Trail Cattle Company Ranch Boundary

Land Owner

- Bureau of Land Management
- Bureau of Reclamation
- Forest Service
- Private
- State
- Wyoming Game and Fish

Chokecherry and Sierra Madre Wind Energy Project

Figure 1-2

Application Area

0 1 2 3 4 5 Miles
0 2 4 6 8 10 Kilometers
1:375,000
N

Table 1-1 Land Ownership in the Application Area

Jurisdiction	Application Area[1] (acres)		Total
	Chokecherry	Sierra Madre	
Public	48,601	58,574	**107,175**
State	1,937	8,377	**10,314**
Private[2]	54,881	50,319	**105,200**
Total	**105,419**	**117,270**	**222,689**

[1] The Chokecherry site boundary comprises all land within the Application Area that is north of the Overland Trail; the Sierra Madre site boundary comprises all land south of the Overland Trail.

[2] Primarily includes lands owned and managed by TOTCO as well as some other scattered private ownership.

Approximately half of the Application Area includes public lands administered by the BLM. The remaining lands in the Application Area are mostly privately-owned and include only a small percentage of state-owned land. The Application Area is currently used for livestock grazing, which would continue after the project is developed, and only a small portion is used for recreation.

A general description of the proposed project includes development of a 2,000- to 3,000-megawatt (MW) wind farm consisting of approximately 1,000 WTGs across the two project sites. WTGs with a nameplate capacity ranging from 1.5- to 3-MW are being considered for this development. One MW (1 million watts) of wind power can produce from 2.4-million to 3-million kilowatt-hours (kWh) of electricity in 1 year. An average U.S. household consumes about 10,655 kWh of electricity in a year. Therefore, 1-MW of wind generates about as much electricity as 225 to 300 households use (American Wind Energy Association [AWEA] 2008). The proposed project would power 450,000 to 900,000 households annually. The proposed project would establish Wyoming as the third-largest wind energy generation state, behind Texas and California (AWS Truewind 2008).

Other associated facilities proposed by the applicant include development of access roads, step-up transformers, underground and overhead electric collection and communication lines, electric substations, intermodal rail facility, operations and maintenance (O&M) facility, and staging areas. Power from the wind farms would be transmitted via overhead electric transmission lines that would connect to a new substation in the Application Area. Additional project description is provided in Chapter 2.0 and **Appendix A**.

Power generated by the project would be routed to transmission lines analyzed in detail in separate NEPA analyses. At this time, BLM Wyoming is analyzing five applications for large scale overhead electric transmission line projects. Because the wind farm project would not be possible without overhead transmission lines, any of these projects could be considered a connected action. Each of these proposed projects are described and analyzed in the cumulative impacts analysis.

1.3 BLM's Purpose and Need for the Proposed Action

The purpose of the Proposed Action is to determine appropriate areas and restrictions for PCW to develop a wind energy facility on public lands administered by the BLM in compliance with the Federal Land Policy and Management Act (FLPMA), BLM ROW regulations, and other applicable federal laws. This action will assist the BLM in meeting the management objectives in the Energy Policy Act of 2005 (Title II, Section 211) which establish a goal for the Secretary of the Interior to approve 10,000-MWs of electricity from non-hydropower renewable energy projects located on public lands. This action also

furthers the purpose of Secretarial Order 3285 (March 11, 2009) that establishes the development of environmentally responsible renewable energy as a priority for the Department of the Interior.

The need for the Proposed Action is to respond to a FLPMA ROW application request submitted by the applicant to construct, operate, maintain, and decommission a wind energy facility and associated infrastructure on public lands administered by the BLM. In accordance with FLPMA (Section 103(c)), public lands are to be managed for multiple uses that take into account the long-term needs of future generations for renewable and non-renewable resources. The Secretary of the Interior with respect to public lands is authorized to grant ROW for systems of generation, transmission, and distribution of electric energy (Section 501(a)(4)).

The U.S. has developed energy policies driven by the desire to reduce greenhouse gas (GHG) emissions and improve the nation's energy security. As part of an overall strategy to develop a diverse portfolio of domestic energy supplies for the future, the National Energy Policy of 2001 and the Energy Policy Act of 2005 encourage the development of renewable energy resources, including wind energy. The U.S. has significant potential for wind energy development, especially on public lands in the West. Federal energy policies, including the following, have led to an increased demand to develop cleaner, more abundant domestic supplies of energy.

- **National Energy Policy of 2001** was created by a National Energy Policy Development Group to "develop a national energy policy designed to help the private sector, and, as necessary and appropriate, State and local governments, promote dependable, affordable, and environmentally sound production and distribution of energy for the future."
- **Executive Order (EO) 13212, Actions to Expedite Energy-Related Projects**, was signed on May 18, 2001, to implement recommendations from the National Energy Policy Development Group to establish a policy that federal agencies should take appropriate actions, to the extent consistent with applicable law, to expedite projects to increase the production, transmission, or conservation of energy.
- **Energy Policy Act of 2005 (Public Law [P.L.] 109-58)** was signed into law on August 8, 2005. Section 211 of the Act states, "It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on the public lands with a generation capacity of at least 10,000-MWs of electricity."
- **Wind Energy Development Program Instruction Memorandum (IM) No. 2009-043** established by the BLM in 2009 to further support wind energy development on public lands and also to minimize potential environmental and sociocultural impacts. The BLM initiated preparation of a Programmatic EIS in October 2003 and published the *Record of Decision (ROD) for Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments* in 2005.

1.4 Decisions to Be Made

Impacts are evaluated on a broad, project-wide level to enable the BLM to determine whether the Application Area is suitable for development of the proposed project and identify the appropriate development strategy. The impact analysis in this EIS is based on resource-specific assumptions, estimated project disturbance, and appropriate project-specific stipulations. All project alternatives conform to the Rawlins Resource Management Plan (RMP) (2008) and the Preferred Alternative in the visual resource management (VRM)-targeted Plan Amendment in Volume I. The BLM will decide whether the area identified in PCW's proposal would be acceptable for development of a wind farm and the requirements for all future wind development in the area. For example, decisions may include restrictions on development in relation to greater sage-grouse core areas, construction sequencing, and reclamation practices.

The wind farm development EIS broadly evaluates impacts across the Application Area; however, specific impacts associated with the siting/location of individual project components that are not covered in this document would be evaluated in subsequent NEPA analyses based on site-specific proposals within the selected alternative boundary. Upon completion of this project-wide level NEPA analysis, PCW would then submit up to four separate PODs for the internal haul road, transmission line between the two sites, Sierra Madre development, and Chokecherry development. The site-specific POD proposals would be tiered to the analysis and decision described in the ROD associated with this project-wide level EIS. Right-of-way (ROW) grants for these PODs must comply with the NEPA analysis and would include site-specific terms and conditions tiered back to the project-wide level EIS. Upon review of the individual PODs, additional NEPA analysis may be required prior to issuance of any ROW grants. The final turbine layout would adhere to the terms and conditions of the ROD and any ROW grants issued by the BLM.

In addition, PCW must comply with federal, state, and local regulations. A list of the major permits, approvals, and authorized actions necessary to construct, operate, maintain, and abandon project facilities is provided in **Table 1-2**. This list is intended to provide an overview of the key regulatory requirements that would govern project implementation. Additional approvals, permits, and authorizing actions may be necessary as identified through the environmental review process.

Table 1-2 Federal, State, and Local Permits, Approvals, and Authorizing Actions for the CCSM Wind Energy Project

Agency	Action	Authority
U.S. Department of the Interior (DOI), BLM	Responsible for NEPA compliance; whether to approve, approve with conditions, or deny the application	NEPA; FLPMA
DOI, U.S. Fish and Wildlife Service (USFWS)	Coordination, consultation, and impact review on federally listed threatened and endangered species, eagles, and migratory birds	Fish and Wildlife Coordination Act of 1934, as amended 1946, 1958, 1977; Section 7 of the Endangered Species Act (ESA) of 1973; Migratory Bird Treaty Act (MBTA) of 1918, as amended; Bald and Golden Eagle Protection Act (BGEPA) of 1940
U.S. Department of Transportation (DOT), Federal Aviation Administration (FAA)	Issue construction permit and approve lighting and marking of WTGs	49 USC 106(g); 14 Code of Federal Regulations (CFR) Part 77
U.S. Army Corps of Engineers (USACE)	Issue of permits for construction involving wetlands (Section 404)	Clean Water Act (CWA) of 1977; Rivers and Harbors Act of 1899
U.S. Environmental Protection Agency (USEPA)	Approval of Spill Prevention, Control, and Countermeasure (SPCC) Plans	40 CFR 112
Wyoming Department of Environmental Quality (WYDEQ); Industrial Siting Council	Issuance of industrial siting permit	Industrial Development Information and Siting Act, Wyoming Statute (W.S.) 35-12-101 through 35-12-119

Table 1-2 Federal, State, and Local Permits, Approvals, and Authorizing Actions for the CCSM Wind Energy Project

Agency	Action	Authority
State of Wyoming Game and Fish Department (WGFD)	Coordination, consultation, and impact review on state listed species of concern and other fish and wildlife interests for the EIS and consult on the industrial siting permit	Fish and Wildlife Coordination Act of 1934, as amended 1946, 1958, 1977; W.S. 23-1-302; W.S. 35-12-107(b)(x) and 35-12-109(a)(xii)
WYDEQ – Water Quality Division	Wyoming Pollutant Discharge Elimination System (WYDES) permits for discharging waste water and storm water runoff	WYDEQ Rules and Regulations, Chapter 18, Wyoming Environmental Quality Act (W.S. 35-11-301 through 35-11- 311); Section 405 of the CWA (40 CFR 122–124)
Wyoming State Engineers Office (WSEO)	Permits to appropriate groundwater (use, storage, wells, dewatering) and approval of temporary alternative use of existing appropriations	W.S. 41-121 through 147 (Form UW-5); W.S. 41-201 (Form SW-1)
WYDEQ – Air Quality Division	Issuance of air quality permits to construct and operate	Clean Air Act (CAA); Wyoming Environmental Quality Act (W.S. 35-11-201 through 35-11-212)
State of Wyoming, Department of State Parks and Cultural Resources; Wyoming State Historic Preservation Office (SHPO)	Coordination, consultation, and impact review on state parks and cultural resources for the EIS and consult on the industrial siting permit	Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, 16 USC 570; W.S. 35-12-109(a)(xiii)(C)
WYDEQ – Solid Waste Division	Construction fill permits and industrial waste facility permits for solid waste disposal during construction and operations	Wyoming Environmental Quality Act (W.S. 35-11-501 through 35-11-520)
State of Wyoming, Office of State Lands and Investments	Issuance of a wind energy lease and ROWs related to state lands	W.S. 36-2-101; W.S. 36-5-101 to 36-5-117
State of Wyoming DOT (WYDOT)	Permits for oversize, overlength, and overweight loads	Chapters 17 and 20 of the Wyoming Highway Department Rules and Regulations
Carbon County, Planning and Development	Issuance of a conditional use permit and building permit	Carbon County rules and regulations

1.5 PCW's Objectives for the Proposed Action

The Energy Information Administration (EIA) projects that renewable-generated electricity will account for 12.5 percent of total U.S. electricity generation by 2030 (EIA 2008). This growth (from 8.4 percent in 2007 to 12.5 percent in 2030) is fueled by the rapid expansion of non-hydro renewable generation technologies that qualify to meet State mandates for renewable energy production and GHG reduction goals. Some wind-generating plants are proven to be economically feasible in areas with good wind

resources, compared with other conventional technologies, when coupled with the Renewable Electricity Production Tax Credit. The Renewable Electricity Production Tax Credit, a federal incentive, has encouraged a quadrupling of wind energy capacity over the past few years. Many states have renewable portfolio standards (RPS), which require electricity providers to generate or acquire a percentage of generation from renewable sources (Lawrence Berkeley National Laboratory 2007). RPS of western states that could be served by the proposed project is detailed in the applicant's POD (PCW 2009a).

PCW's objectives for the project are to help fulfill the projected future need for power from renewable energy sources. There are four components that comprise the applicant's objectives:

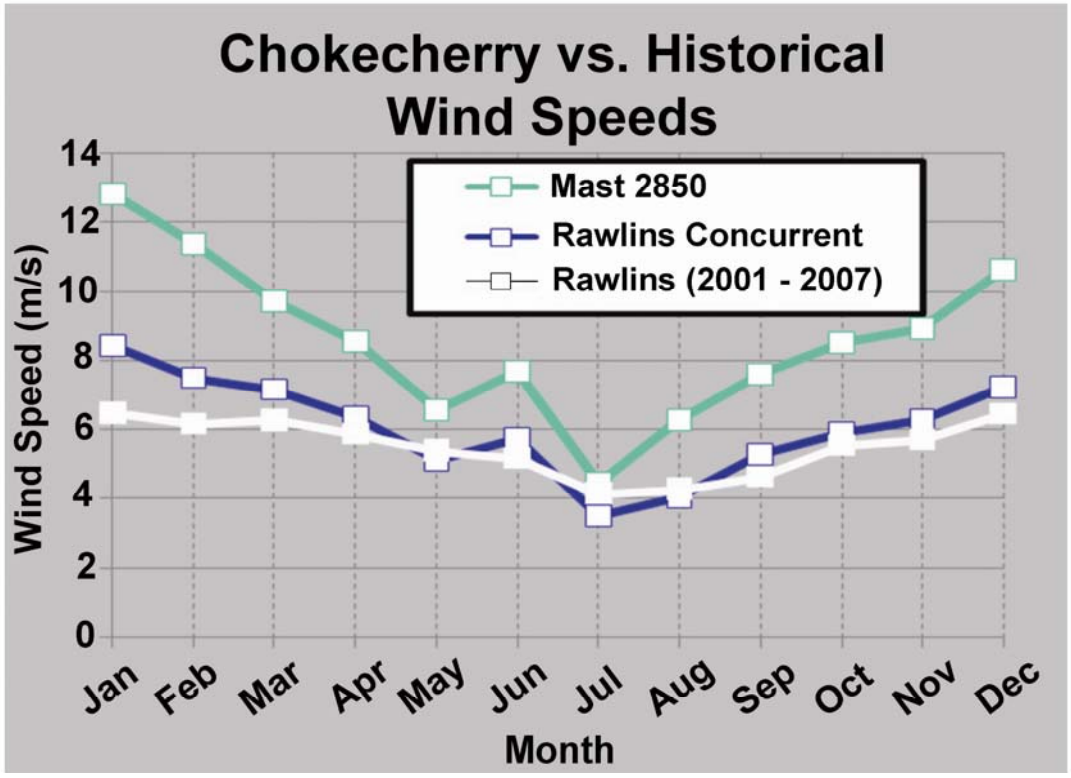
- Extracting the maximum potential wind energy for the site;
- A 2,000 to 3,000-MW wind farm project consisting of approximately 1,000 WTGs;
- Development of the Sierra Madre site first to obtain an earlier return on investment due to the high wind energy potential of the site; and
- Development of the project over a 4-year period.

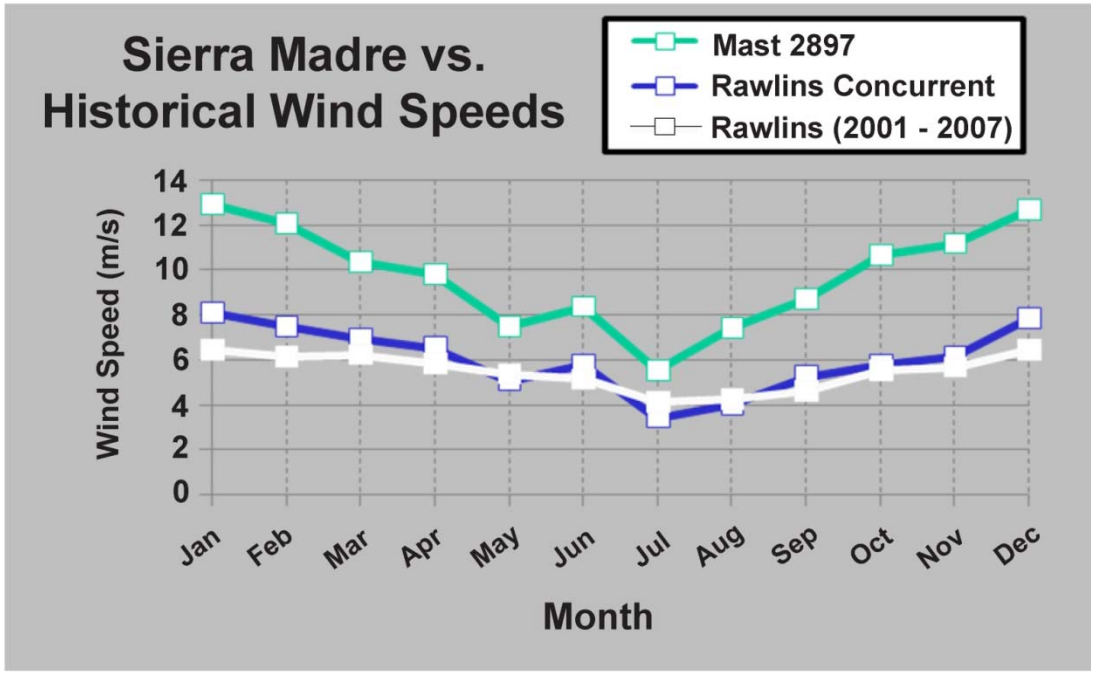
Through a confidential economic analysis reviewed by the National Renewable Energy Laboratory (NREL), the applicant has determined that a project size of approximately 1,000 turbines for the Application Area would provide the greatest return on investment using the highest capacity turbines commercially available at the time of development. The high wind potential of the CCSM site makes the proposed location desirable for the project. The proposed project is located in the Southern Wyoming Corridor, an area of high wind energy attributed to a major gap, about 90 miles wide, in the north-south barrier of the Rocky Mountains. According to The Wind Energy Resource Atlas of the U.S. (U.S. Department of Energy [USDOE 1986]), one large area of exceptionally good wind energy potential[1] in the Southern Wyoming Corridor occurs from near Rawlins eastward to Medicine Bow and the Laramie Mountains and southward along the Laramie Mountains divide to the Colorado border. This area is described as (USDOE 1986):

> *Wind measurements taken throughout the extent of this high wind corridor in southern Wyoming indicate that exposed areas have Class 4 to 6 annual average wind resource. Areas of highest wind resource occur where there is enhanced channeling by the terrain (e.g., between two mountain ranges) and/or where there is terrain-induced flow acceleration (e.g., over hilltops, uplands, or low ridges). Winter is the season of maximum wind power, with Class 7 power in the best areas. In summer, the season of minimum wind power, Class 3 power can be expected in the best areas.*

The wind power potential of the proposed project location was modeled by AWS Truewind Solutions (AWS Truewind 2008) and validated by the NREL as Class 5 (excellent; 16.8 to 17.9 miles per hour [mph] at 50 meters [m]), Class 6 (outstanding; 17.9 to 19.7 mph at 50 m), or Class 7 (superb; >19.7 mph at 50 m). Wind speeds within the CCSM sites are greater than those generally recorded for nearby Rawlins. Average wind speeds in the Chokecherry site are approximately 21 mph (9.5 meters per second [m/s]) and winds are predominantly from the southwest (AWS Truewind 2008). Average wind speeds in the Sierra Madre site are approximately 22 mph (9.9 m/s) and also are predominantly from the southwest. **Figure 1-3** shows the average monthly wind speeds recorded for the CCSM sites (AWS Truewind 2008).

[1] Wind resources are characterized by the NREL wind-power density classes, ranging from Class 1 (the lowest) to Class 7 (the highest). Good wind resources (e.g., Class 4 and above, which have an average annual wind speed of at least 15.7 to 16.8 mph at a 50-m height) are the minimum requirement for large wind turbine systems, but higher wind classes are more desirable for optimum power output.





Source: AWS Truewind 2008.

Figure 1-3 Average Wind Speeds Recorded in the CCSM Sites

Aside from the wind power potential of this location, it has numerous other characteristics that make it optimal for wind energy development.

- Compatible land uses, current private ownership/management by an affiliate of the proponent, and availability for use as a wind farm.
- Accessible to existing or reasonably foreseeable long-distance transmission line corridors that would be available to interconnect the facility to the national or regional power grid, including the TransWest Express Transmission Project, Gateway West Transmission Project, Gateway South Transmission Project, Overland Transmission Project, and Zephyr Transmission Line Project.
- Availability of site access via rail (Union Pacific Railroad [UPRR] mainline corridor) and I-80 that could be used to transport WTGs and ancillary equipment.
- Availability of water rights that can be used for project development.
- Compatible with the Rawlins RMP and local zoning or other restrictions on the land.

1.6 Relationship to Policies, Plans, and Programs

The BLM evaluated the proposed project in accordance with all major authorizing laws, regulations, and policies, including BLM manuals, handbooks, and instruction memoranda. FLPMA (Section 43 USC 1701, et seq.) provides the overarching guidance by which public lands are managed by the BLM to "best meet the present and future needs of the American people" (Section 103 [43 USC 1702]) and to coordinate resource management "without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or greatest unit output" (Section 103 [43 USC 1702]). FLPMA also states that it is appropriate that some lands be used "for less than all of the resources" (Section 103 [43 USC 1702]).

The proposed project is evaluated in this EIS in accordance with NEPA and the Council on Environmental Quality (CEQ) regulations for implementing NEPA outlined in 40 CFR Parts 1500-1508. NEPA provides for public input on issue identification and consideration of the environmental impacts of major federal actions that impact the quality of the human environment. NEPA requires "a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making, which may have an impact on man's environment" (40 CFR 1507.2). This EIS is in compliance with all applicable regulations and laws subsequently passed, including DOI requirements (Department Manual Part 516 Sections 1-6, 11) Environmental Quality (DOI 2005), DOI NEPA regulations (43 CFR 46), guidelines listed in the BLM NEPA Handbook H-1790-1 (BLM 2008), Guidelines for Assessing and Documenting Cumulative Impacts (BLM 1994), and CEQ's Considering Cumulative Effects under the NEPA (CEQ 1997). The relationship of this EIS to applicable BLM, federal, state, and local plans, policies, and programs is detailed in the following sections.

1.6.1 Conformance with the Rawlins RMP EIS and Record of Decision

The Application Area is situated within public lands guided by the *Record of Decision (ROD) and Approved Rawlins Resource Management Plan (RMP) for Public Lands Administered by the Bureau of Land Management Rawlins Field Office* (*BLM RFO*) (BLM 2006; Rawlins RMP), which replaced the *Great Divide Resource Area Resource Management Plan (RMP) and Record of Decision (ROD)* (BLM 1990). The proposed wind farm project is in conformance with the following management goals and actions defined in the Rawlins RMP:

- **Lands and Realty Objective 6**: Respond to internal and external requests (e.g., pipelines, access roads) for land authorizations.

- Alternative Energy Development–Wind Energy Resources Management Actions Common to All Alternatives: Proposals for alternative energy development would be considered on a case-by-case basis. No proposals for alternative energy development, other than wind power, are anticipated to occur in the foreseeable future; therefore, only wind energy potential is considered. Proposals for location of wind energy development would be considered on a case-by-case basis and subject to a project-specific NEPA analysis. Areas with important or sensitive resource values would be excluded or avoided.
- **Alternative Energy Development–Wind Energy Resources Management Actions**: Areas with important resource values would be avoided (569,500 acres) or excluded (98,440 acres) in planning for new wind energy facility placement. If it becomes necessary for facilities to be placed within avoidance areas, effects would be intensively managed (RMP Table 2-5). Avoidance and exclusion areas are identified on RMP Map 2-33a. A summary of the BLM's environmental constraints applicable to the Application Area is provided in **Appendix C**, **Table C-1**. The proposed wind farm project is partially located within an avoidance area, as identified in the Rawlins RMP, based on the following criteria: the North Platte River, Historic Trails, Upper Muddy/Grizzly Wildlife Habitat Management Area (WHMA), and VRM Class II areas. The RMP defines an avoidance area as "areas with sensitive resource values where ROWs and Section 302 permits, leases, and easements would be strongly discouraged. Authorizations made in avoidance areas would have to be compatible with the purpose for which the area was designated and not be otherwise feasible on lands outside the avoidance area."

1.6.1.1 Planning Amendments

Visual Resources

The Rawlins RMP ROD (2008) included a remand of the VRM Class designation and decision portions of the Approved RMP. At this time, an RFO-wide plan amendment for VRM decisions has not occurred. The BLM has completed a new visual resource inventory (VRI) for the RFO (Otak, Inc. 2011), which will serve as a baseline for a VRM-specific plan amendment of the Rawlins RMP. For this reason, a VRM-targeted plan amendment is being conducted concurrently with the development of the CCSM Wind Energy Project EIS. A majority of the Application Area is designated as VRM Class III, but a portion of the Sierra Madre site is identified as VRM Class II. Wind energy development typically is not considered to be compatible with VRM Class I; VRM Class II within the Foreground/Middle-ground and Background Distance Zones; and VRM Class III within the Foreground/Middle-ground Zone. Therefore, the proposed CCSM project is not in conformance with the VRM direction provided in the Rawlins RMP. No action alternatives could be developed that would be in conformance with the Rawlins RMP (2008). In this situation, the BLM can either require modifications to the proposed CCSM project to be in conformance, consider an amendment of the VRM decisions in the Rawlins RMP, or deny the ROW application.

The VRM Plan Amendment for the CCSM project is being addressed in Volume I of this document. As part of the ROD, the BLM will decide whether to amend the Rawlins RMP as a prerequisite to approval of the CCSM project. The Preferred Alternative identified in the VRM Plan Amendment in Volume I has been carried forward to inform the alternatives and the conceptual areas of development as well as the analysis in the Project EIS (Volume II).

Greater Sage-grouse

The BLM Wyoming State Office initiated a planning review to determine whether RMP amendments are required to revise greater sage-grouse and sagebrush management in accordance with BLM Wyoming's IM 2010-012 and 2010-013. The planning review targets the RFO, as well as other field offices in the state, including Rock Springs, Kemmerer, Pinedale, Casper, and Newcastle. Consideration of amending the existing RMPs is intended to provide consistency throughout the state about how the Wyoming greater sage-grouse policy would be applied and bring levels of protection for the greater sage-grouse in the BLM plans to the same level that is presented in the Wyoming greater sage-grouse policy established in the Wyoming Governor's State EO 2010-4 on greater sage-grouse. For this project,

policies set forth in BLM IM 2010-12 and 2010-13 were incorporated as BLM's environmental constraints (shown in **Table C-1**, **Appendix C**) that were used in defining the conceptual areas of development for the alternatives. In addition, the applicant-committed measures (ACMs) provided by PCW (shown in **Table C-2**, **Appendix C**) for this project were used in defining the conceptual areas of development for the alternatives and incorporate the policies set forth in Wyoming Governor's State EO 2010-4.

1.6.2 Relationship to Other Policies, Plans, and Programs

This project incorporates the policies, best management practices (BMPs), and mitigation measures for wind energy development activities on BLM land outlined in the *Record of Decision (ROD) for Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments* (BLM 2005). In accordance with BLM IM 2009-043, "to the extent that the Final Wind Energy Development Programmatic EIS (December 2005) addresses anticipated issues and concerns associated with an individual wind energy project, including potential cumulative impacts, the BLM will, by policy, tier off of the analysis in the Programmatic EIS and limit the scope of additional project-specific NEPA analyses. The site-specific NEPA analyses will include analysis of project site configuration and micrositing considerations, monitoring program requirements, and appropriate site-specific stipulations. In addition, off-site compensatory mitigation may be appropriate to consider for some projects consistent with BLM off-site mitigation policies" (consistent with the policies in BLM IM 2008-204 [dated September 30, 2008], which replaced BLM IM 2005-069 [dated February 1, 2005]). While the Programmatic EIS does not provide the necessary detail to tier this project to the analysis, the resulting policies, BMPs, and mitigation measures have been incorporated as applicable. As discussed in Section 1.6.1, policies set forth in BLM IM 2010-12 and 2010-13 were incorporated as BLM's environmental constraints (shown in **Table C-1**, **Appendix C**) that were used in developing the areas of development for the alternatives.

The BLM evaluated whether the project falls within an area of concern for military operations to fulfill the requirements of Department of Defense (DoD) consultation as required in the protocol between the DoD and the BLM. Since the project is outside an area of concern for military operations, no additional consultation is required.

Since the proposed project would include turbines over 200 feet, the applicant is mandated to complete a Notice of Intent (NOI) to Construct with the FAA per the Federal Aviation Regulation Part 77. The FAA also requires an aeronautical study to determine what lighting and additional measures may be required for the project. The applicant would be responsible for the study once turbine locations, size, and a marking plan are established since the FAA requires project specifics that would not be available until after a ROD is issued for the project.

Use of the State Land Board lands requires compliance with their Board-approved stipulations, including the State of Wyoming greater sage-grouse stipulations under the authority of W.S. 36-2-101; other stipulations may be applied on a case-by-case basis through the Board.

An Industrial Siting Permit with the State of Wyoming is required for all projects with a construction cost of $176.6 million or more and for wind energy projects with 30 or more towers. The Industrial Siting Council within the Department of Environmental Quality (DEQ) administers the Wyoming Industrial Information and Siting Act (W.S. 35-12-101 through 35-12-119) process. The Industrial Siting Council reviews the socioeconomic and environmental impacts of industrial facilities before issuing a permit for construction. Emphasis is placed upon socioeconomic impacts, in particular impacts to housing and services within affected communities.

Other major federal policies, plans, and programs relevant to the proposed project were discussed in Sections 1.3 and 1.6. A list of the federal, state, and local statutes, regulations, plans, programs, and policies related to the proposed project is presented in **Table 1-3**. In addition, state and local plans and policies related to the proposed project include the following:

- Wyoming State Land Use Plan (Wyoming State Land Use Commission 1979);
- Wyoming State Weed Management Strategic Plan (June 2003);
- Wyoming State Comprehensive Wildlife Conservation Strategy (July 2005);
- Wyoming Partners In Flight Wyoming Bird Conservation Plan Version 1.0 (July 1, 2001);
- Final Wyoming Greater Sage-grouse Conservation Plan (July 2003);
- Wyoming Governor's State EO 2010-4 Greater Sage-grouse Core Area Protection (August 2010);
- Wyoming State Setbacks (House Bill 72, HEA0064) (June 2010);
- South-Central Greater Sage-grouse Conservation Plan (March 14, 2007);
- Saratoga-Encampment-Rawlins Conservation District (SERCD) Watershed Management Plan;
- Little Snake River Conservation District (LSRCD) Watershed Management Plan;
- Carbon County Land Use Plan (November 2008); and
- Carbon County Zoning Resolution of 2003, as amended.

1.7 Mineral Rights Owners Coordination

There are multiple mineral rights owners in the Application Area, including the BLM, state, and private owners. Recent legislation in Wyoming House Bill 72 states that the Board of County Commissioners cannot issue a permit under W.S. 18-5-502(a) until the county adopts rules and regulations governing the notice to record owners and claimants of mineral rights located on and under lands where the wind energy facility would be constructed. This legislation would apply to state and private lands. Lessees on public lands have been notified of the project during scoping and would be contacted during site-specific NEPA.

1.8 Grazing Lessee Coordination

TOTCO, which is affiliated with PCW, is the primary grazing lessee in the Application Area. On December 3, 2007, PCW recorded a Memorandum of Grant of Easement and Easement Agreement and Restrictive Covenant (the Memorandum) at Reception Number 0929233, Book 1147, Page 40, in Carbon County, Wyoming, to grant PCW a wind easement, access easement, transmission easement, and certain other nonexclusive right, privilege, license, and easement, burdening TOTCO owned land in the Application Area.

TOTCO leases the public land for grazing. Prior to the formation of PCW, TOTCO had applied to the BLM for ROWs on the public lands located in the Application Area pursuant to Title V of the FLPMA, for long-term commercial wind energy development. The BLM approved a subsequent assignment of the applications from TOTCO to PCW, subject to all valid existing rights, the terms and conditions of the original grants and the provisions of 43 CFR 2800. These applications are the subject of this EIS.

Prior to and during construction of the project, PCW would ensure that any and all existing cattle guards would safely allow the passage of construction equipment and personnel. During and after construction of the project, TOTCO and PCW would work together to address any fencing and grazing issues. Fence crossings, if any, would be reconfigured by PCW, as necessary, during construction of the project. The PCW and TOTCO anticipate the Application Area would continue to be used for grazing after construction of the project and would cooperate, as necessary, regarding fencing and any other issues raised during the O&M of the project as they relate to the operations of the ranch.

Table 1-3 Federal and State Regulatory Framework Potentially Applicable to the Project

Federal	
FLPMA of 1976	43 USC 1701 et seq.
Wild and Scenic Rivers Act of 1968	16 USC 1271 et seq.
NEPA of 1969	42 USC 4321 et seq.
Farmland Protection and Policy Act of 1994	7 USC 4201 et seq.
Soil and Water Conservation Act of 1977	16 USC 2001 et seq.
Structures Interfering with Air Commerce Act	49 USC 44718
Objects Affecting Navigable Airspace	14 CFR 77
FAA, March 1, 2000	Advisory Circular 70/7460-2K
CWA of 1987, as amended	33 USC 1251
Rivers and Harbors Act of 1899	33 USC 401 et seq.
Floodplain Management, May 21, 1977	EO 11988
Protection of Wetlands, May 24, 1977	EO 11990
Safe Drinking Water Act of 1974	42 USC 300(f) et seq.
Safe Drinking Water Act, Protection of Underground Sources of Drinking Water	42 USC 300h-7
Indian Sacred Sites, May 24, 1996	EO 13007
Consultation and Coordination with Indian Tribal Governments, November 9, 2000	EO 13175
Native American Graves Protection and Repatriation Act (NAGPRA) of 1990	25 USC 3001
American Indian Religious Freedom Act (AIRFA) of 1978	42 USC 1996
Archeological Resources Protection Act (ARPA) of 1979, as amended	16 USC 470a, 470cc, 470ee
Archaeological and Historic Preservation Act of 1974	16 USC 469a et seq.
Antiquities Act of 1906	16 USC 431 et seq.
NHPA of 1966	16 USC 470 et seq.
Historic Sites Act	16 USC 461
Protection and Enhancement of the Cultural Environment, May 15, 1971	EO 11593
National Trails System Act of 1968, as amended	16 USC 1241–1249
Trails for America in the 21st Century, January 18, 2001	EO 13195
Preserve America, March 3, 2003	EO 13287
BGEPA of 1940	16 USC 668
MBTA of 1918	16 USC 703–711
ESA of 1973	16 USC 1531 et seq.

Table 1-3 Federal and State Regulatory Framework Potentially Applicable to the Project

Federal (con't)	
Fish and Wildlife Coordination Act of 1934, as amended 1946, 1958, 1977	16 USC 661-667e
Taylor Grazing Act of 1934, as amended	43 USC 315
Invasive Species, February 3, 1999	EO 13112
Responsibilities of Federal Agencies to Protect Migratory Birds, February 10, 2001	EO 13186
CAA of 1990, as amended	42 USC 7401, 7642
Noise Control Act of 1972, as amended by the Quiet Communities Act of 2005	42 USC 4901 et seq.
Hazardous Materials Transportation Law	49 USC 5101-5127
Emergency Planning and Community Right-to-Know Act of 1986, as extended to federal facilities, August 3, 1993	EO 12856
Oil Pollution Control Act of 1990	33 USC 2701 et seq.
Pollution Prevention Act of 1990	42 USC 13101 et seq.
Federal Insecticide, Fungicide, and Rodenticide Act of 1947	7 USC 136 et seq.
Noxious Weed Act of 1974, as amended by Section 15, Management of Undesirable Plants on Federal Lands 1990	7 USC 2801-2813
Toxic Substances Control Act of 1976	15 USC 2605(e)
Solid Waste Disposal Act of 1976, as amended by the Resource Conservation and Recovery Act of 1976 and the Hazardous Solid Waste Amendment of 1984	42 USC 6901 et seq.
Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, February 11, 1994	EO 12898
Wyoming State	
Industrial Development Information and Siting Act of 1975	W.S. 35-12-101 et seq.
Wyoming Environmental Quality Act of 1973	W.S. 35-11-101 et seq.
Water Quality	W.S. 35-11-301 et seq.
Water Rights; Administration and Control	W.S. 41-3-101 et seq.
Protection of Public Water Supply	W.S. 35-4-201 et seq.
Antiquities Act of 1935	W.S. 36-1-114 through 36-1-116
Bird and Animal Provisions	W.S. 23-3-101 et seq.
Predatory Animals; Control Generally	W.S. 11-6-101 et seq.
Air Quality	W.S. 35-11-201 et seq.
Storage Tanks (Wyoming Environmental Quality Act of 2007)	W.S. 35-11-1401 et seq.
Wyoming Weed and Pest Control Act of 1973	W.S. 11-5-102 et seq.
Solid Waste Management	W.S. 35-11-501 et seq.

1.9 Agency and Public Participation

1.9.1 Agency Roles and Relationships

The CEQ regulations addressing cooperating agencies' status (40 CFR 1501.6 and 1508.5) implement the NEPA mandate that federal agencies responsible for preparing NEPA analyses and documentation do so "in cooperation with state and local governments" and other agencies with jurisdiction by law or special expertise (42 USC 4331[a], 4332[2]). This section identifies roles and responsibilities of both the BLM lead agency and cooperating government agencies.

1.9.1.1 Bureau of Land Management

The BLM is the lead agency for the EIS process. The lead agency takes primary responsibility for preparing the EIS as well as requesting the participation of each cooperating agency. The BLM, in accordance with 40 CFR 1506.5(a) and (c), is in agreement with the information and analyses presented in this EIS and approves and takes responsibility for the scope and content of this document. According to federal regulations, the lead agency also is responsible for requesting the participation of each cooperating agency in the EIS process at the earliest possible time. Furthermore, the lead agency must use the environmental analysis and proposals of cooperating agencies with jurisdiction by law or special expertise, to the maximum extent possible consistent with its responsibility as lead agency.

1.9.1.2 Cooperating Agencies

Projects often must comply with regulations from several federal, state, and local authorities. These authorities have different missions, areas of responsibilities, and areas of expertise. Inviting these different agencies to participate as cooperating agencies allows the EIS to more accurately encompass all of these needs. According to *A Desk Guide to Cooperating Agency Relationships* (BLM 2005), cooperating agencies help the BLM achieve several objectives:

- Gain early and consistent involvement of cooperating agency partners;
- Incorporate local knowledge of economic, social, and environmental conditions, as well as state and local land use requirements;
- Address intergovernmental issues;
- Avoid duplication of effort;
- Enhance local credibility of the planning review process;
- Encourage cooperating agency support for planning decisions; and
- Build relationships of trust and cooperation.

In accordance with 40 CFR 1501.6, any other federal agency that has jurisdiction by law may be a cooperating agency (also called a cooperator) upon request of the lead agency. In addition, any other federal agency that has special expertise with respect to any environmental issue that should be addressed in the EIS may be a cooperating agency upon request of the lead agency. An agency also may request the lead agency designate it a cooperating agency. Any designated federal, state, or local government agency that becomes a cooperator is required to sign a Memorandum of Understanding (MOU) on its specific roles and responsibilities.

The primary role of the cooperating agencies is to provide input during the EIS process on issues for which they have special expertise or jurisdiction at the earliest possible time. Cooperating agencies may participate in the process in a role similar to that of any BLM interdisciplinary team member (e.g., BLM rangeland management specialists, wildlife biologists). They also serve as reviewers of draft information and give overall advice on the EIS process. Cooperators meet with the lead agency periodically throughout the EIS process to discuss EIS issues as a group. The following agencies with jurisdiction,

special expertise, or interest in the CCSM Wind Energy Project have agreed to participate in the EIS process as cooperating agencies:

- U.S. Forest Service (USFS) (Medicine Bow-Routt National Forest and Thunder Basin National Grasslands);
- State of Wyoming (including 12 departments);
- Carbon County (including 4 departments);
- LSRCD;
- Medicine Bow Conservation District;
- SERCD; and
- City of Rawlins.

1.9.2 Public Involvement

Consistent with NEPA Sections 101 and 102, and with federal regulations and BLM policy, the BLM is required to ensure that the public is involved in the EIS process. Public involvement is achieved through notification, scoping, and comment periods at key milestones that involve the public, other interested federal, state, and local agencies, and tribal governments. Scoping provides a mechanism at the project onset for determining the scope and significant issues (40 CFR 1501.7 and 40 CFR 1508.25) associated with the development and operation of the proposed project so that the EIS can focus the analyses on areas of interest and concern.

The BLM initiated public involvement with publication of a NOI to prepare an EIS for the proposed project in the Federal Register (FR) on July 25, 2008. The NOI included a project description, BLM contact information, and announced the initiation of a 45-day scoping period from the date of publication and associated public meetings scheduled during this period. The BLM also mailed scoping letters on July 25, 2008 to over 600 interested parties, issued a press release on July 18, 2008, and distributed “storefront” flyers that advertised the scoping meeting dates to community centers and local businesses in Rawlins, Sinclair, Saratoga, and Baggs, Wyoming. A total of 80 people attended the four public scoping meetings held in Saratoga on August 16, Rawlins on August 16 and 18, and Baggs on August 19. The BLM extended the 45-day scoping period to September 23, 2008, to allow more time for interested parties to participate and provide their input and comments about the proposed project.

In addition to the scoping notification, agencies were invited to an interested agency meeting that was held on September 15, 2008, at the BLM RFO. Twenty-two interested agency personnel participated in the interested agency meeting, including representatives from the WGFD, the WYDEQ, the USFWS, the SHPO, Carbon County, and local conservation districts.

By the conclusion of the official scoping period, the BLM received a total of 47 comment submittals (e.g., letter, comment form, email) containing 411 individual comments. Most of the comments the BLM received were from agencies and nongovernmental organizations. The comments received were categorized and analyzed to determine the significant issues and concerns that were considered in developing the Draft EIS (detailed in Section 1.10).

1.10 Issues and Concerns

Information gained during scoping assists the BLM in identifying the potential environmental issues, alternatives, and mitigation measures associated with development of the proposed project. As previously discussed, the process provides a mechanism for refining the scope of issues so that the EIS can focus the analysis on areas of high interest and concern. A majority of the comments were related to impacts associated with project development to biological resources, visual resources, recreation, and

processes for siting project components (including WTGs and transmission lines) to minimize impacts to these resources. **Table 1-4** summarizes the issues and concerns expressed during scoping that were used to develop alternatives and analyze environmental consequences.

Table 1-4 Issues and Concerns Raised During Scoping

Category	Issue or Concern
Biological Resources	Consider impacts to greater sage-grouse and greater sage-grouse habitat from project construction and operation
	Consider impacts to big game (mule deer, elk, and antelope) migration patterns from project construction and operation
	Consider impacts to avian species (passerines, raptors, mountain plover, golden eagle, and BLM sensitive species) and bats (specifically the hoary and silver-haired bats) from WTG siting
	Consider impacts to other wildlife species such as the pygmy rabbit and prairie dog towns, which support the burrowing owl, black-footed ferret, and kit fox from project construction and operation
	Consider impacts to aquatic species and fisheries from construction sediment runoff into nearby streams and rivers
	Include adaptive management protocols to reduce impacts to wildlife and habitat
	Avoid special WHMAs
	Incorporate standards for protection of native plant communities and rare or special state plant species
Cultural Resources	Consider impacts to historic trails, such as the Overland Trail, from project construction and operation
	Develop a comprehensive monitoring and cultural resource discovery plan that includes training for construction workers
Visual Resources	Consider impacts to viewsheds of historic trails
	Consider impacts to existing views from nearby areas, including Rawlins
	Apply management objectives of VRM Class III to project siting and mitigation without amending the Rawlins RMP
Grazing/Rangeland	Consider the loss of palatable forage and the effects on livestock and animal unit months (AUMs) as a result of project development
	Consider impacts to livestock from increased off- and on-site traffic during project development
Land Use	Evaluate the effects of reduced access to public lands for recreation and mineral resources
	Consider impacts to the Wyoming Fish and Game easements along the North Platte River from road upgrades
Reclamation and Mitigation	Mitigation and reclamation of project access roads
Water Resources	Project construction impacts to water quality and resources
Air Quality	Construction impacts to air quality
Tourism	Impacts to recreational hunting and the economic impact to the region's tourism

1.11 Resources Not Addressed in this EIS

Laws, regulations, policies, and executive orders require specific resource topics to be examined during the NEPA process. In some instances, initial evaluation reveals topics that are not relevant to the Application Area or do not require further analysis. These topics that are not addressed in this EIS are listed below.

- **Wild and Scenic Rivers (WSRs).** Review of the Rawlins RMP indicated that there are no designated or proposed WSRs in the Application Area.
- **Wilderness Study Areas (WSAs).** Review of the Rawlins RMP indicated that there are no WSAs in the Application Area.
- **Wild Horses.** Review of the Rawlins RMP indicated that there are no wild horse herds in the Application Area.