1.0 INTRODUCTION, PURPOSE AND NEED

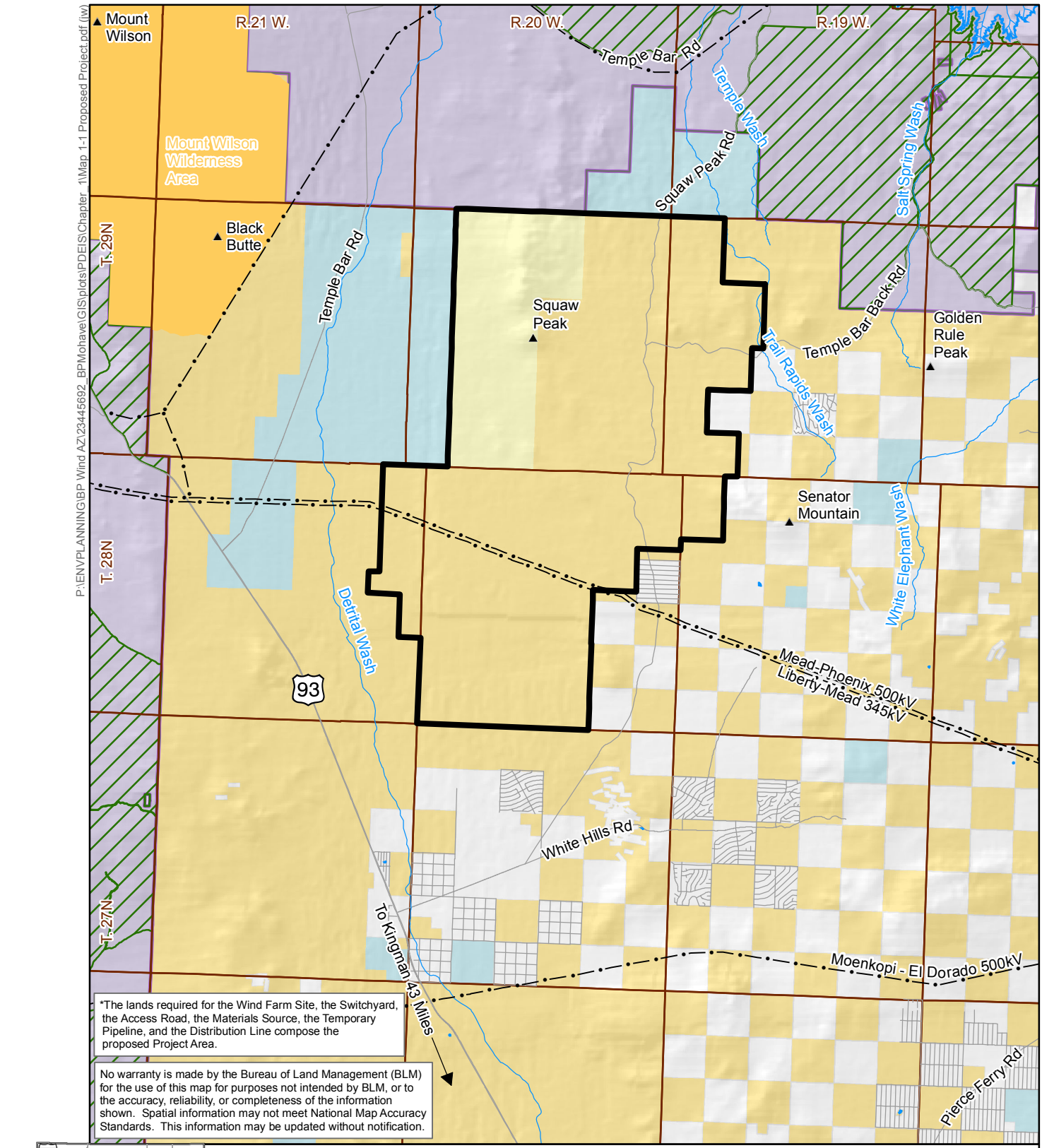
1.1 PROJECT INTRODUCTION AND LOCATION

BP Wind Energy North America Inc. (BP Wind Energy) is proposing to construct, operate, maintain, and eventually decommission a wind-powered electrical generation facility in Mohave County, Arizona. The proposed action, the Mohave County Wind Farm Project (Project), would be built in the White Hills of Mohave County about 40 miles northwest of Kingman, Arizona, and just south of Lake Mead National Recreation Area (Map 1-1). The Project includes the following major components and facilities:

1) a wind farm (the Wind Farm Site) on approximately 38,099 acres of public land managed by the Bureau of Land Management (BLM) Kingman Field Office (KFO), and approximately 8,960 acres of Federal land managed by the Bureau of Reclamation (Reclamation). Project features within the Wind Farm Site would include, but not be limited to, turbines aligned within corridors, access roads, an operations and maintenance building (potentially with a water well to support the operations and maintenance building), two temporary laydown/staging areas (with temporary batch plant[1] operations), temporary and permanent meteorological (met) towers, two substations, and collector lines.
2) up to 37 acres of BLM-administered public lands within the Wind Farm Site would be used for construction of the switchyard[2] (the Switchyard) that would be operated by the Western Area Power Administration (Western);
3) an approximately 3-mile access road between the Wind Farm Site and U.S. Highway 93 (US 93) (the Access Road);
4) the temporary use of the existing Detrital Wash Materials Pit as a materials source (the Materials Source) for the base material of roads and for concrete needed for foundations. The existing water wells in the immediate vicinity of this Materials Source would provide temporary construction-phase water for batch plant operations and dust suppression;
5) a water pipeline (the Temporary Pipeline) that would extend within the primary Access Road right-of-way (ROW) from the Materials Source to the main laydown/staging area where batch plant operations are proposed to occur; and
6) a distribution line (the Distribution Line) that would be expected to tap into an existing power line south of the Project Area, parallel US 93 north to the Access Road, and follow the access road to the main (southernmost) laydown/staging area where batch plant operations are proposed to occur.
7) if the 345-kilovolt (kV) interconnection option is selected, an existing 345/230-kV transformer and associated breakers and switches within Western's Mead Substation would be replaced with two new 345/230-kV transformers and new breakers and switches. These replacements, which would be required to accommodate the increased electrical loading related to generation from the proposed Project, would be accomplished by Western at BP Wind Energy's expense. The existing transformer is at the terminus of the Liberty-Mead 345-kV line in Mead Substation; the substation is located near Boulder City, Nevada.

[1] A manufacturing plant where concrete is mixed and made ready to be poured before being transported to a construction site.

[2] A facility where electricity from the electrical generator is transferred to the electric grid.



Map 1-1
Proposed Wind Farm Area

Mohave County Wind Farm Project

Source:
Base Map: ALRIS 2007-2008, BLM 2009, NHD 2008 Project Area Boundary: BPWE North America 2011
Transmission Lines: Platts, A Division of the McGraw-Hill Companies, Inc. - POWERmap (Platts analytical database: 2009)

The public and Federal lands required for the Wind Farm Site, the Switchyard, the Access Road, the Materials Source, the Temporary Pipeline, and the Distribution Line compose the proposed Project Area. BP Wind Energy has filed applications for ROWs with BLM and Reclamation to develop the Wind Farm Site, the Access Road, and the Temporary Pipeline on these public and Federal lands, respectively, and Western has applied for a ROW for the Switchyard. The Distribution Line ROW application would be filed by the owner of the line, Unisource Energy. A contract for the sale of mineral materials would be issued if BP Wind Energy is the successful bidder for the Materials Source.

The Project would generate and deliver electrical power to the regional electrical transmission grid by interconnecting with an existing transmission line passing through the Project Area. The potential interconnection points include the Liberty-Mead 345-kV or Mead-Phoenix 500-kV transmission lines, both of which cross the southern portion of the Wind Farm Site and are operated by Western. BP Wind Energy has filed applications to interconnect the Project with one of these two transmission lines.

Up to 283 turbines[3] are proposed to be installed within the corridors on the Wind Farm Site; each would have the capacity to generate between 1.5 to 3.0 megawatts (MW). Depending on the turbine model used, the turbine hubs would be between 262 feet (80 meters) and 345 feet (105 meters) above the ground, and the turbine blades would extend between 126 feet (38.5 meters) and 194 feet (59 meters) above the hub. At the top of their arc, the blades would be between 390 feet (118.5 meters) and 539 feet (164 meters) above the ground. The energy generating capacity of the Project would depend on the turbine model selected, the transmission line used, and the turbine corridors approved by BLM and Reclamation. The Project would have a nameplate generating capacity[4] of 425 MW in the event the Project interconnects to the Liberty-Mead line, and 500 MW in the event the Project interconnects to the Mead-Phoenix line. The desired generation level could be achieved by different numbers of turbines, depending on the turbine model(s) selected by BP Wind Energy, and the land area approved by BLM and/or Reclamation in accordance with the decisions made by these agencies in their respective Records of Decision (RODs).

This Environmental Impact Statement (EIS) is being prepared in compliance with the National Environmental Policy Act of 1969 (NEPA) in order to analyze and disclose the probable effects of the Project. The BLM is the lead agency responsible for preparing this EIS. Other agencies (Federal, state, and local) cooperating with BLM in the preparation of the EIS include Reclamation, Western, National Park Service (NPS), Arizona Game and Fish Department (AGFD), and Mohave County. The Hualapai Tribe, a governmental entity, is also cooperating with BLM in the preparation of the EIS.

The Federal agency decisions regarding the Project components and facilities are interdependent; in addition to BLM, Reclamation has jurisdiction for a portion of the proposed Wind Farm Site and Western has jurisdiction for the interconnection request. Therefore, based on the analysis in this EIS, three RODs may be issued:

- BLM's ROD would approve, deny, or approve as modified ROWs to BP Wind Energy for development of the Wind Farm Site and any associated facilities (e.g., the Access Road, the Materials Source, and the Temporary Pipeline) located outside the Wind Farm Site on BLM-administered public lands. BLM's ROD would also address a separate ROW to Western for the switchyard and a separate ROW to UniSource Energy for the Distribution Line.

[3] Turbine is the term used to describe the complete assembly of pieces that include the rotor blades, hub, nacelle, and support tower.

[4] Nameplate generation capacity is equivalent to the sum of all installed wind turbine generators at their maximum output capacity.

- Reclamation's ROD would approve, deny, or approve as modified a ROW for the use of the Reclamation-administered portion of Federal lands for the Wind Farm Site.
- Western's ROD would approve, deny, or approve as modified the interconnection request if the Project interconnects with one of the existing transmission lines operated by Western — the Liberty-Mead 345-kV or Mead-Phoenix 500-kV transmission line through the Switchyard. If the interconnection request is approved, Western would construct, own, and operate the Switchyard in support of the proposed Project. If the 345-kV interconnection is selected, Western's ROD would also approve the replacement of the 345/230-kV transformer at Mead Substation with two new 345/230-kV transformers and associated equipment such as breakers and switches.

1.2 BACKGROUND

A number of Federal regulations, policies, and plans have been developed to guide wind energy development on BLM- and Reclamation-administered public/Federal lands. They include (1) enactment of the Energy Policy Act of 2005 (EPAct) (Public Law 109-58), (2) development of the *Final Programmatic Environmental Impact Statement for Wind Energy Development on BLM-Administered Lands in the Western United States* (PEIS) (BLM 2005a), and (3) Secretarial Order 3285A1 – *Renewable Energy Development by the Department of the Interior*, dated March 11, 2009, as amended February 22, 2010. In addition, pertinent BLM Instruction Memoranda (IMs) include (1) *Wind Energy Development Policy, IM No. 2009-043* (BLM 2008a), (2) *National Environmental Policy Act Compliance for Utility-Scale Renewable Energy Right-of-Way Authorizations, IM No. 2011-059* (BLM 2011a), (3) *Solar and Wind Energy Applications – Due Diligence, IM 2011-060* (BLM 2011b), and (4) *Solar and Wind Energy Applications – Pre-Application and Screening, IM 2011-061* (BLM 2011c). BLM and Reclamation (where appropriate for Reclamation) will refer to this guidance as each agency considers BP Wind Energy's applications for ROWs to develop the Project.

1.2.1 National and State Renewable Energy Requirements

In 2001, the President established the National Energy Policy Group to develop a national energy policy. A recommendation from the Policy Group was for the Departments of the Interior, Energy, Agriculture, and Defense to work together to increase access across public lands to accommodate the demand for additional energy and electricity nationwide (National Energy Policy Development Group 2001). In 2005, Congress established a goal to have at least 10,000 MW of renewable energy projects approved on public lands by 2015 under the EPAct (Public Law 109-58 § 211). Additionally, a majority of the western states have adopted Renewable Portfolio Standards, under which a proportion of the electricity provided by utilities must come from renewable energy sources, including wind and solar resources. For example, in Arizona, the Arizona Corporation Commission established a Renewable Portfolio Standard requiring that, by 2025, utilities in Arizona generate 15 percent of their energy from renewable sources. Similarly, the Renewable Portfolio Standard for Nevada requires 20 percent renewable energy by 2015 and California requires 33 percent renewable energy by 2030 (Department of Energy [DOE] 2010). BP Wind Energy's proposed action would help meet these national and state objectives to increase renewable energy production.

1.2.2 BLM Wind Energy Policies and Requirements

In response to the 2001 National Energy Policy, the BLM Washington Office established an interim national Wind Energy Development Policy to implement recommendations to increase renewable energy production using BLM-administered public lands. BLM then prepared the *Wind Energy Development PEIS* (BLM 2005) to evaluate the Wind Energy Development Policy and issues associated with future wind energy development on BLM-administered lands in the West. The ROD for the PEIS was signed on December 15, 2005, and established policies and Best Management Practices (BMPs) for wind energy ROW authorizations (refer to Sections 5.1 through 5.14 of the PEIS for a list of the BMPs). The analyses

conducted in the Wind Energy PEIS and associated ROD is incorporated by reference. BLM issued IM-2009-043 in 2008 (BLM 2008a) to further clarify wind energy development policies and BMPs from the 2005 ROD and to provide updated guidance on processing ROW applications for BLM-administered public lands. The BLM issued IM-2011-059, IM-2011-060, and IM-2011-061 in 2011 to further clarify renewable energy ROW authorizations and application processes (BLM 2011(a)(b)(c)). IM 2011-060 and IM 2011-061 updated IM-2009-043. The BLM has followed the guidance set forth and incorporated information and analysis from the Wind Energy PEIS, the 2005 ROD, and applicable IMs to effectively evaluate and assess the proposed Project in this EIS.

Furthermore, BLM is responsible for reviewing and processing applications for ROWs on public lands in accordance with the Federal Land Policy and Management Act (FLPMA). BLM is authorized to issue ROWs for "systems for generation, transmission, and distribution of energy…" per FLPMA 43 United States Code (U.S.C.) § 1761(a)(4). A ROW grant is a Federal action that requires the completion of environmental reviews pursuant to NEPA.

1.2.3 Applicant

The proposed action would be developed by BP Wind Energy North America Inc., a wholly owned indirect subsidiary of BP p.l.c., a publicly traded company, or an affiliate thereof. BP Wind Energy, successor-in-interest to Orion Energy L.L.C. as developer of the Project and applicant hereunder, which is currently a wholly-owned subsidiary of BP Wind Energy, is a principal owner and operator of wind power facilities in the United States with interests in 13 wind farms in seven states. As of October 2011, BP Wind Energy has a gross installed capacity of nearly 1,600 MW, enough electricity to power approximately 500,000 average American homes, and has 375 MW in construction and more than 2,000 MW of projects in an advanced stage of development. A standard BLM administrative process was used to change the holder of the application from Orion Energy L.L.C. to BP Wind Energy in September 2009. As part of its development portfolio, BP Wind Energy has applied to generate up to a maximum nameplate capacity of 500 MW at the Project and has filed interconnection requests with Western that commit the firm to certain generating capacities (dependent on the specific transmission line) if the Project is approved.

1.2.3.1 Application for Rights-of-Way Including Wind Studies and Meteorological Towers

The Project Area has been established through a series of BLM and Reclamation ROW grants for wind energy testing and monitoring, and applications for development ROW grants, as shown in Table 1-1.

Table 1-1 Right-of-Way Application History

ROW Grant Case File Number	Purpose	Date	Comments (where applicable)
AZA-32315	Authorize the construction of two meteorological towers (met towers)	October 2003	
AZA-32655	Expand the study area and construct an additional met tower	April 2004	Met tower was never installed.
AZA-33628	Renew ROW grant AZA-32315	December 2006	As a condition of the renewal, BLM required a ROW application and Plan of Development for a long-term ROW grant for the wind energy development project.

ROW Grant Case File Number	Purpose	Date	Comments (where applicable)
AZA-32315	(1) Renew existing ROWs, (2) authorize approximately 18,000 additional acres for wind energy testing and monitoring, (3) authorize the construction of six additional met towers, and (4) consolidate all ROW case numbers under a single file	June-July 2007	
AZA-32315	(1) Amend ROW grant AZA-32315 to modify the boundaries of the Wind Farm Site to exclude certain public lands administered by BLM and to include lands that may be needed for a transmission line, (2) relocate met towers, (3) place a temporary sonic detection and ranging system (SODAR) on public land, and (4)conduct geotechnical investigations through boring samples	April 2010	
AZA-32315	(1) expand the development area of the Wind Farm Site by approximately 10,880 acres, and (2) install three temporary met towers on this land	April 2011	
Contract # 00-07-30-L0746	(1) Geotechnical Boring (2) Temporary meteorological tower installation	October 2011	Reclamation issued this contract after BP Wind Energy filed an application with Reclamation to develop part of the proposed wind farm on Federal land administered by Reclamation.

In accordance with BLM IM-2009-043, *Wind Energy Development Policy*, a Categorical Exclusion may be used to provide the environmental clearance for the issuance of short-term ROW authorizations, such as site testing and monitoring activities or sites. Therefore, applications to establish met towers, establish sonic detection and ranging system (SODAR) sites, and collect geotechnical boring samples were evaluated through preparation of Categorical Exclusion documents because the ROWs would be short-term actions (three years or less), would require minimal land, be temporary, and no significant impacts were identified. Reclamation also used a Categorical Exclusion for issuance of Contract # 00-07-30-L0746, referenced in Table 1-1. The proposals identified in Table 1-1 were also in conformance with the Kingman Resource Management Plan, and included rehabilitation to restore the sites to their original condition. In accordance with IM-2009-043, the term of a site-specific ROW grant is limited to three years from the date of issuance and a new ROW application must be submitted if the holder of the site-specific ROW grant wishes to continue monitoring at the site; when applicable, ROW grants have been renewed. As indicated in Table 1-1, wind resource studies for the Project were initiated in 2003 and several met towers have been installed since those initial studies to better understand the wind resources in the area. Equipment on the towers measure wind speed, wind variation by elevation, wind shear, and seasonal wind changes; the met towers are also equipped with pulleys, which provide the mechanism needed to suspend bat or bird monitoring equipment in the rotor sweep area. The 13 total met towers and SODAR units continue to collect data and operate within BP Wind Energy's ROW application area. Current data indicate that this area is suitable for wind turbine applications and has sufficient wind to produce energy for a commercial facility.

1.3 PURPOSE OF AND NEED FOR THE PROPOSED ACTION AND RELATED AGENCY ACTIONS

The overall purpose of the proposed action is to respond to BP Wind Energy's Proposal to use Federal lands. With regard to the affected public lands administered by the BLM, the purpose for the proposed action is to respond to a FLPMA ROW application submitted by BP Wind Energy to construct, operate, maintain, and decommission a wind energy facility and associated infrastructure in compliance with FLPMA, BLM ROW regulations, BLM's multiple use mandate, and other applicable Federal laws and policies.

The need for the proposed action is to respond to the projected demand for renewable energy and assist Arizona (or other western states) with meeting established Renewable Energy Portfolio Standards. This proposed action, if approved, would assist the BLM in addressing the management objectives in the EPAct (Title II, Section 211), which establish a goal for the Secretary of the Interior to approve 10,000 MW of electricity from non-hydropower renewable energy projects located on public lands. This proposed action, if approved, would also further the purpose of Secretarial Order 3285A1 (March 11, 2009) that establishes the development of environmentally responsible renewable energy as a priority for the Department of the Interior.

1.3.1 Decisions to be Made

BLM has prepared this EIS to evaluate and analyze environmental impacts associated with the proposed action. Decisions from BLM and other agencies at the Federal, state, and local level will be required. Public input will be considered in the decision-making process. The agencies below each have a responsibility to respond to and make a decision regarding the proposed action and reasonable alternatives.

1.3.1.1 BLM

The BLM will consider the use of BLM-administered public lands in the White Hills area of Mohave County, Arizona, to help meet the need for energy, particularly from renewable wind energy sources, consistent with the EPAct and BLM's Wind Energy Development Policy, including BLM's 2011 Instruction Memoranda on processing renewable energy ROW applications. Responding to requests for ROWs on BLM-administered public lands is required of BLM under FLPMA.

The BLM will decide whether or not to grant the ROWs for the construction, operation, maintenance, and decommissioning of the proposed Wind Farm Site, or grant the ROW with modifications such as changing the route or location of the proposed facilities (43 Code of Federal Regulations [CFR] 2805.10(a) (1)). Should BLM approve the ROW for the Wind Farm Site, BLM would also consider whether to deny, grant, or grant with modification, ROWs for the proposed ancillary facilities or access on BLM-administered public lands, including a ROW to Western for a switchyard, a ROW to UniSource Energy for a distribution line to provide power during construction, and a contract for the sale of mineral materials. BLM will decide which alternative to select, any mitigation required, and the terms and conditions that will be included in the ROW grants. This decision would be outlined in a ROD, based on the analysis in the EIS, including consideration of public input.

1.3.1.2 Reclamation

Reclamation will consider the use of Reclamation-administered lands in the White Hills area of Mohave County, Arizona, to help meet the need for renewable energy, consistent with the EPAct. It is Reclamation's responsibility under the Act of Congress of June 17, 1902 (32 Stat. 388), the Act of Congress approved August 4, 1939 (53 Stat. 1187), Section 10, and 43 CFR Part 429 to respond to a request for ROWs on Reclamation-administered Federal lands.

Reclamation will decide whether or not to grant the ROWs for the construction, operation, maintenance, and decommissioning of the proposed action and any associated access on Reclamation-administered lands. If Reclamation's decision is to grant the ROWs, the decision, terms and conditions, and any mitigation measures would be outlined in a ROD, based on the analysis and conclusions in the EIS, including consideration of public input. The mitigation measures and terms and conditions would be included in the ROW grants.

1.3.1.3 Western

BP Wind Energy has applied to interconnect the proposed Project with either the Mead-Phoenix (of which Western is one of several co-owners[5]) or Western's Liberty-Mead transmission line; the proposed Project would interconnect through a new switchyard to be constructed within the Wind Farm Site. Western's purpose and need is to approve, deny, or approve as modified the interconnection request in accordance with its Open Access Transmission Service Tariff (Tariff) and the Federal Power Act, as amended (FPA). If the decision is to execute an interconnection agreement, then Western would also need to construct, own and operate the Switchyard. If the 345-kV interconnection is selected, Western would replace the 345/230-kV transformer and associated equipment at the existing Mead Substation (located south of Boulder City, Nevada) with two new 345/230-kV transformers and ancillary equipment. This would occur entirely within the previously disturbed and developed Mead Substation.

Under the Tariff, Western offers capacity on its transmission system to deliver electricity when capacity is available. The Tariff also contains terms for processing requests for the interconnection of generation facilities to Western's transmission system. The Tariff substantially conforms to Federal Energy Regulatory Commission (FERC) final orders that provide for non-discriminatory transmission system access. Western originally filed its Tariff with FERC on December 31, 1997, pursuant to FERC Order Nos. 888 and 889. Responding to FERC Order No. 2003, Western submitted revisions regarding certain Tariff terms and included Large Generator Interconnection Procedures (LGIP) and a Large Generator Interconnection Agreement (LGIA) in January 2005. In response to FERC Order No. 2006, Western submitted additional term revisions and incorporated Small Generator Interconnection Procedures (SGIP) and a Small Generator Interconnection Agreement (SGIA) in March 2007. In September 2009, Western submitted yet another set of revisions to address FERC Order No. 890 requirements along with revisions to existing terms.

In reviewing interconnection requests, Western must ensure that existing reliability and service is not degraded. Western's LGIP provides for transmission and system studies to ensure that system reliability and service to existing customers are not adversely affected by new interconnections. These studies also identify system upgrades or additions necessary to accommodate the proposed Project and address whether the upgrades/additions are within the Project scope.

Authority: Western must consider interconnection requests to its transmission system in accordance with its Tariff and the FPA. Western satisfies FPA requirements to provide transmission service on a non-discriminatory basis through compliance with its Tariff. Under the FPA, FERC has the authority to order Western to allow an interconnection and to require Western to provide transmission service at rates it charges itself and under terms and conditions comparable to those it provides itself.

In making application for electrical interconnection of the Project, BP Wind Energy initially indicated a Project nameplate power output of 500 MW. In order to provide for fairness and transparency in its

[5] The participants (owners) in the Mead-Phoenix line include: Arizona Public Service Company, 18 percent; MSR Public Power Agency, 12 percent; Southern California Public Power Authority, 18 percent; Startrans IO, LLC, 2 percent; Salt River Project Agricultural Improvement and Power District, 18 percent; and Western, 32 percent.

interconnection procedures, and to avoid exposing other proposed generators in the region to a constantly changing technical environment and cost uncertainty with respect to the facilities that may need upgrades, only a limited number of modifications to the information provided in a project's interconnection request may be made, including but not limited to those related to electrical output (MW), technological parameters, and interconnection configuration. During the course of the interconnection study, if a generator is not able to avoid substantial changes to these and other project characteristics, it will be required to re-apply for interconnection. There are the two opportunities (or option windows) to adjust the amount of power a developer intends to connect to the system, however if project conditions change late in the LGIA process, the developer may miss those two opportunities, and thus lose their place in line. By re-applying, the generator would likely be confronted with an entirely different set of system conditions that would affect the amount of available transmission capacity and extent and cost of necessary system upgrades because its application would be evaluated *after* those applications of others requesting interconnection for transmission or new generation purposes (rather than before). Consequences could include additional system impact studies and facilities studies; changes to the facilities needed; additional time to conduct studies; additional costs associated with such studies and facility upgrades (should any be identified); and the possibility that capacity may not be available on the transmission line to accommodate electricity generated by the project thereby making it impossible to interconnect and develop the project. As system studies were advancing, BP Wind Energy exercised its option to make an allowable change under the rules, and reduced its proposed nameplate capacity by the allowable 15 percent to 425 MW for its interconnection to the Liberty-Mead 345-kV line during the second option window. BP Wind Energy did not reduce the proposed nameplate capacity associated with the interconnection to the 500kV line, as the timeframe for such reductions, without requiring them to re-apply, had already passed. Once the second option window had passed, neither interconnection level could be adjusted further. Should BP Wind Energy not have the ability to generate this capacity of power from the proposed Project, but still want to proceed with wind generation at this site, per Western's LGIP, BP Wind Energy would need to re-apply for interconnection with the potential consequences as described above. Western has indicated that such procedures exist because proponents of other proposed projects who have applied to make interconnections on its system later in time than the Mohave County Wind Farm Project could be impacted by changes to the Mohave County Wind Farm Project (or any proposed projects that filed earlier). That is, any reduction in the size of the Project's requested interconnection capacity changes the nature of the electrical system (power flows and amount of available capacity) for everyone behind the Project in the interconnection queue. If system impact studies are underway for those other proposed projects, they would need to be re-evaluated if BP Wind Energy were to change their interconnection application, which would increase costs (to be borne by BP Wind Energy) and take additional time to complete.

Decision: Western will execute an interconnection agreement with BP Wind Energy to connect to a Western-operated transmission line providing the interconnection would not adversely affect the reliability of the power system, interfere with power deliveries to existing power customers, or result in safety issues. These factors are the criteria established in accordance with Section 211 of the FPA and Western's Tariff. If there is available capacity in the transmission system, Western can allow an interconnection. If Western's decision is made to grant the interconnection, the terms and conditions would be outlined in a ROD, based on the findings identified in the EIS. Western's decision to execute an interconnection agreement would necessarily carry with it a requirement that Western construct, own, operate, and maintain the Switchyard, and to replace the transformer at Mead Substation in the case of a 345-kV interconnection.

1.3.2 Agency Authority and Actions

Table 1-2 lists the potential major Federal, state, and county actions and authorities that must be obtained or considered for the proposed action. Approvals required by the State of Arizona and Mohave County also are described, as applicable, for each resource addressed in Chapter 3 (Affected Environment) of this EIS.

Table 1-2 Summary of Potential Major Agency Authorities and Actions

Agency	Proposal Requiring Action	Permit, License, Approval, Compliance, or Review	Relevant Law and/or Regulation
FEDERAL			
Bureau of Land Management (BLM), Bureau of Reclamation (Reclamation)	Right-of-way grants for the Wind Farm Site, primary access road, transmission line, and other associated facilities on BLM and Reclamation land. The BLM is the lead agency for National Environmental Policy Act (NEPA) purposes.	EIS and Record of Decision	NEPA (42 United States Code [U.S.C.] 4321); Council Environmental Quality NEPA Regulations (40 CFR 1500-1508) Department of the Interior implementing regulations (43 CFR 46)
BLM (lead) and Reclamation in consultation with U.S. Fish and Wildlife Service (USFWS)	Construction, operation, maintenance, and decommissioning of facilities for the Wind Farm Site, primary access road, and other associated facilities on public land	Right-of-way grant across public land; temporary use permit; contract for sale of mineral materials	Federal Land Policy and Management Act (FLPMA) of 1976 (PL 94-579); 43 U.S.C. 1761-1771; 43 CFR 2800; 43 CFR 3602
BLM (lead) and Reclamation in consultation with USFWS	Right-of-way grant to Western for the switchyard	Right-of-way grant	FLPMA of 1976 (PL 94-579); 43 U.S.C. 1761-1771; 43 CFR 2800
BLM (lead) and Reclamation in consultation with USFWS, Western Area Power Administration (Western), Advisory Council on Historic Preservation	Proposed undertaking that may adversely affect properties eligible for the National Register of Historic Places	Section 106 reviews and provides consultations to identify and resolve any adverse effects to historic properties	National Historic Preservation Act of 1966, (16 U.S.C. 470) (36 CFR 800)
BLM (lead), Reclamation	Investigation of cultural and paleontological resources; excavation of archaeological resources	Permit to collect artifacts and to excavate archaeological sites	Antiquities Act of 1906 (16 U.S.C. 432-433) and Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa to 470ee); Paleontological Resources Preservation Act of 2009 (16 U.S.C. 470aaa)
BLM (lead), Reclamation	Potential conflicts with freedom to practice traditional American Indian religions	Consultation with affected American Indian tribal entities	American Indian Religious Freedom Act (42 U.S.C. 1996); EO 13007, Indian Sacred Sites; and EO 13175, Consultation and Coordination with Indian Tribal Governments
BLM (lead), Reclamation	Potential disturbance of graves, associated funerary objects, sacred objects, and items of cultural patrimony	Consultation with affected groups regarding a Plan of Action for treatment of protected remains and objects	Native American Graves Protection and Repatriation Act of 1990 (25 SUC 3001-3002)

Table 1-2 Summary of Potential Major Agency Authorities and Actions

Agency	Proposal Requiring Action	Permit, License, Approval, Compliance, or Review	Relevant Law and/or Regulation
BLM	Prevent the establishment and spread of noxious and invasive weeds	Compliance	Federal Noxious Weed Act of 1974, as amended, Public Law 93-629 (7 U.S.C. § 2801 et seq.; 88 Stat. 2148); and EO 13112, Invasive Species
BLM and Reclamation in consultation with USFWS	Effects on species listed or critical habitat designated under the ESA, and BLM sensitive species	Compliance	Endangered Species Act of 1973, as amended (16 U.S.C. §1531) Section 7(a)(2); and BLM Manual H-6840 (Special Status Species)
BLM and Reclamation in consultation with USFWS	Protection of migratory birds	Compliance	The Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712; Ch. 128); and EO 13186, Responsibilities of Federal Agencies to Protect Migratory Birds
BLM and Reclamation in consultation with USFWS	Protection of Bald and Golden Eagles	Compliance	The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), 1940 et seq,, and BLM Instruction Memorandum 2010-156.
BLM	Protection of segments, sites, and features related to national trails	Compliance	National Trails System Act (PL 90-543) (16 U.S.C. 1241 to 1249)
Reclamation	Preconstruction surveys, construction, operation, maintenance, and decommissioning of facilities on Reclamation withdrawn land	Right-of-way grant across Reclamation withdrawn land; temporary use permit	Act of Congress of June 17, 1902 (32 Stat. 388) Act of Congress approved August 4, 1939 (53 Stat. 1187) Section10, and 43 CFR 429
Western	Transmission line interconnection request	Interconnection approval	Section 211 of the Federal Power Act (18 CFR § 2.20); Western's Open Access Transmission Service Tariff; Department of Energy NEPA implementing regulations (10 CFR 1021)
U.S. Environmental Protection Agency	Potential Pollutant discharge during construction, operation, maintenance, and decommissioning	Spill Prevention Control and Countermeasure (SPCC) Plan	Oil Pollution Act of 1990 (33 U.S.C. 2701 et seq.; 40 CFR Part 112)
U.S. Army Corps of Engineers (USACE)	Potential discharge of dredged or fill material into waters of the United States (including wetlands and washes)	Section 404 Permit (individual or nationwide)	Clean Water Act (33 U.S.C. 1344)
Federal Aviation Administration (FAA)	Structures exceeding 200 feet	Determination of No Hazard To Air Navigation	14 CFR Part 77, Objects Affecting Navigable Air Space (49 U.S.C. 44718)

Table 1-2 Summary of Potential Major Agency Authorities and Actions

Agency	Proposal Requiring Action	Permit, License, Approval, Compliance, or Review	Relevant Law and/or Regulation
FAA	Structures exceeding 200 feet	Confirmation of achieved height	14 CFR Part 77, Objects Affecting Navigable Air Space (49 U.S.C. 44718)
FAA	Required lighting on turbines	Review and approval of selective lighting	FAA Advisory Circular 70/7460-1K, change 2
STATE			
Arizona Corporation Commission	Construction of transmission line of 115 kV or more	Certificate of Environmental Compatibility	Arizona Revised Statute (ARS) Section 40-320 et seq.
Arizona Department of Environmental Quality (ADEQ) for submittal to USACE	Reviews activities and provides conditions for protecting water quality for inclusion in the Section 404 Permit	Section 401 Certification	Clean Water Act (33 U.S.C. 1344)
ADEQ	Air pollutant emissions during construction	Class II (minor source) permit	Clean Air Act, Arizona Administrative Code (AAC) Title 18, Chapter 2, Article 3
ADEQ	Fugitive dust as a result of Project construction	Dust and Emissions Control Plan	AAC Title 18, Chapter 2, Article 6
ADEQ	Construction activities impacting 1 acre or more	Arizona Pollutant Discharge Elimination System (AZPDES) stormwater permit for construction	Clean Water Act (33 U.S.C. 1344) Section 402
ADEQ	Required for potential discharge of storm water from an industrial site	AZPDES stormwater permit for operations	Clean Water Act (33 U.S.C. 1344) Section 402
ADEQ	Generation, storage and tracking disposal of hazardous waste during Project construction and operation	Hazardous waste generator registration	Hazardous Waste Control Act of 1972
Arizona Department of Agriculture	Displacement or removal of regulated native plant species as a result of construction activities	Permit for Arizona Protected Native Plants and Wood Removal	Native Plant Law (ARS 3-901 through 916)
Arizona Department of Water Resources	Well drilling activities	Well drilling permit, general industrial use permit, and water development plan, as necessary	Groundwater Management Code ARS Title 45-454
State Historic Preservation Officer (SHPO) (a division of Arizona State Parks)	Project activities (i.e., grading, trenching or other construction) may have potential to have adverse effects to historic properties	Compliance with Section 106 of the National Historic Preservation Act in consultation with agencies, Indian tribes, the applicant, and other parties	National Historic Preservation Act, Section 106, 36 CFR 800

Table 1-2 Summary of Potential Major Agency Authorities and Actions

Agency	Proposal Requiring Action	Permit, License, Approval, Compliance, or Review	Relevant Law and/or Regulation
Arizona Game and Fish Department	Project activities (i.e., grading, trenching or other construction) may have potential to impact fish and wildlife	Coordination with AGFD regarding impacts to fish and wildlife	ARS 17-102 and 231, which address all fish and wildlife in Arizona as trust resources of the State of Arizona; Memorandum of Understanding between BLM and Arizona Game and Fish Commission Agreement Number AZ-930-0703
Arizona Department of Transportation (ADOT)	Transport of oversized loads on roads under ADOT jurisdiction	Heavy haul permit	ARS 28-7053, AAC R 17-3-501 through 509
ADOT	Encroachment by facilities on highway rights-of-way (e.g., transmission lines, pipes, new roads, etc.)	Encroachment permit	ARS 28-7053, AAC R17-3-501 through 509
COUNTY			
Mohave County, Development Services	Project construction	Grading permit	Mohave County ordinance
Mohave County, Development Services	Project construction	Building permit	Mohave County ordinance
Mohave County	Project construction and operation	Compliance with, and amendment of the Mohave County General Plan	Mohave County General Plan
Mohave County	Septic system for operations and maintenance building	Septic permit	Mohave County ordinance
Mohave County	Temporary use of the Materials Source (Detrital Wash Materials Pit)	Flood use permit	Mohave County ordinance
Mohave County	Project Construction	Zoning Ordinance compliance; Application to establish an energy overlay zone	Mohave County Development Services Department Zoning Ordinance, Sections 27.P and 27.X

1.4 LAND USE PLANNING

A majority of the proposed action would be located on BLM-administered public lands. Other portions of the proposed action would be located on Federal lands administered by Reclamation.

BLM is responsible for managing public lands in accordance with all applicable laws, including FLPMA and NEPA. BLM has reviewed the development plans for the proposed action and, if the proposed Project is approved, will ensure (through the NEPA process and application of appropriate mitigation) that public land resources would be adequately protected and that the proposed Project would comply with all applicable state and Federal laws. BLM reviewed the BLM KFO Resource Management Plan (1995) to ensure the proposed action would conform with the management objectives and decisions in the plan. The proposed action would conform with BLM land use management plans, policies, and programs and is described in Chapter 2 (Proposed Action and Alternatives) of this EIS.

Reclamation is responsible for managing Federal lands for Reclamation project purposes in accordance with all applicable laws. While Reclamation does not have a land use plan comparable to the BLM KFO Resource Management Plan, Reclamation has reviewed the development plans for the proposed action to ensure that adequate protection is provided against unnecessary degradation of public land resources and that the proposed action would comply with all applicable state and Federal laws. Conformance of the proposed action with Reclamation policies and directives and standards is described in Chapter 2 (Proposed Action and Alternatives) of this EIS.

The 1995 Kingman BLM Resource Management Plan and the 2010 revision of the Mohave County General Plan[6] were considered when evaluating potential impacts on land ownership and use patterns in the project vicinity. The land use designation in the 2010 Mohave County General Plan for land that includes the Project vicinity is Rural Development Area. BP Wind Energy has voluntarily agreed to apply for an amendment to the County's General Plan and rezoning to apply appropriate land use designations, including an energy overlay zone, to the Wind Farm Site and other Federal lands proposed to be used for the Project. The County General Plan states that Mohave County should "coordinate its planning efforts with those of state and Federal agencies in order to set and carry out compatible planning and development policies" (Mohave County 2010) and a General Plan amendment and rezoning would provide consistency with the County's adopted land use designations and zoning.

1.5 FEDERAL, STATE, AND COUNTY LAWS, REGULATIONS, AND POLICIES

This EIS complies with NEPA, as amended, Council on Environmental Quality (CEQ) Regulations for Implementing NEPA (40 CFR Parts 1500-1508), and Department of the Interior and BLM policies and manuals, including the BLM NEPA Handbook (BLM 2008b). The policies and BMPs for wind energy ROW authorizations established in the 2005 ROD for BLM's Wind Energy Development PEIS, as well as the management objectives, decisions, and BMPs from the KFO Resource Management Plan apply to the proposed Project as well.

A summary of potential major Federal, state, and county agency authorities and actions is presented in Table 1-2 in Section 1.3.2 of this EIS.

[6] The Mohave County General Plan was initially adopted September 7, 1965, and has been periodically revised. The most recent revisions to the text of the General Plan were approved on November 15, 2010.

1.6 LEAD AGENCY AND COOPERATING AGENCIES

The BLM is the lead Federal agency responsible for preparing the draft and final EIS and conducting the associated analysis. Most of the Project Area is within the jurisdiction of the BLM's KFO; therefore, the KFO is the lead BLM office for the proposed action. The KFO is responsible for consultations required by Section 7 of the Endangered Species Act of 1973, as amended, and Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended.

By law, cooperating agencies include those with Federal, state, or local agency jurisdiction, responsible for evaluating permits or approvals for the Project, and may, if required, rely on the analysis in this EIS (40 CFR Section 1501.6). Cooperating agencies also may include agencies with special expertise or information that will assist in development of the analysis in this EIS, even when the agency does not have jurisdiction over the Project. Consideration of connected and cumulative actions by the cooperating agencies in a single EIS improves overall interagency coordination and expands the scope of a NEPA analysis (BLM 2008b).

BLM invited tribes to participate as cooperating agencies through a letter distributed in September 2009 (see discussion in Section 1.7). In November 2009, BLM sent letters to various Federal, state, and county agencies inviting participation as cooperating agencies in the preparation of this EIS. Six entities accepted the invitation to serve as a cooperating agency: Reclamation, Western, NPS, Hualapai Tribe, AGFD, and Mohave County.

1.7 GOVERNMENT-TO-GOVERNMENT CONSULTATION

As a component of serving as the lead Federal agency for compliance with Section 106 of the National Historic Preservation Act, BLM initiated consultation with Federally recognized tribes, including the Chemehuevi Tribe, Colorado River Indian Tribes, Fort Mojave Tribe, Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Paiute Tribe, Las Vegas Paiute Tribe, Moapa Band of Paiutes, San Juan Southern Paiute Tribe, Yavapai-Apache Nation, and Yavapai-Prescott Indian Tribe, as well as the Federally unrecognized Pahrump Paiute Tribe. In September and October 2009, BLM invited the tribes to be cooperating agencies in preparing the EIS. The Project is within the traditional territory of the Hualapai Tribe, and the Hualapai Department of Cultural Resources accepted BLM's invitation to be a cooperating agency. The Hualapai Tribe participated in preparation of the EIS and members of the Hualapai Department of Cultural Resources participated in the cultural resource field survey. The Hopi Tribe declined to participate as a cooperating agency, and no response was received from the other tribes.

The tribes were sent scoping notices in November 2009, and were invited to a government-to-government meeting and field tour that was held in March 2010. In August 2010, a scoping meeting was held at Peach Springs on the Hualapai Reservation to provide information and to solicit comments about modifications to the proposed wind farm. In October 2010, BLM sent letters to the tribes to provide preliminary information about the cultural resource field survey results, and to solicit comments about the modified project. BLM hosted a second field tour for the tribes and agencies in April 2011. The BLM Kingman Field Office manager participated in face-to-face meetings with officials or representatives of the Hualapai Tribe, Fort Mojave Indian Tribe, Colorado River Indian Tribes, Yavapai Prescott Indian Tribe, and Las Vegas Paiute Tribe. The Hopi Tribe and Moapa Band of Paiutes were unable to attend meetings but requested continued consultations. In response to a request, BLM provided information about potential impacts on raptors to the Hopi Tribe in May 2011. In July 2011, BLM distributed copies of the draft cultural resource survey report to the tribes for review and comment and informed the tribes of an expansion of the proposed Project boundaries that required supplemental cultural resource survey. In January 2012, BLM consulted the tribes about determinations of National Register eligibility and the effect of the project on National Register-eligible properties and provided copies of all the final cultural resource reports prepared for the Project. The Hopi Tribe responded in February 2012, indicating that

they had reviewed the cultural resource report and deferred participation in the Memorandum of Agreement to the Hualapai Tribe, but requested continued consultation.

1.8 ISSUES TO BE ADDRESSED IN THE EIS

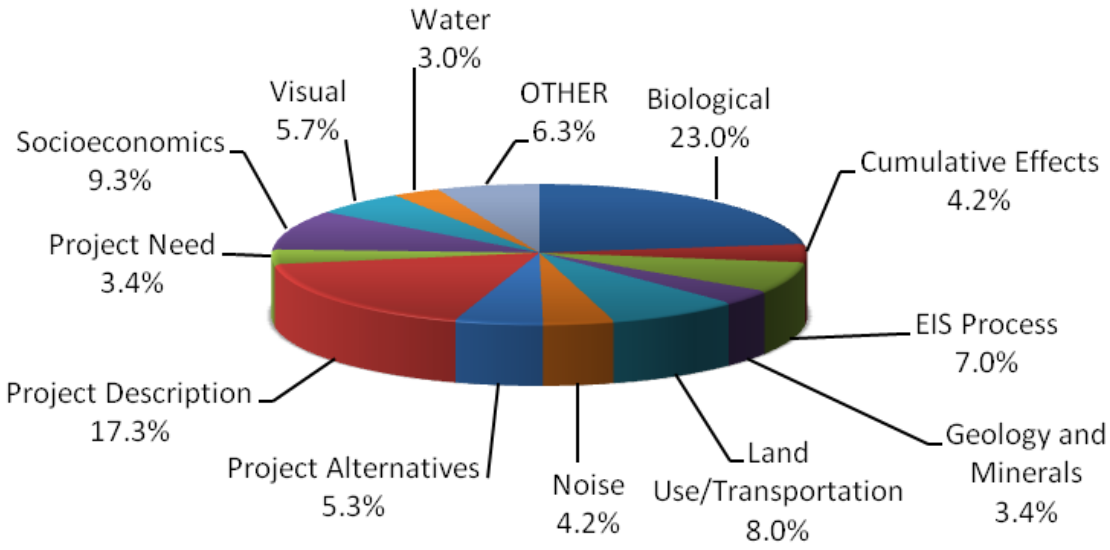
NEPA requires Federal agencies to focus their analysis and documentation on the environmental issues related to a proposed action and its alternatives. Environmental issues are defined very broadly under NEPA to include ecological, aesthetic, historical, cultural, economic, social, and health impacts (40 Code of Federal Regulations § 1508.8). Issues are identified through public scoping, which occurs early in the NEPA process. Public scoping for the proposed action was initiated on November 20, 2009, when BLM published a Notice of Intent (NOI) to prepare an EIS in the Federal Register. The NOI briefly described the purpose of and need for the proposed action, the Project location, infrastructure associated with the proposed action, and BLM's plan to hold agency and public scoping meetings.

In consideration of public scoping comments and preliminary environmental studies, BP Wind Energy decided to modify its application with BLM to exclude certain public lands and to file an application with Reclamation to develop a portion of the proposed wind farm on approximately 8,960 acres of land administered by Reclamation. Because of this change in the Project description and the involvement of land managed by another agency, a second NOI was published in the Federal Register on July 26, 2010. Additional public scoping meetings were announced and the public was again invited to identify additional issues.

According to the BLM NEPA handbook, "an issue is a point of disagreement, debate, or dispute with a proposed action based on some anticipated environmental effect" (BLM 2008b). Issues can help to shape a proposed action and direct the development of alternatives, for example, through the identification of design features or mitigation measures that may reduce potential impacts. Issues include those raised externally during the scoping process by individuals; special interest groups; American Indian Tribes; and Federal, state, and local agencies. BLM also has identified issues through internal scoping among BLM interdisciplinary staff. The scoping process is described in Chapter 5 (Consultation and Coordination) of this EIS and in the Scoping Report and supplemental Scoping Report, which are available on the BLM website (www.blm.gov/az/st/en/prog/energy/wind/mohave.html) and at the BLM KFO. The Scoping Report also contains a summary of issues identified by BLM during internal scoping as well as issues that were raised but are not addressed in this EIS.

A summary of issues that were raised most frequently during the public and agency scoping period are shown in Figure 1-1 and described below. The category of "Other" represents a compilation of Air Quality, Cultural/Archaeology, and Hazardous Materials/Safety categories; each of which accounted for less than 3 percent of the comments individually.

Figure 1-1 Summary of Significant Issues Raised During Public Scoping



1.8.1 Proposed Action and Alternatives

Scoping comments related to the proposed action and alternatives are summarized by issue below.

Project Description – Many questions were received on various Project description elements, such as where the access roads would be located, how Project decommissioning would occur, how components would be transported to the Project site, and how much power the Project would generally produce. A number of questions in this category related to which parcels of private property could be affected by or included in the Project footprint.

Project Purpose and Need – In general, comments in this category pertained to the potential consumers of the energy that would be produced by the wind farm. Most comments in this category were from residents near the Project Area, inquiring whether or not they would receive the power or benefit from lower energy costs. Agency comments in this category pertained to how the need for the proposed action should be discussed in the Draft EIS.

Project Alternatives – Most of the comments received on Project alternatives regarded the evaluation of other sites, including previously disturbed sites or sites that would avoid the use of public lands. Other comments in this category suggested the consideration of other technologies and alternative ways to meet energy demands.

EIS Process – Many comments in this category regarded the scoping process, including statements about the timing of notices, the length of the comment periods, and the availability of Project information. Some comments, primarily received from agencies or special interest groups, provided recommendations for the level of study that should be completed for the EIS.

1.8.2 Environmental Impacts

Scoping comments related to the natural and human environment are summarized below.

Cumulative Effects – More than half of the comments regarding cumulative effects referenced other proposed solar or renewable energy projects, both in the local area and on public lands. Concerns were

stated for cumulative effects to visual resources, loss of public land, open space, water supplies, and native species as a collective result of proposed renewable projects.

Air Quality – All comments in this category were received from agencies with permitting or review authority or special interest groups. Several comments related to how air quality and climate issues should be considered and addressed in the EIS.

Biological Resources – A majority of the issues identified in public comments focused on potential impacts to biological resources, particularly special status species and bat and avian species. Eight percent of all comments received addressed bat and avian species. Other comments focused on potential habitat disturbance and questions regarding revegetation and restoration after Project construction. Most comments in this category were submitted by agencies or special interest groups with a particular focus on the management or preservation of biological resources.

Cultural Resources – Most of these comments were received from agencies (i.e., SHPO) or tribes indicating concern for potential impacts to archaeological and historical sites and places of traditional cultural importance.

Geology and Minerals – The comments on geology and minerals focused on potential effects to mineral exploration and effects to existing mineral rights holders.

Land Use, Recreation, and Transportation – Most of the comments received regarding land use focused on potential impacts to adjacent residences, private property (particularly for land that was once part of the Project but was subsequently eliminated after the initial scoping meetings when the Project footprint was revised), and to the adjacent communities of White Hills and Dolan Springs. Other comments questioned whether or not access to the area would be closed or maintained, and how increased access to the area would impact wildlife and other resources.

Noise – Comments regarding noise focused on noise produced by the turbines during operation and the potential effects to residences and adjacent recreation areas.

Socioeconomics –Residents or private property owners near the Project Area noted issues related to socioeconomics or land use. These categories included comments on employment, economic benefits (i.e., local income generated from tourism and spending or an increase in the tax base), and property values.

Visual Resources – Comments on visual resources focused primarily on potential effects to views and the visibility of Project facilities from nearby residences, places of traditional cultural importance, and recreational resources.

Water Resources – Agencies with permitting or review authority submitted the majority of the comments regarding water resources and included recommendations for water resource studies that should be included in the EIS. A few comments regarding water use were received from the public.

Other – Scoping comments categorized as other included requests for information, requests to be added to the mailing list, or inquiries regarding other projects in the area. Several comments indicated support for a development of wind energy projects in general or expressed thanks for the information presented during the scoping meetings.