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## CHAPTER 1: PURPOSE AND NEED

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### 1.1 INTRODUCTION

This Final Environmental Impact Statement (EIS) has been prepared to analyze the potential environmental consequences related to a wind energy generating facility's interconnection with Western Area Power Administration's (Western) electrical transmission system and the U.S. Department of Agriculture, Forest Service (Forest Service), Coconino National Forest's (the Forest) authorization of a special use permit to construct and operate an electrical transmission tie-line and switchyard on Federal land to support the wind energy generating facility.

Foresight Flying M, LLC (Foresight) proposes the development of the Grapevine Canyon Wind Project in Coconino County, near Flagstaff, Arizona (Figure 1.1-1). The project would be located on Federal, State trust, and private land and would include three main components: 1) a wind energy generating facility up to 500 megawatts (MW); 2) a 345-kilovolt (kV) electrical transmission tie-line; and 3) a 345-kV electrical interconnection switchyard with facilities that would be owned and operated by Western. The wind generation component would be constructed on private land and State trust land administered by the Arizona State Land Department (ASLD). The electrical transmission tie-line and interconnection switchyard would be located on lands administered by the Forest Service. Construction is expected to begin in 2012. The wind energy generating facility may be built in two or more phases over a period of years with an initial construction schedule for the first phase between 12–18 months.

Foresight has applied to Western to interconnect the proposed wind energy generating facility to Western's power transmission system on its Glen Canyon-Pinnacle Peak 345-kV No. 1 and No. 2 transmission tie-lines. Western would construct the 345-kV interconnection switchyard within an area adjacent to the Glen Canyon-Pinnacle Peak transmission tie-lines.

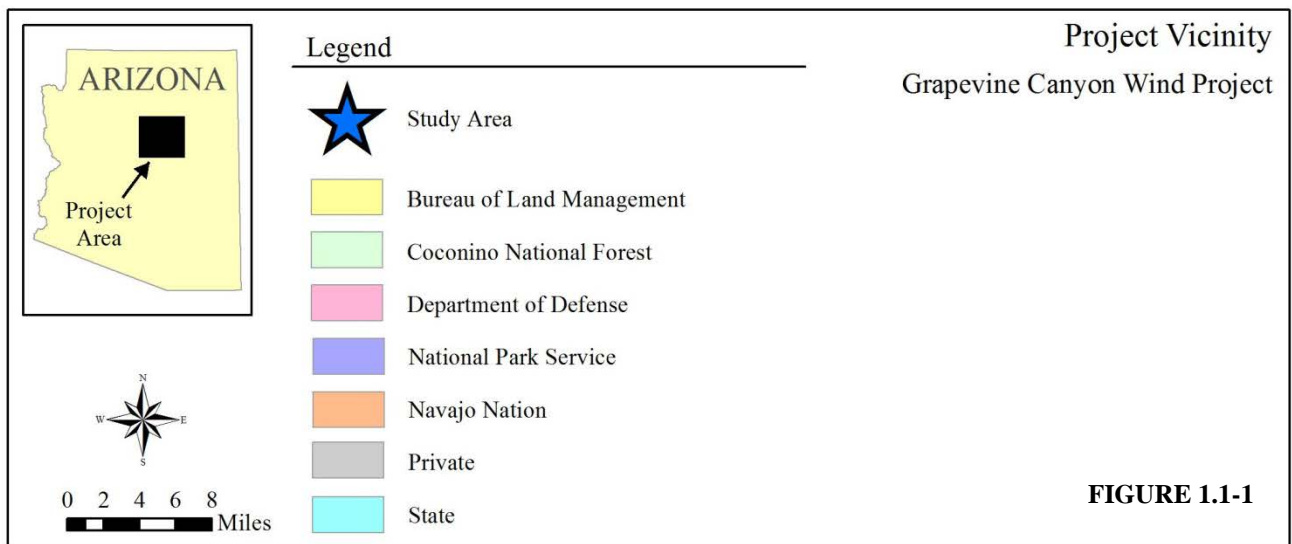
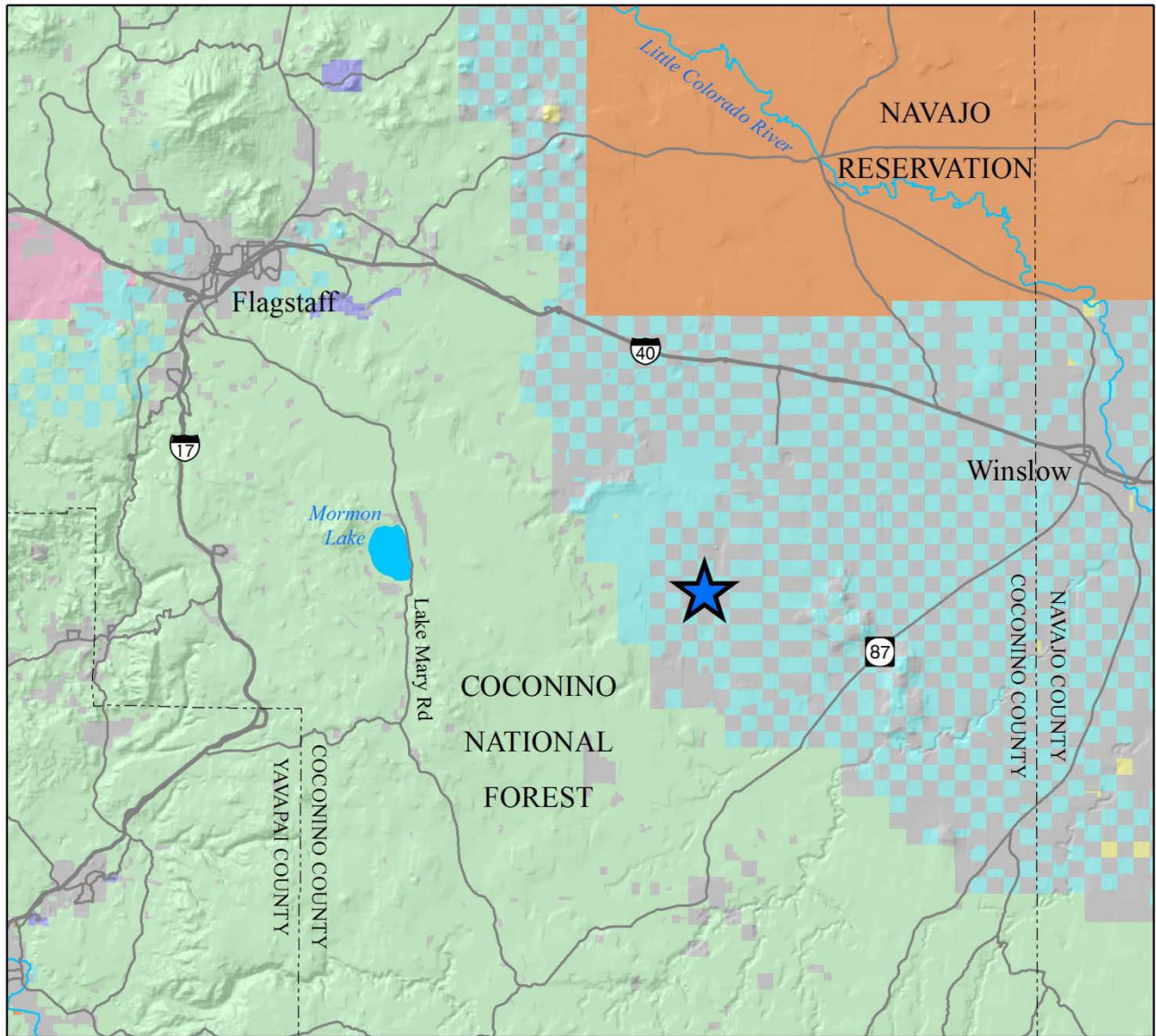
Additionally, Foresight has applied to the Forest Service for a special use permit authorizing a 200-foot-wide right-of-way to accommodate the construction and operation of a new 345-kV electrical transmission tie-line. In addition, Western would apply to the Forest Service for authorization to construct and operate the proposed switchyard if the interconnection request is approved.

The project requires an environmental review under the National Environmental Policy Act (NEPA), because the permitting of the transmission tie-line and construction and operation of an electrical switchyard on Federal land under the jurisdiction of the Forest Service is a Federal action. In addition, the project requires the preparation of an EIS because of Western's interconnection requirements. Western is the lead Federal agency for this project, and the Forest Service and ASLD are cooperating agencies. The scope of the review for this EIS includes all proposed project components of the up to 500 MW wind project and related infrastructure.

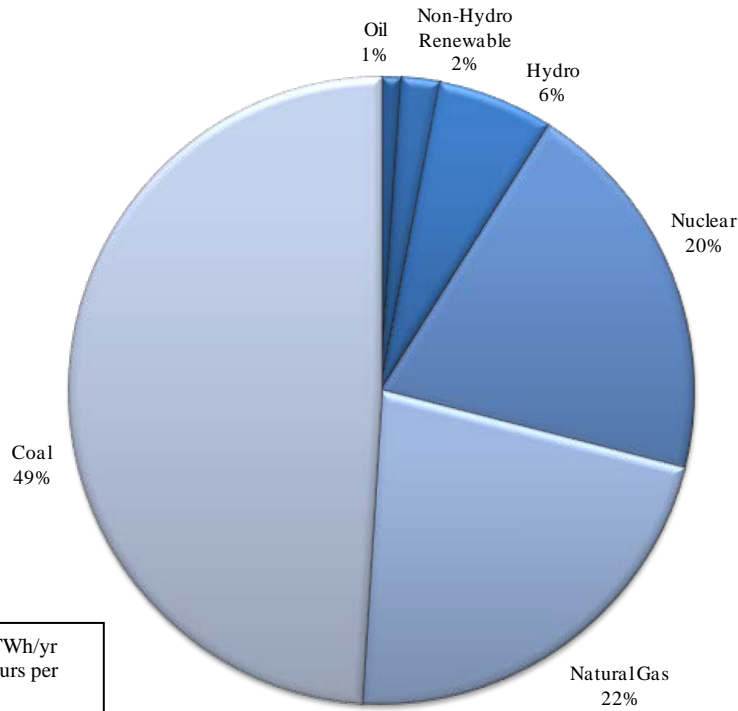
### 1.2 PURPOSE AND NEED

#### **1.2.1 Foresight's Purpose and Need**

Nearly three-quarters of electricity produced in the United States comes from fossil fuels (Figure 1.2-1). However, in recent years, the majority of states in the southwest have passed regulations or guidelines that require utilities to generate a specific percentage of their energy portfolio from renewable resources such as wind, solar, biomass, and geothermal.



**FIGURE 1.2-1**  
**2007 U.S. ELECTRICITY PRODUCTION (TWh/yr) BY ENERGY SOURCE\***



Source: DOE, March 2009 - 2. DOE, March 2009. EIA, *Annual Energy Outlook 2009*, DOE/EIA-0383(2009), March 2009. Located online at [www.eia.doe.gov](http://www.eia.doe.gov).

The Arizona Corporation Commission (ACC) adopted new Renewable Energy Standard and Tariff rules in 2006. The ACC’s order was endorsed by the Arizona Attorney General’s Office in 2007 as Arizona Administrative Code, Article 18, Rules R14-2-1801 through R14-2-1815 requiring public utilities in Arizona to provide 15 percent of their retail electricity from renewable energy sources by 2025. Other states in the western U.S. have similar portfolio standards ranging up to 33 percent in California. A summary of these requirements by State is included in Table 1.2-1.

**TABLE 1.2-1**  
**SUMMARY OF RENEWABLE ENERGY PORTFOLIO BY STATE**

State	Percentages of Energy Portfolio Generated from Renewable Resources	Deadline
Arizona	15 %	2025
California	33 %	2020
Colorado	30 %	2020
Nevada	25 %	2025
New Mexico	20 %	2020
Utah*	20 %	2025

\*Voluntary  
 Source: Pew Center 2009

Utilities in the western United States are seeking renewable energy as an important source of their generation mix. For example, a leading Arizona utility, through their resource planning process, anticipates that by 2025 the energy demand from customers will be 50 percent higher than today (Arizona Public Service 2009). To meet this growing need this utility is looking more and more toward renewable energy, with potentially 45 percent of this new demand being met by renewable sources. The Western Governors' Association has called for dramatic increases in energy produced by renewable resources in order to address climate change impacts and support workforce development and clean energy jobs (Western Governors' Association 2007).

The Western Governors' Association and other western State programs and initiatives have also identified an increasing concern between energy use and development and water resources. Sandia National Laboratory, for example, states that

*... continued security and economic health of the United States depends on a sustainable supply of both energy and water. These two critical resources are inextricably and reciprocally linked; the production of energy requires large volumes of water while the treatment and distribution of water is equally dependent upon readily available, low-cost energy. The nation's ability to continue providing both clean, affordable energy and water is being seriously challenged by a number of emerging issues" (Sandia National Laboratories 2007).*

Energy produced by wind requires the least amount of water among conventional and renewable energy resources.

Foresight would like to construct and operate a utility scale wind energy generating facility that is tied into the regional grid so that the energy produced can be marketed to utility companies in Arizona and other western States to meet their State portfolio standards and energy requirements. Foresight's objectives include the following:

- To construct, own, operate, and maintain an efficient, economic, and reliable, utility scale wind generating facility that would help achieve State and/or regional renewable energy standards.
- To develop the wind energy generating facility on a site with an excellent wind resource.
- To interconnect to an electrical transmission system with available capacity that ties into the regional electric grid.
- To be consistent with the goals of the American Recovery and Reinvestment Act of 2009, which seeks to support home-grown renewable energy for economic recovery.
- To be consistent with Federal, Western Governors' Association, State and local goals for clean renewable energy and sustainable economic development.

## **1.2.2 Federal Agencies Purpose and Need**

### **1.2.2.1 Western Area Power Administration**

Foresight requests to interconnect its proposed Project with Western's electrical transmission system. Western's purpose and need is to approve or deny the interconnection request in accordance with its Open Access Transmission Service Tariff (Tariff) and the Federal Power Act, as amended.

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 in January 2005. In response to FERC Order No. 2006, Western submitted additional term revisions and incorporated Small Generator Interconnection Procedures and a Small Generator Interconnection Agreement in March 2007. Western's most recent Tariff revisions were filed in September 2009 to address FERC Order No. 890 requirements along with revisions to existing terms. In December of 2010 FERC issued an order granting Western's request for Declaratory Order subject to Western making a future compliance filing, which was ultimately approved by FERC in April of 2011.

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.

### **1.2.2.2 U.S. Department of Agriculture, Forest Service, Coconino National Forest**

In addition to the request for interconnection, Foresight has applied to the Forest Service for a special use permit for an electrical transmission tie-line which is located on Forest Service-managed lands. Western would apply for authorization from the Forest Service to construct the switchyard if the interconnection request is approved. The Forest Service is authorized to issue special use permits under the Federal Land Policy and Management Act. Consideration of special use requests are based on direction contained in 36 Code of Federal Regulations (CFR) 251, Subpart B, including screening criteria that address consistency with policies and land management plans.

In order to provide an interconnection with Western's electrical transmission system, the switchyard and the transmission tie-line would be located on Forest Service-managed lands, because the existing Western Glen Canyon-Pinnacle Peak 345-kV transmission tie-lines are located on Forest Service-managed lands. The special use permits would authorize Foresight and Western to construct, operate, and maintain the transmission tie-line and switchyard, respectively, on Forest Service-managed lands.

In addition, the Coconino National Forest Land Management Plan (Forest Plan) provides direction that the Forest Service must "evaluate requests for transmission corridors based on public need, economics, and environmental impacts of the alternatives" (Forest Service, Southwestern Region 1987). This Final EIS will fulfill the need to evaluate the environmental impacts of the proposed transmission tie-line.

Finally, a Memorandum of Understanding (MOU) among several Federal agencies, including the U.S. Department of Agriculture (USDA) and the U.S. Department of Energy (DOE), provides direction for efficient coordination of Federal agency review of electric transmission facilities on Federal land (October 23, 2009). The MOU is intended to "expedite the siting and construction of qualified electric transmission infrastructure" and provides direction for the Forest Service to work cooperatively with the DOE to efficiently permit appropriate transmission projects on public lands. Western has a site specific MOU with the Forest for existing facilities that would provide the framework for these new facilities.

## **1.3 STATUTORY, REGULATORY, AND POLICY AUTHORITY**

### **1.3.1 Conformance with Forest Service Land and Resource Management Plan**

The proposed project is in conformance with the Forest Plan of the Forest as discussed in Section 3.1.1.2. The current Forest plan is available online at [http://www.fs.fed.us/r3/coconino/projects/plan-revision/1987\\_cnf\\_forest\\_plan\\_as\\_amended.pdf](http://www.fs.fed.us/r3/coconino/projects/plan-revision/1987_cnf_forest_plan_as_amended.pdf). The project is also in conformance with the language of the proposed action for the revised Forest Plan, which is located online at: <http://www.fs.fed.us/r3/coconino/projects/plan-revision/documents/drafts-revised.shtml>.

### **1.3.2 Federal and State Authorities**

Foresight would adhere to all applicable federal and state laws and regulations guiding the actions of all entities involved in permitting the project as summarized below and in Table 1.3-1.

#### **1.3.2.1 Arizona Corporation Commission**

The ACC has jurisdiction over the siting of transmission tie-lines over 115-kV and thermal generating power plants within the State of Arizona. Foresight would obtain a Certificate of Environmental Compatibility (CEC) through the ACC for the transmission tie-line. If granted, the CEC would authorize construction of the 345-kV transmission tie-line under Arizona rules and regulations. The wind energy generating facility would not require a CEC since wind energy is not thermal generation. The interconnection switchyard would not require a CEC since Western, a Federal entity, would design, construct, and own the switchyard.

#### **1.3.2.2 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712) implements four treaties that provide for international protection of migratory birds. The MBTA prohibits taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of Interior. Unlike the Endangered Species Act (ESA), neither the MBTA nor its implementing regulations at 50 CFR Part 21, provide for permitting of “*incidental take*” of migratory birds.

#### **1.3.2.3 Bald and Golden Eagle Protection Act and Eagle Conservation Plans**

The Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668c), enacted in 1940 and amended several times since then, prohibits anyone from “taking” bald eagles, including their parts, nests, or eggs without a permit issued by the Secretary of the Interior. BGEPA provides criminal penalties for persons who “*Take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.*” BGEPA defines “take” as “*Pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.*” “Disturb” is generally understood to mean

*To agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.*

In addition to immediate impacts, the definition above also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits and causes injury, death, or nest abandonment. A violation of BGEPA can result in a fine of \$100,000 (\$200,000 for organizations), or imprisonment for one year, or both, for a first offense. Penalties increase substantially for additional offenses, and a second violation of BGEPA is a felony.

Under BGEPA, the U.S. Fish and Wildlife Service (USFWS) published a final rule called the Eagle Permit Rule (50 CFR 22.26) on September 11, 2009. The regulation authorizes the limited issuance of permits to take bald and golden eagles “*for the protection of... other interests in any particular locality*” where the take is compatible with the preservation of the bald eagle and the golden eagle, is associated with and not the purpose of an otherwise lawful activity, and cannot practicably be avoided. The Draft

Eagle Conservation Plan Guidance explains the USFWS approach to issuing programmatic eagle take permits under this authority, and provides guidance to permit applicants (project proponents), USFWS biologists, and biologists with other jurisdictional agencies on the development of draft *Eagle Conservation Plans* (ECPs) to support permit issuance. ECPs provide a means of compliance with the BGEPA.

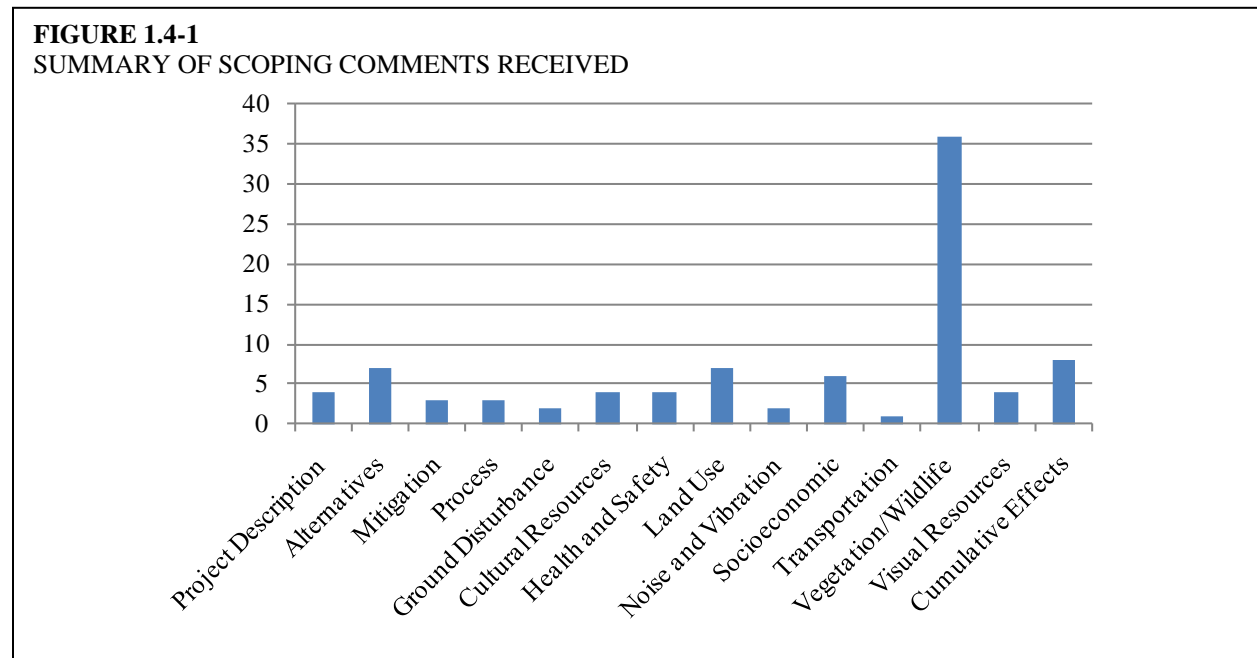
**TABLE 1.3-1**  
SUMMARY OF KEY AUTHORIZATIONS AND APPROVALS

<b>Entity</b>	<b>Regulation and/or Authorization</b>
<b>FEDERAL</b>	
Western Area Power Administration	National Environmental Policy Act lead; Section 106 National Historic Preservation Act lead; Section 7 Endangered Species Act lead
U.S. Department of Agriculture, Forest Service	National Environmental Policy Act cooperating agency; Federal Land Policy and Management Act for rights-of-way; 36 CFR 251 Subpart B, Special Uses Regulations; National Forest Management Act, consultation with other Federal agencies for Endangered Species Act and National Historic Preservation Act
Federal Aviation Administration	Determination of No Hazard Air Navigation Permits; Notice of Proposed Construction or Alteration Application; Lighting Plan in compliance with Federal Aviation Administration Advisory Circular 70/7460-1K. 7460-2 Notice of Structures Reaching Full Height
U.S. Army Corps of Engineers	Clean Water Act Section 404
U.S. Department of Commerce/National Telecommunication Information Administration (NTIA)	Licensed Microwave Study; NTIA, Office of Spectrum Management Notification
U.S. Fish and Wildlife Service	Section 7 Endangered Species Act, Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act
<b>STATE</b>	
Arizona Corporation Commission	Certificate of Environmental Compatibility for Transmission Tie-line
Arizona Department of Agriculture	Native Plant Law; Notice of Intent to Clear Land
Arizona Department of Environmental Quality	Clean Water Act Section 402; Arizona Pollution Discharge Elimination System Permit; Air Quality Permit (batch plant, rock crusher); Other permits as required
Arizona Department of Transportation	Oversize/Overweight Load Permit
Arizona State Historic Preservation Office	Section 106 National Historic Preservation Act (consultation and concurrence)
Arizona State Land Department	Special Land Use Permit and Development/Energy Production Right-of-Way
<b>LOCAL</b>	
Coconino County	General Plan Conformance/Conditional Use Permit; Other ministerial permits as required
Private Landowners	Property easements/leases

## 1.4 SUMMARY OF PUBLIC AND AGENCY SCOPING AND DRAFT EIS COMMENTS

Interested parties were notified of the proposed project and the public comment opportunity through a Notice of Intent (NOI) published in the Federal Register on July 24, 2009 (Vol. 74, No. 141, page 36689). The NOI announced the scoping meetings held in Mormon Lake and Flagstaff, Arizona, and the deadline for submitting comments as August 28, 2009. It included a description of proposed facilities, project location, how to submit comments and why they are important, and how to contact Western. A packet of similar information was mailed on July 20, 2009 directly to nearly 400 members of the public including nearby landowners, previously-identified stakeholders, tribes, government officials, and agencies. A press release, radio announcements, flyers, newspaper advertisements, an e-mail notice, and Western’s website provided additional notice and instruction for submitting comments beginning July 22, 2009.

A total of 27 parties participated in scoping and submitted 91 specific comments. Comments were received from individuals, businesses, Federal and State agencies, and a nonprofit organization. The issues, concerns, questions, and opportunities that were identified have shaped development of the Final EIS. A summary of the issues of concern to participants is included in Figure 1.4-1. Comments are summarized in Table 1.4-1. The Scoping Summary Report is included in Appendix B.1.



**TABLE 1.4-1**  
SUMMARY OF PUBLIC AND AGENCY SCOPING CONDUCTED FOR THE DRAFT EIS

Issue/Comment Type	Comment Summary	Section Where Scoping Issue is Addressed in the EIS
Project Description	<ul style="list-style-type: none"> <li>Details on the wind turbines, meteorological towers, and roads should be discussed.</li> </ul>	2.2, 3.9
Alternatives	<ul style="list-style-type: none"> <li>An underground electrical transmission tie-line should be considered.</li> <li>The transmission tie-line and turbines should be sited in order to minimize ground disturbance.</li> <li>The output of the wind generation facility should be increased through the use of a greater number of wind turbines.</li> </ul>	2.2, 2.6



**TABLE 1.4-1**  
SUMMARY OF PUBLIC AND AGENCY SCOPING CONDUCTED FOR THE DRAFT EIS

Issue/Comment Type	Comment Summary	Section Where Scoping Issue is Addressed in the EIS
Mitigation	<ul style="list-style-type: none"> <li>Following construction, all disturbed areas not essential to maintenance and operation should be recontoured and revegetated with native vegetation.</li> </ul>	2.2, 2.7
Process	<ul style="list-style-type: none"> <li>The Arizona Game and Fish Department would like to participate in the NEPA process.</li> </ul>	5.2
Ground Disturbance	<ul style="list-style-type: none"> <li>What is the amount of ground disturbance that will be associated with the project?</li> </ul>	2.2
Cultural Resources	<ul style="list-style-type: none"> <li>How are tribes being involved in the project?</li> <li>The area is rich in cultural resources and these should be located, documented, and protected.</li> </ul>	1.3, 2.7, 3.3, 5.6
Health and Safety	<ul style="list-style-type: none"> <li>Low level aerial flights occur in the area and aircraft safety should be considered in the design of the project.</li> </ul>	2.2, 2.7, 3.9, 3.10
Land Use	<ul style="list-style-type: none"> <li>Will the project area be open to the public and will hunting be allowed?</li> <li>Address the proximity of the project to nearby landowners.</li> </ul>	2.7, 3.1
Noise and Vibration	<ul style="list-style-type: none"> <li>Transporting heavy equipment and materials will create vibrations, which is a cause for concern.</li> <li>The noise generated by the wind turbines should be discussed relative to ambient noise levels.</li> <li>How will the noise generated by the wind turbines be mitigated?</li> </ul>	2.2, 2.7, 3.9, 3.11
Socioeconomic	<ul style="list-style-type: none"> <li>Western should look at the specific impacts this project would have on existing customers and agreements.</li> <li>Benefits of the project should be considered.</li> <li>Who will pay to maintain public roads used by the project?</li> </ul>	2.7, 3.7, 3.9
Transportation	<ul style="list-style-type: none"> <li>The site is not easily accessible to heavy construction equipment and materials. How will the site be accessed?</li> </ul>	2.2, 2.7, 3.9
Vegetation and Wildlife	<ul style="list-style-type: none"> <li>Wildlife species inhabiting the area should be studied, and impacts to these species should be considered, in particular pronghorn, elk, deer, bats, and birds.</li> <li>Measures should be taken through design and siting to minimize impacts to wildlife.</li> <li>Pre- and post-construction biological monitoring should be implemented.</li> </ul>	2.2, 2.7, 3.2
Visual Resources	<ul style="list-style-type: none"> <li>Topographic simulations should be developed to aid in understanding and visualizing the project.</li> <li>Measures should be considered to minimize visual impacts.</li> </ul>	2.7, 3.12
Cumulative Effects	<ul style="list-style-type: none"> <li>Cumulative, direct, and indirect impacts should be considered.</li> <li>Western should consider the impacts of this project on existing agreements, including reliability and operations.</li> <li>The effects of the Navajo Wind Project on Western's system should be considered.</li> </ul>	1.2, 2.1, 4.0

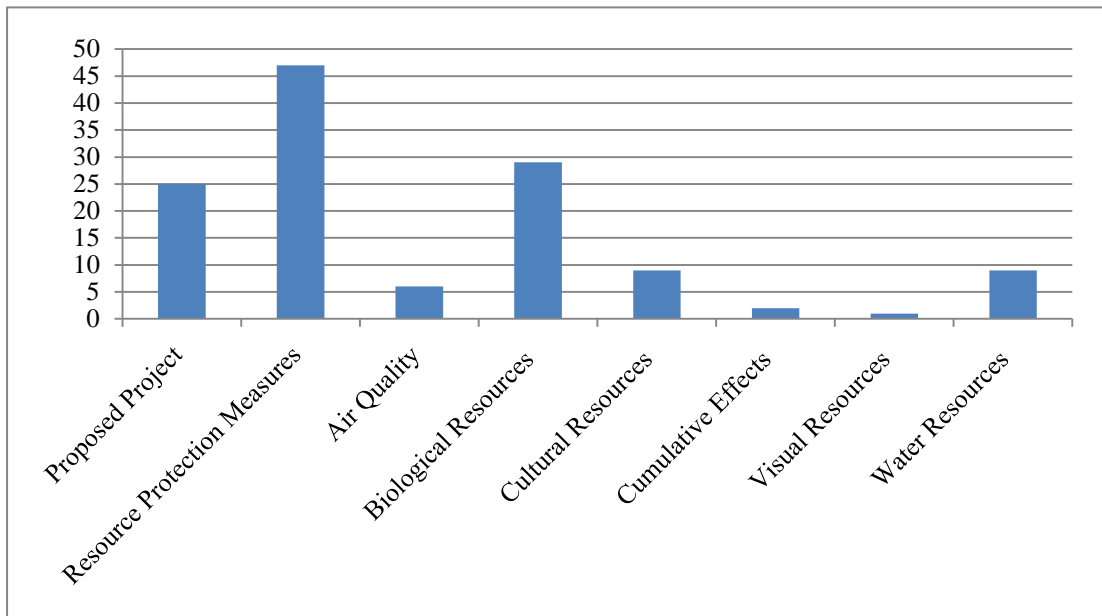
#### **1.4.2 Summary of Public, Agency, and Tribal Review of the Draft EIS**

Interested parties were notified of the Draft EIS via postcards that were mailed or emailed to approximately 350 entities prior to the issuance of the Draft EIS to ask if and how they would like to receive the Draft EIS. Upon issuance of the Draft EIS, the U.S. Environmental Protection Agency (EPA)

published a Notice of Availability (NOA) in the Federal Register on July 23, 2010 (Vol. 75, No. 141, page 43161). The NOA also announced a 45-day comment period for receipt of comments. Locally, Western published a display ad and the Forest published a legal notice in the Arizona Daily Sun with the NOA information and announcements of two public hearings held on August 17 and 18, 2010, in Mormon Lake and Flagstaff, respectively. Western also provided notification of the issuance of the Draft EIS and the hearings to entities with email addresses. Compact discs and/or hard copies of the document were mailed to 108 agencies, Tribes, organizations, and individuals. Copies of the Draft EIS were also available at the Forest Supervisor’s Office in Flagstaff, the Flagstaff and Winslow Public Libraries, and Western’s Desert Southwest Regional Office in Phoenix, Arizona. The Draft EIS was also posted on Western and Forest websites.

Western received 15 comment documents (letters, emails, comment card, and hearing testimony) as of September 7, 2011. It received three additional agency documents as of September 13, 2010, and included these in its review. All materials are indexed in Section 10.1 and reproduced in Section 10.3. In all, Western identified and bracketed 126 substantive comments (Figure 1.4-2). Western organized the comments into three broad areas of interest and developed tables with the comments and agency responses; these are also located in Chapter 10. Subcategories were used to cluster comments with similar themes (Table 1.4-2). Many comments resulted in changes to the Draft EIS in terms of factual content or analysis. In these cases, the location of the revision is provided both in a separate column and within the body of the response.

**FIGURE 1.4-2**  
SUMMARY OF PUBLIC, AGENCY, AND TRIBAL COMMENTS RECEIVED ON THE DRAFT EIS



**TABLE 1.4-2**  
SUMMARY OF PUBLIC, AGENCY, AND TRIBAL COMMENTS BY THEME

Category	Sub-category
Proposed Project	<ul style="list-style-type: none"> <li>• Project Description (3)</li> <li>• Alternatives (3)</li> <li>• Project Feasibility (1)</li> <li>• Western’s Actions (10)</li> <li>• Site Access (4)</li> <li>• Post Construction Restoration (1)</li> <li>• Decommissioning (3)</li> </ul>
Resource Protection Measures	<ul style="list-style-type: none"> <li>• Scope of Resource Protection Measures (2)</li> <li>• Ground Disturbance (1)</li> <li>• Revegetation (3)</li> <li>• Trench Work (2)</li> <li>• Minimizing Wildlife Impacts (2)</li> <li>• Mortality Mitigation (1)</li> <li>• Migratory Bird Protection (3)</li> <li>• Golden Eagle (5)</li> <li>• Threatened and Endangered Species (1)</li> <li>• Use of Guy Wires (2)</li> <li>• Big Game (3)</li> <li>• Pre-construction Wildlife Surveys and Post-construction Monitoring Studies (11)</li> <li>• Facility Design (6)</li> <li>• Scheduling Construction and Operation (5)</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>• Emissions Analysis (2)</li> <li>• Emissions Mitigation (3)</li> <li>• Climate Change (1)</li> </ul>
Biological Resources	<ul style="list-style-type: none"> <li>• Assessment of Impacts (11)</li> <li>• Bats (7)</li> <li>• Raptors and Other Birds of Concern (7)</li> <li>• Big Game (2)</li> </ul>
Cultural Resources	<ul style="list-style-type: none"> <li>• Government to Government Consultation (5)</li> <li>• Analysis of Impacts (4)</li> </ul>
Visual Resources	<ul style="list-style-type: none"> <li>• Impact to Meteor Crater National Natural Landmark (1)</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>• Wetlands (2)</li> <li>• Waters of the U.S. (7)</li> </ul>
Cumulative Effects	<ul style="list-style-type: none"> <li>• Sunshine Wind Project (1)</li> <li>• Golden Eagles (1)</li> </ul>

**1.4.3 Summary of Tribal Consultation**

Western, as the lead Federal agency, is responsible for identifying, evaluating, and assessing effects of construction and operation of the proposed project on cultural resources in consultation with the Advisory Council on Historic Preservation, Arizona State Historic Preservation Office (SHPO), affected land-

managing agencies, and affected Tribal governments. The following tribes have participated in the consultations with Western and the Forest Service in response to Western invitations:

- Hopi Tribe
- Zuni Tribe
- Navajo Nation
- White Mountain Apache Tribe
- Tonto Apache Tribe

Tribes were invited to provide assistance in evaluating Traditional Cultural Properties (TCPs), conducting cultural resource surveys, and developing ethnographic studies. In April 2010, representatives from the Zuni Tribe accompanied by Western archaeologists and one archaeologist from Transcon were flown by helicopter over the project area and were taken by foot to requested locations of interest adjacent to the project area. As a result of this field visit, the Zuni Heritage and Historic Preservation Office produced a report titled *Zuni Traditional Cultural Property Assessment and Cultural Issues Associated with the Proposed Wind Project, Coconino County, Arizona* and submitted as a confidential report to Western in June 2010. Zuni archaeologists also participated in cultural resources pedestrian surveys for the proposed transmission tie-line and alternative and switchyard on Federal land. Hopi archaeologists participated in the cultural resources pedestrian surveys for the proposed primary site access road and across Canyon Diablo on state and private land. Consultation efforts will continue into the construction stages of the proposed project. Major milestones in the consultation process are included in Table 1.4-3.

A PA was prepared by Western and executed by Western, the Forest Service, Arizona SHPO, and the Advisory Council on Historic Preservation. Foresight signed the PA as a concurring party. The PA establishes the area of potential effect for the proposed project, describes the Class III survey methodology to be used prior to final engineering design, proposes a treatment plan for identified resources that cannot be avoided, and describes procedures for unanticipated discoveries.

<b>TABLE 1.4-3 TRIBAL CONSULTATION MILESTONES</b>	
<b>Date</b>	<b>Action</b>
October 15, 2009	Government-to-Government consultation letters to Tribal government representatives
October 27, 2009	Meeting with Tribal representatives
December 03, 2009	Western letter to Tribes requesting review of Draft PA
February 9, 2010	Meeting near Meteor Crater with Zuni, Navajo Nation, and Hopi
April 21, 2010	Meeting with Hopi
April 27–28, 2010	Tribal meetings and field visit with Zuni Tribe
March 24–28, 2010	Cultural Resources survey of transmission tie-line with Zuni archaeologists
August 17, 2010	Western, Foresight, and WEST, Inc. meeting with Hopi
October 27, 2010	PA sent to Concurring Parties, including Tribes, with invitation to sign PA
January 27, 2011	Western/Forest Service Meeting with Hopi Cultural Committee
March 15–18, 2011	Cultural Resources survey of primary access road with Hopi archaeologists
May 3, 2012	Western meeting with Navajo Historic Preservation Department