

## ES.0 Executive Summary

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The following sections summarize the *Final Environmental Impact Statement (FEIS) for the White Pine Energy Station Project*. This summary provides a general overview of the proposed project and its purpose and need; briefly describes the Proposed Action and other alternatives; summarizes major impacts for key resources associated with the Proposed Action, Alternative 1, and the No Action Alternative; and lists key consultation and coordination activities.

There are a number of differences between this FEIS and the *Draft Environmental Impact Statement (DEIS) for the White Pine Energy Station Project*. This FEIS is a much larger document than the DEIS, primarily in response to comments by the public on the DEIS. However, conclusions reached in this FEIS regarding potential direct, indirect, and cumulative effects of the proposed White Pine Energy Station (also referred to as the Station) are essentially the same as conclusions reached in the DEIS. Reasons for the increased size of this FEIS compared to the DEIS include the addition of new appendixes that provide background discussions of information presented in the DEIS and that also provide information that informs responses to comments by the public on the DEIS. By themselves, comments by the public on the DEIS and responses to those comments, which are presented in the appendixes of this FEIS, contribute substantially to the increased size of this document.

The following types of additional information are presented in this FEIS that support the analyses contained in the DEIS. Resource or subject areas that received additional analysis or where potential effects were discussed further in response to a public comment on the

DEIS, or simply to clarify for the reader potential project effects, are also listed below. They are as follows:

- Public Comments and Responses
  - Comments from the public on the DEIS and responses to those comments grouped according to the following four categories: Federal Agencies (Appendix R), State and Local Agencies (Appendix S), Groups and Organizations (Appendix T), and Individuals (Appendix U)
- Agreements between White Pine Energy Associates (WPEA) and White Pine County
  - Interim Development Agreement between WPEA and White Pine County for the proposed White Pine Energy Station (Appendix A)
  - Water Supply Agreement between WPEA and White Pine County for the proposed Station (Appendix B)
- Alternative Technologies
  - Discussion of Alternative Coal-Fueled Generating Technologies at the proposed Station (Appendix H)
  - Evaluation of Alternative Control Strategies for air quality at the proposed Station (Appendix D)
  - Discussion of Alternative Air Pollution Control Technologies (Chapter 2, Section 2.5.4)
- Air Quality and Climate Change
  - Additional discussion of baseline conditions (Chapter 3, Sections 3.6.1 and 3.6.2) and potential direct, indirect, and

- cumulative effects (Chapter 4, Sections 4.6.1, 4.6.2, 4.19.3.6.1, and 4.19.3.6.2) on air quality and greenhouses gases/climate change resulting from the proposed Station
  - Understanding and Evaluating Climate Change and assessing the potential contribution of the proposed Station (Appendix M)
  - Air quality analyses (Chapter 4, Section 4.6.1) discussing carbon dioxide emissions from the proposed Station would be approximately 12.88 tons per year rather than 20 tons per year as described in the DEIS
  - Air quality analyses (Chapter 4, Section 4.6.1) discussing the potential for acidification of high mountain lakes and impacts to visibility in sensitive airsheds resulting from the proposed Station
  - Cumulative Analysis for Air Quality for the proposed Station and past, present, and other reasonably foreseeable actions (Appendix L)
- Carbon Capture
  - Potential for Carbon Capture and Sequestration at the proposed Station (Appendix E)
  - Memorandum of Understanding between WPEA and the State of Nevada and Commitment by WPEA for the Station to be a Carbon Capture Ready Facility (Appendix F)
  - Commitment by WPEA of a Land Set-Aside for Future Carbon Capture Technology as a feature of the proposed Station (Chapter 2, Section 2.2.3.1.2)
- Ground Water
  - Ground Water Monitoring Program and mitigation actions for the proposed Station production wells to minimize the potential for ground water impacts and avoid impacts to springs (Appendix G)
  - Ground water cumulative impacts analysis of potential impacts with past, present, and other reasonably foreseeable actions, including the proposed Ely Energy Center (Chapter 4, Section 4.19.3.4)
- Wetlands
  - Clarification that potential Station effects on wetlands are estimated at 4 acres for the Proposed Action and 6 acres for Alternative 1 (Chapter 4, Section 4.5.1) and commitment by WPEA to mitigate for wetlands effects according to agency policy (Chapter 4, Section 4.5.1.3.3)
- Cumulative Effects
  - Additional discussion in Chapter 4, Section 4.19, on the potential for cumulative effects from the proposed Station when combined with the effects of past, present, and other reasonably foreseeable future actions
- Mitigation Measures and Best Management Practices
  - List of all mitigation measures committed to by WPEA (Chapter 4, Section 4.20.1); additional mitigation identified by the BLM (Chapter 4, Section 4.20.2); and Best Management Practices (Appendix C) that will be implemented by WPEA for the proposed Station

## ES.1 Introduction

### *ES.1.1 General Overview*

The Proposed Action and Alternative 1 for the White Pine Energy Station were developed in response to a proposal by White Pine Energy Associates, LLC, (WPEA) to construct, own, operate, and maintain an approximately 1,590-megawatt (MW) coal-fired electric power generating plant in White Pine County in eastern Nevada. The power plant and associated features (electric transmission facilities, water supply system, electric distribution line, rail spur, access roads, mineral material sale, and Moriah Ranches Seeding Project) would be located primarily on lands managed by the Ely Field Office of the U.S. Department of the Interior Bureau of Land Management (BLM) (see Figure ES-1).

The power plant site for the Proposed Action is in Steptoe Valley, approximately 34 miles north of Ely, 22 miles north of McGill, and 1 mile west of U.S. Highway 93 (U.S. 93). Steptoe Valley is bordered on the east by the Schell Creek Range and on the west by the Egan Range. The Utah border is approximately 40 miles east and the northern boundary of Great Basin National Park approximately 57 miles southeast of the Proposed Action power plant site. An alternative power plant site (Alternative 1), also in Steptoe Valley, is approximately 12 miles south of the Proposed Action power plant site and 1 mile west of U.S. 93.

### *ES.1.2 BLM Purpose and Need*

The purpose of the BLM action is to provide public land for the development of energy production by allowing for the construction of power plants on public lands managed by the BLM. The multiple-use mission of the BLM includes managing activities such as mineral development, energy production,

recreation, and grazing, while conserving natural, historical, cultural, and other resources on public lands. The BLM's objective is to meet public needs for use authorizations such as Rights-of-Way (ROWs), permits, leases, and easements while avoiding or minimizing adverse impacts to other resource values. The proposal to construct, operate, and maintain a coal-fired power plant on public lands would be in accordance with this objective.

### *ES.1.3 Project Purpose*

The purpose of the White Pine Energy Station is to supply reliable, low-cost electricity in an environmentally responsible manner to meet baseload energy needs in Nevada and the western United States, and to bring economic benefits to White Pine County, Nevada. The purpose of WPEA's ROWs applications to the BLM is to allow the White Pine Energy Station to be developed on BLM-managed public land.

### *ES.1.4 Project Need*

Adequate and reliable electricity supply is essential to the well-being of the American people and the economy. The construction of new power generation and transmission facilities is required to meet increasing demands for electricity. The White Pine Energy Station is being developed to serve baseload electric needs.

The Western Electricity Coordinating Council forecasts that "reported generating capacity additions in the region may not be sufficient to reliably supply the forecast firm peak demand and energy requirements throughout the [2005-2014] period" (Western Electricity Coordinating Council, 2005). The Energy Information Administration (2007) forecasts (starting in 2006) the need for approximately

20,500 MW of new power generation in the western United States by 2015 (72,500 MW by 2030) to meet growing energy needs and maintain reliable operation of the electric system. The need for additional electric power forecasted by the Energy Information Agency and the Western Electricity Coordinating Council assumes a reasonable amount of conservation will occur and is factored into the demand.

The Energy Information Administration (2007) estimates that new coal-fired generation facilities will supply 7,600 MW by 2015 (51,000 MW by 2030) of this need for new generation capacity. The report indicates that in the West the proportion coal generation contributes to total electric generation will increase from 23.2 percent in 2007 to 35.6 percent in 2015 and 59.0 percent in 2030.

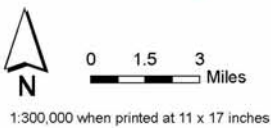
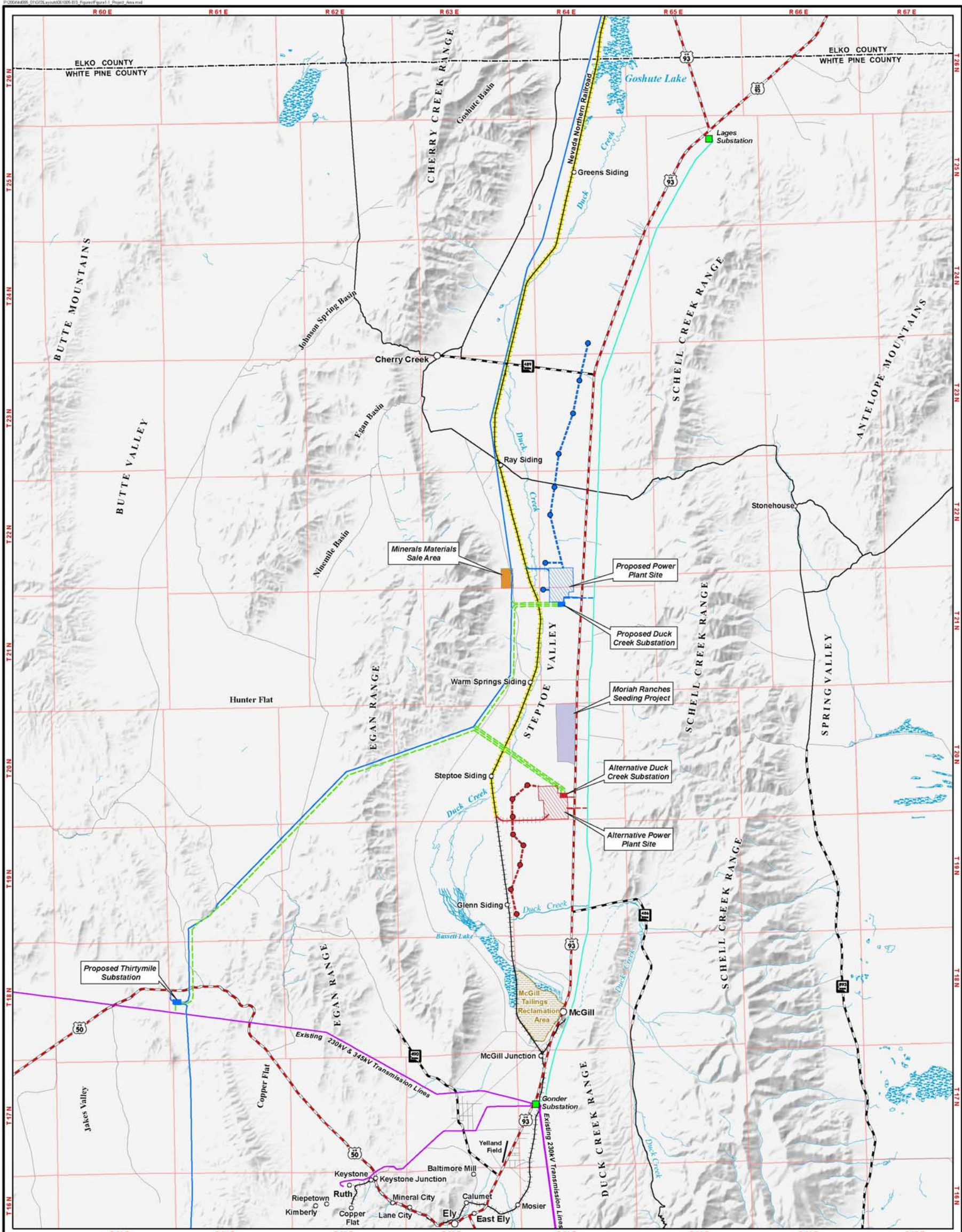
The Public Utility Commission of Nevada (PUCN) has reported a projected capacity shortfall of 4,000 MW by 2020 in Nevada if new generation capacity is not added (PUCN, Resource Planning 2007, Nevada's Electricity Future: A Portfolio-Focused Approach). Also in Nevada, Nevada Power Company (2006) and Sierra Pacific Power Company (2006) have identified the need for approximately 5,500 MW of additional electric capacity beyond their existing generation capacity and secured purchases by 2015. The White Pine Energy Station would help fill part of the identified need for electricity by providing approximately 1,590 MW of new baseload coal-fired electric generation capacity.

Completion of the White Pine Energy Station also would help meet stated objectives of the Nevada State Office of Energy and Nevada electric utilities to increase fuel diversity in the State of Nevada. The addition of stable-priced, low-cost, coal-fired capacity would reduce

the risk of reliance on volatile and more expensive natural gas-fired generation and the impacts of droughts on hydropower.

WPEA's proposal to locate the Station in Steptoe Valley approximately 34 miles (Proposed Action site) or 22 miles (Alternative 1 site) north of Ely is based on the following factors:

- The Station site is near the NNR, which would be upgraded and used to supply coal to the power plant that is needed in order to generate electricity.
- The Station site is near a utility corridor that is permitted for a new 500,000-volt electric transmission line that would extend from Idaho to Clark County, Nevada. Access to this utility corridor provides a route to existing electric transmission facilities in White Pine County, specifically 345,000-volt and 230,000-volt transmission lines near Robinson Summit, and provides access to planned regional electric transmission facilities.
- The Station site is centrally located to the ground water source that would be used to supply the White Pine Energy Station's water needs. A reliable and economical water supply is central to a low-cost baseload, steam power plant and is available in the form of water rights held by White Pine County.
- The Station site can be easily accessed via U.S. 93 and is within a short driving distance to the population centers of Ely and McGill.
- The availability of a water supply was among the key factors in WPEA's decision to undertake the proposed Station and to site it at the proposed location in White Pine County.



**Existing Electrical Features**

- Existing Substation
- Existing Transmission Line
- Existing Distribution Line

**Surface Water**

- Perennial Stream or River
- Wetland

**Connected Action**

- SWIP Transmission Line
- NNR Upgrade

**Common Project Features**

- Minerals Materials Sale Area
- Moriah Ranches Seeding Project

**Proposed Action Project Features**

- Proposed Well Site
- - - Proposed Water Pipeline/Distribution Line
- + Proposed Rail Spur
- Proposed Transmission Line
- - - Proposed Electric Distribution Line
- Proposed Access Road
- Proposed Substation Site
- Proposed Power Plant Site

**Alternative 1 Project Features**

- Proposed Well Site
- - - Proposed Water Pipeline/Distribution Line
- + Proposed Rail Spur
- Proposed Transmission Line
- - - Proposed Electric Distribution Line
- Proposed Access Road
- Proposed Substation Site
- Proposed Power Plant Site

**Project Area  
White Pine Energy Station Project**

Figure ES-1

Figure ES-1 (back)

Siting the Station in White Pine County, Nevada would meet long-held county objectives of attracting an electric generation facility to bring needed and desired economic benefits to the county, strengthening and stabilizing the county economy, and improving the quality of life for county citizens. The Proposed Action and the other action alternative (Alternative 1) would put to beneficial use ground water rights granted to White Pine County by the Nevada State Engineer in Steptoe Valley for energy production purposes. The proposed Station also would help generate additional support for reactivating and upgrading the NNR, which would benefit the county's economy through recreational and industrial uses of the NNR. The NNR upgrade and use of the County's water rights are both recognized in an Interim Development Agreement between WPEA and White Pine County for the proposed White Pine Energy Station (see Appendix A). White Pine County entered into an updated Water Supply Agreement in February 2008 granting WPEA the exclusive right to use these water rights for development and operation of the White Pine Energy Station (see Appendix B).

## ES.2 Description of Proposed Action and Alternatives

### *ES.2.1 Proposed Action and Alternative 1*

The Proposed Action and Alternative 1 were developed for the White Pine Energy Station and would each include a Power Plant ROW and sale, Electric Transmission Facilities ROW, Water Supply System ROW, Rail Spur ROW, Access ROW, Electric Distribution Line Construction ROW, Mineral Material Sale, and Moriah Ranches Seeding Project. The Proposed Action and Alternative 1 would each include the following actions:

- Issue ROWs for construction and operation of the Station and subsequently arrange for the sale of the land covered by the Power Plant ROW to WPEA.
- Construction and operation of an approximately 1,590-MW coal-fired electric power generating plant using hybrid cooling systems that has an expected commercial life of 40 years or longer.
- Construction and operation of a water supply system in the Steptoe Valley Hydrographic Basin to meet the water needs of the power plant.
- Construction and operation of a new rail spur from the NNR to the power plant to supply coal.
- Construction and operation of electric transmission facilities to connect the power plant with existing and planned electric transmission facilities serving the region.
- Construction and operation of road access and certain utility access to the power plant and other Station features.
- Construction and operation of an electric distribution line for the supply of power during the construction period.
- Construction and operation of an off-site mineral material sale area (borrow area) for the supply of earth and rock materials to be used in the construction process.
- Implementation of a seeding project to enhance the grazing and wildlife value on 700 to 900 acres.
- Implementation of best management practices (BMPs), mitigation measures committed to by WPEA, and additional mitigation measures identified by the BLM during Station construction, operation, and maintenance to avoid or prevent the occurrence of impacts and, where possible, to minimize the magnitude, extent, and

duration of those impacts when their occurrence can not be prevented.

Table ES-1 compares project components for the Station Proposed Action and Alternative 1.

TABLE ES-1

Comparison of Project Components for the White Pine Energy Station Proposed Action and Alternative 1

<b>Project Component</b>	<b>Proposed Action</b>	<b>Alternative 1</b>
BLM Action	Issue ROWs for construction and operation of all Station features on BLM-managed land. Subsequent sale of power plant site to WPEA	Issue ROWs for construction and operation of all Station features on BLM-managed land. Subsequent sale of power plant site to WPEA
Power Plant Construction	Construct and operate up to a three-unit, approximately 1,590-MW coal-fired, hybrid-cooled power plant	Construct and operate up to a three-unit, approximately 1,590-MW coal-fired, hybrid-cooled power plant
Power Plant Location	Sections 31 and 32, T22 North, R64 East and Sections 5 and 6, T21 North, R64 East in White Pine County, NV (Northern Site)	Sections 28, 29, 32 and 33, T20 North, R64 East in White Pine County, NV (Southern Site)
Electric Distribution and Transmission	Construct and operate a 32-mile-long overhead 500-kV transmission line connecting the Duck Creek Substation to the Thirtymile Substation. Construct and operate a 2.5-mile-long loop of the overhead 500-kV SWIP line connecting to the Duck Creek Substation.	Construct and operate a 28-mile-long overhead 500-kV transmission line connecting the Duck Creek Substation to the Thirtymile Substation. Construct and operate a 6-mile-long loop of the overhead 500-kV SWIP line connecting to the Duck Creek Substation.
Switchyards	Construct and operate the 60-acre Duck Creek Substation at the power plant and the 77-acre Thirtymile Substation near Robinson Summit	Construct and operate the 60-acre Duck Creek Substation at the power plant and the 77-acre Thirtymile Substation near Robinson Summit
Coal Supply Access	Construct and operate a 1.3-mile-long rail spur crossing Duck Creek and connecting to the upgraded NNR.	Construct and operate a 3-mile-long rail spur connecting to the upgraded NNR.
Power Plant Road Access	Construct and maintain a 1-mile-long paved access road from U.S. 93	Construct and maintain a 0.3-mile-long paved access road from U.S. 93
Ground Water Well Field	Construct and operate a system of 8 production wells and up to ten monitoring wells north of the power plant site	Construct and operate a system of 8 production wells and up to four monitoring wells south of the power plant site
Well Field Pipelines	Construct and operate 13 miles of 10- to 30-inch-diameter water pipeline connecting the wells to the power plant	Construct and operate 8 miles of 10- to 30-inch-diameter water pipeline connecting the wells to the power plant
Well Field Electric Distribution Line and Access Road	Construct and operate 13 miles of 13.8-kV overhead distribution lines and a 10-foot-wide access road servicing each well site	Construct and operate 8 miles of 13.8-kV overhead distribution lines and a 10-foot-wide access road servicing each well site
Mineral Material Sale	Use during construction, a 40-acre earth and rock borrow area in Section 35, T22 North, R63 East in White Pine County, NV.	Use during construction, a 40-acre earth and rock borrow area in Section 35, T22 North, R63 East in White Pine County, NV.
Moriah Ranches Seeding Project	Implement a seeding program on 700 to 900 acres to improve forage for livestock and wildlife on public lands 16 miles north of McGill and immediately west of U.S. 93	Implement a seeding program on 700 to 900 acres to improve forage for livestock and wildlife on public lands 16 miles north of McGill and immediately west of U.S. 93
Best Management Practices and Mitigation Measures	Commitment to construct, operate, and maintain the various Station features in accordance with a series of best management practices and mitigation measures	Commitment to construct, operate, and maintain the various Station features in accordance with a series of best management practices and mitigation measures

### ***ES.2.2 No Action Alternative***

Under the No Action Alternative, Station-related ROWs would not be created, the land covered by the Power Plant ROW subsequently would not be sold to WPEA, and the Station power plant and related facilities would not be constructed or operated as described for the Proposed Action or Alternative 1.

### ***ES.2.3 Preferred Alternative***

BLM's Preferred Alternative is the Proposed Action.

### ***ES.2.4 Alternatives Considered but Eliminated from Detailed Evaluation***

A number of alternatives were considered but were eliminated from detailed evaluation because they failed to meet project purpose and need, were operationally infeasible, were economically infeasible, were environmentally unacceptable, and/or did not afford environmental advantages over the Proposed Action or Alternative 1. Alternative power generating technologies and fuels were eliminated because they did not meet one or more of the following six detailed criteria that were developed to assess the degree to which potential alternatives would satisfy the purpose and need for the White Pine Energy Station, and would be "reasonable" for National Environmental Policy Act purposes (that is, economically and technically practical and feasible):

- Capable of providing approximately 1,590 MW of reliable baseload power generation capacity
- Environmentally permissible
- Cost effectiveness relative to pulverized coal

- Commercially proven and reliable
- Place water held by White Pine County for power production in Steptoe Valley to beneficial use for power production
- Provide traffic for the NNR

Alternative power plant locations were eliminated because they were infeasible from engineering (infrastructure needs versus availability) and economic (construction and operational costs) perspectives, would result in unacceptable environmental and socioeconomic impacts, and/or did not afford environmental advantages over the Proposed Action or Alternative 1.

Alternative power plant designs and site configurations, rail spur locations, bridge designs for crossing Duck Creek, and well field electric distribution lines alignment and design were considered but eliminated from detailed analysis primarily because of unacceptable environmental impacts to biological resources and potentially to cultural resources. Alternative air pollution control technologies were considered but eliminated from detailed analysis because of technical infeasibility, or environmental, energy, and economic impacts. An alternative power plant cooling technology was considered but eliminated from detailed analysis because of potential impacts to ground water. Alternative transmission line routes were eliminated because of engineering and environmental issues and concerns (inconsistent with land use plan, conflict with private property, need for multiple power lines, and viewshed impacts).

## ES.3 Affected Environment and Environmental Consequences

### ES.3.1 Proposed Action and Action Alternatives

Table ES-2 summarizes major impacts, including unavoidable adverse impacts, anticipated under the Proposed Action and Alternative 1 by resource. Unavoidable adverse impacts on resources are those residual impacts remaining after implementation of mitigation measures. These impacts would primarily be associated with lands that would be disturbed and/or included in construction ROWs. Under the Proposed Action, 1,907 acres would be temporarily disturbed by Station construction and 1,511 acres would be permanently (construction plus the life of the Station plus the life of any post-Station use) disturbed by Station operations. The power plant ROW that the BLM would subsequently sell to WPEA would make up 1,281 acres of the permanently disturbed acres under the Proposed Action. Under Alternative 1, 1,948 acres would be temporarily disturbed and 1,570 acres

would be permanently disturbed. The power plant ROW would make up 1,330 acres of the permanently disturbed acres under Alternative 1. Although the power plant parcels have been identified for disposal by the BLM, their transferal from public to private ownership would preclude the continuation of existing land uses (some recreation, grazing) on the fenced site.

Other affected or potentially affected resources would include soils; several special status plant and animal species; plant species and vegetative cover; and various wildlife species and their habitat. Under the Proposed Action, pumping ground water could result in localized ground water level declines between 2 and 6 feet in 12 nearby areas where springs are present on the floor of Steptoe Valley. Information from the ground water monitoring and mitigation program for the production wells will be used to modify the pumping strategy, if needed, to avoid impacts to springs in accordance with the ground water monitoring program documented in Appendix G. Pumping ground water under Alternative 1 would not affect springs.

TABLE ES-2

Summary of Impacts by Resource for the White Pine Energy Station Proposed Action, Alternative 1, and No Action Alternative

Proposed Action	Alternative 1	No Action Alternative
<b>3.2 and 4.2*—Geology, Soils, and Minerals</b>		
1,907 acres of soil disturbed during construction. 1,511 acres permanently disturbed.	1,948 acres of soil disturbed during construction. 1,570 acres permanently disturbed.	No Station-related impacts would occur.
<b>3.3 and 4.3*—Surface Water Resources</b>		
No effect to water resources. Effects to wetlands are described in Section 4.5.1, <i>Vegetation</i> .	No effect to water resources. Effects to wetlands are described in Section 4.5.1, <i>Vegetation</i> .	No Station-related impacts would occur.

TABLE ES-2

Summary of Impacts by Resource for the White Pine Energy Station Proposed Action, Alternative 1, and No Action Alternative

Proposed Action	Alternative 1	No Action Alternative
<b>3.4 and 4.4*—Ground Water Resources</b>		
Lowers ground water level near production wells. No effect on existing wells. Pumping ground water could result in localized ground water level declines between 2 and 6 feet in 12 nearby areas where springs are present on the floor of Steptoe Valley. A ground water monitoring and mitigation program will be implemented.	Lowers ground water level near production wells. No effect on existing wells or springs. A ground water monitoring and mitigation program will be implemented.	No Station-related impacts would occur.
<b>3.5.1 and 4.5.1*—Biological Resources: Vegetation</b>		
399 acres of vegetation, including 2 acres of wetlands, temporarily disturbed during construction. 1,517 acres of vegetation, including 4 acres of wetlands, permanently disturbed.	379 acres of vegetation, including 27 acres of wetlands, temporarily disturbed during construction. 1,535 acres of vegetation, including 6 acres of wetlands, permanently disturbed.	No Station-related impacts would occur.
<b>3.5.2 and 4.5.2*—Biological Resources: Noxious and Invasive Weeds</b>		
Potential for spread of noxious and invasive weeds but minimized by BMPs	Potential for spread of noxious and invasive weeds but minimized by BMPs	No Station-related impacts would occur.
<b>3.5.3 and 4.5.3*—Biological Resources: Wildlife and Fisheries Resources</b>		
399 acres of wildlife habitat disturbed during construction. 1,517 acres of wildlife habitat permanently disturbed. No effect on fisheries. The Moriah Ranches Seeding Project would enhance wildlife value on 700 to 900 acres of public land.	379 acres of wildlife habitat disturbed during construction. 1,535 acres of wildlife habitat permanently disturbed. No effect on fisheries. The Moriah Ranches Seeding Project would enhance wildlife value on 700 to 900 acres of public land.	No Station-related impacts would occur.
<b>3.5.4 and 4.5.4*—Biological Resources: Threatened, Endangered, Candidate, and Sensitive Species</b>		
Potential to affect special status species because of loss of habitat. Pumping ground water could result in localized ground water level declines between 2 and 6 feet in 12 nearby areas where springs are present on the floor of Steptoe Valley. A ground water monitoring and mitigation program will be implemented to prevent effects on special status species associated with springs.	Potential to affect special status species because of loss of habitat. No effect on springs or special status species associated with springs.	No Station-related impacts would occur.

TABLE ES-2

Summary of Impacts by Resource for the White Pine Energy Station Proposed Action, Alternative 1, and No Action Alternative

<b>Proposed Action</b>	<b>Alternative 1</b>	<b>No Action Alternative</b>
<b>3.6.1 and 4.6.1*—Air Quality</b>		
<p>Minimal impacts during construction; the primary issue would be fugitive dust, which would be controlled by water spray on disturbed areas. Emissions during Station operations have been demonstrated to meet the National Ambient Air Quality Standards (NAAQS). These standards have been set to protect public health, including the health of “sensitive” populations, and to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. There would, however, be perceptible visibility impacts at Zion National Park and Jarbidge Wilderness Area (Class I areas) and Ruby Lake National Wildlife Refuge and Great Basin National Park (Class II areas). The visibility analysis predicts perceptible visibility changes for a small number of days at Zion National Park, Jarbidge Wilderness Area, and Ruby Lake National Wildlife Refuge, and for a moderate number of days at Great Basin National Park. These visibility impacts were not sufficient to cause the National Park Service to reach an “adverse impact determination,” which is a possible outcome for Class I areas as part of the PSD process. Sulfur and nitrogen deposition at Great Basin National Park and Ruby Lake National Wildlife Refuge exceed the deposition analysis thresholds, indicating the need for additional analysis to evaluate the impacts. This additional analysis was conducted as part of the NEPA cumulative analysis and shows that adverse effects due to sulfur and nitrogen deposition are not expected.</p>	<p>Minimal impacts during construction; the primary issue would be fugitive dust, which would be controlled by water spray on disturbed areas. Emissions during Station operations have been demonstrated to meet the NAAQS. These standards have been set to protect public health, including the health of “sensitive” populations, and to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. There would, however, be perceptible visibility impacts at Zion National Park and Jarbidge Wilderness Area (Class I areas) and Ruby Lake National Wildlife Refuge and Great Basin National Park (Class II areas). The visibility analysis predicts perceptible visibility changes for a small number of days at Zion National Park, Jarbidge Wilderness Area, and Ruby Lake National Wildlife Refuge, and for a moderate number of days at Great Basin National Park. These visibility impacts were not sufficient to cause the National Park Service to reach an “adverse impact determination,” which is a possible outcome for Class I areas as part of the PSD process. Sulfur and nitrogen deposition at Great Basin National Park and Ruby Lake National Wildlife Refuge exceed the deposition analysis thresholds, indicating the need for additional analysis to evaluate the impacts. This additional analysis was conducted as part of the NEPA cumulative analysis and shows that adverse effects due to sulfur and nitrogen deposition are not expected</p>	<p>No Station-related impacts would occur.</p>
<b>3.6.2 and 4.6.2*—Climate Change</b>		
<p>An estimated 12.88 million tons of carbon dioxide would be emitted from the Station per year, adding incrementally to the global total of anthropogenic greenhouse gases. No procedures have been established to predict the potential climate impacts of a single carbon dioxide emission source like the Station. Therefore, it is not possible to meaningfully predict potential climate impacts associated with the Project. See Appendix M for additional information.</p>	<p>An estimated 12.88 million tons of carbon dioxide would be emitted from the Station per year, adding incrementally to the global total of anthropogenic greenhouse gases. No procedures have been established to predict the potential climate impacts of a single carbon dioxide emission source like the Station. Therefore, it is not possible to meaningfully predict potential climate impacts associated with the Project. See Appendix M for additional information.</p>	<p>No Station-related impacts would occur.</p>

TABLE ES-2

Summary of Impacts by Resource for the White Pine Energy Station Proposed Action, Alternative 1, and No Action Alternative

<b>Proposed Action</b>	<b>Alternative 1</b>	<b>No Action Alternative</b>
<b>3.6.3 and 4.6.3*—Noise</b>		
Highest noise level during construction estimated at 74 dBA at nearest receptor. This level would be short term and result from steam blowouts. Noise from operations would be below background levels.	Lower potential noise impact than for Proposed Action because nearest receptor further away. Noise from operations would be below background levels.	No Station-related impacts would occur.
<b>3.7 and 4.7*—Visual Resources</b>		
The power plant, particularly the stacks and cooling towers, and transmission towers would be visible from much of Steptoe Valley. However, all features would meet Visual Resource Management (VRM) class objectives.	The power plant, particularly the stacks and cooling towers, and transmission towers would be visible from much of Steptoe Valley. However, all features would meet VRM class objectives.	No Station-related impacts would occur.
<b>3.8 and 4.8*—Recreation Resources</b>		
The increase in number of workers during construction and operation would increase the use of recreation resources in the Station project area.	The increase in number of workers during construction and operation would increase the use of recreation resources in the Station project area.	No Station-related impacts would occur.
<b>3.9 and 4.9*—Land Use</b>		
All facilities would be on BLM-administered land. Proposed ROWs would be shared with some other ROW holders. The proposed Station facilities comply with federal and local land use policies. The BLM would subsequently dispose of the land by sale where the power plant site ROW is authorized.	Nearly all facilities would be on BLM-administered land. Proposed ROWs would be shared with some other ROW holders. The proposed Station facilities comply with federal and local land use policies. The BLM would subsequently dispose of the land by sale where the power plant site ROW is authorized.	No Station-related impacts would occur.
<b>3.10 and 4.10*—Rangeland Resources</b>		
The Moriah Ranches Seeding Project would enhance grazing value on 700 to 900 acres.	The Moriah Ranches Seeding Project would enhance grazing value on 700 to 900 acres.	No Station-related impacts would occur.
<b>3.11 and 4.11*—Special Designations</b>		
No Wilderness or Areas of Critical Environmental Concern would be affected by the Station. The Pony Express Trail, a National Historic Trail, would be crossed by the well field pipeline and electric distribution line.	No Wilderness or Areas of Critical Environmental Concern would be affected by the Station.	No Station-related impacts would occur.
<b>3.12 and 4.12*—Wastes, Hazardous and Solid</b>		
The Station would result in a solid waste disposal area being constructed and operated at the power plant site and would be permanently located there. Some hazardous materials would be temporarily stored on the power plant site before being transported offsite to an appropriately permitted disposal facility.	The Station would result in a solid waste disposal area being constructed and operated at the power plant site and would be permanently located there. Some hazardous materials would be temporarily stored on the power plant site before being transported offsite to an appropriately permitted disposal facility.	No Station-related impacts would occur.

TABLE ES-2

Summary of Impacts by Resource for the White Pine Energy Station Proposed Action, Alternative 1, and No Action Alternative

Proposed Action	Alternative 1	No Action Alternative
<b>3.13 and 4.13*—Cultural Resources</b>		
One prehistoric site and a segment of the NNR would be disturbed that are considered eligible for the National Register of Historical Places (NRHP). In addition, three prehistoric sites eligible for the NRHP are located in the Thirtymile Substation area. Up to six historic ranches, two points along the Lincoln Highway and two points along the NNR would be subject to high indirect visual impacts. The Pony Express Trail, a National Historic Trail, would be crossed by the well field pipeline and electric distribution line.	A segment of the NNR would be reconstructed that is considered eligible for the NRHP. Four prehistoric properties would be affected by project features in Steptoe Valley. In addition, three prehistoric sites eligible for the NRHP are located in the Thirtymile Substation area. One point along the Lincoln Highway and three points along the NNR would be subject to high indirect visual impacts.	No Station-related impacts would occur.
<b>3.15 and 4.15*—Native American Religious Concerns</b>		
None identified	None identified	No Station-related impacts would occur.
<b>3.14 and 4.14*—Environmental Justice</b>		
No impacts	No impacts	No Station-related impacts would occur.
<b>3.16 and 4.16*—Paleontological Resources</b>		
None identified	None identified	No Station-related impacts would occur.
<b>3.17 and 4.17*—Socioeconomics</b>		
Economic benefits to White Pine County would result from the Station. Local infrastructure would be stressed during construction but Station construction commitments, including provision of onsite housing for construction workers, would prevent most impacts.	Economic benefits to White Pine County would result from the Station. Local infrastructure would be stressed during construction but Station construction commitments, including provision of onsite housing for construction workers, would prevent most impacts.	No Station-related impacts would occur.
<b>3.18 and 4.18*—Transportation</b>		
Traffic on U.S. 93 would increase during Station construction but not reduce the Level of Service class. The NNR is to be upgraded to Class 3 status and accommodate 12 coal trains to and from the power plant per week.	Traffic on U.S. 93 would increase during Station construction but not reduce the Level of Service class. The NNR is to be upgraded to Class 3 status and accommodate 12 coal trains to and from the power plant per week.	No Station-related impacts would occur.
Other Station-related effects would include the presence of construction vehicles, equipment, personnel, and activities, and associated fugitive dust	emissions during construction. Emissions during Station operations have been demonstrated to meet the National Ambient Air Quality Standards (NAAQS).	

\*Refers to detailed resource discussions in EIS sections of Chapter 3 (*Affected Environment*) and Chapter 4 (*Environmental Consequences*).

These standards have been set to protect public health, including the health of “sensitive” populations, and to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. There would, however, be perceptible visibility impacts at Zion National Park and Jarbidge Wilderness Area (Class I areas) and Ruby Lake National Wildlife Refuge and Great Basin National Park (Class II areas). The visibility analysis predicts perceptible visibility changes for a small number of days at Zion National Park, Jarbidge Wilderness Area, and Ruby Lake National Wildlife Refuge, and for a moderate number of days at Great Basin National Park. These visibility impacts were not sufficient to cause the National Park Service to reach an “adverse impact determination,” which is a possible outcome for Class I areas as part of the PSD process. Sulfur and nitrogen deposition at Great Basin National Park and Ruby Lake National Wildlife Refuge exceed the deposition analysis thresholds, indicating the need for additional analysis to evaluate the impacts. This additional analysis was conducted as part of the NEPA cumulative analysis and shows that adverse effects resulting from sulfur and nitrogen deposition are not expected.

Also, constructed Station features would not comply with the BLM’s designated VRM Classes when viewed from one location each for the Proposed Action and Alternative 1.

Visual impacts of project features on the historic integrity of several historical resources (NNR, Magnuson Ranch rest stop, Whiteman Ranch, and Lincoln Highway) could be minimized but not entirely mitigated. Another possible unavoidable adverse impact on cultural resources would be their accidental

disturbance if inadvertently encountered during construction. The Cultural Resources Programmatic Agreement for the proposed Station would be followed to mitigate potential adverse impacts to cultural and historical resources. Station effects on transportation would include traffic increases during Station construction on highways that are considered potential access routes to the proposed power plant sites but no change in the Level of Service class for these highways during project construction.

Overall, development of the White Pine Energy Station would result in a range of economic benefits to White Pine County. These benefits include, but are not limited to, local income and job creation, generation of tax revenue, and the development of a reliable and affordable source of power. Also, the Station would help diversify the local economy, resulting in less dependence on the boom-and-bust cycle of the mining industry. Economic benefits would likely also extend outside of the county based on purchases of goods and services during Station construction and operations, as well as power-related benefits. These economic benefits would be derived, in part, from putting to beneficial use water rights held by White Pine County and re-establishment of the NNR.

Construction of the proposed White Pine Energy Station would result in the irreversible and irretrievable commitments of some resources. Irreversible impacts would include labor, capital, some construction materials, fuels, soils, and possibly cultural resources. Irretrievable impacts on environmental resources would generally not extend past the life of the Station. Affected resources would include biological resources, air quality and noise, soils, ground water, visual and recreation resources, land use, possibly cultural

resources, and socioeconomics. Irretrievable impacts would also include the potential to reduce the life of the City of Ely landfills if used for Station solid waste.

### ***ES.3.2 No Action Alternative***

If the No Action Alternative is selected for implementation, existing conditions and trends for the affected environment in the Station project area would continue. The purposes and needs that were identified for the proposed Station would not be met. Under the No Action Alternative, water rights held by White Pine County for energy production in Steptoe Valley may not be placed to a beneficial use and may be subject to forfeit by the Nevada State Engineer. Additional traffic on the NNR may be forgone, challenging the economic feasibility of rehabilitation of the line by the City of Ely.

## **ES.4 Consultation and Coordination**

A Notice of Intent to Prepare an Environmental Impact Statement was published in the Federal Register on August 6, 2004 (Volume 69, Number 151, pages 47954-47955). Public scoping meetings for the White Pine Energy Station were held in Ely on August 23, 2004, and in Reno on August 24, 2004. Meeting objectives were to learn the concerns of individuals, organizations, and agencies regarding the proposed Station and to allow interested parties to participate in developing a list of issues to be addressed in the EIS.

The meetings were publicized through newspaper advertisements and individual mailings. On August 13 and August 20, 2004, advertisements were published in the *Ely Times* and the *Reno Gazette-Journal*. Mailings were sent to 210 addresses. The meetings were conducted using an open-

house format. At each meeting, WPEA, EIS contractor, and BLM representatives presented Station information on display boards and handouts, and discussed concerns with individuals. The Ely meeting was attended by 42 people, and the Reno meeting was attended by 11 people.

Individuals, public agencies, and non-profit organizations submitted written comments to the BLM after the meetings. Thirty-five letters containing 231 comments were received. Most commentors expressed concerns regarding potential impacts of the proposed power plant on local resources and suggested the following issues should be addressed in the EIS: air quality; water development, use, and ground water; wildlife, habitat, and ecological concerns; socioeconomics, visual resources, and recreation; transportation, roads, and railroad; power need and recipients; proposed site, alternatives, and transmission lines; energy efficiency, conservation, and alternative energy; waste and hazardous materials, and; power plant technology and noise.

Numerous federal, state, and county agencies, and Native American Tribes were consulted during the preparation of this FEIS. BLM representatives initiated formal and informal communication with Native American Tribal representatives in the Station project area to discuss the proposed White Pine Energy Station. This process provided Tribes the opportunity to identify potential effects of the Station on Native American interests. A Native American coordination meeting was conducted on December 8, 2004, in the BLM Ely Field Office with representatives from the Ely Shoshone Tribe, Duckwater Shoshone Tribe, WPEA, and the Ely Field Office. Station details were presented to the group by WPEA, followed by a discussion of issues and concerns. After

the December 2004 meeting, BLM Ely Field Office staff have remained in communication with the Tribes regarding the Station. The most recent meeting with the Tribes was in July 2006. At this point in the project, no issues or concerns have been raised by the Tribes regarding any religious or traditional cultural properties.

The DEIS was sent to, and comments requested from, the general public and entities including federal, state, and local governments; Tribal governments; other organizations; and Members of the U.S. Congress and the Governor of Nevada. The DEIS was made available at numerous public libraries and BLM offices.

The public comment period on the DEIS opened with the announcement of the availability of the *Draft EIS for the White Pine Energy Project* in the Federal Register on April 20, 2007. Public comments on the *Draft EIS for the White Pine Energy Project* were accepted until June 19, 2007. Two public meetings were held to receive comments on the DEIS. The first meeting, in Ely, Nevada on May 8, 2007, was attended by 66 people. The second meeting, in Reno, Nevada on May 9, 2007, attended by 34 people. People asked questions and were able to submit comments during the meetings.

The BLM also received correspondence containing comments on the DEIS during the comment period. Correspondence was received from four federal agencies, eight state or local agencies, eight interest groups, and 75 citizens. Each letter was closely reviewed to identify portions of text that addressed the DEIS content. Responses to each comment were then prepared. The responses also indicate, if deemed appropriate, that changes or additions to the text of this FEIS have been made and where they can be found.

All letters and their content (including those not designated as a comment on the DEIS) will be reviewed by the BLM and considered in their decision regarding this project and the federal action.