

**Appendix G**  
**Cultural Resources Background Information**

# Cultural Resources Background Information

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This appendix contains cultural resources background information on regulatory setting, criteria for significance, and the natural and cultural settings in the affected environment of the proposed WPES Project. Information in this appendix supports discussions contained in *Section 3.13, Cultural Resources* in Chapter 3 of this EIS.

## Regulatory Setting

Historical and archaeological resources are managed under an intricate system of federal laws, some of which have resulted in comprehensive plans or management strategies. Those that pertain specifically to historic and archaeological resources and the WPES Project are briefly summarized in the following text.

### Historic Sites Act of 1935 (16 USC 461-467)

The Historic Sites Act established a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States, and led to the implementation of the Historic American Building Survey (HABS) and the Historic American Engineering Record (HAER) by the Secretary of the Interior and the National Park Service. This Act also created a National Park System Advisory Board, which in part was responsible for making recommendations on the designation of national historic landmarks.

### National Environmental Policy Act (NEPA) of 1969 (42 USC 4321 et seq.)

The NEPA declared, in part, that it is the policy of the federal government to preserve important historic, cultural and natural aspects of the nation's heritage, and requires federal agencies to prepare environmental impact statements prior to making decisions about projects that may significantly affect the quality of the human environment. The Council on Environmental Quality is responsible for issuing guidelines for the implementation of this broad act.

### Executive Order 11593, Cultural Resources

On May 31, 1971, the President of the United States issued an Executive Order directing all federal agencies to locate and inventory all cultural resources under their jurisdiction to ensure that actions do not inadvertently affect significant cultural resources. This Order further directed agencies to consider the effects of actions authorized by federal permits or licenses on resources located on non-federal lands.

### American Indian Religious Freedom Act of 1978 (PL 95-341)

The American Indian Religious Freedom Act established federal policy to protect and preserve the inherent rights of freedom for native groups to believe, express, and exercise their traditional religions. These rights included, but are not limited to, access to sites, use

and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

### **Executive Order 13007, Indian Sacred Sites**

On March 24, 1996, the President of the United States issued an Executive Order mandating that in managing federal lands, each executive branch agency with statutory or administrative responsibility for the management of federal lands shall, to the extent practicable permitted by law, and not clearly inconsistent with essential public functions, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are required to maintain the confidentiality of sacred sites.

### **National Historic Preservation Act (NHPA) of 1966 (16 USC 470 et seq.)**

The NHPA established the Advisory Council on Historic Preservation (ACHP); authorized the Secretary of the Interior to maintain a NRHP; directed the Secretary to approve state historic preservation programs that provided for a SHPO; established a National Historic Preservation Fund program; and codified the National Historic Landmarks program.

Section 106 of the NHPA requires that federal agencies take into account the effects of their actions on properties that may be eligible for or listed on the NRHP, and afford the ACHP a reasonable opportunity to comment. To determine if an undertaking could affect NRHP-eligible properties, all cultural sites (including archaeological, historical, and architectural properties) that could be impacted by the undertaking must be inventoried and evaluated for inclusion in the NRHP.

The Section 106 review process (36 CFR 800) is implemented using a five-step procedure: 1) the responsible federal agency (which is the BLM) or the designated federal representative (as authorized by the BLM, may be the Licensee) initiates the Section 106 process through contact with the appropriate SHPO, establishes the APE, identifies other consulting and interested parties, and begins public involvement; 2) identification and evaluation of historic properties within the APE; 3) assessment of the effects of the undertaking on properties that are eligible for the NRHP; 4) consultation with the SHPO, concerned parties, and other agencies to resolve adverse effects and the development of an Agreement Document (Memorandum of Agreement or Programmatic Agreement) that addresses the treatment of historic properties, if appropriate; and 5) implementation according to the conditions of the Agreement Document. The Section 106 compliance process need not consist of all the steps above, depending on the situation. For example, if identification and evaluation result in the documented conclusion that no properties included in, or eligible for inclusion in, the NRHP are present within the APE, the process ends with the identification and evaluation step.

### **Criteria for Significance**

Decisions regarding the management of cultural sites hinge on determinations of their NRHP significance. To determine significance, the National Park Service has identified components that must be considered in the evaluation process. These include criteria for determining eligibility, historic context, and integrity.

Significance of cultural resources is measured against the following NRHP criteria for evaluation (36 CFR 60.4):

The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and,

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that has yielded, or may be likely to yield, information important in prehistory or history.

## Period of Significance

The concept of a period of significance as used in the evaluation process establishes the timeframe in which a property was associated with important events, activities, or persons; or the period in history when it attained the characteristics that qualify it for NRHP eligibility. Period of significance usually begins with the date events began giving the property its historic significance or the date of construction. Periods of significance may be as brief as a single year or they may span several years, and consist of beginning and close dates (National Register Bulletin 16A 1997).

## Application of the NRHP Criteria to Historic-era Properties

While historic-era properties may be found eligible to the NRHP under any of the above criteria, some criteria are more commonly relevant than others. Often, historic-era properties are found eligible under Criterion A, for a significant association with a historic event, or under Criterion C, for displaying distinctive examples of a particular architectural style. Potential significance is evaluated in direct relation to the contextual themes identified as being relevant to a particular region. A detailed description of the criteria and their application follows.

### Criterion A

For a historic-era property to be eligible under Criterion A, it must be found to be associated with specific important events (for example, primary exporter of cattle in the state) or important patterns of events (for example, development of irrigated farming or transportation). A building or property must not only be associated with a historic event, but also be adequately documented through an accepted means of research; speculative associations alone cannot confer eligibility. The significance of the documented association must then be demonstrable. In other words, the property's association with the important event must also be an important association in and of itself, not mere coexistence.

## Criterion B

For eligibility under Criterion B, a property must be associated with an important individual's productive life, and must be a property that is closely associated with that person. For instance, a property that was once owned or established by a prominent citizen, but was not their primary place of employment or habitation, or had no other known associations to the person, would not likely be found eligible under Criterion B. Determining associations with people considered important in local history would require a careful assessment of whether the property under investigation is the property that best represents that association.

## Criterion C

Significance under Criterion C usually stems from the ability of the property, or one of more of its buildings, constructed facilities or structures, to illustrate a subtype associated with the historic context and the period of significance. Just as importantly, the property should retain enough integrity to convey that association. Generally under this Criterion, a property will appear eligible because it is comprised of constructed features that exhibit especially fine style, craftsmanship, construction methods, or is a good representative of a relatively rare architectural or engineering style for the period.

## Criterion D

Eligibility under Criterion D hinges on the ability of the property, as contained in artifacts and objects, to further address issues of scientific importance to the period of significance. These data are primarily derived from archaeological deposits, and rarely buildings and structures themselves. Archaeological features or deposits may provide new information not available elsewhere regarding kinds of documented or undocumented activities. While constructed elements can sometimes provide important information regarding historic construction techniques, most of these techniques are well documented in both written and visual sources, and generally, would not yield new primary information.

## Historic Landscape Considerations

Research into historic landscape issues was guided by National Register Bulletin 30, Guidelines for Evaluating and Documenting Rural Historic Landscapes (National Park Service, 1999), the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes (1992), and the NRHP eligibility criteria. These guidelines and regulations, along with the developed eligibility considerations outlined below, provided a framework with which to conduct a preliminary assessment of the potential significance of the subject properties as historic vernacular landscapes. The evaluation of such landscapes should include the assessment of whether the property:

- Played an important role in the region's economic development during the period of significance;
- Is a rare example of a property type or the oldest example of its kind in the area;
- Is a good representation of a property within a particular historic theme;

- Comprises features that indicate unique innovations or adaptations in a specific area development;
- Retains the characteristics of a property, within the period of significance.

## District Considerations

A district derives its importance from being a unified entity resulting from the shared interrelationship of its resources or elements (National Register Bulletin 15). A district must be a definable geographic area that can be distinguished from surrounding properties by changes in scale, age, type and style; or by documented differences in the historic development of the district from surrounding properties. It is seldom, however, defined by the limits of current parcel ownership, or by planning boundaries. The boundaries of a historic district must be based upon a shared relationship among the properties constituting the district

## Integrity

Generally, integrity refers to the general character and feeling of the site and the degree to which it currently resembles its condition and setting during its period of significance. Historic integrity is composed of seven qualities: location, design, setting, materials, workmanship, feeling, and association (National Park Service, 1999). Assessment of the property in relation to these seven aspects requires an appraisal of whether subsequent changes in the property contribute to its historic evolution or alter its historic integrity from that of the period of significance.

Because of the importance of land, natural features, and vegetation, the seven qualities of integrity are applied differently to rural landscapes. This relationship involving patterns of spatial organization, circulation networks, and clusters is directly related to design and is strongly influenced by the cohesiveness of the rural landscape. Integrity of setting and design is composed of boundary demarcations, small-scale elements, vegetation, evidence of responses to the natural environment, continuing or compatible land uses, and activities that enhance integrity of feeling and association. Associated archaeological deposits may enhance the integrity if they provide evidence of activities no longer practiced.

## Assessing Overall Integrity

Generally, integrity is based on the condition of the overall property and its ability to convey significance. In assessing the overall integrity, it is necessary to consider the nature, extent, and impact of changes since the period of significance. Integrity also depends on the area's historic context. A property that retains elements such as field patterns and boundary makers that are not present at other properties in the vicinity may be deemed significant, despite the deterioration and loss of other constituents. Similarly, the loss of a few features usually does not affect the overall integrity of a resource, but the repeated loss of buildings and small-scale features may result in the cumulative loss of integrity. The greatest loss of historic integrity results from new construction, and incompatible land uses covering extensive acreage.

For archaeological sites, the remains of prehistoric or historic-era activities must be in the original location in which they were deposited, and must retain sufficient association either

with an historic event or prehistoric activity that they possess data that can address research issues of regional importance.

## Assessing Contributing And Noncontributing Resources

Buildings, structures, objects, and sites are classified as contributing or noncontributing based on their historic integrity and association with a period and area of significance. Those resources not present during the historic period, not part of the property's documented significance, or no longer reflecting their historic character are noncontributing.

## Prehistoric Archaeological Resources

Prehistoric archaeological resources consist of any material remains of human life or activities (for example, sites, features, or objects) that can provide an understanding of past human behavior (16 U.S.C. Section 470 pp.). Prehistoric sites within the project area could be considered significant and determined eligible for the NRHP if they possess integrity and have a reasonable amount of research potential, that is possess data that have the ability to address the following research issues established for the project:

- Geomorphology and chronology, which in part depend on the site's potential to yield data relevant to regional stratigraphic sequences, absolute dates, or to contribute to relative chronologies by virtue of stratigraphic relationships.
- Paleoenvironmental reconstruction and the ability of resources to contribute evidence directly relevant to reconstructing past environments.
- Environmental change and the presence of information relevant to the study of cultural responses to such change.
- Data contained in ground and flaked stone assemblages and its ability to contribute to our understanding of past techno-environmental and sociocultural systems.
- Information that provides insight into settlement patterns, population density, group size, group structure, and mobility.
- Data that may be used to further an understanding of exchange networks that existed between groups.
- Artifact assemblages associated with specific linguistic groups that may be used to infer migration and population patterns by these groups.

## Traditional Cultural Properties

Sites that can yield information about their role in the traditional and cultural activities of living people and their ancestors are potentially eligible for the National Register as Traditional Cultural Properties (TCPs). Their presence in the project area triggers the need for additional Native American consultation prior to the completion of environmental studies and before any mitigation of adverse effect by data collection is undertaken.

## Natural Setting

The proposed WPES Project is located in eastern Nevada, a region that is within the physiographic Great Basin as defined by Hunt (1967) and the floristic Great Basin outlined by Cronquist et al. (1972). North-south trending mountain ranges and intervening valleys characterize this portion of the Great Basin. Proposed and alternative power station locations and accompanying substations, access roads, railroad spur lines, and water pipelines and wells are located within Steptoe Valley, which is drained by the north flowing Duck Creek that empties into Goshute Lake. First, Second, and Third Creeks, Fitzhugh Creek, Big Indian Creek, and several smaller unnamed drainages also flow into Steptoe Valley from the Schell Creek Range. Goshute Creek and Cherry Creek form the major drainages from the Egan and Cherry Creek Ranges.

The proposed Thirtymile Substation near Robinson Summit is located at the interface between the Egan Range to the south and Butte Mountains to the north. The area is within the watershed of an unnamed northwest flowing drainage that empties into the northern end of Jakes Valley.

Steptoe Valley is bordered by the Schell Creek Range to the east and the Egan Range to the west. The western flank of the Schell Creek Range, bordering Steptoe Valley, consists primarily of older volcanic rocks comprised of rhyodacite, quartz, andesite, air-fall tuff, and related sedimentary rocks and welded tuff, whereas, the Egan Range is much more complex. The range is primarily composed of layers of shale, limestone, and dolomite with intrusive monzonite and quartz monzonite south and north of Monte Neva Hot Springs. Older volcanics similar to those of the Schell Creek Range also occur north and south of U.S. 50 within and in the vicinity of the proposed substation near Robinson Summit. Monte Neva Hot Springs as well as numerous unnamed springs are located along the west side of Steptoe Valley.

Project areas range in elevation from 5,488 feet above mean sea level (amsl) at the northern end of the project area to approximately 6,200 feet amsl at the southern end of Steptoe Valley. The proposed Thirtymile Substation is situated in the Egan Range on westerly facing slopes with elevations ranging from approximately 6,880 to 7,040 feet.

Varied vegetation can be found within Steptoe Valley. Mid-elevation alluvial fan slopes contain vegetation that is dominated by small sagebrush (*Artemisia arbuscula*). Big sagebrush (*Artemisia tridentata*), Great Basin wild rye (*Leymus cinereus*), green rabbitbrush (*Chrysothamnus viscidiflorus*), Indian ricegrass (*Achnatherum hymenoides*), and greasewood (*Sarcobatus vermiculatus*) form the dominant species at the distal end of the fans, with Baltic rush (*Juncus balticus*) located at the bottom of the fans in alkaline soil environments. Near Robinson Summit, within the Pinyon-Juniper woodlands, vegetation is dominated by pinyon pine (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*).

## Cultural Setting

The WPES project area and its vicinity are known to contain numerous traces of past human activity ranging from early Native American sites and artifacts, to the remains of early trails and transportation routes, historic-era mining, and ranching activities. Such materials can be

found at many locations on the landscape and represent the traces of human activities that in some cases extend as far back as 10,000-12,000 years before the present (BP).

## Prehistoric Setting

Although earlier archaeological manifestations pre-dating classic Paleo-Indian occupation of the Great Basin may have been identified (James and Zeier, 1982; Lyneis, 1982), such sites are controversial as to their dating and cultural associations, and none have been identified in or near Steptoe Valley. Paleo-Indian (or "Pre-Archaic") sites dating to as early as 11,000 BP are known from eastern Nevada such as those documented at the Ely Airport (BLM Report CRR 8111 [NV 040] 2005-1512), Sunshine Well (Jones et al., 1996) and Giroux Wash (Stoner et al. 2000b). One of the main characteristics distinguishing Paleo Period sites from other prehistoric cultural manifestations is the presence of fluted implements such as Clovis, Folsom, and Plano projectile point forms, crescent shaped implements, choppers, gravers, punches, and an assemblage of steep-edged scrapers, which are primarily unifacial.

Shifting land use patterns, subsistence systems, and the emergence of a wide variety of implement types mark the beginning of the Archaic Period or, in eastern Nevada, the Wendover/Early Archaic Period around 9,500 BP (Aikens and Madsen, 1986; Bryan, 1979; Elston et al., 1979; Jennings, 1986; Jones et al., 1996). Site locations from the earlier years of the Archaic suggest continued adaptations to lake shore environments as those seen in the Paleo Period (Jones, et al. 1996; Madsen, 1982, Stoner et al., 2000a) although there appears to have been an increase in the variety of implements and in the types of materials utilized. Projectile point styles consist of Stemmed, Pinto, and Lake Mojave types. However, unlike during the preceding Paleo Period, Archaic peoples seem to have inhabited a much more diverse landscape including not only valley floors and lake margins but cave sites and upland areas as well.

Further shifts in land use, subsistence, and technological systems occurred around 6,000 BP at the beginning of the Black Rock Period, possibly in partial response to a gradual and long-term decrease in yearly rainfall. During this time not only was there an increase in the number of occupation and activity sites scattered across the landscape, but these sites also indicate an increased utilization of upland zones and their associated floral and faunal resources. As during the earlier portion of the Archaic, remains of larger game tend to be found in archaeological contexts. Large side-notched Elko and Gatecliff point forms slowly replace the early Pinto and stemmed point forms.

Near the end of the Black Rock Period, Rose Spring and Eastgate series projectile points appear in archaeological sites (Stoner et al. 2000a), and represent introduction of bow and arrow technology. Other phases from the Middle Archaic, such as the South Fork Phase (Elston, 1986) begin to show evidence of increased populations, more diverse subsistence and technological patterns, and the first evidence of artistic expression in the form of ornaments and rock art (Elston, 1986; Heizer and Baumhoff, 1962; Thomas, 1983; Schaafsman, 1986). Sites tend to be larger and more numerous than in earlier periods. Milling equipment reflects the increased subsistence diversity and exploitation of various seeds such as those derived from the pinyon pine (Fowler, 1968; Thomas, 1983), and may be related to fairly dry conditions (Madsen, 1982).

A shift from the Middle and Late Archaic patterns is seen in the emergence of the Fremont “cultures”, Fremont/Parowan Period around 1600 BP, described by Marwitt (1986). The appearance of pottery sherds, traces of maize, and a well-developed pinyon gathering and processing technology indicate a dramatic shift from the gathering and hunting economy of the Archaic to a mixed economy including horticulture, providing for sedentary farmsteads and small villages (Marwitt, 1986).

Small villages, ceramics, and some reliance on horticulture characterized the Parowan Fremont culture. Although sharing similarities in design elements and methods of construction with the Anasazi vessels, ceramics of the Fremont differ in the types of temper and vessel form. Near the project area they have been found at the Mariah Site (26LN618) (Brooks et al., 1977) and at Panaca Summit (Elston and Juell, 1987). As rainfall, necessary for agriculture, became more unpredictable the Fremont appear to have abandoned agriculture in favor of a hunting-gathering adaptive strategy in the pinyon-juniper woodlands of western Utah and eastern Nevada, with a terminal date of around 650 BP (Wilde and Soper, 1999).

The arrival of *Neuwe*, Numic speakers and ancestral Shoshoni, in the area is marked by the presence of brown ware ceramics, twined and coiled basketry, and small side-notched projectile points. While the timing of their arrival and the area from which they moved is widely debated (see Madsen and Rhode, 1994), current evidence suggests that it may be around 1,000 B.P.

## Ethnographic Background

Ethnographically, the project area was inhabited by the Western Shoshone. The following provides a brief summary of the ethnographic information. A more detailed overview can be found in James (1981:160-210) and Bengston (2003).

### Settlement and Subsistence

The Western Shoshone lived in seasonal semi-nomadic groups that came together during the winter months. Often these camps were located near pinyon caches (Fowler and Liljeblad, 1986). Two ethnographic village locales appear to be located near Ely, on Duck Creek about 8 miles northwest of McGill, at Warm Springs (possible Monte Neva Hot Springs) along the west side of Steptoe Valley, Schellbourne, Egan Canyon, and at Cherry Creek (Bengston, 2003; Steward, 1938:121 and Figure 9)

Because of the presence of diverse ecological zones, subsistence involved the exploitation of various faunal and plant resources. Information on subsistence activities within Steptoe Valley primarily comes from Ely, where pine nuts were gathered in the Egan Range and across the valley in the Schell Creek Range, where they were cached for the winter. Rabbit drives were held immediately following the pine nut harvest (Steward, 1938:123).

A consultant of Steward indicated that prior to the arrival of Europeans, horticulture was introduced by peoples from the south. While limited in production it involved the propagation of corn, large blue pumpkins, and large white beans (Steward, 1938:122). The people of Egan Canyon, a natural travelway between Steptoe Valley and Butte Valley, were linked with peoples in both regions (Steward, 1938:146), and apparently obtained subsistence resources from both regions. For antelope drives they traveled west to Butte

Valley or south to Steptoe Valley (1938:147). Those from Ely went to Spring Valley near Cleveland for antelope drives and to Spring Valley and Snake Valley for rabbit drives, and also to northern Steptoe Valley near Cherry Creek (1938:122). Festivals involving dancing and gambling were conducted after the pine nut harvest, and involved local affairs followed by larger events held on Duck Creek in Steptoe Valley, at Ely, Cherry Creek, Cleveland, Baker, and White River Valley (1938:122-123).

### Political Organization

Western Shoshone families usually belonged to small, local geographic districts within the general expanse of Western Shoshone territory and were usually centered within a single valley or cluster of winter villages. These units tended to be stable, within areas with predictable resource availability, but were subject to change in more marginal environments. This organization led Steward to conclude that the political organization was a direct function of social and economic conditions (Steward, 1937), with regional groups named after prominent resources. For example, the people of Steptoe Valley were referred to as *Pa'anaihteen*, or "The people from up above" (Steward, 1938:121). Fowler indicated that such labels were not socio-political, but that the primary significance was as a signal to outsiders that people living in the 'rye-grass eater' area had that commodity to share. Therefore, it served as more of an economic function. (Fowler, 1980 in James, 1981:200). Headmen were generally restricted to periods of communal activity (Thomas et al., 1986:276).

Individual property was owned, however resources were considered to be communal property and ownership did not transfer to the individual until the resource was transformed into something of use. For example, sources of basketry material were not owned, but once harvested and formed into a basket the basket was then owned by the individual.

### Ideology

Other than a belief in animism as it relates to nature and the sun, no formal system of supernatural beliefs existed. Most important were the presence of power, a major part of Shamanism, and the art of healing (James, 1981:205). Shamen had the ability to cure specific ailments, use their powers for their own benefit, or had general curing abilities (Steward, 1941:257).

Round dances generally held throughout the Great Basin in the past or presently include the two (1869 and 1889) Ghost Dances, the Bear Dance, and the Sun Dance, the latter of which is important to the Western Shoshone. The dance originated in the Plains, around 1700, spreading to the Plateau region and then to the Wind River Shoshone around 1800, and from there to the Western Shoshone in Nevada (Shimkin, 1953:472). While varying from the Plains event, similarities were fasting by the dancers with the general objective being the promotion of health and the public good. Unlike the original, the dance also promoted the healing process (Shimkin, 1953; Jorgenson, 1986).

### Ceremonial and Historic Sites

Several areas within the vicinity of the proposed project were known to have ceremonial significance. Hot springs north of Ely (possibly referring to Monte Neva Hot Springs, among

others) were used for ritual purposes (Facilitators, 1980:3.19 in Bengston, 2003:119). Steptoe Mountain, the location of which is unknown, is associated with the Shoshone story about *Watoavic*, also referred to as *Si-ets*, a man made of stone who killed a number of Western Shoshone children (A. Smith, 1993:165 in Bengston, 2003:98). Two areas are of historic significance based upon events that occurred in the past. Both are known as massacre sites where the U.S. Cavalry destroyed villages located east and north of Ely in the 1860s. The exact locations of these villages, however, are not presently known (Facilitators, 1980:3.18 and 3.19 in Bengston, 2003:106).

## Historic Background and Setting

Marking the beginnings of the historic era in the White Pine County region is largely based on rather arbitrary temporal and cultural markers. Although contact between European and American traders and trappers and the ethnographic Shoshone had likely been taking place since the early decades of the 19<sup>th</sup> century at the very least, sustained contact between Native and Euro-American populations did not occur until the 1850s and 1860s (Bailey, 1966; James, 1981; Patterson et al., 1969). One of the first expeditions was in 1853, and was organized by Lieutenant Colonel E. J. Steptoe, who sent a detachment into Nevada led by John Reese to search for a possible route for the troops that were wintering in Salt Lake City (Patterson et al., 1969:86-87; Morgan, 1943:224-227 in Vlasich, 1981:216). During the winter of 1859 another expedition was led by Captain James H. Simpson. A part of this mission Howard Egan, a Mormon scout, explored possible routes for Chorpenning's California Mail Company (Morgan, 1943:233; and Mordy and McCaughey, 1968:226 in Vlasich, 1981:216). During this time, the influence of the U.S. Government in particular became increasingly felt among the Shoshone and within a short period of time in the 1850s, their traditional lifeways and subsistence patterns were largely ended. Informal settlements had been established near American ranches, mines, and other areas of economic and industrial activity (Malouf and Findlay, 1986).

As the population of Euro-American settlers and entrepreneurs increased in the White Pine County region, particularly following the Ruby Valley Treaty, several predominant economic patterns and general themes of historical development emerged during the middle of the 19<sup>th</sup> century. Those themes of particular relevance to the White Pine County area include mining, ranching and agriculture, and transportation and communication.

## Mining

The economic and social development of eastern Nevada during the 19<sup>th</sup> century is more associated with the emergence of the mining industry than any other economic activity. In fact, the existence of Nevada as an independent state is due primarily to the wealth of the Comstock Lode, which helped convince the U.S. Congress and President Lincoln to create this new territory from the western section of Utah in 1861. Desperately needing additional sources of revenue for the Union cause during the Civil War, Lincoln saw to it that Nevada was declared a U.S. state in 1864 (Hulse, 1972). Following the Civil War and throughout the latter decades of the 19<sup>th</sup> century, mining continued to be the single most important economic endeavor throughout the state, although the boom and bust cycles intrinsic to the industry kept the population of much of Nevada at a very low level until the early 20<sup>th</sup> century.

Mining in White Pine County, was organized into districts in 1869. Mining began as early as 1859 with the discovery of silver ore on the south side of Pleasant Valley in what became known as the Eagle District, but was also known as the Pleasant Valley, Kern, Regan, Red Hills, and Tungstonia Districts (Smith, 1976:82). The mineral wealth of this district included silver, gold, and copper; some of the early claims went to employees of the Overland Mail Company who apparently found some deposits during the course of their duties on the Pony Express route (White 1871:81 in Smith, 1976:82; Lincoln, 1923; Hill, 1916). Other early mining districts in the county included the Cherry Creek District (also known as Gold Canyon and Egan Canyon District); operations were supported by a 20-stamp mill located near the Egan Canyon Pony Express Station (Hill, 1916; Schrader, 1931; Smith, 1976).

While districts such as Cherry Creek and Gold Canyon (combined with Cherry Creek in 1872) were the scenes of extensive and initially exciting activity, they quickly faded. Lesser known and far less profitable mining districts closer to the proposed WPES Project are the Nevada District in the western foothills of the Schell Creek Range, near the southern end of Steptoe Valley; the Granite (Steptoe) District covering the east slope of the Egan Range from Water Canyon south to Steptoe; the Duck Creek District, which includes all of the Duck Creek Range and the south end of the west slope of the Schell Creek Range; the Cleve Creek District in the central part of the Schell Creek Range; the Taylor District on the west slope of the Schell Creek Range from the Summit to Steptoe Valley; and the Telegraph District, which includes both slopes of the Egan Range and all of Telegraph Canyon, which was named for the first transcontinental telegraph line (Smith, 1976:36-50). Of indirect importance to the project was the Robinson District, west of Ely, which is discussed in greater detail below. Mining continues today throughout the region and while it is still an important contributor to the financial and social well being of the area, it no longer constitutes the economic foundation of White Pine and surrounding counties.

### Ranching and Agriculture

The mineral strikes in Nevada after 1859 were the impetus for significant agricultural and livestock development in the state. As mining flourished, it required support systems to feed its burgeoning population. As the mining activity lulled, or rich areas were depleted, ranching and agriculture continued for those desiring to settle in the area (James, 1981).

The earliest known organized farming in Nevada occurred when John Reese and his party from Salt Lake City arrived in the Carson Valley in June of 1851 and planted barley, corn, turnips, and watermelons, which they sold to emigrants on the way to California (Elliott, 1987). However, the first cattle to enter the region accompanied the Joseph Walker party on his return trip to Salt Lake in 1834 (Elliott, 1987). Subsequent emigrant parties brought livestock through Nevada as well, and often sold exhausted animals to settlers along the way (James, 1981).

Although irrigated agriculture was in its infancy around this time, the demand for fresh fruits and vegetables induced some farmers to plant row crops and orchards. In the Steptoe, Spring, and Snake Valleys of White Pine County, earthen ditches were used to divert water from streams and springs, making irrigated agriculture possible. With only one percent of its land being irrigated by the late 19th century, however, Nevada was not generally known for its produce, but rather for its grazing land and stock feed (True, 1913; Elliott, 1987, Southern Pacific, undated).

Similar to mining, cattle grazing in White Pine County has also followed boom and bust cycles. In 1874, the first full year branding and registration of cattle was required, over 100,000 head were recorded in this region; by the early 1880s, as mining activities began to “bust”, just over 32,000 head were registered. These numbers fluctuated considerably, but by 1902 mining activities once again increased and so did the cattle, with 150,000 being registered in the area (James, 1981). Those numbers would decrease over the next few years. The demand for agricultural products, in general, would fluctuate statewide throughout the 1910s, however demand was again revitalized during the course of World War I (Elliott, 1987; James, 1981).

Agricultural activity was more or less stable throughout the ensuing decade, but underwent economic hardship during the Depression of the 1930s. With various ranches and farms statewide requiring federal aid, farmers and stockmen suffered extreme hardship from 1930 until the start of World War II (Elliott, 1987).

Nevada agricultural production since the late 1940s has generally increased in spite of occasional setbacks. Livestock have continued to make up the largest share of total agricultural output. Sheep production has never completely recovered from the decline of the 1930s. Before the Depression, there were over one million sheep in Nevada. During the 1930s, that number decreased to half that amount. By the 1980s, sheep numbered a little more than 100,000 throughout Nevada (James, 1981; Elliott, 1987).

### **Early Transportation and Communication**

As with virtually every other economic endeavor in Nevada, industries dealing with transportation and communication activities were established, at least initially, in reaction to the booming mining industry in the mid-1800s. Emigrant and shipping routes were established early on for settlers and California-bound gold miners but in large part these were intended only to provide passage through the state, not bring settlers to stay. Again, as the mines boomed, Nevada became just as much a destination as it was a hindrance to western travel.

As mentioned previously, beginning in 1855 Major Howard Egan of the Mormon Battalion first traversed and three years later surveyed a route through central Nevada for Major George Chorpenning. In 1859, Capt. James Simpson led an expedition through the region resulting in the establishment of the first route through central Nevada, from Camp Floyd, Utah to Genoa, Nevada (Vlasich 1981:228; Welch (1979:6 in Bowers and Muessig, 1982:19). Although this route, originally known as the Egan-Simpson or Central route, proved unsuitable for a railroad, the route was suited to wagon traffic, and was quickly adopted by George Chorpenning’s mail line, which used mules. Informally known as the “Jack-ass Mail” the operation was first established along the Humboldt River (Goetzmann 1966:293 in Bowers and Muessig, 1982). By December of 1859, George Chorpenning had built several stations along the new route (Godfrey, 1994), and one of these was located at Schellbourne (Townley, 1986:53). At the same time, Russel, Majors and Waddell, owners of the Central Overland California & Pikes Peak Express Company (COC&PP Express Co.), had been actively soliciting Congress for the establishment of a 10-day mail service by Pony Express from Sacramento to St. Joseph, Missouri, while at the same time laying out and establishing stations along the same route used by Chorpenning (Townley, 1986:7-8; Godfrey, 1994). In the wake of cash flow problems, Chorpenning’s mail contract was terminated in May of

1860, and was promptly awarded to the COC & PP Express Co. Russel, Majors, and Waddell hoped by demonstrating “that the central route offered the best opportunity for mail or stage...the firm could inherit the (proposed route of the) Pacific railroad” (Townley, 1986:8). Between Salt Lake City and Placerville, California, Chorpenning’s posts were taken over by the COC & PP Express Co., and others were added with whatever building material was available – rock, timber, adobe, or sod (Townley, 1986:8). This new subsidiary venture, more commonly known as the Pony Express Mail Service began in April of 1860. Within and in the vicinity of the proposed WPES Project a route remount station was established in the spring of 1860 at Egan Canyon and Chorpenning’s station at Schellbourne (called the Schell Station by early residents) was enlarged (Townley, 1986:52-53). The route is currently overlain by a gravel road extending west from U.S. 93 at Schellbourne and is bisected by the proposed water supply pipeline ROW.

Operations of the Pony Express enterprise were not without problems, the first of which arose shortly after the system was put in place. Following, and apparently as a result of the Pyramid Indian War, raids by local Native American groups on Pony Express stations and riders occurred throughout Nevada and Utah. At the Egan Canyon station, a natural area for an ambush and a point where one of Chorpenning’s riders was attacked in March of 1859, the Pony Express and local Native peoples came into conflict several times. Cavalrymen killed almost twenty Shoshone warriors in July of 1860, and in October the Shoshone stormed the station killing the two station tenders. Similar hostilities occurred at Schellbourne where the station was destroyed in June of 1860, supposedly by the same group that had attacked the Egan Canyon station. These disruptions in service were not only costly because of the loss of revenue, but required that the stations be rebuilt as small fortresses. Additional blows to the operation occurred during the winter of 1861, when deep snows resulted in numerous delays. This disruption in service coupled with the overwhelming debt and criminal charges against William Russell for stealing bonds from the Interior Department to support and maintain the Pony Express, and completion of the Overland Telegraph line on October 24, 1861, finally resulted in the failure of the enterprise (Godfrey, 1994). Although short-lived, 1860-61, the Pony Express demonstrated the importance of a Central route, which became even more important following the seizure of Butterfield’s southern route by the Confederate army in January of 1861 (Townley, 1986:13).

Following the collapse of the Pony Express, competition for government contracts for the transportation of mail and passengers over the Central route ensued between the COC & PP Express Co. and Butterfield’s Overland Mail Company. As a compromise, Congress awarded the COC & PP Express Co. the eastern portion of the route from the Missouri River to Salt Lake City. There, post and passengers were transferred to the Overland Mail Company, which completed the first run to San Francisco on July 18<sup>th</sup>, 1861 (Hafen, 1926:165ff; Townley, 1986:13).

A map of the Overland Stage and Pony Express routes across Nevada (Townley, 1986:10-11) indicates that the Overland Stage followed the same route as the Pony Express had through Steptoe Valley. When the Overland Stage began daily service they established Schellbourne as the district headquarters, with stonemasons from Utah constructing a headquarters building, wagon shops, and stock barns between 1862 and 1863. Townley (1986:54) notes:

A crew of twenty blacksmiths, wheelwrights and workmen operated shops capable for rebuilding stages from the

ground up. Storage yards kept the division's replacement equipment and winter supply of "mud wagons" ready for use. A paint shop could replace the gleaming exterior of the line's Concord coaches. Harness was repaired by experienced leather craftsmen and stored in elaborate warehouses. A five-acre garden kept the staff in vegetables and a farm crew harvested thousands of tons of hay, plus wagonloads of grain annually.

As the transcontinental railroad neared completion, overland mail and coach service retreated, and even the Overland Telegraph was re-routed along the railroad, following the joining of the Central Pacific and Union Pacific in May of 1869.

With the completion of the Transcontinental Railroad and the coming of the Central Pacific to the north of White Pine County, overland transportation took a dramatic turn. The largely isolated nature of eastern Nevada was rapidly coming to an end and new markets for the industrial and agricultural/ranch produce of the region soon emerged. Although the Central Pacific was situated well to the north of White Pine County, at first wagon roads and then the Nevada Northern Railway in late September of 1906 linked Ely to this route and provided easy transportation to other population centers such as Cherry Creek Station, Currie, and Elko (James, 1981; Myrick, 1992). Additional rail lines and spurs were established extending the route east to Copper Flat and another spur to McGill. Throughout the majority of its existence the line primarily carried copper ore to the processing plants at McGill. Roadways began to proliferate and improved conveyance of goods, services, and people across the landscape. Mack and Sawyer (1965) provide an excellent illustration of these developments in their study, which demonstrates a rapid increase not only in rail lines but in roadways and in the establishment of population centers in eastern Nevada between 1865 and 1910).

### **Nevada Northern Railroad**

As with many short-line railroads in Nevada, their formation was the result of mining, and in this case provided a means for the movement of blister copper from the rich deposits of the Robinson Mining District west of Ely. Early mining in the vicinity of Ely began in 1867 with the gold discoveries by Thomas Robinson, whose name the district is now known. The name Ely was the result of Frederick Thomas of Oakland, California, who named the emerging town of Ely after Smith Ely, a Vermont smelter operator and then president of Selby Copper Mining & Smelting Co. However, it was copper that made Ely famous and it all started with Mark Requa who was looking for additional business for the struggling Eureka & Palisade Railroad out of Eureka. He sent J.B. Stevens to look for new mineral deposits to the east of Eureka, who reported the extensive porphyry copper ore deposits in Copper Flat, just east of Ely. Subsequently Requa purchased the Star Pointer and Ruth Mines in 1902, and combined these into the White Pine Copper Company in 1903. With new technology it became apparent that the crystalline form of copper could be mined economically, and Requa looked for a method of shipping the commodity to market. While the Eureka & Palisade Railroad was only 75 miles to the west, it presented two obstacles. First, it was of narrow-gauge construction, which at the time was inferior to the wider standard gauge. Second, to construct a route from Eureka would mean traversing four mountain passes. It seemed logical that the most cost-effective route was north through

Step toe Valley, via a nearly flat route with easy grades to a connection with the Central Pacific at or near Wells (Myrick, 1992:13-114).

William Hood, a Southern Pacific engineer, was selected to lead the construction of the route. He obtained the expertise of Adolph Judell, who had just finished working on a Southern Pacific route north of Chico, California, to survey the route. Judell selected a route down the center of Step toe valley, which was supported by Hood among disapproval from others who believed that a route higher upslope would be preferable. Judell defended his selection by pointing out that an upslope route would be subject to intense channeled runoff from the higher elevations, whereas a route through the lowlands would be in an area where the flow would be spread out and less intense (Myrick, 1992:114).

With an influx of capital from W. Hickie Smith, a member of the Bullfrog Mining Syndicate, and approval from Southern Pacific for a connection the Nevada Northern Railway (NNR) was formally incorporated in June of 1905, and became part of the Nevada Consolidated Copper Company (NCCCco). Delayed by the severe winter of 1905-1906 the route south from Cobre (Spanish for Copper) reached Currie in the spring, Cherry Creek Station in July, and was completed to Ely in late September of 1906.

The route was extended 10 miles east into Copper Canyon and the copper mines west of Ely, which required the construction of two tunnels. It is said these 10 miles cost as much to construct as the entire 140 miles from Cobre to Ely. Other additions included a route to McGill, which was used to transport high school students to Ely, and a nine-mile Hiline built in 1907 to bring ore to the concentrator upslope of McGill.

While the processing and transporting of copper ore by far made up the bulk of the business of the tonnage shipped by the company, passenger service and commercial freight also contributed to its economic success in the early years of operation. However, with improved highways, public use declined and passenger service was suspended in July of 1941.

Before the route to the mines and McGill could be completed, the Guggenheim interests purchased sufficient stock to obtain working control of the NCCCco. S. W. Eccles became the new president of both organizations and with the infusion of additional capital the smelter planned for McGill was doubled in size. In 1932, Kennecott Copper gained control of NCCCco, forming the Nevada Consolidated Copper Corporation to run properties in Nevada, Arizona, and New Mexico. Late in 1942 the Nevada properties were reorganized under the name of the Nevada Mines Division of Kennecott Copper Corporation. With declines in the economies of scale brought about by declining copper prices, Kennecott donated the East Ely depot and yards, the McGill depot, and 32 miles of track to the City of Ely, which formed the White Pine County Historical Railroad Foundation. The depot and rail yards are currently listed on the NRHP and the foundation is in the process of listing these facilities as a National Historic Landmark (Myrick, 1992:133-134). However, the significance of the NNR is not just related to its infrastructure, but the connection with the Robinson Mining District and the part it played in the early development of the district that has been referred to as the richest mining district in Nevada History (Elliott, 1987:226).

Another use of the NNR was in 1908, when this appears to have been the route of the Great Race. The event was sponsored by the New York Times and featured an automobile race

from New York City to Paris. According to Southwell (2006), the route went south through Steptoe Valley following the NNR, through Ely, and then on to Tonopah.

### Highway Development and the Lincoln Highway

As the 20<sup>th</sup> century progressed, railroads remained the primary means of moving people and goods within and through Nevada, but the automobile was fast becoming a major player on the transportation scene. Tasker L. Oddie, who became Nevada governor in 1911, could see the developing importance of the automobile and one of his first official acts was to authorize the State Engineer to utilize convicts for road construction. Although this plan eventually failed, it established the concept and priority of building modern roads throughout the state. However, by 1914, only 262 miles of Nevada's 12,812 miles of existing roadway were paved and Nevada had a long way to go to provide for the automobile.

An exception was the establishment of the Lincoln Highway in 1913, which was one of America's first transcontinental automobile routes, beginning in Times Square in New York City and ending at the Palace of Legion of Honor in San Francisco. This was the vision of Carl Fisher, the founder of the Presto-O-Lite Company that made headlights for automobiles. He, along with help from Henry Joy of Packard Motor Car Company and Frank Sieberling of Goodyear Tire and Rubber Company formed the Lincoln Highway Association in 1913. At first the route was called the "Coast to Coast Rock Highway" but following input from Henry Joy, the name was changed to the Lincoln Highway in honor of President Abraham Lincoln. However, the motives varied among the founders. They included the desire to build an appropriate memorial to the fallen President, as well as the desire to grow their automotive businesses (National Park Service 2004).

Americans viewed the emergence of the Lincoln Highway, and the automobile as a manifestation of a modern equivalent of the Oregon Trail or as an equivalent of freedom from travel via the Transcontinental Railroad. The highway and automobile freed the populous to travel and enjoy the spectacles and all of their glamour thorough the entire United States without constraints. In 1913 Carl Fisher led a group of 19 automobiles from Indianapolis to reconnoiter a route to the Pacific Coast. He insisted that the route taken would not necessarily be the one chosen for the Lincoln Highway, but state and local governments worked to improve routes just in case. For example, Nevada spent \$25,000 in road improvements and several events were held at each stop where the entourage was wined and dined by high-ranking political figures, including the governor of Nevada (National Park Service 2004).

Several important events occurred during the early years of the highway. They included the first Army Transcontinental Motor Convoy in the summer of 1919 and the official marking of the route in 1928, when Boy Scout troops placed 3,000 concrete markers bearing the Lincoln Highway logo (an "L" in a rectangular graphic emblazoned in red, white, and blue), a bronze medallion of President Lincoln, and a blue directional arrow along the length of the highway (National Park Service 2004).

While politics played a role in the final selection of the route, it primarily was determined by geography. Although not the only transcontinental route in the early 20<sup>th</sup> century, it was the best known. The modern route of Interstate 80, the route of the immigrant trail that follows the Humboldt River, is a far superior route compared to the central Nevada route,

which crosses several mountain passes exceeding 7,000 feet elevation. However, in Utah the early route of the Lincoln Highway was primarily determined by the geography. The Great Salt Lake Desert blocked the way west from Salt Lake City, until limited funds were available for construction of a raised roadway across the barren salt flats. Because of this, the early route went around the south end of the desert to Ely. However, the popularity of this route began to decline after 1919 when the State of Utah abandoned their commitment to complete the Lincoln Highway's Goodyear Cutoff at the southern tip of the Great Salt Lake Desert in favor of a 40 mile long route to Wendover, which became known as part of the Victory Highway.

The Lincoln Highway Association formerly abandoned the Ely route for the Wendover route with the stipulation that Nevada build an 80-mile route south from Wendover linking the new and old routes. The final blow to the route through White Pine County was in 1927 when the Lincoln Highway Association abandoned the route through Ely for the Wendover route. As a result, Nevada built an 80-mile route south to link up with the Lincoln Highway south of County Road 18 north of Ely. By the time the route was completed in 1930, the more direct Victory Highway (U.S. 40) along the Humboldt River Valley had been improved sufficiently to capture most of the traffic traveling across the Great Basin.

Additional alterations to the route were made in the 1920s. Large portions of the route between Ely and Eureka were completely relocated northward during the early 1920s and are currently followed by U.S. 50. Another change in the route is just west of Schellbourne Pass, where there is a split in the road, with the early 1913 route descending to Schellbourne Ranch, and the right (north) branch being an upgraded route established in 1919 (Franzwa, 2004:8). However, except for the route to Wendover, which was completed in 1930, the route through Steptoe Valley has remained in its original alignment established in 1913.

One original rest stop, Magnuson Ranch, remains in Steptoe Valley. The house that served as a rest stop beginning in 1913 is still standing, but is no longer occupied. The 1915 Road Guide describes the ranch as a place to obtain "Meals, lodging, gas, oil, drinking water, radiator water, camp site." In 1924 "telephone" had been added to the guidebook (Franzwa, 2004:8)

By the mid-1920s the named routes overlapped and were poorly routed. Therefore, in 1925 and 1926 the American Association of State Highway Officials and the U.S. Bureau of Public Roads under took the task of identifying and marking the various east-west transcontinental routes into a grid of nine major routes numbered U.S. 2, 20, 30, 40, 50, 60, 70, 80, and 90. The Lincoln Highway was designated U.S. 30 for most of its length. However, it retained its popular identity as the Lincoln Highway until 1956 with the passage of the Federal Aid Highway Act and development of the modern interstate system.