

grazing. Different allotments are grazed at different times of the year and at different intensities. Section 3.8, Range Resources, provides additional detail about grazing allotments.

TABLE 3.13-1: GENERALIZED LAND USES IN THE STUDY AREA

Land Use Category	Acres*	Percent	Number of Road Crossings
Grazing Allotment	303,600 -340,400	93.6 - 94.4	
Mining districts	27,900 -44,600	8.0 - 12.4	
Agriculture	5,200 – 9,300	1.6 - 2.6	
Urban/ Industrial	1,300 – 2,800	0.4 – 0.8	
Transportation and Access:			
Paved Roads			14
Dirt Roads			202
Total Crossings			216

**Rounded to the nearest 100 acres. Land use percentages do not add up to 100 due to overlap of lands used for both grazing allotments and mining districts. Ranges reflect the different lengths of the alternative routes.*

Sources: GIS analysis prepared by EDAW, Inc. using Stantec and Nevada Ownership 100K GIS database (Land Use categories). Road crossings prepared by EDAW, Inc., based on data provided by Stantec, Preliminary Route Selection Road access Exhibit, September 29, 1999.

There is a significant amount of overlap between lands within grazing allotments and mining districts. Mining districts are the second largest land use in the project area, representing approximately 8.0 – 12.4% of the study area. Not all lands within the mining districts are actively mined, and they only indicate generally the potential for extractive activities in these areas. Within the mining districts, there are a number of active mining claims.

An active mining claim is a pre-existing, legal right to explore for mineral resources, and is filed annually with the BLM and counties in which they are located. There are approximately 122 active mining claims in the study area of which approximately 70 active claims are within or near the project ROW (Hirschman 2000). Existing large-scale mining operations, such as open pits and tailings, are counted as industrial uses under the urban/industrial land use category.

Significantly smaller amounts of land within the study area are used for agriculture (1.6 - 2.6%), including irrigated and non-irrigated crop lands, pasture, and range lands. These agricultural uses are largely contiguous with privately owned land in the project area. Some of the largest tracts of agricultural land occur in northern Eureka County near Interstate 80, as well as in central Eureka County north of the Town of Eureka and adjacent to Highway 278.

Urban/industrial uses constitute a very small proportion of the land uses within the study area (0.4 – 0.8%). These urban uses include development areas in the town of Crescent Valley, Eureka, Ely and McGill. Industrial uses include the open pits and tailings of the Cortez Mine.

FIGURE 3.13-1: LAND OWNERSHIP STATUS
[11 X 17 INSERT; MUST START ON ODD PAGE]

FIGURE 3.13-1: LAND OWNERSHIP STATUS
[11 X 17 INSERT; MUST START ON ODD PAGE] ---- BACK

There are paved and dirt roads dispersed throughout the area. As shown in Table 3.13-1, there are over 200 road crossings in the study area (i.e., 14 paved roads and an estimated 202 dirt roads). Major paved highway crossings in the study area include the Interstate 80 highway and U.S. Highways 50 and 93, and State Routes 278, 306, and 892. In addition, two railroad lines would be crossed by the project near Interstate 80 along Segment A.

BLM LAND USE AUTHORIZATIONS

The Legacy Rehost 2000 Database located at the Nevada BLM State Office in Reno, Nevada, indicates that the BLM has 221 land use authorizations in the study area, comprising approximately 49,260 acres (BLM 2000)¹. These land use authorizations are primarily ROWs for transmission lines, roads, telephone lines, and pipelines. Other land use authorizations include recreation or public purpose leases, airport leases, and material sites for road construction.

Land use authorizations in the study area are primarily held by the Idaho Power Company, the Nevada Department of Transportation (NDOT), SPPC, White Pine and Eureka counties, Nevada Bell, and the BLM. However, many land use authorizations are also held by other entities, including road ROWs belonging to private individuals and telephone or transmission line ROWs belonging to smaller telecommunications companies.

MANAGEMENT PLANS AND POLICIES

Use of federal public land in the project area is planned and regulated by the BLM, and uses of privately owned lands are regulated by the counties of Eureka, Elko, Lander, and White Pine. This section describes the applicable land use plans and policies within the project area, including BLM Resource Management Plans and county land use plans as they relate to the project.

BLM Resource Management Plans

BLM Resource Management Plans (RMPs) are long-range, comprehensive land use plans that are intended to provide for multiple uses and identify planning objectives and policies for designated areas. The planning objectives are implemented through activity plans, such as allotment management plans, wildlife habitat management plans, and wild horse herd management area plans. The RMPs also provide standard operating procedures (SOPs) which are inherent to the implementation of any federal action on public lands, such as completing environmental analysis before project development.

The project would cross through three BLM planning areas: Shoshone-Eureka, Elko and Egan. Applicable land use objectives and policies from these RMPs are summarized below.

Shoshone-Eureka RMP

The Shoshone-Eureka planning area contains 4.4 million acres of public land in north-central Nevada administered by the Battle Mountain Field Office (BLM 1984a). The area includes three principal towns: Austin, Battle Mountain, and Eureka. It encompasses most of Lander and Eureka counties and a portion of Nye County. RMP management objectives related to land tenure adjustments and utility corridors (as related to the project) are listed below.

¹ Authorizations were calculated by providing the BLM State Office with township, range, and section data (from Stantec, Inc. GIS data) for the 3-mile wide study corridor. The database provided land authorizations by section. However not all authorizations would be traversed by, or adjacent to, the project ROW, making the number and size of the authorizations appear high. In addition, only a small portion of certain sections fall within the project area. Authorizations within these sections were also included in the database, also making the number and size of authorizations appear high.

Land Tenure Adjustments

- Increase opportunities for economic development by moderately increasing the amount of privately owned land within the planning area consistent with the objectives of the RMP.
- Adjust the land tenure pattern through the disposal of land from public to private holdings as requested by private citizens consistent with the objectives of the RMP.

Utility Corridors

- Ensure a system for transmission of utilities through the planning area by establishing an east-west and north-south network of utility corridors;
- Designate 112 miles of utility corridors, which include existing transmission lines, and identify an additional 167 miles of planning corridors.
- Require applicants for use of a corridor to locate new facilities proximate to existing facilities, except where considerations of construction feasibility, cost compatibility, resource protection, or safety are over-riding.
- Minimize adverse impacts to the environment by concentrating compatible rights-of-way in designated corridors that avoid sensitive resource values.

Elko Planning Area RMP

The Elko RMP is a long-range plan to manage public lands within the Elko planning area in north-central Nevada (BLM 1986). The planning area consists of three planning units, the North Fork, Buckhorn, and Tuscarora, which cover approximately 5.9 million acres in the western half of Elko County and northern portion of Lander and Eureka counties. Over 3.1 million acres are public lands administered by the BLM. Relevant land use management objectives related to land and realty, utility corridors, and access are summarized below.

Lands and Realty

- Allow disposals, land tenure adjustments, and land use authorizations.
- Make public land available by sale to meet community expansion needs, and to dispose of acreage that is difficult and uneconomic to manage.
- Identify public land for transfer through exchange.

Corridors

- Identify designated corridors and planning corridors in coordination with other multiple-use objectives.
- Designate 243 miles of ROW corridors, including 109 miles of low visibility corridor designation along Interstate 80.
- Identify 130 miles of planning corridors for future facilities.

Access

- Initiate procedures to acquire legal access for routes that would enhance opportunities to use public resources and provide for public land administration.
- Acquire legal access for 60 roads (242 miles) considered high priority for management of all resources.

Egan Planning Area RMP

The Egan RMP is a 20-year plan to manage 3.8 million acres of public land in east-central Nevada, managed by the Ely Field Office of the BLM (BLM 1984b). The majority of the Egan planning area is located in White Pine County, with portions in Nye and Lincoln counties. The RMP focuses on three

resource issues: rangeland management, realty actions, and wilderness study areas (WSA). Included in realty actions is a discussion of utility corridors. The overall objective of this plan is to provide a balanced approach to land management, protecting fragile and unique resources, while not overly restricting the ability of other resources to provide economic goods and services. A summary of the management objectives for realty actions is provided below. Objectives for WSAs are provided in Section 3.14.

Realty Actions

- Dispose of lands to provide for more effective management of the public lands in the planning area. Land disposals should not be in big game or upland game habitat or in wild horse herd management areas. All land disposal would be done in a planned and orderly manner and would not adversely affect threatened or endangered species, destroy or degrade wetlands or riparian areas, or lead to the modification of floodplains.
- Identify two existing utility corridors, one running north-south and one running east-west, and designate two other planned corridors, one running north-south and one running east-west. The actual route would be established after environmental analysis is completed for the right-of-way, and each corridor would be 5 miles wide to provide opportunities for multiple transmission facilities and selection of routes that minimize environmental degradation in a cost-effective manner. Applicants for use of a corridor would be required to locate new facilities proximate to existing facilities except where considerations of construction feasibility, cost, resource protection, or safety are over-riding.

BLM's utility corridor policies are analyzed in more depth in Chapter 5, Resource Management Plan Amendments.

County Land Use Plans and Policies

Land use in the project area is also governed by four counties. A description of the general land uses within Eureka, White Pine, Lander, and Elko counties is provided below, as are relevant land use plans and policies.

Eureka County

Land use patterns within Eureka County evolved from economic activities such as mining and agriculture. The greatest land use in the county is agricultural open space, comprised of designated grazing allotments. Approximately 2.4 million acres (90% of lands) are used for cattle and sheep grazing and pasture, as well as for crops such as hay or barley. Mining districts represent the next largest land use designation in the county. Superimposed over these allotments and mining districts, the U.S. Department of Defense has designated certain areas with the county as special use airspace for military training (Eureka County 1997).

The majority of Eureka County is sparsely populated, and most of the residential development is associated with agriculture and ranching. The majority of lands within the county boundary fall under the management authority of the BLM and the US Forest Service. The County of Eureka manages primarily privately owned land in and around the Town of Eureka, as well as a checkerboard pattern of private land in the northern portion of the county.

One of the largest tracts of privately owned land in the county is located in Boulder Valley, north of Interstate 80. Lands in this area, encompassing approximately 530 square miles, are primarily used for agriculture, livestock grazing, mining, and outdoor recreation. Two of the largest gold mining operations in North America, Barrick and Newmont, are located in this area. Other major private land holdings in other areas of the county occur south of Palisades at the northern end of Pine Valley.

Eureka County has four principal towns: Eureka, Diamond Valley, Crescent Valley, and Beowawe. The Town of Eureka is the largest; it has a population of approximately 1,800 and is the County Seat. The commercial core of Eureka occurs primarily at the intersection of US Highway 50 and State Route 278. Surrounding the commercial core are primarily residential land uses with other mixed uses interspersed. The residential areas contain a mixture of conventional housing, modular homes, and mobile homes. A number of historic buildings and homes related to historic mining activities are also located in Eureka (Eureka County 1997).

The Land Use and Public Lands element of the General Plan was last updated on 1998, and formally adopted into the Eureka County Master Plan in June, 2000 (personal communication with John Hutchings, Public Lands Department, March 5, 2001). The General Plan recognizes six basic types of land use categories in Eureka County:

- Urbanized Areas;
- Permanent Open Space;
- Open Space and Appropriate Associated Uses;
- Agriculture Only, Associated Housing;
- Agriculture, Mining, Limited Housing; and
- Agriculture, Mining, Very Limited Housing.

The proposed project segments within Eureka County are located primarily in the land use category Agriculture, Mining, Very Limited Housing. Eureka County has no adopted zoning ordinance.

Eureka County Master Plan (1997)

The Eureka County Master Plan is a comprehensive, long-term general plan for the physical development of the county, and serves as a basis for the development of the county into the foreseeable future.

The Eureka County goals and policies related to utilities are listed below.

- Goal 16.0: To achieve the efficient use of energy in the county land use pattern, transportation systems, building forms, and consumption patterns.
- Policy 16.1: The county must work closely with all utility providers so that utility services conform to adopted plans, services are on-line when needed, and utility extensions are not used to create a different land use pattern.
- Utility System Recommendations: Future utility improvements should be planned to be consistent with proposed land use patterns (Eureka County 1997).

White Pine County

White Pine County has 11 general land use designations: Open Range; Low, Medium, and High Density Residential; Mobile Home; Commercial; Industrial; Public Facility/Recreation; Public Land Transfer; Brownfield; and Federal Reserve. The majority of the land outside of the established communities is designated as Open Range or Federal Reserve. The proposed SPPC route alternatives would be within these land use designations.

Lands within the Open Range designation comprise the vast majority of the land within the county and include lands administered by the BLM, as well as those under private ownership. Open Range lands are utilized primarily for grazing or domestic livestock, although other uses include mining, recreation, and wildlife habitat. The intent of the Open Range designation is to maintain and encourage the resource and

open space uses and value of the land. The corresponding zoning district includes the Open Range District and the Ranch Estates Districts, both with a 5-acre minimum parcel size requirement.

White Pine County Land Use Plan (1998)

The White Pine County Land Use Plan is intended to guide development of land resources in the county through the year 2017. Sustaining environmental values and promoting expansion and diversification of the regional economy are important goals of the plan. The White Pine County Land Use Plan describes land use issues within the county, as well as within specific planning areas of Ely, Baker, Lund, McGill, Preston, Ruth, and the Ely-McGill corridor. The plan also provides a number of land use goals and implementation strategies; however, it contains no goals or strategies related specifically to utilities or utility corridors, other than a provision for the efficient use of community infrastructure (Goal 4.0).

White Pine County Public Land Use Plan (1998)

The White Pine County Public Land Use Plan provides a coordinated land use planning effort among the county, the BLM, and the US Forest Service. The plan was developed by the White Pine County government to guide the use of public lands and resources within the county, and provides a number of policy statements related to water, minerals, agriculture, recreation, wildlife, transportation, cultural resources, wild horses, forest management, and public lands identified for non-federal ownership. In general, the public land policies encourage mineral exploration, opportunities for livestock grazing, and other agricultural uses; encourage dispersed recreational opportunities; and support a diversity of wildlife species and habitats. Related to access and transportation, the plan encourages route locations for transportation, utilities, and communication corridors to be planned in harmony with other resources on public lands. The Public Land Use Plan applies to public lands designated as Open Range and Federal Reserve in the White Pine County Land Use Plan.

Lander County

Lander County contains five land use designations: Residential, Commercial, Office Commercial, Industrial, and Agriculture (Lander County 1997). Outside the towns of Austin, Battle Mountain, and Kingston, lands are primarily used for agriculture or open space. The portions of the project that would be located within Lander County would pass through lands designated as Agriculture and are within the A-3 Zoning District (Lander County 1997). The A-3 Zoning District, described as the Farm and Ranch District, allows for 20-acre minimum parcel sizes. A number of uses are permitted in this district, including single-family homes, farms and farm-related buildings, recreational and educational uses, as well as utility serving centers, provided they are not located closer than 200 feet from land classified in the Residential District.

Lander County Master Plan (1997)

The Lander County Master Plan is a comprehensive, long-term general plan for the physical development of the county and the communities of Austin, Battle Mountain, and Kingston. It sets forth policies and action programs for the county to follow when making decisions concerning the county's future. The Master Plan has been formulated for a 15-year planning horizon and covers such topics as conservation of natural resources, historic preservation, land use, population and housing, economics, recreation, community design, and public facilities and services.

The land use goals of Lander County are to create growth patterns consistent with designated types, amounts, and intensities of land uses coordinated with cost-effective public service delivery, to develop and utilize vacant lands within Lander County communities, and to preserve agricultural and ranching lands and associated uses. The Master Plan has no land use policies related specifically to utilities or utility corridors, although Policy P4-9 does encourage the provision of buffer zones between major industrial, commercial, and residential areas, as well as the protection of agricultural lands.

Lander County Revised Policy Plan For Federally Administered Land, Draft (1999)

This plan addresses federal land use management issues directly by establishing a set of principles or specific guidelines. Although the plan has no land use policies related specifically to utilities or utility corridors, Lander County supports the concept of Multiple Use Management as an overriding philosophy for management of the federally administered lands. The policies adopted provide for the management and utilization of federally administered lands based on multiple use and sustained yield concepts, and in a way that would conserve natural resources.

Elko County

The primary land uses in Elko County outside of populated areas are agriculture, dispersed recreation, and mineral exploration. The portion of the project that would be located in Elko County would pass through lands designated as Parks, Recreation, and Open Space. This area also lies within the county's Open Space Zoning District.

The Parks, Recreation, and Open Space land use designation consists of both public and private lands used by the public for parks and outdoor recreation. It also includes natural resource and wildlife preservation areas for the public use and enjoyment (Elko County 1996). The Open Space Zoning District is intended to protect agricultural areas from urban development of residential subdivisions, and to serve as an open space area around the more intensive urban uses of Elko (Elko County 1976). Permitted uses include farming and ranching activities, as well as noncommercial seasonal recreation activities. Utilities or public service facilities, when operating requirements necessitate its location, are conditional uses within the Open Space District.

Elko County Master Plan (1996)

The Elko County Master Plan is a 15- to 20-year plan to guide the physical growth of Elko County and the cities within it. The general land use goal stated in the Elko County Master Plan is to enhance existing land uses and to manage and guide future development to maintain the living and working qualities of Elko County. Land use policies relevant to the project include the following:

- Land Use Policy 3.1-11 encourages the county to protect existing utilities, public facilities, and transmission lines, and to provide for their future extension to serve all sectors of Elko County.
- Land Use Policy 3.1-6 encourages land uses that are harmonious with existing natural resources, scenic areas, vistas, and sight lines.

The public services, utilities, and energy element of the plan contains only goals and policies related to city services. No specific goals or policies related to long-distance transmission lines are included in this element.

3.13.3 ENVIRONMENTAL CONSEQUENCES

This section examines the project's potential effects on land use and access. The primary land use issues associated with the project are related to potential physical conflicts with land uses or restriction of access (e.g., conflicts with agricultural operations, grazing areas, mining operations, urban/industrial lands, or transportation routes). Other issues examined in this section include the project's potential conflict with the applicable land use and resource management plans of federal, state, and local agencies.

SIGNIFICANCE CRITERIA

Project construction and operation activities would be considered to have a significant impact on land use and access if they would:

- Permanently preclude a permitted or current land use over a substantial area.
- Permanently displace existing, developing, or approved urban/industrial buildings or activities over a substantial area (i.e., residential, commercial, industrial, governmental, or institutional).
- Conflict with an existing right-of-way.
- Substantially conflict with applicable general and regional plans and/or approved or adopted policies, goals, or operations of communities or governmental agencies.

ENVIRONMENTAL IMPACTS - COMPARISON OF ALTERNATIVES

Impacts Common to All Route Alternatives

The following section analyzes potential impacts to land use and access that would be common to all of the route alternatives.

Construction-related Land Disturbance

Table 2-5 in Chapter 2 estimates the amount of temporary land disturbance that would be associated with the project's construction. Given the fact that only 20% of the land in the project area is privately owned, construction-related land disturbance would occur on a relatively small amount of privately owned land, would be revegetated after construction, and thus would be a less-than-significant impact.

Impacts to Land Uses on Private Property

The project would be located in sparsely populated areas containing little or no development. Impacts to existing or developing residential, commercial, industrial, governmental, or institutional uses are generally expected to be low given the infrequency of these uses in the project area and the relatively far distance between these uses and the route alternatives. In the few locations where the transmission would cross on or near privately owned residential properties, mining operations, or other sensitive land uses, the specific locations of towers would be discussed with landowners during right-of-way acquisition. Towers would be located to minimize impacts to land holders, land uses, and access roads.

As discussed in Section 3.15, Social and Economic Values, SPPC would compensate private land owners for use of a right-of-way easement across their properties. The compensation would be calculated by an independent real estate appraiser who would estimate a fair market value for the use of the easement, based on the location, size, and uses of the property, as well as negative impacts on surrounding property, if appropriate.

Table 3.13-2 identifies the generalized land uses in the 3-mile wide study area corridor, breaking them down by segment and route alternative. Table 3.13-3 identifies the number of private parcels that would be crossed by each of the route alternatives. Table 3.13-4 identifies the main types of developed land uses that would be within 1,000 feet and within 1.5 miles of the centerline. A detailed list of private developments within the study area is provided in Appendix D.

TABLE 3.13-2: GENERALIZED LAND USES IN THE STUDY AREA*

Segment	Total Area	Public (BLM)		Private (non-BLM)		Grazing Allotment		Mining Districts		Agriculture		Urban/Industrial	
	Source:	(BLM 1999)		(BLM 1999)		(Nevada BLM GIS)		(Nevada - Bureau of Mines & Geology)		(USFWS - Gap Analysis)		(USFWS - Gap Analysis)	
	Acres	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%	Acres	%
A	36,454	6,691	18.4%	29,762	81.6%	16,172	44.4%	1,543	4.2%	1,487	4.1%	0	0.0%
B**	113,732	88,576	77.9%	25,156	22.1%	113,732	100.0%	21,732	19.1%	1,254	1.1%	1,477	1.3%
C	68,217	32,363	47.4%	35,855	52.6%	68,217	100.0%	6,661	9.8%	777	1.1%	0	0.0%
D	32,962	32,924	99.9%	38	0.1%	32,962	100.0%	225	0.7%	0	0.0%	0	0.0%
E	138,246	133,942	96.9%	4,304	3.1%	137,828	99.7%	25,048	18.1%	2,568	1.9%	0	0.0%
F	36,743	35,179	95.7%	1,564	4.3%	36,743	100.0%	5,700	15.5%	1,125	3.1%	0	0.0%
G	33,568	32,500	96.8%	1,068	3.2%	33,568	100.0%	1,241	3.7%	0	0.0%	0	0.0%
H	34,206	31,167	91.1%	3,039	8.9%	34,206	100.0%	3,151	9.2%	2,585	7.6%	0	0.0%
I	58,183	54,013	92.8%	4,170	7.2%	58,183	100.0%	8,767	15.1%	2,525	4.3%	50	0.1%
J	81,376	78,292	96.2%	3,084	3.8%	81,376	100.0%	3,741	4.6%	352	0.4%	1,264	1.6%
Route Alternative													
Crescent Valley													
(a)	360,055	295,251	82.0%	64,804	18.0%	339,774	94.4%	42,724	11.9%	6,743	1.9%	2,790	0.8%
(b)	360,693	293,918	81.5%	66,775	18.5%	340,412	94.4%	44,635	12.4%	9,328	2.6%	2,790	0.8%
Pine Valley													
(a)	347,502	271,961	78.3%	75,541	21.7%	327,221	94.2%	27,878	8.0%	6,266	1.8%	1,314	0.4%
(b)	348,140	270,628	77.7%	77,513	22.3%	327,859	94.2%	29,789	8.6%	8,851	2.5%	1,314	0.4%
Buck Mountain													
	324,293	251,288	77.5%	73,005	22.5%	303,594	93.6%	36,992	11.4%	5,184	1.6%	1,264	0.4%

* The study area comprises a 3-mile wide corridor along Segments A through J.

** Land use acres and percentages for the L and K re-routes are included within Segment B.

□ Impact Land Use-1: Right-of-way Acquisition and Potential Loss of Property Value

Over the long-term, the land directly under the towers would be removed from private use and future development (see Table 2-6 for acreage required for towers). Some restrictions on land use within the right-of-way would also be necessary to avoid conflicts with the transmission line. The transmission line could also potentially interfere with land uses on properties adjacent to the right-of-way (e.g., cultivation of row crops) and, thus, potentially reduce property value.

□ Mitigation Measure Land Use-1

Land use restrictions within the right-of-way and potential loss of property value would be considered during the right-of-way acquisition process, and SPPC would pay appropriate compensation to private land owners, as discussed above and in Section 3.15, Social and Economic Values, thereby mitigating this potentially significant impact to a less-than-significant level.

TABLE 3.13-3: PRIVATE PARCELS AND LANDOWNERS WITHIN THE PROJECT ROW

Segment	Total Number of Parcels	Total Number of Owners	Number of Developed Parcels/Owner	Type of Development*
A	12	6	1 (APN 004-220-11): Newmont Gold Co.	1 mobile home, 1 fixed residence, and 1 mining area
B**	32	21	2 (APN 007-660-03, -07): Tehama Holdings Inc.	3 mobile homes and 3 travel trailers
C	28	20	0	n/a
D	0	0	0	n/a
E	25	5	0	n/a
F	1	1	0	n/a
G	0	0	0	n/a
H	7	7	0	n/a
I	7	6	2 (APN 007-340-13): John and Nancy Minoletti, (APN 009-090-10): Rapone Family Trust	1 ranch house (Minoletti) 2 ranch houses (Rapone)
J	8	6	0	n/a
Total	120	72	6	
Route Alternative				
Crescent Valley				
(a)	60	40	See Segments A, B and I above	See Segments A, B and I above
(b)	67	47	See Segments A, B and I above	See Segments A, B and I above
Pine Valley				
(a)	56	39	See Segments A and I above	See Segments A and I above
(b)	63	46	See Segments A and I above	See Segments A and I above
Buck Mountain				
	73	37	See Segment A above	See Segment A above

* EDAW GIS analysis using Stantec helicopter reconnaissance (July 2000) and Parcel Database

** Includes private parcels within the L re-route. No private parcels are within the K re-route.

Source: SPPC 2000. Ownership Information for 100 ft. from Centerline.

TABLE 3.13-4: DEVELOPED LAND USES AND DISTANCE FROM CENTERLINE

Segment	NUMBER OF UNITS BY LAND USE AND DISTANCE CATEGORIES							
	Residential		Commercial		Industrial		Public	
	1000 ft	1.5 mi	1000 ft	1.5 mi	1000 ft	1.5 mi	1000 ft	1.5 mi
A	1	6		1		1		
B*	11	68		1	1	4		1
C		5						
D						1		1
E		3						
F		2						
G		2				1		
H	3	74	1	3				1
I	3	29		1	1	3		3
J	12	154		1	1	1		1
Total	30	343	1	7	3	11	0	7
Route Alternative								
Crescent Valley								
(a)	27	261	0	4	3	10	0	5
(b)	30	333	1	7	3	9	0	6
Pine Valley								
(a)	16	198	0	3	2	7	0	5
(b)	19	270	1	6	2	6	0	6
Buck Mountain								
	13	168	0	2	1	2	0	1

* includes development near the L and K re-routes

Source: EDAW GIS analysis from Stantec helicopter reconnaissance (July 2000)

Agriculture

Impacts to agricultural crops are generally expected to be low given the infrequency of row crops in the study area. Specific locations of transmission line towers on private ranch, range, or pasturelands would be discussed between the utility and the landowner to minimize interference with agricultural operations. Soil disturbance or compaction of soils on cultivated lands is expected to be short-term (i.e., during construction). A number of studies have been conducted on the effects of electric and magnetic fields on food crop production and yields (e.g. AEP 1979, PSU 1985b). No significant adverse effects on plants or crops have been identified.

Although the transmission line towers would remove some grazing allotment land, the amount of land would be relatively small and dispersed along the entire length of the corridor and along numerous grazing allotments. Grazing could continue unrestricted beneath the transmission lines. Therefore, the project would result in minimal impacts to grazing and agriculture. Section 3.8, Range Resources, provides a more detailed analysis of the impacts to livestock grazing.

Potential Impacts to Mining

Section 3.1, Geology and Minerals, provides an analysis of potential interference with active mining operations and mining claims. Some of the information from Section 3.1 has been summarized here to consider the land use perspective. All of the route alternatives would cross mining districts (see Table 3.13-5). However, very few of these districts are currently being mined, and this land use category only generally indicates areas with mining potential.

TABLE 3.13-5: ACTIVE MINING CLAIMS IN THE STUDY AREA

Segment	In or adjacent to ROW	Out of ROW	Total
A	3	4	7
B*	49	20	69
C	1	1	2
D	1	0	1
E	7	11	18
F	0	0	0
G	0	2	2
H	2	6	8
I	7	6	13
J	0	2	2
Total	70	52	122
Route Alternative			
Crescent Valley			
(a)	59	34	93
(b)	61	38	99
Pine Valley			
(a)	12	15	27
(b)	14	19	33
Buck Mountain			
	11	18	29

Source: Hirschman, 2000.

*Mining claims within Segments L and K are included in Segment B due to the size of the claims. L would contain 1 claim in the ROW and K would contain 7 claims in the ROW and 2 out.

Within these mining districts are approximately 122 active mining claims in the study area. Active mining claims are concentrated along Segments B, E and I. Segment B is unique to the Crescent Valley (a) and (b) route alternatives, while Segment E is unique to the Buck Mountain route. Segment I is common to

all of the route alternatives except Buck Mountain. The major gold companies with active claims in the study area are Placer Dome, Newmont Gold, Homestake Mining, Cortez Gold, and Oro Nevada Exploration. There are also a few individuals and some small gold exploration companies that have active claims in or near the ROW.

Through early communications with the existing mining companies, SPPC made efforts to site the route alternatives to avoid active mining claims and potential mineral development areas. If there are any mining rights associated with private lands or active claims on public lands, SPPC would attempt to evaluate and compensate for the loss of potential mining profits based on available information (e.g., existing records, site evaluations, etc.) in order to utilize the land to construct the proposed transmission line. As an alternative to compensation for loss to potential mining profits, SPPC and the landowner or claim holder may negotiate a settlement covering relocation of the transmission line or specific towers so as to present no substantial limitation to the future development of any mining rights or claims (personal communication with John Berdrow, SPPC, March 22, 2001). Compensation for the loss of potential mining profits and the conditions for relocation would be site specific and handled on a case-by-case basis.

Potential Impacts to Transportation Routes

As shown in Table 3.13-6, all route alternatives would cross existing paved and unpaved dirt roads, as well as two railroad lines along Segment A. Final design of the selected route would place transmission towers to avoid conflicts with transportation routes. There would be a minimum of 26 vertical feet between the transmission lines and roadways, allowing adequate vertical clearance for most vehicles.

During transmission line stringing phases, it may be necessary to erect temporary structures over major roadways to position untensioned lines away from potential ground-based conflicts. Access beneath these structures would remain largely unrestricted, with few closures or other alterations to existing transportation routes occurring. The Nevada Department of Transportation (NDOT) would require a permit for every crossing of an NDOT ROW (NDOT 2000). SPPC would apply for these permits upon selection of the preferred route alternative. In some cases, the NDOT may require temporary road closures for some construction activities. This decision would be made during the NDOT permit application process, and would take into account traffic volumes and safety considerations. On major highways, these temporary closures (if required by the NDOT) would be coordinated with the Nevada Highway Patrol. For these reasons, the project would have no substantial adverse effects to transportation routes.

As discussed in Chapter 2, numerous existing dirt access roads have been identified for possible use during construction of the transmission line. Some of these dirt roads would require improvements to enable construction vehicles and large equipment to access the construction areas. In areas where existing roads closely parallel the new right-of-way, 30-foot wide spur roads could be cleared temporarily to provide access from the existing roads to the tower installation sites.

However, in most areas, a centerline travel route would be cleared to provide construction equipment access to the tower sites. The centerline travel route would be 12 to 15 feet wide in most places, but it would be expanded to about 30 feet wide in certain areas to allow for vehicle passing areas and turnouts. The centerline travel route and temporary spur roads would be revegetated and reclaimed after construction, as described in Chapter 2. About once a year, two SPPC line inspectors would ride ATVs along the centerline travel route to inspect the transmission line. Use of ATVs for annual inspections would, over time, create a 12-foot wide two-track path next to the transmission line.

TABLE 3.13-6: ROAD CROSSINGS BY SEGMENT AND ROUTE ALTERNATIVE

Segment	Number of Paved Road Crossings	Number of Dirt Road Crossings	Total Road Segment Crossings
A	1	7	8
B*	1	37	38
C	1	17	18
D	0	8	8
E	1	45	46
F	0	11	11
G	1	9	10
H	1	12	13
I	2	23	25
J	6	30	36
Total	14	199	213
Route Alternative			
Crescent Valley			
(a)	11	117	128
(b)	11	120	131
Pine Valley			
(a)	11	105	116
(b)	11	108	119
Buck Mountain			
	9	99	108

Source: EDAW, Inc., based on data provided by Stantec, Preliminary Route Selection Road Access Exhibit, September 29, 1999.

* includes the L re-route crossings. The L re-route would cross dirt roads (only) in approximately 3 locations. The K re-route would cross no roads.

The improvements to existing access roads, the centerline travel route and temporary spur roads would not likely alter the underlying land use, nor have a substantial effect on existing development, given the large number of passable dirt roads that currently exist in the project area for such activities as recreational 4WD use or general sight-seeing. In addition, recreational travel on newly accessible roads not would not substantially conflict with existing development given the sparsely developed nature of the project area.

In general, the Crescent Valley (b) route alternative would cross the greatest number of paved and dirt roads, while the Buck Mountain route alternative would cross the fewest (see Table 3.13-6). SPPC would coordinate with responsible agencies and property owners to acquire the appropriate approvals (e.g., temporary use permits) to use and, in some cases, to improve the access roads. SPPC would restore existing access roads to a pre-construction condition unless the upgraded road is requested by the property owners or the responsible agency. Issues related to specific access road improvements, authorization for use and level of reclamation needed would be described further in the COM Plan.

Potential Impacts to BLM Land Use Authorizations

All of the segments would traverse or be located adjacent to many existing BLM land use authorizations (see Table 3.13-7). These are primarily in the form of rights-of-way for other transmission lines, roads, telephone lines, water facilities, recreation or public purpose leases, airport leases, and material sites for road construction. In most cases, the proposed project would cross over or parallel the existing ROWs with little or no interference. Specific locations of towers would be designed to avoid these land use authorizations by spanning them with adequate distance between towers. This would reduce potential safety issues with crossing oil and gas pipelines, or material sites. SPPC would also properly ground nearby fences in order to minimize potential electrical induction situations (this and other health and safety issues are discussed further in Section 3.10). For these reasons, no substantial adverse effects to BLM land use authorizations are anticipated.

TABLE 3.13-7: BLM LAND USE AUTHORIZATIONS IN THE STUDY AREA

Segment	No. of Land Use Authorizations	Largest Land Holder(s) in Terms of Acreage	No. Land Use Authorizations Crossed	Land Holders Crossed
A	17	AT&T, Nevada Bell, NDOT, SPPC, Williams Communication	2	NDOT, Williams Communication
B*	37	Cortez Gold Mines, Eureka & Lander Counties, Nevada Bell, NDOT, SPPC, Santa Fe Pacific, Southwest Gas Corp.	5	Santa Fe Pacific, NDOT, Wells Rural Electric, Lander County, Southwest Gas Corp.
C	8	SPPC, NDOT, Hale W. Bailey, Edward R. Smith	2	NDOT, Southwest Gas Corporation,
D	6	NDOT, Nevada Bell, Wells Rural Electric	3	Citizens Communication, Wells Rural Electric, Mobile Oil Corporation
E	13	White Pine County, Mt. Wheeler Power Inc., NDOT, Placer Dome, Inc., Wells Rural Electric	6	BLM, NDOT, Nevada Bell, Wells Rural Electric, White Pine County, Mount Wheeler Power
F	10	BLM, Eureka County, NDOT	1	Eureka County
G	14	Federal Highway Administration, Nevada Bell, NDOT	3	NDOT, Nevada Bell, Mt. Wheeler Power
H	31	Eureka County, Mt. Wheeler Power Inc., NDOT	2	NDOT, Mt. Wheeler Power
I	62	Eureka County, Mt. Wheeler Power Inc., Nevada Bell, NDOT, White Pine County	9	Mt. Wheeler Power (3X), NDOT (2X), Nevada Bell (2X), SPPC, White Pine County
J	44	Idaho Power Co., Mt. Wheeler Power Inc., Nevada Bell, NDOT, SPPC, Nevada Division of State Lands, White Pine County	9	NDOT (3X), Mt. Wheeler Power Co., Nevada Bell (2X), FHA, White Pine County
Total**	221**		30**	

Source: BLM Legacy Rebase 2000 database

* Land use designations within Segments L and K have been included in Segment B. The L re-route would cross 2 land use authorizations (Lander Co., and Southwest Gas Corp.). The K re-route would cross no authorizations.

** To avoid double counting, column totals have been adjusted to account for authorizations occurring near, or crossing, multiple segments

As indicated in Table 3.13-7, the Nevada Division of State Lands holds a BLM land use authorization near Segment J related to the operation of the State of Nevada Department of Prisons’ maximum security prison, which is located approximately four miles northwest of Hercules Gap. The Segment J portion of the transmission line would be approximately 6,000 feet from the prison fence and approximately 900 feet from the prison property at its closest point. Construction and operation of the transmission line would not significantly impact land uses at the prison. However, for security purposes, the State Department of Prisons has asked to be notified in advance of transmission line construction or survey activity near the prison.

☐ Impact Land Use-2: Security Concerns about Construction and Surveying Activities near Prison

To address security concerns related to project construction and survey activities near the State’s maximum security prison north of Segment J, the following mitigation measure would be required to address this concern.

Segment A

Approximately 82% of the land within the Segment A study area is privately owned and 18% publicly owned. Within the ROW of Segment A, there are 12 privately owned parcels held by 6 landowners (see Table 3.13-3). One of these parcels is developed with a mobile home, a fixed residence, and a mining area (these range from 820 to 1,800 feet from the centerline). The proposed transmission line would parallel two existing transmission lines (120 kV and 69kV) for the entire length of Segment A, approximately 250 to 325 feet apart from the nearest line. Impacts and mitigation measures related to land use and access along Segment A would be essentially the same as those previously discussed.

Segment J

Along Segment J, the proposed transmission line would run parallel to and north of SPPC's existing 230 kV transmission line; the distance from the existing line would vary between 300 and 1,100 feet apart. Approximately 96% of the land within the Segment J study area is publicly owned and 4% is privately owned. Most residences near Segment J are in the Cross Timbers subdivision. Of these units, 4 houses and 8 mobile homes would be located within 1,000 feet from Segment J. Segment J would be located approximately 500 feet from the nearest housing unit in this subdivision (APN 005-581-01). The existing 230 kV transmission line is located 200 feet from this parcel. One vacant parcel of the subdivision is currently traversed by the existing 230 kV line and would be approximately 80 feet away from the proposed transmission line (APN 101-270-10).

While future development may occur on this and other vacant lots in the Cross Timbers subdivision², residential growth in this portion of the county is slow, and there are no other future residential or commercial developments planned for this area (personal communication with Richard Foreman, White Pine County Consulting Engineer and Surveyor, June 8, 2000). Future development, if any, in the vicinity of Segment J would be set back at least 500 feet from the line. For these reasons, future development would not be significantly affected by Segment J.

There are two privately owned and occupied residences relatively near the Gonder substation. One is 750 feet north of the substation, and is owned by SPPC (APN 10-320-04). The other occupied residence is located 1,850 feet south of the substation and is owned by a private individual (APN 10-330-01)³. As neither the transmission line nor the substation improvements would traverse or restrict access to these properties, there would be no substantial adverse impact to land use or access in this area. A maximum security prison operated by the State of Nevada Department of Prisons is located to the north of Segment J, but would not be significantly affected by the transmission line. This is discussed further on page 3.13-17 in the paragraph below Table 3.13-7 and under Impact Land Use-2.

North of Ely, Segment J would cross the northern edge of one undeveloped BLM land use authorization: the White Pine County Airport Lease for Yellend Field. The authorization is approximately 520 acres in size, and is located in Township 17 North, Range 63 East, and Section 13. Segment J would be located approximately 2.2 miles north of Yellend Field, which is operated by the White Pine County Airport Authority. The Airport Authority is in the process of considering lengthening the north-south runway from the current 6,000 feet to 10,000 feet to accommodate larger jets. This expansion may change the approach glide slope in the Instrument Landing System (ILS) for the air traffic approaching Ely from the north. The proposed transmission line along Segment J would not affect the White Pine County Airport ILS glidepath, as the new line would be 2.2 miles north of the airport and also would be placed on the north side of SPPC's existing 230 kV line. The design of the transmission line near the airport will be reviewed and approved by the Federal Aviation Administration.

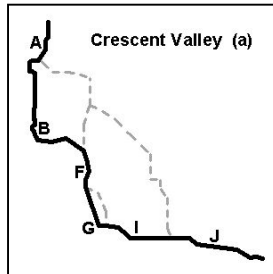
² The Cross Timbers subdivision is approximately 20% built-out, with the remaining lots vacant (personal communication with Richard Foreman, White Pine County Consulting Engineer and Surveyor, June 8, 2000).

³ Letter dated May 22, 2000 from John Berdrow, SPPC, to EDAW, re: Gonder Substation Properties.

Alternative-Specific Impacts

The following discussion provides further information about the potential impacts to land use and access by route alternative. Because each of the route alternatives differ by one or more segments, the potential impacts that are alternative-specific are best discussed in terms of their differentiating segments.

Crescent Valley (a) Route Alternative



The Crescent Valley (a) route alternative is comprised of Segments A, B, F, G, I, and J. In addition to the impacts common to all route alternatives discussed above, specific impacts for the Crescent Valley (a) route alternatives are listed below by their general location (segment).

Segment B

Along Segment B, there are 32 privately owned parcels within the proposed transmission line right-of-way. Two of these parcels contain 6 mobile homes (i.e., 3 single-wide trailers and 3 travel trailers). These trailers are approximately 60 feet to 170 feet from the project centerline. If one of the Crescent Valley route alternatives is selected, SPPC would coordinate with property owners during the right-of-way acquisition process to discuss the need to move the trailers out of the right-of-way (refer to previous Mitigation Measure Land Use-1), thus mitigating this impact to a less-than-significant level.

Segment B would also be about 0.5 mile to the east of the Cortez Gold Mine. Segment B would be routed to avoid the current Cortez mining operations. Segment B could, however, conflict with expansion plans for the Cortez mining operation, as discussed in Section 3.1, Geology and Minerals. SPPC would coordinate with Cortez Gold Mine's operating company to resolve potential conflicts as described previously. The new transmission line along Segment B would parallel an existing transmission line for approximately 38 miles. The distance of separation between the existing line and the new line would be 220 feet for most of the length.

K and L re-routes (along Segment B)

The K and L re-routes were identified as possible ways to avoid sensitive resources along Segment B. The L re-route would be located on public and private lands. The only development within 1.5 miles from the centerline of the L re-route is an industrial mining operation and a related equipment yard (approximately 1 mile and 0.5 mile away, respectively). The K re-route would be located on public lands with no residential, commercial, industrial, or public land uses near it. For these reasons, the L and K re-routes would have no discernable effect on land use.

Segment F

Segment F would not conflict with any existing developments, as there are no known buildings or facilities within 1,000 feet of the proposed centerline.

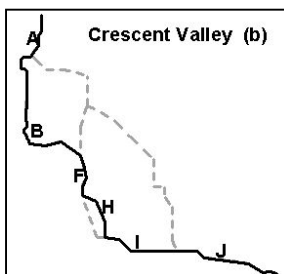
Segment G

In the Segment G study area, the only development includes 2 residential units (2 ranch houses with 3 outbuildings) and 1 active gravel pit (see Table 3.13-4). The transmission line would be approximately 1,300 feet away from the residential uses. None of these uses would be within 1,000 feet of the project.

Segment I

Segment I would parallel existing transmission lines for its entire length, including SPPC's 230 kV line and a 69 kV line between 250 feet and 1,200 feet away. The only developments within 1,000 feet from the centerline of Segment I are 2 fixed homes, 1 mobile home, and an active gravel pit. One ranch house approximately 450 feet away from the centerline. Segment I would be located approximately 2.2 miles north of the Town of Eureka.

Crescent Valley (b) Route Alternative

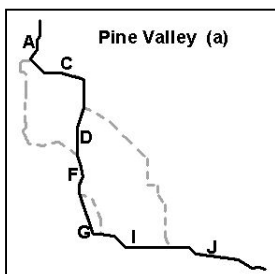


The Crescent Valley (b) route alternative is comprised of Segments A, B, F, H, I, and J. It follows a nearly identical alignment with the Crescent Valley (a) route, except that it uses Segment H rather than Segment G, traversing the east side of Whistler Mountain rather than the west. The Crescent Valley (b) route shares the same potential impacts to land use and access associated with Crescent Valley (a) route, except it would avoid the Segment G impacts described above. The potential land use and access impacts associated with Segment H are described below.

Segment H

Developments within 1,000 feet of the centerline of Segment H include 2 fixed homes, 1 mobile home, and one commercial agricultural shop for a ranching operation. However, none of these are within the proposed right-of-way.

Pine Valley (a) Route Alternative



The Pine Valley (a) route alternative is comprised of Segments A, C, D, F, G, I, and J. It follows a similar alignment to the Crescent Valley (a) route, except that it uses Segments C and D instead of Segment B. In addition to the potential impacts common to all route alternatives described previously, the Pine Valley (a) route would involve potential impacts to land use and access along Segments C and D, as described below.

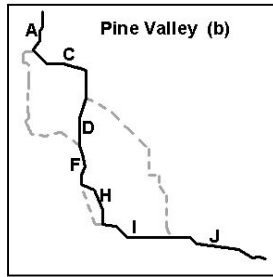
Segment C

The nearest residential unit along Segment C would be approximately 1,900 feet away from the centerline. There are no buildings in the proposed right-of-way. There are 2 active mining claims in the Segment C study area — one within or adjacent to the right-of-way and one outside of the right-of-way (see Table 3.13-5). Potential conflicts with mineral development would be addressed as explained previously in this section under “Potential Impacts to Mining” and in Section 3.1 Geology and Minerals.

Segment D

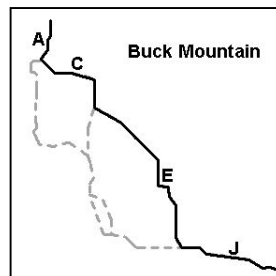
There are no known developments within 1,000 feet of Segment D. There is one mining claim within or adjacent to the proposed right-of-way.

Pine Valley (b) Route Alternative



The Pine Valley (b) route alternative is comprised of Segments A, C, D, F, H, I, and J. It follows a nearly identical alignment with the Pine Valley (a) route, except that Pine Valley (b) uses Segment H rather than Segment G, traversing the eastern side of Whistler Mountain rather than the west. The Pine Valley (b) route alternative would have largely the same potential impacts as Pine Valley (a) route. This route alternative would avoid any potential impacts associated with Segment G, and shift them to Segment H, described previously.

Buck Mountain Route Alternative



The Buck Mountain route alternative is comprised of Segments A, C, E, and J. It shares the potential impacts common to all route alternatives. Buck Mountain is the only route that uses Segment E, which is one of the most sparsely developed areas in the entire project area, as described below.

Segment E

Along Segment E, there are 3 ranch houses and 4 outbuildings, which are part of Warm Spring Ranch, and would be approximately 1,300 feet away from the transmission line. The transmission line would not adversely affect the private land uses in this area or restrict access to the property. There are seven mining claims within or adjacent to the proposed right-of-way and 11 outside of the right-of-way.

Summary Comparison of Route Alternatives

TABLE 3.13-8: SUMMARY OF IMPACTS BY ROUTE ALTERNATIVE

Impact	Crescent Valley (a)	Crescent Valley (b)	Pine Valley (a)	Pine Valley (b)	Buck Mountain
Impact Land Use-1: Right-of-way Acquisition and Potential Loss of Property Value	X	X	X	X	X
Impact Land Use-2: Security Concerns about Construction and Surveying Activities near Prison.	X	X	X	X	X

RESIDUAL IMPACTS

The existence of the transmission line, right-of-way grant from BLM, and right-of-way easements on private properties would restrict other uses in the right-of-way, and potentially, on lands adjacent to the right-of-way. However, mitigation measures are expected to reduce this residual impact to a less-than-significant level.

NO ACTION ALTERNATIVE

Under the No Action Alternative, impacts to land use and access associated with this project would not occur. However, land use and access impacts could occur in other areas as SPPC and the Nevada PUC would begin emergency planning efforts to pursue other transmission and/or generation projects to meet the projected energy shortfall.

This page intentionally left blank.