

Socioeconomic Baseline Report

for the
Las Vegas/Pahrump Resource Management Plan
and
Environmental Impact Statement

for
Public Lands Administered
by the
Bureau of Land Management
Southern Nevada District Office

Prepared by

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INTRODUCTION

This Socioeconomic Baseline Report has been prepared to assist in the current land use planning efforts of the U.S. Bureau of Land Management’s Las Vegas and Pahrump Field Offices in southern Nevada. As part of this planning process, socioeconomic information will be used to help develop management alternatives, and in the analysis of the potential impacts of the management alternatives.

Socioeconomics is not a BLM management decision; rather, it is a contextual element for planning. This baseline report addresses social, cultural, and economic conditions and trends within the “socioeconomic study area” defined below. These conditions and trends affect current and future uses of BLM public land resources. Conversely, decisions made by BLM in the current planning process may have social, cultural, and economic impacts. These impacts may be positive or negative, depending on conditions and on the point of view of stakeholders to BLM public land resources. This report provides socioeconomic background information that will assist in the impact analysis later in the planning process. This information can also help inform public discussion during the planning process.

This report is divided into five main sections:

- Overview of the Socioeconomic Study Area – This section defines the geographic area that is the subject of this report, and provides a high-level characterization of this area in terms of land area, land management, and population.
- Social and Cultural Conditions – This section identifies and profiles the population, demographic, and other social and cultural characteristics of the socioeconomic study area.
- Economic Conditions – This section characterizes the economy of the socioeconomic study area in terms of employment, earnings, sources of income, numbers and types of businesses, economic base, and public finance.
- BLM Public Land Uses and Values – This section profiles the many uses that are made of BLM public lands, and describes some of the economic and social implications of those uses.
- Conclusions – This section provides a summary of key socioeconomic aspects of the study area.

Within the social/cultural and economics sections, most data is presented for each county within the socioeconomic study area. Nevada and U.S. data are often presented for comparison. In some cases data and qualitative information are presented for smaller geographies.

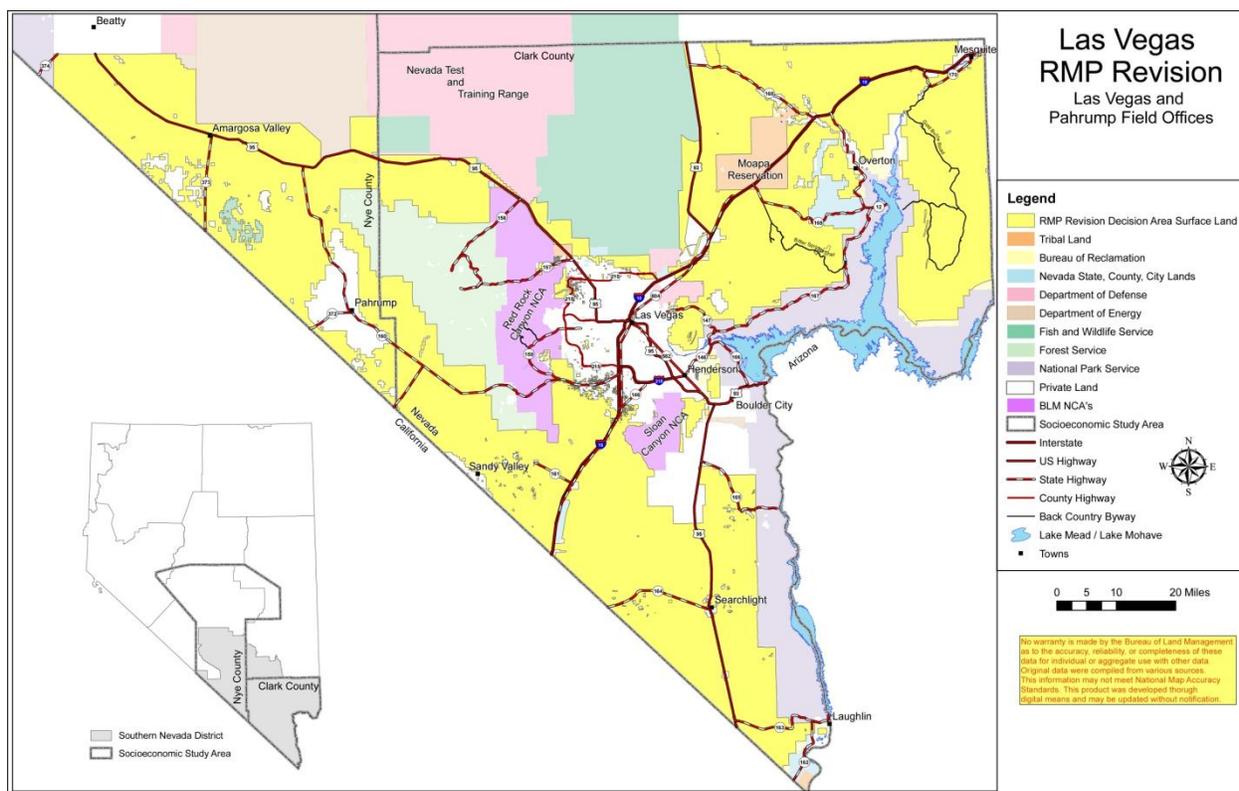
Within the section on BLM public land uses and values, data and qualitative information are presented for each Field Office to the extent available. In some cases, the data reflect the entire BLM Southern Nevada District Office.

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1.0 OVERVIEW OF THE SOCIOECONOMIC STUDY AREA

The Bureau of Land Management (BLM) Southern Nevada District Office (SNDO) encompasses the Las Vegas Field Office (LVFO), the Pahrump Field Office (PFO), and the Red Rock and Sloan Canyon National Conservation Areas, as well as adjacent lands in the southern part of the state of Nevada. For the planning purposes of this Resource Management Plan (RMP) Revision, this geographic area is differentiated into a planning area, a decision area, and a socioeconomic study area, as described in the *BLM Land Use Planning Handbook (H-1601-1)*. Figure 1 shows the location of the planning area, the socioeconomic study area, and the decision area surface lands. Each is described further below.

Figure 1. Socioeconomic Study Area and RMP Revision Decision Area Surface Lands



The planning area encompasses most of the SNDO. It is bordered by Lincoln County on the northeast, California on the west, and the Arizona state border to the east. The north-central and northwest boundaries of the planning area cut across the southern portions of Lincoln and Nye Counties. The Air Force's Nevada Test and Training Range, which has its own RMP, is not included in the planning area.

The decision area is those lands and resources within the planning area that BLM administers. It includes all public lands and Federal mineral estate managed by the Las Vegas and Pahrump Field Offices. It does not include BLM public lands in the Red Rock Canyon National Conservation Area and Sloan Canyon National Conservation Area, which have their own RMPs. The decision area surface lands encompass a total of approximately 3.1 million acres of BLM public lands in Clark County and a portion of southern Nye County. The decision area surface lands in the LVFO are located entirely within Clark County, and

total 715,817 acres. The PFO decision area surface lands are entirely within Nye County, and total 2,415,072 acres.

In addition, BLM manages approximately 1 million acres of split-estate lands in the planning area, where the subsurface mineral estate or a portion thereof is owned by the Federal Government and the surface is under non-Federal ownership. These split-estate lands are also part of the decision area.

This baseline report is primarily focused on the socioeconomic study area, which is determined by the economic and social relationships between communities in the region and the surface land and subsurface mineral estate managed by BLM. A socioeconomic study area commonly extends beyond the decision area because decisions made by BLM can impact socioeconomic conditions in proximate lands and communities, based on where monies flow and how and where services and goods are obtained. A socioeconomic study area may also be larger than the planning area because key socioeconomic data is only available for geographies (e.g., counties) that extend beyond the planning area.

The socioeconomic study area (sometimes referred to as simply the “study area”) has been defined to include all of Clark County and Nye County, and to exclude Lincoln County and other surrounding counties. Clark County is included because almost the entire county (the Nevada Test and Training Range is excluded) is within the planning area. The northern portions of Nye County fall outside of the planning area but are included in the study area because key socioeconomic data is only available at the county level. However, the large majority of the economic activity in Nye County occurs within the southern portion of the county, which is in or near the planning area. The portion of the northern part of the county that falls outside of the planning area accounts for a small percentage (eight to twelve percent¹) of the total population of the county. Areas within the west part of the county that fall outside of, but in close proximity to, the planning area – most notably the town of Beatty, with an estimated population of approximately 1,000, according to Nevada State Demographer data from 2005 to 2009 (2009) – are important to include in the socioeconomic study area because decision area lands contribute to the economic health of those communities. The study area excludes Lincoln County because the flows of economic activity between BLM lands in Clark County and communities in Lincoln County were judged to be small relative to the flows within the planning area.

The socioeconomic study area is bordered to the north and northwest by other Nevada counties, to the southwest by San Bernardino and Inyo Counties in California (including Death Valley National Park), and to the east by Mojave County in Arizona (including parts of Lake Mead National Recreation Area). The study area excludes the Nevada counties to the north and northwest of the planning areas well as the California counties to the west, because they are a considerable distance from the planning area and have little, if any, socioeconomic relationships with BLM lands considered in this RMP. Within California, the U.S. Census tract² of land within Inyo County that borders the study area has an extremely small population of 638 people (U.S. Census Bureau 2000) and any economic interactions between it and the planning area are very small. In San Bernardino County, the population and economic activity are predominantly centered in and around the City of San Bernardino, with the exception of Needles City, which has a population of less than 5,000 according to the U.S. Census Bureau (2000). The City of San

¹ *The estimated range of eight to twelve percent is based on data from the Nevada Department of Taxation State Demographer’s Office, which estimates that all of the cities in the northern part of Nye County for which city/town data is available, including Amargosa, Gabbs, Manhattan, Round Mountain, and Tonopah, account for eight percent of the total county population, based on average between 2006 and 2009 (2009b). The Demographer does not have city/town level data for four percent of county population (based on their small population size), and that four percent is dispersed across the northern and southern portions of the county. Therefore, it is estimated that eight percent plus up to an additional four percent (for a total of twelve percent) of the total population of the county resides in the northern part of the county outside of the planning and within the study area.*

² *Census tract 700 within Inyo County; same as FIPS 06027000700.*

Bernardino is a considerable distance from the planning area. Although there is a considerable population in Mojave County, including the area adjacent to the planning area, almost all of the businesses and services in the Bullhead City and Lake Havasu City area provide economic benefit to Arizona, rather than the planning area, through retail sales taxes, service taxes, and property taxes. In addition, many of the businesses that occur along Lake Mead and the Colorado River in Arizona predominantly serve activity on NPS land, so while these areas are important to the recreation that occurs in southeast Clark County, their economic relationships with BLM are relatively small.

The socioeconomic study area is located within the Mojave Desert and has diverse geographic features. The area's most prominent geographical features include the expansive Las Vegas Valley, mountain ranges with elevations of close to 12,000 feet, and the Colorado River, which flows along the southeast boundary of the study area and encompasses the Hoover Dam and Lake Mead. The study area is an arid region with mild temperatures that vary seasonally and from day to night. In the lower elevations, temperatures can be over 100 degrees Fahrenheit in the hottest summer month, and in the higher elevations, the temperatures are cooler, frequently dipping below freezing in winter months.

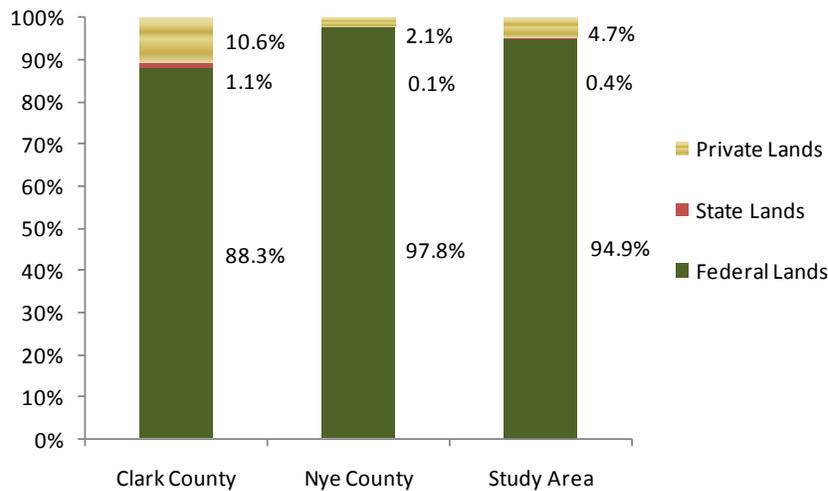
Spanning almost 17 million acres, the socioeconomic study area is comprised of 5.2 million acres in Clark County and 11.6 million acres in Nye County (BLM 2007). Of the total land in the study area, BLM manages the largest portion (55 percent), followed by Forest Service (13 percent), Department of Defense (13 percent), Department of Energy (5 percent), private ownership (5 percent), National Park Service (4 percent), Fish and Wildlife Service (3 percent), Bureau of Indian Affairs (1 percent), State of Nevada (0.4 percent), and Bureau of Reclamation (0.2 percent), as shown in Table 1.

Table 1. Land Management in the Socioeconomic Study Area (Acres)

	Clark County	Nye County	Study Area	% Study Area
Bureau of Indian Affairs	80,534	10,525	91,058	1%
Bureau of Land Management	2,657,669	6,574,766	9,232,435	55%
Bureau of Reclamation	41,658	-	41,658	< 1%
Department of Defense	387,665	1,834,457	2,222,123	13%
Department of Energy	4,313	880,376	884,690	5%
Fish and Wildlife Service	515,802	13,816	529,619	3%
Forest Service	279,979	1,957,679	2,237,658	13%
National Park Service	579,661	106,340	686,001	4%
State of Nevada	55,122	9,470	64,592	< 1%
Private Ownership	546,780	244,313	791,092	5%
Total Acres	5,149,183	11,631,743	16,780,926	100%

Source: BLM 2007

The large majority (95 percent) of the land in the socioeconomic study area is federally managed, including 98 percent of the land in Nye County and 88 percent in Clark County (BLM 2009). Private lands account for a small percentage of study area (5 percent), including 11 percent of Clark County and 2 percent of Nye County land. The percentage of state land is a very small portion (less than 1 percent) of the study area, and in both Clark County and Nye County near or below 1 percent of land owned is by the state. Figure 2 shows a graphical representation of the land ownership in the study area.

Figure 2. Land Ownership in the Socioeconomic Study Area, 2007

Source: BLM 2007

Land use in the socioeconomic study area is split among various private, state and local, and federal land uses. Private land uses include the Las Vegas metropolitan area, urban communities centered around population centers, and rural communities scattered across the study area. State and local land use include several state and county parks, airports, and other public amenities. The major components of federal land are as follows, listed by agency in order of land acreage (largest to smallest):

- Bureau of Land Management (BLM): Las Vegas Field Office, Pahrump Field Office, and Red Rock/Sloan Field Office
- U.S. Forest Service (USFS): Humboldt-Toiyabe National Forest
- Department of Defense (DoD): Nellis Air Force Base and Nevada Test & Training Range
- Department of Energy (DOE): Nevada Test Site for nuclear testing and Yucca Mountain nuclear waste repository³
- National Park Service (NPS): Portions of Death Valley National Park and Lake Mead National Recreation Area
- Fish & Wildlife Service (FWS): Ash Meadows National Wildlife Refuge, Desert National Wildlife Refuge, and Moapa Valley National Wildlife Refuge
- Bureau of Reclamation (BOR): Las Vegas Valley Water District, Virgin River Property, and other protected properties

Tribal lands are represented in Figure 2 in the Federal category; however, it should be noted that tribes exercise inherent sovereign powers over their members and territory. There are four Indian Reservations or Colonies within the socioeconomic study area: Las Vegas Indian Colony (in downtown Las Vegas); Las Vegas Indian Reservation; Moapa River Indian Reservation; and Fort Mojave Indian Reservation. Together they comprise over 81,266 acres (see Section 4.6).

The total population of the socioeconomic study area was estimated to be just less than 2 million in 2009, with Clark County accounting for 1.95 million and Nye County accounting for 46 thousand people (Nevada Department of Taxation 2009a). The study area has several urban areas, but the majority of the area is rural and sparsely populated. In 2009, the overall density of the study area was 76 people per

³ President Obama made the declaration that Yucca Mountain is no longer to be used for nuclear waste storage (DOE 2010).

square mile, with 243 people per square mile in Clark County and 3 people per square mile in Nye County. Clark County is much more densely populated than the rest of the state or the nation and Nye County is far less densely populated than either the state or nation. Table 2 displays population area and density for 2009.

Table 2. Population, Area & Population Density of the Socioeconomic Study Area, 2009

	Total Population (2009)	Land Area (Million Acres)	Land Area (Square Miles)	Persons Per Square Mile
Clark County	1,952,040	5.1	8,046	242.6
Nye County	46,360	11.6	18,175	2.6
Study Area	1,998,400	16.8	26,220	76.2
Nevada	2,711,206	70.3	109,826	24.7
United States	307,006,550	2,264.0	3,537,438	86.8

Sources: Population – Nevada Department of Taxation 2009a (for county and state), U.S. Census Bureau 2000 (for nation); Land Area – BLM 2007 (for county), U.S. Census Bureau 2000 (for state and nation).

The most urbanized and populous portion of the socioeconomic study area is the Las Vegas metropolitan area, located in central Clark County and encompassing the cities of Las Vegas, North Las Vegas and Henderson, along with several unincorporated communities. Other communities with small but expanding populations lay in proximity to the metropolitan area, including Pahrump to the west and Mesquite and Boulder City to the east, with the latter two situated along or near the Colorado River and Lake Mead. Large amounts of land in Clark County and the large majority of Nye County remain remote and rural, with smaller communities across the area. Both Clark and Nye Counties are accessible by road, train, and air travel, and from the north, south, east and west. Major highways include Interstates 15, 215 and 515; U.S. Routes 93 and 95; State Routes 157, 159, 160; and County Route 215. The primary interstate to and from the area is I-15, running between Salt Lake City, Las Vegas and Los Angeles. The Union Pacific Railroad (a class one railroad) provides freight services to the area. McCarran International Airport offers domestic and international flights to and from the area. Within the socioeconomic study area, RTC Transit is a bus system that services the Las Vegas metropolitan area of Clark County. The Southern Nevada Transit Coalition provides bus services to and from some of Clark County's outlying areas, including Mesquite and Laughlin.

Native Americans have a long history in the southern Nevada region (NPS 2010a, Nation Master Encyclopedia 2010, and Wikipedia 2010). In prehistoric times, as early as 350 B.C., the valley was inhabited by the Ancestral Puebloan people. Sometime around 1000 A.D., the Southern Paiutes, who were a hunter-gather society, moved into the area and coexisted with the Ancestral Pueblos, who left the area around 1150. The Southern Paiutes continued to occupy the Moapa Desert and the Colorado River region, living near water sources and hunting, gathering, and farming. White settlers began moving to the area in the mid-1800s, as a result of the creation of the Old Spanish Trail (linking Santa Fe, New Mexico to Los Angeles, California), introduction of the rail system, and the discovery of gold and silver in the mountains of southern Nevada. With the western expansion, the population of Mormon settlers and other pioneers continued to increase and the land that the Paiutes used was eventually taken by white settlers for their crops, livestock, and settlements. The Paiute population declined as a result of the unfamiliar traditions and diseases brought by the new settlers. In 1869, the Moapa Band of Paiute Indians was moved to the Moapa River Indian Reservation. The size of the reservation has changed over time and today the reservation covers 71,954 acres of land in Clark County (Moapa Paiutes 2010), although it does not include the watershed and lands along the Colorado River that the Native Americans once occupied. The Las Vegas Paiute Tribe today has 3,810 acres of land at the Snow Mountain Reservation (Las Vegas

Paiute Tribe 2010) and 12.5 acres in downtown Las Vegas. The Ft. Mojave Indian Tribe has more than 5,500 acres in the planning area, at the southern tip of Nevada.

2.0 SOCIAL AND CULTURAL CONDITIONS

This section identifies and profiles the population, demographic, and other social and cultural characteristics of the socioeconomic study area. Data is provided at the county and city or town levels, depending on relevancy and availability of data; in some cases, data for smaller geographies is not readily available and is therefore not provided in this socioeconomic baseline. Data is also provided for the state of Nevada and the U.S. for comparative purposes. It is important to note that because Clark County accounts for the large majority of the population of the state, Nevada figures are heavily weighted by Clark County figures.

2.1. COMMUNITIES

Clark County spans 8,046 square miles in the southernmost part of Nevada within the Mojave Desert (BLM 2007). The county had a population of 1.95 million in 2009, accounting for over 70 percent of the population of the state of Nevada (Nevada Department of Taxation 2009a). The county was established in 1909. Today, it is a major tourist destination, with close to 149,000 hotel and motel rooms in 2009 (LVCVA 2010). As in the rest of the state, gambling is legal in Clark County. The economy of Clark County is primarily based on tourism, gambling, and conventions, attracting over 42 million tourists each year, based on average visitation from 2002 to 2009 (LVCVA 2010). The gaming industry is a significant contributor to the economy of Clark County, bringing in an estimated \$10 billion per year, based on average gaming revenues from 2002 to 2009 (LVCVA 2010). Revenues from gaming-related tourism far exceed the revenues from natural attractions (Gregory, et al. 2010). The county houses southern Nevada's higher education organizations, including the University of Nevada Las Vegas (UNLV), University of Nevada Medical School, University of Southern Nevada, and several others. Within Clark County, the primary communities that appear in the U.S. Census Bureau data and the Nevada State Demographer's data include the incorporated cities of Las Vegas, North Las Vegas, Boulder City, Henderson, and Mesquite (each is described below); there are a number of unincorporated towns and communities, as well.

The city of Las Vegas is the county seat of Clark County. The city has experienced almost constant population growth since the early 1900s and is the most populous city in Nevada, with a population of 591,422 in 2009 (Nevada Department of Taxation 2009a). The larger Las Vegas area, which includes Las Vegas Boulevard (also known as the Las Vegas Strip), the communities of Paradise and Winchester, and a small portion of Enterprise, is widely known for its casino resorts and live entertainment. This larger Las Vegas area attracts over 39 million visitors per year and accounts for the large majority of the economic activity in the socioeconomic study area and the state (Clark County 2010b).

The city of Henderson is located within Clark County in the southeast corner of the Las Vegas Valley, bordering the city of Las Vegas. Henderson had a population of approximately 268,687 in 2009, making it the second largest city in Clark County in terms of population (Nevada Department of Taxation 2009a). The city supports a variety of economic and cultural activities, including residential areas, casino resorts, lodging, restaurants, shopping malls, museums, and recreational activities. Henderson was rated as the 20th best place to live in the U.S. by Money Magazine in 2006.

The city of North Las Vegas sits within Clark County at the northernmost part of the Las Vegas Valley. North Las Vegas had a population of approximately 215,022 in 2009 (Nevada Department of Taxation 2009a). Economic activities of the city include casinos, residential areas, restaurants, hotels, and an airport. The city is also home to Nellis Air Force Base, which stimulates additional economic activity.

The city of Mesquite is situated in the northwest corner of Clark County within the Virgin River Valley, bordering the state of Arizona, and was estimated to have a population of 20,677 in 2009 (Nevada Department of Taxation 2009a). Mesquite markets itself as a retirement community and is home to an increasing number of retirees (Gregory, et al. 2010). The city's economic activity includes several casino resorts and golf courses, a museum, and other businesses, many of which serve travelers along I-15.

Boulder City is located within Clark County approximately 20 miles southwest of Las Vegas and 5 miles away from Lake Mead on Highway 93. This city had a population of approximately 16,064 in 2009 (Nevada Department of Taxation 2009a). The local economy includes residential areas, golf courses, various recreational venues, lodging, dining, and other entertainment. Unlike most of Nevada, gambling is illegal in Boulder City. The city was rated by Money Magazine as the 6th best place to retire, based on affordable housing, medical care, tax rates and arts and leisure in 2009.

The Moapa Reservation is located in Clark County about 30 miles northeast of Las Vegas and is home to the Moapa Band of Paiutes. The reservation is governed by the Tribal Council and, according to the 2000 Census, the population was 206 people in 2000. The economy of the reservation is largely based within the Moapa Paiute Travel Plaza, which contains a casino, convenience store café, gas station, and fireworks store (Moapa Paiute 2010).

Nye County is located in Southern Nevada directly west of Clark County, extending north to central Nevada, covering 18,175 square miles (BLM 2007). The county had an estimated population of 46,360 in 2009 (Nevada Department of Taxation 2009a). The population of the county has varied over time. The late 1800s and early 1900s marked the first population boom, resulting from mining. The first half of the 20th century showed a reduced population and population began to increase and stabilize in the 1950s when a nuclear test site was developed in the county. The population grew significantly towards the end of the 20th century as the city of Pahrump became a bedroom community for Las Vegas. Today, the bulk of the population lives in the southern part of the county in and around Pahrump. Government operations in the county include the Nevada Test Site, on which the U.S. Department of Energy tests nuclear devices, the Yucca Mountain nuclear waste repository, and several environmentally sensitive areas, including a wildlife refuge, national forests, and a national park. Nye County is one of eleven counties in Nevada in which prostitution in brothels is legal. The primary communities that appear in the U.S. Census Bureau data and the Nevada State Demographer's data include the unincorporated towns of Pahrump, Tonopah, Beatty, and Amargosa Valley (each is described below), along with the less populated unincorporated towns of Gabbs, Manhattan, and Round Mountain; there are no incorporated cities in Nye County.

Tonopah is the county seat of Nye County and is a small census-designated place (CDP) located on the western border of the central portion of the county, outside of the planning area. Tonopah had a population of 2,580 in 2009 (Nevada Department of Taxation 2009a). In the early 1900s, Tonopah was a mining settlement for silver. Today, a primary source of employment for the community is the nearby Tonopah Test Range, which is a military installation located 30 miles southeast of the town. Tonopah provides access to a variety of recreational activities including hunting, biking, hiking, and wildlife viewing.

Pahrump is a CDP that sits in the southernmost tip of Nye County, bordering Clark County to the east and California to the west. It had a population of 38,247 in 2009, accounting for the large majority (82 percent) of people in the county (Nevada Department of Taxation 2009a). The population of Pahrump has continued to grow since the 1970s (Nevada Department of Taxation 2009a), reflecting the expansion and growth the Las Vegas Area. Pahrump is primarily a commuter community for Las Vegas, which is approximately 60 miles to the southeast. Pahrump offers lodging, dining, casinos, recreational vehicle (RV) sites, and recreational activities including horseback riding and ATVs.

Beatty is a CDP located in the southern part of Nye County along the Amargosa River, and just outside the planning area. Beatty had a population of 880 in 2009 (Nevada Department of Taxation 2009a). The economy of this small rural community is largely based on the nearby Nevada Test Site, Death Valley National Park, and the larger Las Vegas area. The town offers lodging, dining, a casino, a museum, a medical center, a library, and RV sites. Beatty promotes itself as a gateway community to Death Valley National Park, which is located about eight miles west of the town, and benefits economically from park visitation.

The unincorporated community of Amargosa Valley sits in the southern part of Nye County, 30 miles southeast of Beatty and 90 miles northwest of Las Vegas. Amargosa had a population of 1,392 in 2009 (Nevada Department of Taxation 2009a). This desert community was started in the early 1900s as a mining community and today has a casino, hotel, restaurant, RV sites, and other visitor services, including lodging and food for visitors to BLM's Big Dune Special Recreation Management Area (offering ATV trails), Ash Meadows National Wildlife Refuge, and the nearby Death Valley National Park. The Yucca Mountain nuclear waste repository is proximate to Amargosa.

2.2. POPULATION

The population of the socioeconomic study area, including all of Clark and Nye Counties, was estimated to be 2.2 million in 2010 (Nevada Department of Taxation 2009a). In the same year, Clark County was estimated to have 2.15 million people, accounting for 98 percent of the population of the study area. Nye County was estimated to have 55 thousand people in 2010, accounting for only 2 percent of the population of the study area. The population of the study area has been continually increasing since earlier than the 1970s, as has the population of the Nevada and the U.S. (U.S. Census Bureau 2000). Projections of the future population of the study area show continued growth in each county, as well as the state. Table 3 depicts population estimates and projections for the study area, state, and nation from 1970 through 2020.

Table 3. Population of the Socioeconomic Study Area, 1970 to 2020

Area	1970	1980	1990	2000	2005	2010	2015	2020
Clark County	273,288	463,087	770,280	1,394,440	1,796,380	2,148,122	2,433,175	2,666,119
Nye County	5,599	9,048	18,190	32,978	41,302	55,028	66,292	75,240
Study Area	278,887	472,135	788,470	1,427,418	1,837,682	2,203,150	2,499,467	2,741,359
Nevada	488,738	800,508	1,236,130	2,023,378	2,518,869	2,963,812	3,321,189	3,619,563
U.S.	205,052,174	227,224,681	248,709,873	281,421,906	288,378,137	308,935,581	322,365,787	335,804,546

Sources: U.S.: 1970 – U.S. Census Bureau 1970; 1980 – U.S. Census Bureau 1980; 1990 – U.S. Census Bureau 1990; 2000 – U.S. Census Bureau 2000; 2005 – U.S. Census Bureau 2005. Nevada & Counties: 1970 – U.S. Census Bureau 1970; 1980 – U.S. Census Bureau 1980; 1990 to 2020 Nevada Department of Taxation 2009a. Census counts 1970 – 2000, estimates 2005, projections 2010 – 2020.

Since at least 1970, the populations of both Clark County and Nye County have grown at a faster rate than the population of Nevada, which has in turn grown at a faster rate than the population of the U.S. (EPS 2007, based on BEA REIS 2004). The population growth of the counties relative to the state and nation from 1970 to 2003 are shown in Figure 3 and Figure 4, using a population index where the population of each area is set to 100 in 1970 and increased relative to that base value according to population growth over time.

Figure 3. Clark County Population Growth Comparison

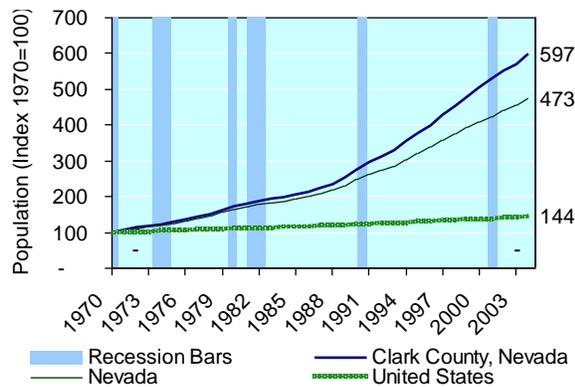
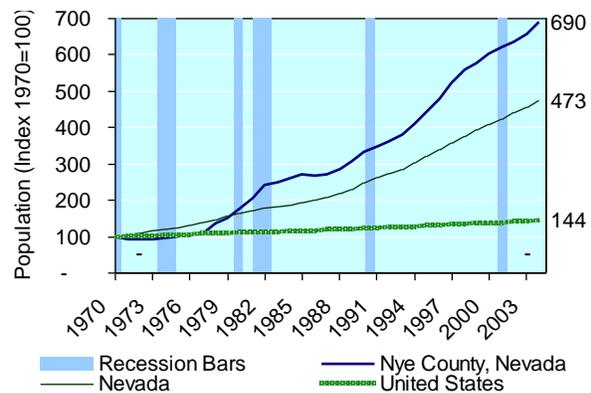


Figure 4. Nye County Population Growth Comparison



Source: EPS 2007, based on BEA REIS 2004 Table CA30

Table 4 shows absolute population growth by decade since 1970, including projected population growth to 2020. From 1970 to 2000, the population of Clark County grew by 410 percent and Nye County grew by 489 percent, both exceeding population growth of Nevada (314 percent) and the U.S. (37 percent) in the same time period (U.S. Census Bureau 2000). Population growth is projected to continue, but at a slower pace, through 2020 (Nevada Department of Taxation 2009a). Figure 5 depicts the absolute population increase of the counties and Figure 6 illustrates the percentage increase in population in the socioeconomic study area, state, and nation. The absolute population growth has increased each decade through 2010 and is anticipated to decline slightly in the decade from 2010 to 2020. The population growth rate has decreased somewhat in recent decades and is expected to decrease further over time, which is typical of an increasing population because the growth rate is relative to total population.

Table 4. Absolute Population Increase in the Socioeconomic Study Area by Decade, 1970 to 2020

Absolute Growth	1970-1980	1980-1990	1990-2000	2000-2010	2010-2020
Clark County	189,799	307,193	624,160	753,682	517,997
Nye County	3,449	9,142	14,788	22,050	20,212
Study Area	193,248	316,335	638,948	775,732	538,209

Source: Nevada Department of Taxation 2009a. Estimates 1970 – 2000, projections 2010 – 2020.

Figure 5. Absolute Increase in Population, 1970 to 2020

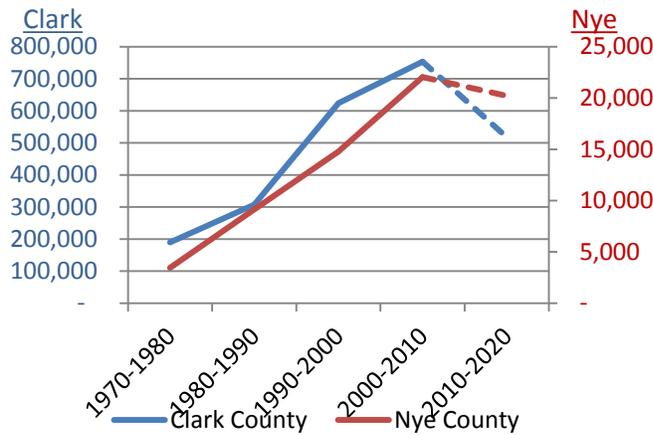
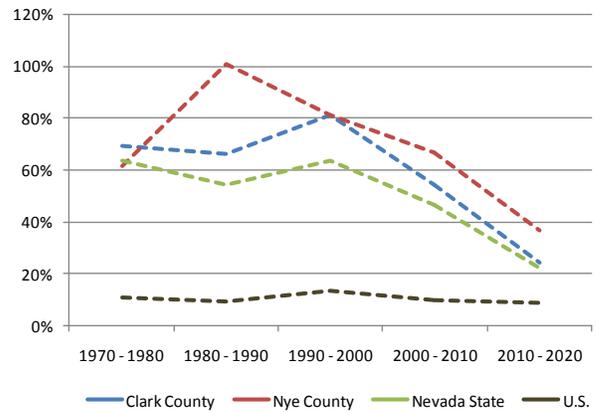


Figure 6. Population Percentage Increase, 1970 to 2020



Sources: 1970 – U.S. Census Bureau 1970; 1980 – U.S. Census Bureau 1980; 1990 to 2020 from Nevada Department of Taxation 2009a. Estimates 1970 to 2005, projections 2010 – 2020; solid lines indicate estimates, dotted lines indicate projections.

The ability to recover from recessions⁴ is an important economic indicator. Historical population growth in Clark County and Nye County following economic recessions show that these counties have a strong ability to recover after recessions, as reflected by population. Population growth during recessions in Clark County has consistently exceeded growth in the state and the nation, as shown in Figure 7, where the recovery period begins at the end of a recession and ends at the beginning of the next recession. Nye County population during recovery has grown at a comparable rate to, or faster rate than, the state and has continually outpaced the U.S., as shown in Figure 8.

Figure 7. Clark County Population Growth During Recent Economic Recoveries

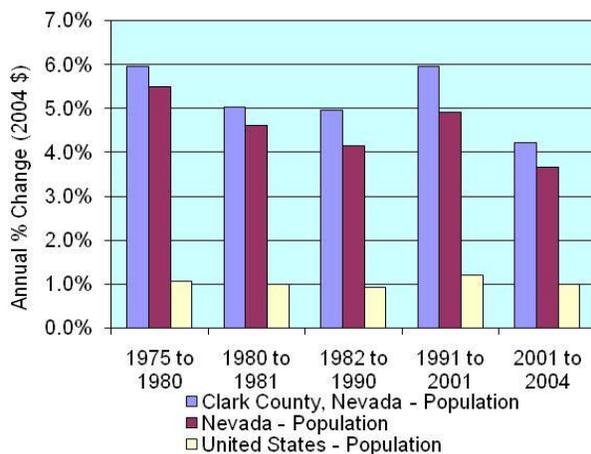
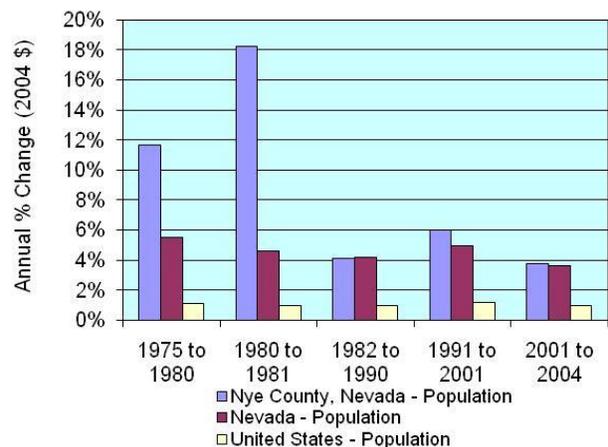


Figure 8. Nye County Population Growth During Recent Recoveries



Source: EPS 2007, based on BEA REIS 2004 Table CA30.

⁴ The National Bureau of Economic Research defines a recession as a significant and sustained decline in economic activity across industries.

Population growth of the cities and towns within Clark County and Nye County is shown in Table 5. According to the Nevada Department of Taxation, the city with the largest population in Clark County in 2009 was Las Vegas with approximately 30 percent of the population of the county followed by Henderson with 14 percent, North Las Vegas with 11 percent, Mesquite with 1 percent, and Boulder City with less than 1 percent (2009a). In Nye County in the same year, the largest city by far was Pahrump with an estimated 83 percent of the total population of the county followed by Tonopah with 6 percent, Amargosa with 3 percent, Beatty with 2 percent, Round Mountain with 2 percent, Gabbs with 1 percent, and Manhattan with less than 1 percent. The ranking of cities in terms of population has remained relatively consistent during the 1990 to 2009 time period. Since 1990, the population of all Clark County cities and towns has increased significantly. In Nye County during the same period, the population of Pahrump has increased considerably, whereas the population of some cities and towns has decreased, including Beatty, which is in close proximity to the planning area.

Table 5. Socioeconomic Study Area Population, 1990 to 2009

County	City / Town	1990	1995	2000	2003	2006	2009
Clark	--	770,280	1,055,435	1,394,440	1,620,748	1,874,837	1,952,040
	Boulder City	12,760	14,090	14,906	14,934	15,478	16,064
	Henderson	69,390	115,412	179,144	217,448	251,321	267,687
	Las Vegas	268,330	367,375	482,389	528,617	579,840	591,422
	Mesquite	1,960	5,166	10,101	13,895	17,656	20,677
	N. Las Vegas	50,030	78,310	117,650	146,005	198,516	215,022
Nye	--	18,190	23,882	32,978	36,651	44,795	46,360
	Amargosa	N/A	N/A	1,167	1,169	1,435	1,392
	Beatty	N/A	N/A	1,152	1,079	1,025	880
	Gabbs	670	373	330	314	313	316
	Manhattan	N/A	N/A	124	135	122	135
	Pahrump	N/A	N/A	24,235	28,847	36,645	38,247
	Round Mountain	N/A	N/A	1,039	784	787	837
	Tonopah	N/A	N/A	2,833	2,481	2,600	2,580
Study Area		788,470	1,079,317	1,427,418	1,657,399	1,919,632	1,998,400

Source: Nevada Department of Taxation 2009a.

City / Town populations do not total 100 percent of county populations because there are populations that are outside of the cities and towns. Data is not available for areas and years noted with "N/A", which stands for "not available".

2.3. DEMOGRAPHICS

A comparison of several demographic characteristics of Clark County, Nye County, Nevada, and the U.S. is shown in Table 6, depicting various elements of the socioeconomic makeup of the socioeconomic study area. The male to female ratio is similar for all geographies, with slightly more males than females in both Nevada and the study area (U.S. Census Bureau 2006-2008⁵). The median age and percentage of the population over 65 years for Clark County is similar to the state and nation. However, the median age and

⁵ All U.S. Census Bureau 2006-2008 data depicts three-year estimates reflecting averages of data gathered during the years 2006 to 2008.

percentage of the population over 65 years is substantially higher for Nye County. The more aged population of Nye County can be attributed to the relatively low cost of land and housing, low taxes, and relative ease to build because of building code requirements, which make the county attractive to retired persons on low incomes (Osborne, et al. 2010). The average family size for Clark County is on par with Nevada and the U.S., but is somewhat larger for Nye County. This fact is believed to be a result of the typical rural versus urban environment difference, where rural areas afford families more space and lower cost of living, thereby making rural areas more attractive or feasible for larger families (Osborne, et al. 2010). Clark County has similar rates of high school graduates or higher to the state and nation, while Nye County has a somewhat lower rates. Similarly, Clark County has a comparable or higher rate of college graduates, relative to the state and nation, and Nye County has a significantly lower rate. Clark County has a slightly higher percentage of people for whom a language other than English is spoken in the home compared to Nevada and a significantly higher percentage than the U.S.; this statistic is not available for Nye County. As noted earlier in this document, the similarity between Clark County and Nevada values is, in large part, due to the fact that Clark County accounts for a large majority of the population of Nevada and therefore the Nevada data is largely reflective of the Clark County population.

Table 6. Demographics Overview of Socioeconomic Study Area Compared to State and Nation

	Sex		Age (years)		Average Family Size	Education (degrees)		Language Other than English*
	Male	Female	Median	Over 65		Secondary	Post-Secondary	
Clark County	51%	49%	35	11%	3.3	83%	21%	31%
Nye County	51%	49%	44	21%	4.0	77%	10%	N/A
Nevada	51%	49%	36	11%	3.3	84%	21%	27%
U.S.	49%	51%	37	13%	3.2	85%	27%	20%

Source: U.S. Census Bureau 2006-2008.

*Language data indicates the language spoken at home; data was not available for Nye County at the time the baseline was conducted.

According to the U.S. Census Bureau American Community Survey three-year averages for 2006 to 2008, a comparable amount of the residents of Clark County, Nye County, and the state were born in Nevada (between 20 percent and 23 percent), which is significantly lower than the percentage of people in the U.S. for whom their birth state is also their state of residence (59 percent), as shown in Table 7. This indicates strong migration into the area from persons born outside of Nevada. In Nye County, the large majority (72 percent) of the population was born in a different state, while just over half of the population in Clark County and Nevada (55 percent and 56 percent, respectively) was born in a different state. The U.S. has the lowest percentage of population that was born in a different state (27 percent). Clark County has a higher percentage of foreign born persons (22 percent) than Nye County (8 percent), the state (19 percent), or the U.S. (13 percent).

Table 7. Place of Birth of Socioeconomic Study Area Population

	Clark County		Nye County		Nevada		U.S.	
	Population	%	Population	%	Population	%	Population	%
State of residence	386,215	21%	8,669	20%	590,572	23%	177,426,058	59%
Different state	1,009,348	55%	31,295	72%	1,435,166	56%	82,271,972	27%
Foreign born	397,205	22%	3,378	8%	484,537	19%	37,679,592	13%

Source: U.S. Census Bureau 2006-2008

Just over 75 percent of the population growth in the socioeconomic study area from 2000 to 2009 is due to net migration into the area, from both domestic and international sources, as shown in Table 8, which contains the components of population change in the study area and state. Nye County has an even higher rate of net migration than Clark County. Natural change accounts for a smaller percentage of growth (25 percent overall) in the study area, with positive growth in Clark County, indicating more births than deaths, and negative growth in Nye County, indicating more deaths than births. Thus, while there has been a significant amount of in-growth, there has been even more migration to the area.

Table 8. Components of Population Change, 2000 to 2009

	2000 Population	2009 Population	Numeric Change in Population	Percentage Change in Population	Cumulative Births	Cumulative Deaths	Natural Change as Percentage of Population Change	Percentage Natural Change in Population	Net Migration	Net Migration as Percentage of Population Change
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Clark County	1,375,738	1,902,834	527,096	38%	246,666	111,822	134,844	26%	399,902	76%
Nye County	32,512	44,234	11,722	36%	3,515	4,806	-1,291	-11%	13,183	112%
Study Area	1,408,250	1,947,068	538,818	38%	250,181	116,628	133,553	25%	413,085	77%
Nevada	1,998,260	2,643,085	644,825	32%	333,232	165,152	168,080	26%	485,443	75%

Source: U.S. Census Bureau 2009.

Population estimates are for July 1 of each year.

(3) = (2) - (1); (4) = (3) / (1); (7) = (5) - (6); (8) = (7) / (3); (10) = (9) / (3)

The majority of the population in the socioeconomic study area (72 percent) is of White race, with Nye County having the higher percentage of Whites (88 percent of the population of the county), and Clark County having a percentage (72 percent) that is on par with Nevada and the U.S. (U.S. Census Bureau 2006-2008). The proportional population of each minority group, including Hispanics, is much lower in Nye County than in Clark County. Clark County's minority populations are similar to those in the state and the nation, with the exception of the Hispanic population, which is considerably higher than the Hispanic population of the U.S. Further analysis of minority populations is provided in the Environmental Justice section of this document (see Section 2.8).

Table 9. Population by Race in the Socioeconomic Study Area

	Clark County		Nye County		Study Area		Nevada	U.S.
	Pop	%	Pop	%	Pop	%	%	%
White	1,307,738	72%	38,359	88%	1,346,097	72%	75%	74%
Black / African American	174,463	10%	659	2%	175,122	9%	7%	12%
American Indian / Alaska Native	12,897	1%	1,873	4%	14,770	1%	1%	1%
Asian	128,594	7%	211	1%	128,805	7%	6%	4%
Native Hawaiian / Pacific Islander	10,036	1%	76	0%	10,112	1%	1%	0%
Some other race	127,215	7%	1,720	4%	128,935	7%	7%	6%
Two or more races	60,416	3%	657	2%	61,073	3%	3%	2%
Hispanic	505,213	28%	5,226	12%	510,439	27%	25%	15%

Source: U.S. Census Bureau 2006-2008.

Hispanic population is an additional designation, not a race designation; the Hispanic population includes multiple races.

According to the U.S. Census Bureau (2006-2008), the median income of Nye County is considerably lower than that Clark County, Nevada, and the U.S. The median family income and the per capita income of Clark County is very close to that of the state, and somewhat higher than that of the U.S., while Nye County values are significantly lower than Clark County, the state, or the U.S. The percentage of families and individuals below the poverty line is higher for Nye County than for Clark County, Nevada, or the U.S., while the percentage in Clark County is the same level as the state and slightly less than the nation. Table 10 shows these numbers as averages for the 2006 to 2008 time period. Additional detail regarding income is provided in the

Sources of Income section of this document (see Section 0), and poverty is discussed further in the Environmental Justice section of this document (see Section 2.8).

Table 10. Income Levels in the Socioeconomic Study Area

	Clark County	Nye County	Nevada	U.S.
Median family income	\$64,485	\$50,207	\$65,124	\$63,211
Per capita income	\$28,138	\$21,071	\$28,049	\$27,466
Families below poverty level	8%	12%	8%	10%
Individuals below poverty level	11%	17%	11%	13%

Source: U.S. Census Bureau 2006-2008.

All dollar values are in 2008 inflation-adjusted dollars; percentages are percent families/individuals whose income was below the poverty level in the past 12 months from the time of measurement.

2.4. HOUSING

U.S. Census Bureau (2006-2008) data show that housing types in Clark County are similar to the state and U.S., with the majority of houses being single-unit detached, and small percentages of single-unit attached and mobile home units. Nye County has a considerably lower percentage of single-unit detached houses and a remarkably higher percentage (nearly half) of mobile homes units compared to Clark County. This relatively high percentage of mobile homes in Nye County is reflective of the fact that land is less expensive and it is relatively fast and inexpensive to put up mobile homes (Osborne, et al. 2010). The median value of homes in Clark County is similar to median home values of the state and significantly higher than for the U.S. The median value of housing in Nye County is slightly lower than for the U.S. and significantly lower than Clark County or Nevada due in part to the high percentage of mobile homes, which typically are valued less than other housing unit types.

Table 11. Housing Unit Types & Median Value in the Socioeconomic Study Area

	Clark County		Nye County		Nevada		U.S.
	Estimate	%	Estimate	%	Estimate	%	% or \$
Total housing units	784,892	N/A	16,592	N/A	1,098,307	N/A	N/A
1-unit, detached	457,508	58%	6,983	42%	643,757	59%	62%
1-unit, attached	41,454	5%	350	2%	53,155	5%	6%
Mobile home	29,042	4%	7,533	45%	71,935	7%	7%
Median value (dollars)	\$299,200	N/A	\$187,100	N/A	\$296,200	N/A	\$192,400

Source: U.S. Census Bureau 2006-2008.

All dollar values are in 2008 inflation adjusted dollars. Percentages are percent of total housing units; not all housing unit types are shown.

The U.S. Census Bureau (2006-2008) reports that Nye County has a higher percentage of homes that are occupied by their owners rather than renters, a slightly higher percentage of vacant housing units, and a slightly lower percentage with a mortgage, compared to Clark County, Nevada and the U.S. This is due in part to the high percentage of mobile homes, which sometimes are second homes and have lower purchase prices, with mortgages that can be paid off more quickly than other housing unit types (Osborne, et al. 2010). Clark County has a higher percentage of rental units and units with a mortgage than Nye County and the U.S. The median monthly cost of housing to both the owner and renter is somewhat higher in Clark County than in Nye County and the nation. Nye County monthly cost to owners is lower than Clark County and the U.S., while monthly rent is lower than Clark County but slightly above the monthly rent in the U.S. These figures are shown in Table 12. In short, housing costs are lower, and ownership rates are higher, in Nye County relative to Clark County.

Table 12. Housing Occupancy & Monthly Costs in the Socioeconomic Study Area

	Clark County		Nye County		Nevada		U.S.
	Estimate	%	Estimate	%	Estimate	%	% or \$
Owner-occupied housing							
Total Units	398,752	59%	9,630	72%	573,426	61%	67%
Units with a Mortgage	320,954	81%	5,893	61%	444,669	78%	68%
Units without a Mortgage	77,798	20%	3,737	39%	128,757	23%	32%
Median monthly cost to owner	\$1,839	N/A	\$1,239	N/A	\$1,796	N/A	\$1,508

	Clark County		Nye County		Nevada		U.S.
	Estimate	%	Estimate	%	Estimate	%	% or \$
Renter-occupied housing units							
Total Units	277,865	41%	3,760	28%	373,721	40%	33%
Median rent paid per month*	\$1,037	N/A	\$848	N/A	\$999	N/A	\$819
Vacant housing units**							
Total Units	108,275	14%	3,202	19%	151,160	14%	12%

Source: U.S. Census Bureau 2006-2008. All dollar values are in 2008 inflation-adjusted dollars. Total unit percentages are percent of total housing units.

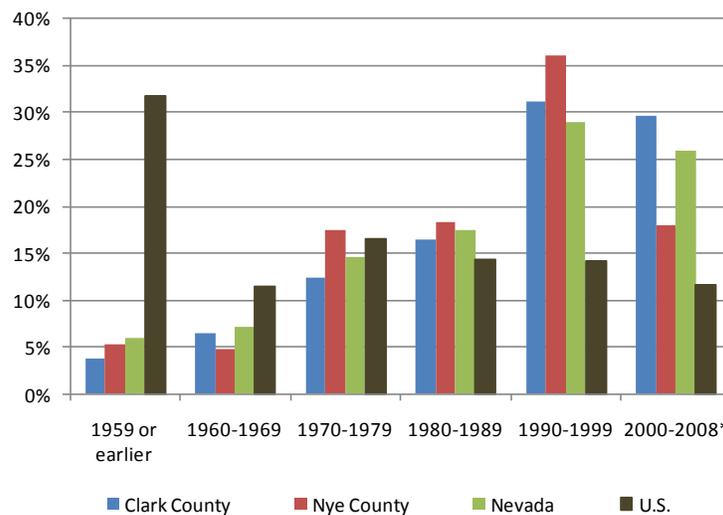
N/A: Not applicable.

* Median rent paid is only for units for which rent is paid; the median rent value does not factor in the units for which no rent is paid, which occurs in less than three percent of all rental units in the socioeconomic study area.

** Vacant housing units are units that are vacant at the time of enumeration unless its occupants are only temporarily absent; units that are temporarily occupied by people at the time of enumeration who have normal residence elsewhere are also considered to be vacant. (U.S. Census Bureau Fact Finder 2010)

The majority of housing units in Clark County and Nye County were built in recent decades according to the U.S. Census Bureau (2006-2008), as depicted in Figure 9. Only a small percentage of housing units in the socioeconomic study area (less than five percent) was built before 1960, differing significantly from the U.S., in which over thirty percent of the house structures were built before 1960. Nye County had a large percentage of houses built in the 1990s, nearly twice the percentage of total housing in the county that was built in any other decade. This building boom is attributed to the economic boom in Clark County, and the correlation of growth between the two counties that is due to proximity. Additionally, Nye County experienced more growth than Clark County during that time due, in part, to the fact that land is less expensive in Nye County relative to Clark County (Osborne, et al. 2010).

Figure 9. Percentage of Housing Units Built Per Time Period



Source: U.S. Census Bureau 2006-2008.

* Year built data only available through 2008 (therefore, the 2000-2008 grouping only accounts for 9 years, vs. 10 years for other periods).

2.5. QUALITY OF LIFE

Marital status in the socioeconomic study area relative to Nevada and the U.S. is shown in Table 13. (Note: Clark County and Nye County have similar percentage breakdowns so they are shown as the

combined study area here.) The study area has comparable rates of separated and widowed persons to the state and nation, for both males and females. The divorce rate is slightly higher for both males and females in the study area and state relative to the U.S. (U.S. Census Bureau 2006-2008).

Table 13. Marital Status (Separated, Widowed, or Divorced) in the Socioeconomic Study Area

	Study Area		Nevada		U.S.	
	Estimate	% Total	Estimate	% Total	Estimate	% Total
Males 15 years and over	735,972	N/A	1,011,783	N/A	117,272,059	N/A
Separated	14,453	2%	19,163	2%	2,150,464	2%
Widowed	16,844	2%	25,222	3%	2,980,656	3%
Divorced	91,529	12%	127,213	13%	10,915,171	9%
Females 15 years and over	715,390	N/A	984,209	N/A	123,092,953	N/A
Separated	18,342	3%	24,267	3%	3,130,609	3%
Widowed	348,703	49%	483,239	49%	59,338,572	48%
Divorced	105,913	15%	147,148	15%	14,447,509	12%

Source: U.S. Census Bureau 2006-2008.

The average commute time for the Clark County is essentially the same as commute time for Nevada and the U.S. (U.S. Census Bureau 2006-2008). Nye County has a longer commute time than Clark County, which may be reflective of people commuting from Nye County to jobs in Clark County. The average commute time for the socioeconomic study area, state, and nation is shown in Table 14.

Table 14. Average Commute Time for the Socioeconomic Study Area

	Clark County	Nye County	Nevada	U.S.
Mean travel time to work (minutes)	25	30	24	25

Source: U.S. Census Bureau 2006-2008.

2.6. SOCIAL ORGANIZATION AND INSTITUTIONS

There are various government entities, institutions, social organizations, and interest groups that are stakeholders to the management processes and decisions associated with the development and implementation of this RMP. The social organizations and institutions that have been identified in initial phases of the RMP revision process are listed below according to the following categories: government, and occupational and interest groups. Undoubtedly there are additional stakeholder organizations that are not mentioned because they do not meet the criteria noted below for inclusion *for this report*; this does *not* mean they are not important stakeholders and cannot participate in the RMP revision process.

2.6.1. Government

The government entities that were initially identified by the BLM as stakeholders and were invited to participate in the scoping process, or that provided comments as part of the scoping process, are listed below. The 15 agencies that have formalized official cooperating agency status with BLM as of June 15, 2011 are noted as such.

Federal Government

Cooperating Agencies:

- BOR, Lower Colorado Regional Office
- Forest Service, Spring Mountains NRA
- Nellis Air Force Base
- NPS, Death Valley National Park
- NPS, Lake Mead National Recreation Area
- NPS, Mojave National Preserve

Other Agencies:

- BLM Arizona Strip District Office
- BLM Barstow Field Office
- BLM Calliente Field Office
- BLM Kingman Field Office
- BLM Needles Field Office
- BLM Tonopah Field Office
- Bureau of Indian Affairs
- EPA Region IX
- FWS Desert National Wildlife Refuge Complex
- FWS Ecological Services
- Nevada Army National Guard
- NPS Lake Mead National Recreation Area

State Government

Cooperating Agencies:

- Nevada Department of Wildlife

Other Agencies:

- Nevada Department of Agriculture
- Nevada Department of Minerals
- Nevada Department of Transportation
- Nevada Department of Conservation and Natural Resources
- Nevada Division of State Lands
- State Land Use Planning Agency
- State of Nevada Historic Preservation Office

Local Government

Cooperating Agencies:

- Boulder City
- City of Henderson
- City of Las Vegas
- City of Mesquite
- City of North Las Vegas
- Clark County

- Nye County

Other Agencies:

- Amargosa Valley Town
- Bunkerville Town
- Indian Springs Town
- Moapa Valley Town

Tribal Government**Other Agencies:**

- Cedar Band, Paiute Indian Tribe of Utah
- Chemehuevi Indian Tribe
- Colorado River Indian Tribes
- Fort Mojave Indian Tribe
- Hualapai Tribal Council
- Indian Peaks Band, Piute Indian Tribes of Utah
- Inter-Tribal Council of Nevada
- Kaibab Paiute Tribe
- Kanosh Band, Paiute Indian Tribes of Utah
- Las Vegas Paiute Tribe
- Moapa Band of Paiutes
- Pahrump Paiute Tribe
- Timbisha Shoshone Tribe

Special Districts & Commissions**Cooperating Agencies:**

- Clark County Regional Flood Control District

Other Agencies:

- Moapa Valley Open Space Committee
- Regional Transportation Commission of Southern Nevada
- Southern Nevada Water Authority
- Virgin Valley Water District

2.6.2. Occupational and Interest Groups

The occupational and interest groups listed below participated in the scoping meetings and/or provided written comments as part of the scoping process for this RMP. In addition to those listed, there were a number of individuals and anonymous stakeholders who provided input as part of the scoping process.

- Basin and Range Watch
- Clark County Desert Conservation Program
- Friends of Gold Butte
- Friends of Nevada Wilderness
- LS Power Development, LLC

- MRAN Racing
- National Off-Highway Vehicle Conservation Council
- Nevada Wilderness Project
- Oak Creek Energy Systems, Inc.
- Republic Dumpco, Inc.
- Southern Nevada Desert Racers
- Transwest Express LLC
- Total Karnage
- Vegas Valley 4 Wheelers
- Wild Earth Guardians
- Wilderness Society
- Wisconsin Off-Highway Vehicle Association

2.7. ATTITUDES AND BELIEFS

Section 2.6 identified many organizations that are stakeholders to the use and management of BLM public lands. Stakeholder organizations and individuals have widely varying interests in the use and management of these lands. It is possible and useful to identify different categories of stakeholders that reflect different linkages people have to public lands. Different types of stakeholders can also be characterized by distinct sets of attitudes, beliefs, values, opinions, and perceptions about public resources and the effects of various management policies and actions.

The social impact analysis that will be conducted later in the planning process will use categories of stakeholders as one means of identifying impacts of management actions under each alternative. The analysis will be written in terms of impacts to the interests and values associated with a particular stakeholder category.

Based on comments made during the public scoping period, the broad categories of stakeholders listed within this section have been identified. Categorization of stakeholders is not meant to imply that all individuals and social groups fit neatly into a single category; many specific individuals or organizations may have multiple interests and would see themselves reflected in more than one stakeholder category.

Land Development Stakeholders

Land development stakeholders are proponents for additional development of public lands to accommodate growing communities, utility corridors, renewable energy development, and other uses. Some members of this group feel that no new Areas of Critical Environmental Concern (ACECs) should be designated because an ACEC restricts uses. This group of stakeholders would like to see BLM analyze impacts to land owners and growing communities as part of the decision-making process.

Recreational Land Use Stakeholders

There are many types of recreational activities in the planning area. The primary concern of recreational land use stakeholders is the potential loss of tracts of land that could otherwise be used for recreational use. Recreational land use stakeholders believe there should be more and improved trails, including hiking, equestrian, and single-track motor vehicle trails, and that more access should be created for off highway vehicles (OHV). A large group within this stakeholder category is concerned with OHVs, including area and route designations, and other matters affecting OHV use. OHV activity is highly valued by many in the community, as depicted through one stakeholder's request of BLM to "Protect the off roading cultural tradition in Nevada" (BLM 2010b, Cox).

These stakeholders perceive conflict between recreation and solar and wind energy development, particularly in areas with OHV use, and some people would like to see restrictions on land disposal and energy development so that recreation activity can occur and potentially grow. This group of stakeholders also tends to believe that certain habitat areas that are under protection do not need to be protected, particularly areas that might otherwise be used for OHV use. A number of people believe that recreation activities contribute positively to the economy and would like BLM to consider the economic impacts of all recreation uses.

Motorized Land Access Stakeholders

Motorized land access stakeholders are interested in having admittance to routes (roads, trails, and rights-of-way) that provide access to and within the planning area. Specifically, these stakeholders are interested in motorized access to recreational resources, wildlife, scenic viewing, and proposed renewable energy sites, as well as access for people of all ages and people with handicaps. Some members of this group believe that additional routes, motorized access, road and trail systems, and/or additional signage and maps are necessary for effective transportation management.

Renewable Energy Stakeholders

Renewable energy proponents support use of BLM public lands for solar and wind energy development. This group of stakeholders sees renewable energy as an important part of the development of the area. Supporters of renewable energy development believe that criteria can be developed to determine appropriate locations for solar and wind projects, to advance renewable energy production while minimizing negative impacts.

Resource Conservation Stakeholders

Resource conservation stakeholders have concerns over land, water, air, and soil resources, and many have concerns around fish and wildlife. In general, these stakeholders would like to see BLM public lands preserved for existing uses rather than being disturbed for uses such as increased motorized access and renewable energy. People in this stakeholder group tend to be against additional disposal of public lands, believing among other things that disposal of land and attendant development will create too great a demand on already limited water resources. These stakeholders believe that existing ACECs should be maintained and that new ACECs should be considered to protect the habitats of desert tortoises other sensitive species, and rare plants. They would like to see increased protection and management of wilderness lands and consideration of certain river segments for Wild and Scenic River designation.

These stakeholders also believe that the availability of water should be considered before land is used for energy development or other uses that require water. Some are interested in air quality in and around Las Vegas and would like to see restrictions to energy development and OHV use to protect air quality in the area. Additional areas of interest include protecting fragile soil, engaging in exotic and invasive species management, preserving visibility and “night skies” in select areas, and protecting other sensitive resources such as certain vegetation and paleontological resources. These stakeholders also would like to see the following species protected and their habitats maintained or improved: wild horses, bighorn sheep, mule deer, raptors, the desert tortoise, and aquatic fish. Regarding renewable energy development, one stakeholder asserted, “We need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and wild lands. These projects should be placed in the least harmful locations, near existing transmission lines and on already disturbed lands” (BLM 2010b, Aaradahl).

Regarding motorized access, this group of stakeholders believes that the existing roads and trails are too invasive and should be reduced and/or restricted, particularly in areas with sensitive resources. They

believe that OHV access should be limited or removed entirely in some areas. In order to alleviate resource damage and user conflicts, this group of stakeholders would like to see BLM improve recreation management by improving user education, increasing law enforcement, improving signage and maps, and implementing increased route designations.

Rural Community Stakeholders

These stakeholders are concerned with preservation of the ways of life associated with small, rural communities in the planning area. There are many such communities; for instance, the collective population of the rural communities of the Moapa Valley (Logandale-Overton), Moapa-Glendale, and Bunkerville totals approximately 9,000 people. These communities are experiencing rapid growth. Though employment opportunities in these locations are now largely retail and small businesses, the residents of these communities, and some other planning area residents as well, strongly identify with the historic rural lifestyle of ranching and farming. Many of the residents are fourth and fifth generation of the original settlers in the region. The vision of many of these stakeholders is for government to play a minor role in the management of public lands and for few restrictions in accessing public lands. This viewpoint does not imply that these stakeholders do not care about wildlife and sensitive resources – indeed, many in this group have strong concerns about environmental and social changes brought by the region’s rapid urbanization – but these stakeholders tend to believe that the protection of resources should be through education of users and not through limiting uses on public land.

Cultural Resource Protection Stakeholders

Cultural resources of interest to this stakeholder group include items and areas of cultural and historic value, such as archaeological sites, old mines, cabins, settlements, and other features used by early pioneers of the area. Stakeholders concerned with cultural resource protection suggest taking an inventory of the archeological and cultural resources in the area and request that historic sites be protected from damage and preserved for educational, scientific, and traditional purposes.

2.8. ENVIRONMENTAL JUSTICE

The concept of environmental justice (EJ) first became a required consideration for federal agencies with the publication of Executive Order (EO) 12898 on February 11, 1994. The EO requires each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations” (EO 12898, §59 *Federal Register* 7629, 1994).

In order to address EJ considerations in the BLM planning context, a screening analysis of the appropriate socioeconomic study area for the planning action is required to identify if any “EJ populations” are present. If present, attention is needed in the planning process to determine if there are any disproportionately high and adverse impacts to those populations, and if so, to take measures to avoid or mitigate those impacts.

The next subsection discusses the technical definitions used in identifying EJ populations, and the definition of “disproportionately high and adverse” effects. The concluding subsection presents the results of the screening analysis.

Definitions

Subsequent to publication of the EO, the Council on Environmental Quality (CEQ), part of the Executive Office of the President, issued guidance for considering EJ within the NEPA process (Council on Environmental Quality, 1997). This guidance defines minorities as individual(s) who are members of the following population groups: American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. The guidance further defines a “minority population” as follows:

Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.

The guidance also makes clear that Indian Tribes in the affected area should also be considered in the EJ analysis.

The CEQ guidance states that “low-income” should be determined using the annual statistical poverty thresholds from the Bureau of the Census. That is, persons living under the poverty income threshold are potentially of concern. The guidance does not specify how to identify a “low-income population,” but in practice the same approach used for minority populations can be followed – where persons in poverty status are greater than 50 percent of the area’s total population, or where the percentage in poverty is meaningfully greater than the percentage in the general population or an appropriate comparison area.

The CEQ guidance does not define what constitutes “meaningfully greater.” In practice, meaningfully greater is often defined to identify an EJ population if the percentage of population in minority and/or poverty status in an area is at least ten percentage points higher than in the comparison area. This threshold is based on experience evaluating environmental justice indicators and the sense that this threshold represents a significant difference between the affected and comparison populations. It is not a “hard and fast” rule, and in some cases the appropriate difference to consider might be lower, or higher.

As to “disproportionately high and adverse” effects, the CEQ guidance states:

Disproportionately high and adverse human health effects: When determining whether human health effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:

- (a) Whether the health effects, which may be measured in risks and rates, are significant (as employed by NEPA), or above generally accepted norms. Adverse health effects may include bodily impairment, infirmity, illness, or death; and*
- (b) Whether the risk or rate of hazard exposure by a minority population, low-income population, or Indian tribe to an environmental hazard is significant (as employed by NEPA) and appreciably exceeds or is likely to appreciably exceed the risk or rate to the general population or other appropriate comparison group; and*
- (c) Whether health effects occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards.*

Disproportionately high and adverse environmental effects: When determining whether environmental effects are disproportionately high and adverse, agencies are to consider the following three factors to the extent practicable:

(a) Whether there is or will be an impact on the natural or physical environment that significantly (as employed by NEPA) and adversely affects a minority population, low-income population, or Indian tribe. Such effects may include ecological, cultural, human health, economic, or social impacts on minority communities, low-income communities, or Indian tribes when those impacts are interrelated to impacts on the natural or physical environment; and

(b) Whether environmental effects are significant (as employed by NEPA) and are or may be having an adverse impact on minority populations, low income populations, or Indian tribes that appreciably exceeds or is likely to appreciably exceed those on the general population or other appropriate comparison group; and

(c) Whether the environmental effects occur or would occur in a minority population, low-income population, or Indian tribe affected by cumulative or multiple adverse exposures from environmental hazards. (Council on Environmental Quality, 1997)

The guidance and the presidential memo that accompanied the Executive Order emphasize that agencies should provide opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities.

Screening Analysis

Identification of potential EJ populations requires data on population make-up (numbers of persons by race), data on poverty (numbers of persons living under the poverty level), and identification of any special Indian Tribe areas, such as reservations. The data must be sufficiently disaggregated to show any significant variations across the socioeconomic study area in concentrations of minority populations or populations living in poverty. The most recent data that is broken down to the sub-county level in Clark and Nye Counties is from the 2000 Census.

Table 15 shows data from the 2000 Census for race for each incorporated city and each census-designated place (CDP) in the 2000 Census. CDPs correspond to many of the unincorporated communities or definable population concentrations in the two counties. Table 16 shows 2000 Census data on population below the poverty level in the previous year (1999) for which income data was collected during the Census. These tables also show the corresponding data for two reference populations: the state of Nevada, and the United States.

In both tables, the data for each minority or poverty group is expressed as a percentage of the total population. For this screening analysis, the convention noted above was adopted: if the minority population or population in poverty was 10 percent or more greater than for one of the reference populations, the city or CDP was “flagged” as being an EJ population and therefore area of *potential* concern from an EJ perspective.

The adjective *potential* is emphasized here. No determination as to the likelihood of disproportionately high and adverse effects on these populations is made here. That can only be determined once the management alternatives are defined and the socioeconomic impact analysis is performed. It should also be noted that the results (the places flagged) might be different based on more recent data.

Based on the definitions and threshold values noted above, and the 2000 Census data, the following places in Clark and Nye County were flagged as areas of potential concern for impacts to EJ populations:

- Bunkerville CDP, Clark County – based on the population of “some other race” and the Hispanic population.
- Goodsprings CDP, Clark County – based on the population 65 years and over living in poverty.
- Las Vegas City, Clark County – based on the Hispanic population.
- Mesquite City, Clark County – based on the Hispanic population.
- Moapa Town CDP, Clark County – based on the population of “some other race” and the Hispanic population.
- North Las Vegas City, Clark County – based on the population of “some other race” and the Hispanic population.
- Paradise CDP, Clark County – based on the Hispanic population.
- Sunrise Manor CDP, Clark County – based on the Hispanic population.
- Whitney CDP, Clark County – based on the Hispanic population.
- Winchester CDP, Clark County – based on the Hispanic population.
- Beatty CDP, Nye County – based on the population 65 years and over living in poverty.
- Tonopah CDP, Nye County – based on the population 65 years and over living in poverty. (However, Tonopah is located at a considerable distance from decision area lands, and therefore is unlikely to experience high and adverse impacts from the revised RMP alternatives.)

In addition to the places above, the Moapa Indian Reservation is flagged for EJ impacts analysis due to its status as an Indian reservation.

Table 15. Environmental Justice Indicators, Minority Population, 2000 Census

Geographic Area	Total Population in 2000	Race							Hispanic or Latino (of any race)
		One race						Two or More Races	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race		
United States	281,421,906	75.1	12.3	0.9	3.6	0.1	5.5	2.4	12.5
Nevada	1,998,257	75.2	6.8	1.3	4.5	0.4	8	3.8	19.7
Clark County - Place	1,375,765	71.6	9.1	0.8	5.3	0.5	8.6	4.2	22
Blue Diamond CDP	282	94.3	0	0.4	1.4	0.4	0.4	3.2	1.4
Boulder City City	14,966	94.5	0.7	0.7	0.7	0.2	1.3	1.9	4.3
Bunkerville CDP	1,014	75.1	0.7	0	1.9	0.6	15.7	6	24.9
Cal-Nev-Ari CDP	278	95.3	0	0	0	0	1.8	2.9	2.2
Enterprise CDP	14,676	82.3	3.2	0.8	5.2	0.5	4	4	12
Goodsprings CDP	232	89.7	1.7	0.4	0	0	1.7	6.5	4.7
Henderson City	175,381	84.5	3.8	0.7	4	0.4	3.2	3.5	10.7
Indian Springs CDP	1,302	88	1.2	2	1.2	0.8	4.2	2.6	6.8
Las Vegas City	478,434	69.9	10.4	0.7	4.8	0.4	9.7	4.1	23.6
Laughlin CDP	7,076	89.1	2.8	0.6	2.3	0.2	2.7	2.3	10.6
Mesquite City	9,389	80.3	0.6	1	1.3	0.1	14.6	2.2	24.8
Moapa Town CDP	928	62.9	0.2	1.4	1.8	0.6	30.5	2.5	35
Moapa Valley CDP	5,784	92.4	0.2	0.7	0.3	0.4	4.3	1.7	9.1
Mount Charleston CDP	285	97.5	1.1	0	0	0.4	0.7	0.4	2.5
Nellis AFB CDP	8,896	68.5	14.3	1.4	5	0.7	4.9	5.2	11.7
North Las Vegas City	115,488	55.9	19	0.8	3.2	0.5	15.8	4.7	37.6
Paradise CDP	186,070	72.5	6.6	0.8	6.5	0.6	8.4	4.7	23.5

Geographic Area	Total Population in 2000	Race							Hispanic or Latino (of any race)
		One race						Two or More Races	
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race		
Sandy Valley CDP	1,804	92.6	1.4	0.6	0.7	0.1	2.7	1.9	6.5
Searchlight CDP	576	95	0.7	0.7	0.2	0.2	1.7	1.6	3.6
Spring Valley CDP	117,390	72.6	5.3	0.6	11.2	0.5	5.1	4.7	13.8
Summerlin South CDP	3,735	78.9	4.1	0.6	10	0.4	2.8	3.1	7.8
Sunrise Manor CDP	156,120	65.5	12.9	1	5.4	0.5	10.1	4.7	26
Whitney CDP	18,273	72.2	6.8	1.1	3.8	0.4	11	4.5	25.3
Winchester CDP	26,958	71.8	7	0.9	5.4	0.4	9.7	4.8	29
Nye County - Place	32,485	89.6	1.2	2	0.8	0.3	3	3.1	8.4
Beatty CDP	1,154	90.9	0.1	1.5	1.2	0	3.1	3.2	8.9
Gabbs City	318	89	0	2.2	0.6	0.6	1.6	6	7.2
Pahrump CDP	24,631	91	1.3	1.3	0.9	0.4	2.3	2.9	7.6
Tonopah CDP	2,627	91.2	0.8	1.4	0.4	0.3	2.8	3	6.2

Yellow Shading: Relevant reference population statistics.

Orange Shading: Statistics/places “flagged” for EJ impacts analysis.

Source: U.S. Census Bureau, Census 2000 Summary File 1 (SF 1), GCT-P6: Race and Hispanic or Latino: 2000.

Table 16. Environmental Justice Indicators, Poverty, 2000 Census

Geographic Area	Total Population in 2000	Income in 1999 below poverty level			
		Percent of population for whom poverty status is determined			Percent of families
		All ages	Related children under 18 years	65 years and over	
United States	281,421,906	12.4	16.1	9.9	9.2

Geographic Area	Total Population in 2000	Income in 1999 below poverty level			
		Percent of population for whom poverty status is determined			Percent of families
		All ages	Related children under 18 years	65 years and over	
Nevada	1,998,257	10.5	13.5	7.1	7.5
Clark County - Place	1,375,765	10.8	14.1	7.3	7.9
Blue Diamond CDP	282	7.2	21.2	0	15.9
Boulder City City	14,966	6.7	9.4	5.3	4.7
Bunkerville CDP	1,014	7.9	13.4	8.9	3.6
Cal-Nev-Ari CDP	278	0	0	0	0
Enterprise CDP	14,676	8.6	12.1	7.2	6.6
Goodsprings CDP	232	9.2	0	19.6	0
Henderson City	175,381	5.6	6.4	4.7	3.9
Indian Springs CDP	1,302	10.7	13.2	13.5	7.2
Las Vegas City	478,434	11.9	15.4	8.3	8.6
Laughlin CDP	7,076	9.6	14.7	1.9	7.5
Mesquite City	9,389	10.2	18.3	6	6.2
Moapa Town CDP	928	3.1	3.2	0	1.7
Moapa Valley CDP	5,784	6.9	7.3	8.3	5.7
Mount Charleston CDP	285	0	0	0	0
Nellis AFB CDP	8,896	11.1	15.4	16.1	10
North Las Vegas City	115,488	14.8	19.6	8.8	11.8
Paradise CDP	186,070	11.8	15.3	7.6	8.1
Sandy Valley CDP	1,804	14.9	22.7	8.7	9
Searchlight CDP	576	14.6	0	0	0
Spring Valley CDP	117,390	6.7	6.9	7.7	4.8
Summerlin South CDP	3,735	3.2	4.2	0	1.3

Geographic Area	Total Population in 2000	Income in 1999 below poverty level			
		Percent of population for whom poverty status is determined			Percent of families
		All ages	Related children under 18 years	65 years and over	
Sunrise Manor CDP	156,120	12.8	17	7	10.4
Whitney CDP	18,273	9.7	13.1	5.6	8.2
Winchester CDP	26,958	14	19.2	8.5	11.4
Nye County - Place	32,485	10.7	13.1	8.3	7.3
Beatty CDP	1,154	13.4	7.1	19.6	10.4
Gabbs City	318	11.2	5.6	14.3	6.3
Pahrump CDP	24,631	10.7	14.8	7	7.3
Tonopah CDP	2,627	11.2	7.3	19.1	5.7

Yellow Shading: Relevant reference population statistics.

Orange Shading: Statistics/places "flagged" for EJ impacts analysis.

Source: U.S. Census Bureau, Census 2000 Summary File 3 (SF 3), GCT-P14: Income and Poverty in 1999.

3.0 ECONOMIC CONDITIONS

This section identifies and profiles the economy of the socioeconomic study area in terms of employment, earnings, sources of income, numbers and types of businesses, and economic base. Several specific economic sectors that are relevant to use of BLM public lands are described. This section also includes data on sources of funds for state and local government, and briefly discusses BLM and local government expenditures. Data is provided at the county level. In some cases, data is also provided for the state of Nevada and the U.S. for comparative purposes. It is important to note that because Clark County accounts for the large majority of the population and economy of the state, Nevada figures are heavily weighted by Clark County figures.

3.1. EMPLOYMENT

The labor force in Nevada is largely centralized in Clark County, which accounts for 72 percent of the labor force of the state, according to the U.S. Census Bureau (2006-2008). In Clark County, the percentage of the population that is part of the labor force is on par with the same percentage for Nevada and is slightly higher than for the U.S, as shown in Table 17. The percentage of the Nye County population in the work force is significantly lower than the percentage for Clark County, the state, and the U.S., which is likely a reflection of the older population of Nye County relative to the other areas, as noted in Section 2.3.

Table 17. Labor Force in the Socioeconomic Study Area

	Clark County		Nye County		Nevada		U.S.	
	Estimate	%	Estimate	%	Estimate	%	Estimate	%
In labor force	954,518	69%	18,353	52%	1,331,314	68%	153,989,802	65%

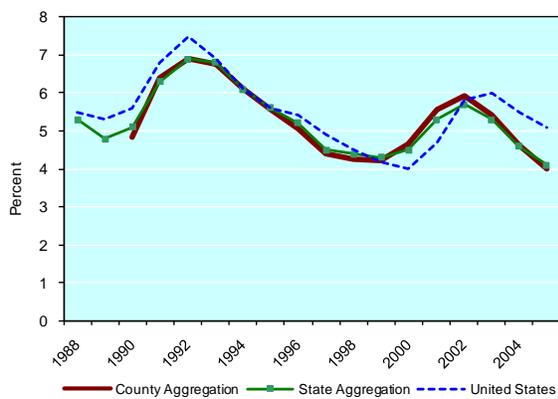
Source: U.S. Census Bureau 2006-2008.

All dollar values are in 2008 inflation adjusted dollars; percentages are percent of total labor force.

The labor force includes the population that is 16 years old and older and excludes retired, disabled, unemployed, and those not looking for work.

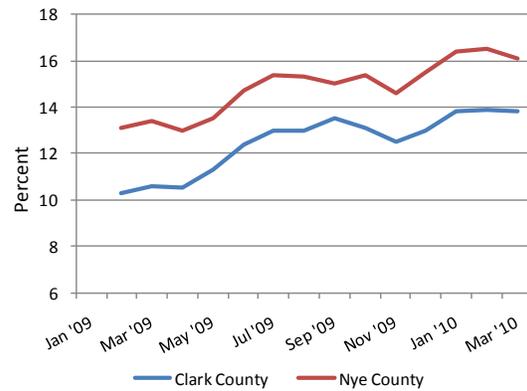
Historically, the unemployment rate in the socioeconomic study area has tracked relatively closely with the unemployment rate of the state and nation, as shown for 1998 to 2004 in Figure 10. The two counties are combined in this figure. However, Nye County unemployment rates have more pronounced variations than Clark County and Nevada – Nye County showed a rate of about a percentage point lower than Clark County and Nevada from 1990 to 1993 and a rate of one to two percentage points higher than Clark County and Nevada from 2000 to 2003 (EPS 2007, based on BLS 2006).

Figure 10. Average Annual Unemployment Rate in the Study Area



Source: EPS 2007, based on BLS 2006.

Figure 11. Unemployment Rate in the Study Area, Jan 2009 to Mar 2010



Source: BLS 2010a.

More recently, southern Nevada has been hit hard by the recession. Figure 11 shows that unemployment climbed steadily during 2009, to peaks of nearly 14 percent in Clark County and over 16 percent in Nye County, compared to 10.2 percent nationally (BLS 2010a).

The collective socioeconomic study area, including Clark and Nye Counties, has consistently recovered from recessions better than Nevada or the U.S., in terms of change in employment levels. Figure 12 and Figure 13 show the percentage increase in jobs from the bottom of a recession to the next peak in employment. Historically, during the 1975 to 2004 time horizon, Clark and Nye Counties have shown a stronger percentage increase in the number of jobs following a recession compared to the U.S., as displayed in Figure 12 and Figure 13. Post-recession employment recovery in Nye County has been more variable than in Clark County, but Nye County has outpaced the U.S. in employment percentage increases in all years except the 1991 to 2001 time span. This long-term trend in strong job growth following recessions indicates that the socioeconomic study area has a resilient economy. This may indicate it will recover from the current recession more strongly than Nevada or the U.S. Within the study area, Clark County is likely to recover more strongly than Nye County.

Figure 12. Clark County Increase in Employment Following Recessions, 1975 to 2004

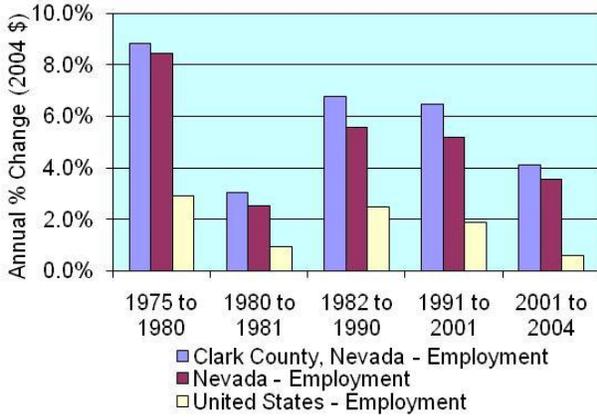
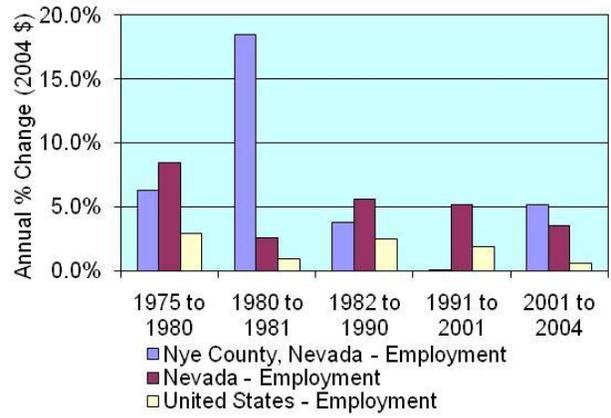


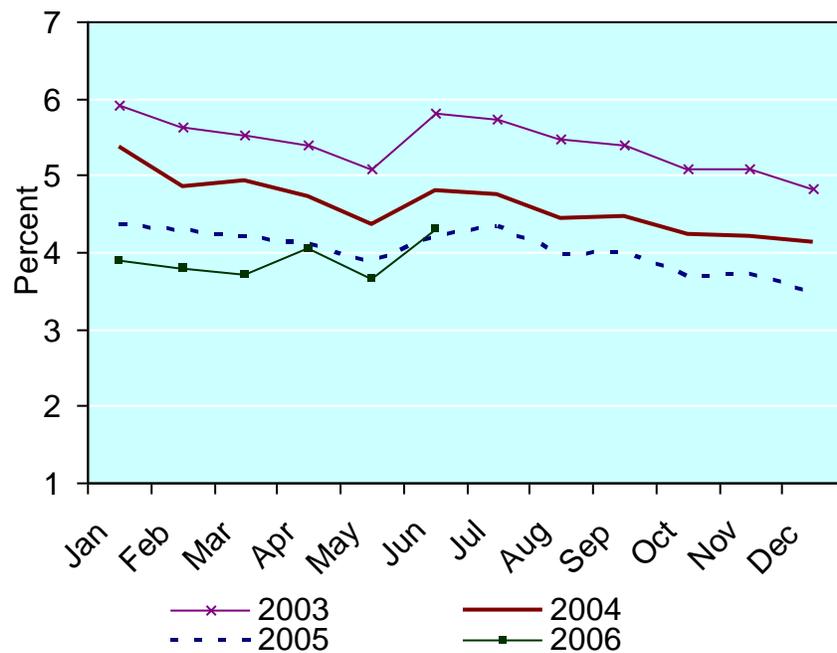
Figure 13. Nye County Increase in Employment Following Recessions, 1975 to 2004



Source: EPS 2007, based on BEA REIS 2004 Table CA30

Figure 14 illustrates the seasonal variation in unemployment in the socioeconomic study area. During the 2003 to 2006 time period, unemployment rates tended to be lowest in December and highest in January and June. This seasonal unemployment cycle likely results from the tourist seasons and conventions, which slow down in January, following the holiday season, and in the June/July timeframe during the peak of the summer heat when visitation and construction slow down (Gregory, et al. 2010). Note that the trends for Clark and Nye Counties were very similar, so they are shown combined in the graphics. Nye County tended to be about two percentage points higher than Clark throughout the depicted time periods.

Figure 14. Seasonal Unemployment Rate in the Socioeconomic Study Area, 2003 to 2006

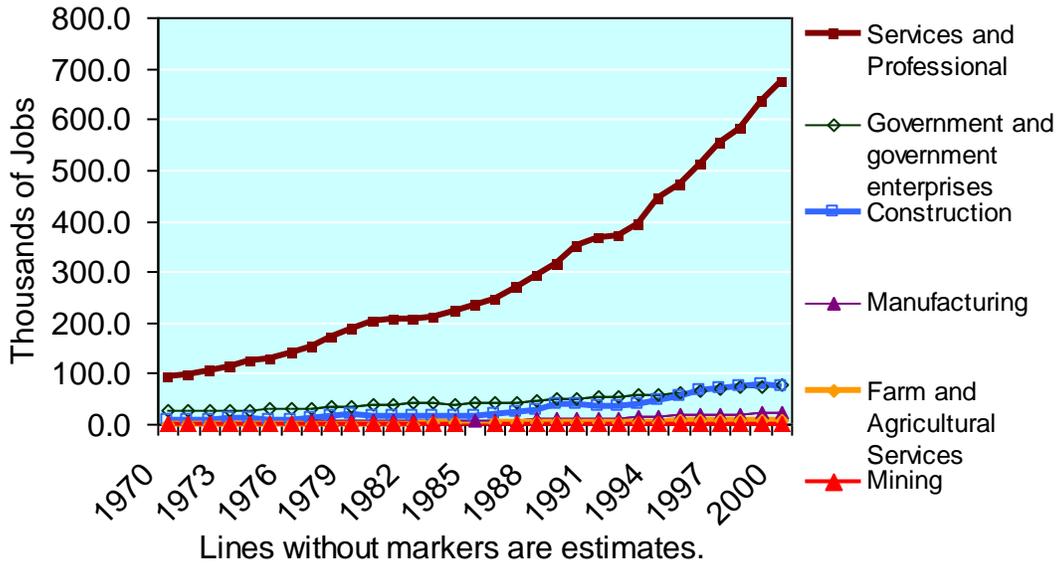


Source: EPS 2007, based on BLS 2006

Historical data on jobs by sector demonstrate the relative importance of different industries to the socioeconomic study area over time. Trends in employment by Standard Industrial Classification (SIC), for 1970 to 2000, and North American Industry Classification System (NAICS) codes, for 2001 onward, are discussed below. Employment by industry since 2000 cannot be readily compared with prior years. In 2001, the BEA switched from the SIC codes to the NAICS codes to better capture new industries that did not exist when the SIC classifications were created. The employment and earnings trends by industry are separated in this analysis because the SIC and NAICS classification are not readily comparable. Note also that although BEA estimates annual employment and earnings for counties nationwide, BEA will not show some information (e.g., total employment for an industry sector that has few companies within a particular geography) to ensure that it does not violate confidentiality for those companies.

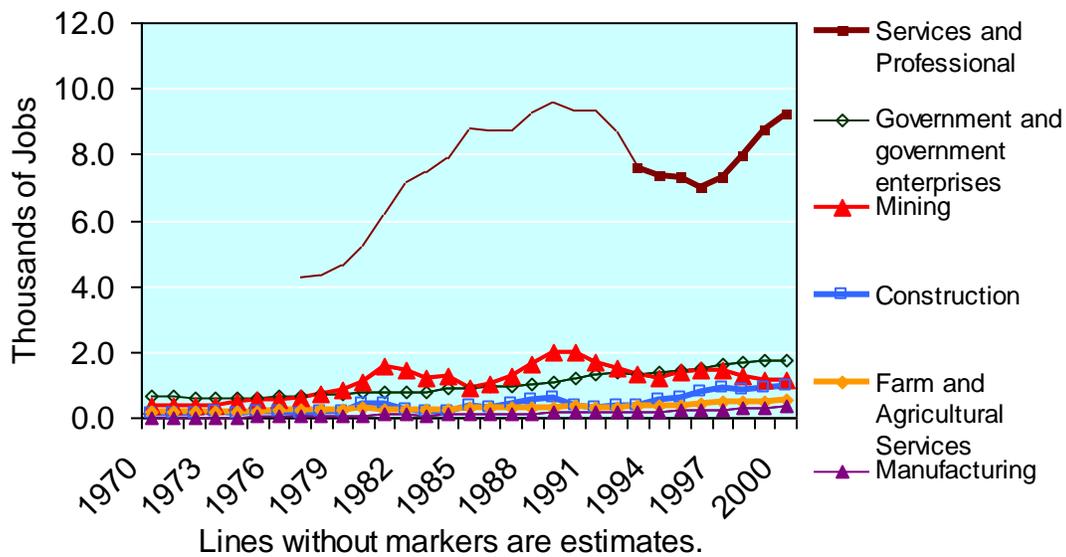
Based on SIC codes from 1970 to 2000, *Services and Professional* was the largest sector by far, in terms of the number of jobs, for both Clark County and Nye County, and showed a general upward trend in the number of those jobs over time, as shown in Figure 15 and Figure 16. (The thin line on the Nye County graph for Services and Professional represents estimates for those years.) In Clark County the next two largest industries based on number of jobs were *Government & Government Enterprises* and *Construction*, each of which grew moderately from 1970 to 2000. In Nye County during the same period, *Government & Government Enterprises* was a significant industry that increased in terms of number of jobs over time, and *Mining* was the next largest, with varying counts of jobs, sometimes greater than and sometimes less than *Government & Government Enterprises*. The *Construction* sector was also important for Nye County and grew somewhat in terms of number of jobs in the closing years of the time period shown.

Figure 15. Clark County Employment History by Industry, 1970 to 2000



Source: EPS 2007, based on BEA REIS 2006 Table CA25.

Figure 16. Nye County Employment History by Industry, 1970 to 2000



Source: EPS 2007, based on BEA REIS 2006 Table CA25.

Based on NAICS codes for the years 2002, 2005, and 2008, employment by industry in Clark County is shown in Table 18 and in Nye County is shown in Table 19. In Clark County, the industry yielding the most employment during those years was consistently *Accommodation & Food Services*, accounting for 22 percent of total employment in the county in 2008 (more than double the percentage of any other category). In Clark County during the same years, the other top industries in terms of employment in order of the percentage employed were *Retail Trade*, *Government & Government Enterprises*, and

Construction. The industry with the largest percentage of growth in the county was *Management of Companies & Enterprises*, with a 151 percent increase from 2002 to 2008. *Mining* also had significant growth of 91 percent, as did *Education* with growth of 84 percent; however, both were among the smallest industries by employment. *Farm Employment* in Clark County declined by 40 percent and *Forestry, Fishing & Related Activities* decreased by 20 percent during the same time period.

In Nye County, the number one industry based on employment was *Professional, Scientific & Technical Services*, representing 13 percent of employment in the county in 2008. The other top employing industries, in order of the percentage employed, of Nye County during the same period were *Government & Government Enterprises*, *Retail Trade*, and *Accommodation & Food Services*. The industry with the largest percentage of growth in the Nye County was *Real Estate & Leasing*, with a 119 percent increase from 2002 to 2008. *Mining* had moderate growth of 14 percent. *Farm Employment* in the county increased by 6 percent during the same time period.

There were not any large changes in share of any one industry in either county from 2002 to 2008, with the largest change in share over that time period being just three percent. Key differences between the two counties included the following, based on proportional shares of employment:

- There were proportionally more construction jobs in Clark County than in Nye County;
- Mining had a much larger share of total employment in Nye County relative to Clark County;
- Professional, scientific and technical services were higher for Nye County than Clark County;
- Clark had a larger share of accommodation and food employment than Nye County, although this industry was significant for both counties; and,
- There was a slightly higher share of government employees in Nye County compared to Clark County, which is typical of many geographies with smaller population levels.

Table 18. Clark County Employment by Industry, 2002, 2005 and 2008

NAICS Category	2002	2005	2008	Share of Total (2008)		Change in Share '02 - '08	Change in value '02 - '08
Private Farm Employment	406	321	244	< 1%		0.0%	-40%
Private Non-Farm Employment	805,314	979,802	1,052,408	90%	*	0.0%	31%
Forestry, fishing, and related activities	407	314	327	< 1%		0.0%	-20%
Mining	1,171	1,327	2,241	< 1%		0.1%	91%
Utilities	3,230	3,337	3,186	< 1%		-0.1%	-1%
Construction	79,066	115,096	106,628	9%	■	0.3%	35%
Manufacturing	22,614	27,316	27,910	2%		-0.1%	23%
Wholesale trade	23,359	26,407	28,548	2%		-0.2%	22%
Retail trade	95,328	111,056	118,215	10%	■	-0.5%	24%
Transportation and warehousing	28,787	33,956	40,340	3%	■	0.2%	40%
Information	14,329	13,825	14,671	1%		-0.3%	2%
Finance and insurance	46,175	52,912	62,392	5%	■	0.2%	35%
Real estate and rental and leasing	41,046	62,963	74,243	6%	■	1.8%	81%
Professional, scientific, and technical services	42,997	54,056	61,073	5%	■	0.4%	42%
Management of companies and enterprises	6,174	10,209	15,504	1%		0.6%	151%
Administrative and waste services	60,254	76,256	77,255	7%	■	-0.1%	28%
Educational services	4,475	6,537	8,377	1%		0.2%	87%
Health care and social assistance	51,672	61,272	71,016	6%	■	0.3%	37%
Arts, entertainment, and recreation	27,573	31,305	34,438	3%	■	-0.1%	25%
Accommodation and food services	219,156	249,278	256,805	22%	■	-2.5%	17%
Other services, except public administration	37,501	42,380	49,239	4%	■	0.0%	31%
Government and Government Enterprises	86,512	98,392	112,864	10%	■	0.0%	30%
Federal, civilian	9,576	11,080	11,482	1%		-0.1%	20%
Military	10,420	11,379	13,009	1%		-0.1%	25%
State and local	66,516	75,933	88,373	8%	■	0.1%	33%
State government	12,191	14,276	15,928	1%		0.0%	31%
Local government	54,325	61,657	72,445	6%	■	0.1%	33%

Source: BEA REIS 2008 CA25N

* Bar not shown for total private non-farm employment because the percentage is too large.

Table 19. Nye County Employment by Industry, 2002, 2005 and 2008

NAICS Category	2002	2005	2008	Share of Total (2008)	Change in Share '02 - '08	Change in value '02 - '08
Private Farm Employment	302	323	319	2%	-0.5%	6%
Private Non-Farm Employment	10,850	14,571	15,316	86% *	2.1%	41%
Forestry, fishing, and related activities	(D)	59	(D)	N/A	N/A	N/A
Mining	940	977	1,075	6%	-1.2%	14%
Utilities	115	(D)	135	1%	-0.1%	17%
Construction	986	1,682	1,096	6%	-1.5%	11%
Manufacturing	190	296	191	1%	-0.4%	1%
Wholesale trade	161	180	191	1%	-0.2%	19%
Retail trade	1,415	2,022	2,080	12%	0.7%	47%
Transportation and warehousing	230	(D)	295	2%	-0.1%	28%
Information	152	156	136	1%	-0.4%	-11%
Finance and insurance	368	462	561	3%	0.3%	52%
Real estate and rental and leasing	670	1,122	1,469	8%	3.1%	119%
Professional, scientific, and technical services	1,828	2,451	2,292	13%	-1.3%	25%
Management of companies and enterprises	16	18	(D)	N/A	N/A	N/A
Administrative and waste services	866	1,048	1,205	7%	0.1%	39%
Educational services	(D)	77	154	1%	N/A	N/A
Health care and social assistance	(D)	665	954	5%	N/A	N/A
Arts, entertainment, and recreation	729	818	871	5%	-0.7%	19%
Accommodation and food services	1,388	1,606	1,541	9%	-2.1%	11%
Other services, except public administration	796	932	1,070	6%	-0.1%	34%
Government and Government Enterprises	1,762	1,879	2,145	12%	-1.6%	22%
Federal, civilian	172	157	152	1%	-0.5%	-12%
Military	78	84	137	1%	0.2%	76%
State and local	1,512	1,638	1,856	10%	-1.3%	23%
State government	(D)	156	165	1%	N/A	N/A
Local government	(D)	1,482	1,691	10%	N/A	N/A

Source: BEA REIS 2008 CA25N

(D) Indicates that the value was not disclosed due to confidentiality.

* Bar not shown for total private non-farm employment because the percentage is too large.

3.2. EARNINGS

Earnings are defined as the sum of wage and salary disbursements⁶, supplements to wages and salaries, and proprietors' income (BEA 2010b). Table 20 and Table 21 show earnings in Clark and Nye Counties, respectively, in 2002, 2005 and 2008. In Clark County in 2008, the industries with the highest earnings were, beginning with the highest, *Accommodation and Food Services* (accounting for 19 percent of all earnings), *Government & Government Enterprises* (14 percent), and *Construction* (13 percent). In Clark County, the industry that experienced the largest percentage of growth in earnings was *Management of Companies & Enterprises*, with 187 percent growth from 2002 to 2008, followed by *Educational Services*, with 139 percent growth. In the same time period, the following industries each accounted for less than 1 percent of total earnings in 2008, but showed noteworthy growth or decline from 2002 to 2008: *Mining* earnings grew by 65 percent, *Forestry, Fishing & Related Activities* earnings grew by 23 percent, and *Farm* earnings declined by 48 percent.

⁶ Note that employee contributions to retirement programs, as a portion of wages, are captured in the figures cited.

In Nye County in 2008, the industries with the highest earnings were, beginning with the highest, *Professional, Scientific & Technical Services* (accounting for 22 percent of all earnings), *Government & Government Enterprises* (18 percent), and *Mining* (12 percent). The industry that experienced the largest percentage of growth in earnings in Nye County was *Private Farm Earnings* with 313 percent growth from 2002 to 2008 (but accounting for only 2 percent of total earnings for the county), followed by *Military*, with 266 percent growth (but only 1 percent of total earnings in 2008). In 2008, *Mining* accounted for 12 percent of earnings and grew from 2002 to 2008 by 51 percent. The percentage of the total earnings that each industry accounted for remained relatively stable in both counties from 2002 to 2008, with the largest change in the share of total earnings for any single sector in the area being only three percent.

Table 20. Clark County Earnings in 2002, 2005 and 2008 (thousands of dollars)

NAICS Category	2002	2005	2008	Share of Total (2008)	Change in Share '02 - '08	Change in value '02 - '08
Private Farm Earnings	3,810	3,113	1,982	< 1%		0.0%
Private Non-Farm Earnings	32,026,136	43,601,183	48,796,300	86%	*	26.1%
Forestry, fishing, and related activities	3,412	4,046	4,212	< 1%		0.0%
Mining	50,396	72,314	83,018	< 1%		0.1%
Utilities	316,477	372,759	377,250	1%		0.1%
Construction	4,127,761	6,574,845	7,350,979	13%		5.2%
Manufacturing	1,070,503	1,488,033	1,694,471	3%		1.0%
Wholesale trade	1,293,761	1,710,056	2,059,999	4%		1.2%
Retail trade	2,853,502	3,637,011	3,847,034	7%		1.4%
Transportation and warehousing	1,207,818	1,564,109	2,084,810	4%		1.4%
Information	811,848	924,584	914,748	2%		0.1%
Finance and insurance	2,263,188	2,659,253	2,829,341	5%		0.8%
Real estate and rental and leasing	1,186,526	1,735,206	1,461,384	3%		0.4%
Professional, scientific, and technical services	2,249,016	3,244,680	3,825,438	7%		2.5%
Management of companies and enterprises	697,665	1,671,347	2,001,028	4%		2.2%
Administrative and waste services	1,656,403	2,170,474	2,354,660	4%		1.1%
Educational services	111,822	191,856	267,359	< 1%		0.3%
Health care and social assistance	2,409,246	3,231,189	4,032,311	7%		2.6%
Arts, entertainment, and recreation	804,348	955,267	1,044,668	2%		0.3%
Accommodation and food services	7,677,324	9,777,539	10,763,816	19%		4.6%
Other services, except public administration	1,235,120	1,616,615	1,799,774	3%		0.9%
Government and government enterprises	4,787,036	6,212,305	7,999,313	14%		5.2%
Federal, civilian	735,906	947,192	1,086,618	2%		0.5%
Military	583,220	780,834	1,002,931	2%		0.7%
State and local	3,467,910	4,484,279	5,909,764	10%		3.9%
State government	569,521	746,620	973,402	2%		0.7%
Local government	2,898,389	3,737,659	4,936,362	9%		3.3%

Source: BEA REIS 2008 CA05N

All earnings are in thousands of dollars.

* Bar not shown for total private non-farm employment because the percentage is too large.

Table 21. Nye County Earnings in 2002, 2005 and 2008 (thousands of dollars)

NAICS Category	2002	2005	2008	Share of Total (2008)	Change in Share '02 - '08	Change in value '02 - '08
Private Farm Earnings	4,144	14,260	17,129	2%		1.5%
Private Non-Farm Earnings	363,419	520,632	561,100	79%	*	-1.8%
Forestry, fishing, and related activities	(D)	717	(D)	N/A	N/A	N/A
Mining	54,069	64,051	81,598	12%		-0.5%
Utilities	8,296	(D)	14,654	2%		0.2%
Construction	30,395	55,076	33,888	5%		-2.0%
Manufacturing	7,023	9,820	6,812	1%		-0.6%
Wholesale trade	3,925	5,921	7,360	1%		0.2%
Retail trade	30,475	47,323	50,380	7%		0.3%
Transportation and warehousing	7,973	(D)	8,887	1%		-0.5%
Information	4,000	4,680	5,131	1%		-0.2%
Finance and insurance	5,608	9,401	8,433	1%		-0.1%
Real estate and rental and leasing	9,274	13,294	8,467	1%		-0.9%
Professional, scientific, and technical services	114,255	212,806	159,179	22%		-3.0%
Management of companies and enterprises	-	3,313	(D)	N/A	N/A	N/A
Administrative and waste services	35,201	(D)	58,056	8%		0.3%
Educational services	(D)	2,000	4,821	1%		N/A
Health care and social assistance	(D)	19,928	33,314	5%		N/A
Arts, entertainment, and recreation	11,914	19,377	21,307	3%		0.4%
Accommodation and food services	24,126	30,125	31,768	4%		-0.9%
Other services, except public administration	16,885	22,800	27,045	4%		0.1%
Government and government enterprises	81,293	97,300	130,608	18%		0.3%
Federal, civilian	11,616	12,158	13,523	2%		-0.7%
Military	2,316	3,680	8,476	1%		0.7%
State and local	67,361	81,462	108,609	15%		0.3%
State government	(D)	8,586	10,503	1%		N/A
Local government	(D)	72,876	98,106	14%		N/A

Source: BEA REIS 2008 CA05N

All earnings are in thousands of dollars.

(D) Indicates that the value was not disclosed due to confidentiality.

* Bar not shown for total private non-farm employment because the percentage is too large.

Table 22 shows the average annual pay by industry in Clark and Nye Counties in 2002, 2005, and 2008 for privately held ownership entities. Across all industries in 2008, the annual pay for each county was just over \$42,000. The annual pay in each industry increased over time in both counties, with the exception of *Financial Industries* in Clark County (which decreased slightly from 2005 to 2008), *Professional and Business Services* in Nye County (which decreased significantly from 2005 to 2008), and *Unclassified* in Nye County (which had a very large increase from 2002 to 2005 and a significant decrease from 2005 to 2008). As a general trend, wages increased at a greater rate from 2002 to 2005 than from 2005 to 2008, which is reflective of the downturn in the economy in and around 2008. In 2008, the top paying industries in Clark County, based on average annual pay, were *Unclassified* (\$60.5 thousand), *Construction* (\$59.9 thousand), and *Information* (\$54.9 thousand). The lowest paying industries in Clark County were *Trade, Transportation & Utilities* (\$35.8 thousand); *Leisure & Hospitality* (\$31.9 thousand); and *Other Services* (\$31.1 thousand). In Nye County in 2008, the top paying industries, based on average annual pay, were *Professional & Business Services* (\$70.0 thousand), *Natural Resources and Mining* (\$59.8 thousand), and *Information* (\$58.5 thousand). The lowest paying industries in Nye County were *Other Services* (\$28.1 thousand), *Financial Activities* (\$24.5 thousand), and *Leisure & Hospitality* (\$17.7 thousand).

Table 22. Average Annual Pay by Industry, 2002, 2005 & 2008

Industry	Clark County				Nye County			
	2002	2005	2008	Rank (2008)	2002	2005	2008	Rank (2008)
Construction	\$41,475	\$46,163	\$59,853	2	\$29,104	\$30,811	\$36,212	5
Education and Health Services	\$38,586	\$42,865	\$47,926	7	\$24,750	\$28,614	\$32,513	7
Financial Activities	\$40,247	\$50,050	\$49,219	5	\$21,516	\$27,828	\$24,524	11
Information	\$47,307	\$61,217	\$54,871	3	\$26,789	\$40,198	\$58,538	3
Leisure and Hospitality	\$26,052	\$29,421	\$31,853	11	\$13,905	\$15,948	\$17,724	12
Manufacturing	\$38,608	\$42,839	\$48,381	6	\$25,151	\$27,952	\$31,778	8
Natural Resources and Mining	\$31,913	\$39,432	\$44,210	8	\$47,507	\$51,478	\$59,824	2
Other Services	\$25,360	\$28,743	\$31,101	12	\$19,007	\$24,135	\$28,126	10
Professional and Business Services	\$38,687	\$48,034	\$53,308	4	\$57,339	\$79,259	\$69,958	1
Trade, Transportation, and Utilities	\$30,455	\$33,644	\$35,807	10	\$25,993	\$27,428	\$30,944	9
Unclassified	\$34,117	\$59,983	\$60,457	1	\$16,809	\$46,876	\$34,790	6
All Industries	\$32,740	\$38,081	\$42,013	9	\$34,978	\$42,056	\$42,286	4

Source: BLS 2010b

3.3. SOURCES OF INCOME

Income patterns for households⁷ in Clark County are very similar to those of Nevada and relatively similar to the U.S. Nye County has a lower percentage of households with earnings and a higher percentage of households with social security and retirement income than Clark County, Nevada, and the U.S. due to the larger percentage of the population 65 years and older. Table 23 shows income and benefits in the areas discussed. Table 24 and Table 25 show trends in personal income by source.

Table 23. Prevalence of Income Sources for Households in the Socioeconomic Study Area

	Clark County		Nye County		Nevada		U.S.
Total households	676,617	100%	13,390	100%	947,147	100%	100%
With earnings	573,530	85%	8,658	65%	792,816	84%	80%
With Social Security	155,021	23%	6,521	49%	229,412	24%	27%
With retirement income	105,662	16%	4,098	31%	155,948	17%	17%
With Supplemental Security Income	19,637	3%	611	5%	27,068	3%	4%

⁷ A household includes all the people who occupy a housing unit as their usual place of residence (U.S. Census Bureau 2010a). Note that a household is different from a family, which is defined as a group of two or more people who reside together and who are related by birth, marriage, or adoption.

	Clark County		Nye County		Nevada		U.S.
With cash public assistance income	12,846	2%	409	3%	17,661	2%	2%

Source: U.S. Census Bureau 2006-2008.

The majority of personal income in the socioeconomic study area comes from labor income (net earnings), as shown in Table 24 and Table 25. However, the percentage of income from labor has declined while the percentage of income from non-labor sources has increased in Clark County and Nye County from 1970 to 2008. These trends are shown graphically in Figure 17 and Figure 18. In both counties, the following changes have occurred in the percentage share of total personal income: net earning income has decreased; dividends, interest, and rent income has increased; personal current transfer receipts income has increased. Within personal current transfer receipts income, income maintenance income and unemployment insurance compensation income have remained relatively stable, while retirement and other income has increased. The rate of change is the highest for Nye County, which is reflective of an increasing older population that relies more heavily on non-labor income sources like social security, retirement benefits, and dividends (Osborne, et al. 2010). The study area and the state have significantly less income coming from labor as a percentage of total income relative to the U.S. For Nye County, in particular, this is reflective of the high percentage of retirees who are receiving some sort of retirement benefits (Osborne, et al. 2010).

Figure 17. Labor Income as a Percentage of Total Personal Income

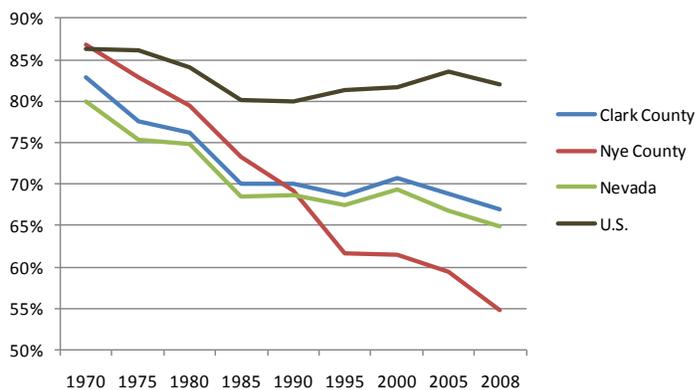
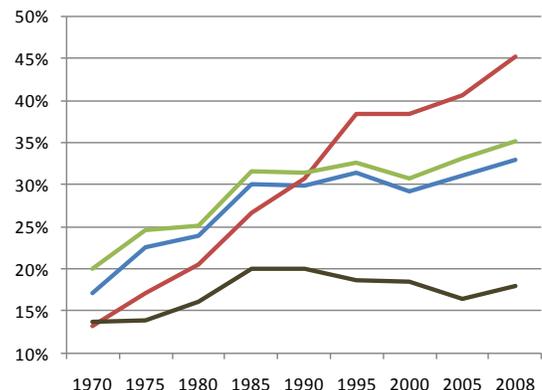


Figure 18. Non-Labor Income as a Percentage of Total Personal Income



Source: BEA REIS 2008 Table SA04 and CA04.

Non-Labor income includes dividends, interest, rent, and personal current transfer receipts.

Percentages are approximate and do not account for adjustments for state of residence, social security, and others.

Table 24. Clark County Personal Income by Source (\$1000s)

Labor vs. Non-Labor	1970		1980		1990		2000		2008	
	\$	%	\$	%	\$	%	\$	%	\$	%
Personal Income	1,347,991	100%	5,232,411	100%	14,726,921	100%	42,026,395	100%	75,012,626	100%
Net Earnings	1,117,251	83%	3,982,809	76%	10,314,385	70%	29,748,690	71%	50,241,564	67%
Dividends, Interest, and Rent	154,773	11%	747,654	14%	2,753,998	19%	8,177,657	19%	16,027,774	21%
Personal Current Transfer Receipts	75,967	6%	501,948	10%	1,658,538	11%	4,100,048	10%	8,743,288	12%
Income Maintenance	6,229	0%	36,377	1%	102,466	1%	292,148	1%	713,887	1%
Unemployment Ins. Comp.	8,020	1%	32,986	1%	50,793	0%	140,720	0%	475,100	1%
Retirement and Other	61,718	5%	432,585	8%	1,505,279	10%	3,667,180	9%	7,554,301	10%

Source: BEA REIS 2008 Table CA30.

All earnings are in thousands of dollars.

All dollar estimates are in then-year dollars (not adjusted for inflation).

Table 25. Nye County Personal Income by Source (\$1000s)

Labor vs. Non-Labor	1970		1980		1990		2000		2008	
	\$	%	\$	%	\$	%	\$	%	\$	%
Personal Income	27,670	100%	106,647	100%	292,855	100%	802,889	100%	1,461,562	100%
Net Earnings	24,023	87%	84,706	79%	202,599	69%	493,987	62%	801,211	55%
Dividends, Interest, and Rent	2,254	8%	12,754	12%	53,163	18%	163,518	20%	312,502	21%
Personal Current Transfer Receipts	1,393	5%	9,187	9%	37,093	13%	145,384	18%	347,849	24%
Income Maintenance	63	0%	310	0%	1,716	1%	7,768	1%	19,162	1%
Unemployment Ins. Comp.	64	0%	210	0%	875	0%	4,340	1%	13,662	1%
Retirement and Other	1,266	5%	8,667	8%	34,502	12%	133,276	17%	315,025	22%

Source: BEA REIS 2008 Table CA30.

All earnings are in thousands of dollars.

All dollar estimates are in then-year dollars (not adjusted for inflation).

Discrepancies of one percent in the percentage of Personal Current Transfer Receipts compared to its sub-components are due to rounding.

The definitions of each of the labor and non-labor categories in Table 24 and Table 25 are as follows (BEA 2010a):

Personal Income – Income received from all sources, including income received from participation in production as well as from government and business transfer payments. It is the sum of compensation of employees (received), supplements to wages and salaries, proprietors’ income with inventory valuation adjustment and capital consumption adjustment (CCAdj), rental income of persons with CCAdj, personal income receipts on assets, and personal current transfer receipts, less contributions for government social insurance.

Net Earnings – Net earnings by place of residence is earnings by place of work less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place of residence basis. Earnings by place of work is the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors’ income.

Dividends, Interest, and Rent – Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustment, sometimes referred to as “investment income” or “property income.”

Dividends: This component of personal income consists of the payments in cash or other assets, excluding the corporation’s own stock, made by corporations located in the United States or abroad to persons who are U.S. residents. It excludes that portion of dividends paid by regulated investment companies (mutual funds) related to capital gains distributions.

Interest: This component of personal income is the interest income (monetary and imputed) of persons from all sources.

Rent: Rental income is the net income of persons from the rental of real property except for the income of persons primarily engaged in the real estate business; the imputed net rental income of the owner-occupants of nonfarm dwellings; and the royalties received from patents, copyrights, and the right to natural resources.

Personal Current Transfer Receipts – This component of personal income is payments to persons for which no current services are performed. It consists of payments to individuals and to nonprofit institutions by Federal, state, and local governments and by businesses. Government payments to individuals includes retirement and disability insurance benefits, medical benefits (mainly Medicare and Medicaid), income maintenance benefits, unemployment insurance compensation, veterans’ benefits, and Federal education and training assistance. Government payments to nonprofit institutions excludes payments by the Federal Government for work under research and development contracts. Business payments to persons consists primarily of liability payments for personal injury and of corporate gifts to nonprofit institutions.

Income Maintenance – Income Maintenance Payments consists largely of supplemental security income payments, family assistance, food stamp payments, and other assistance payments, including general assistance.

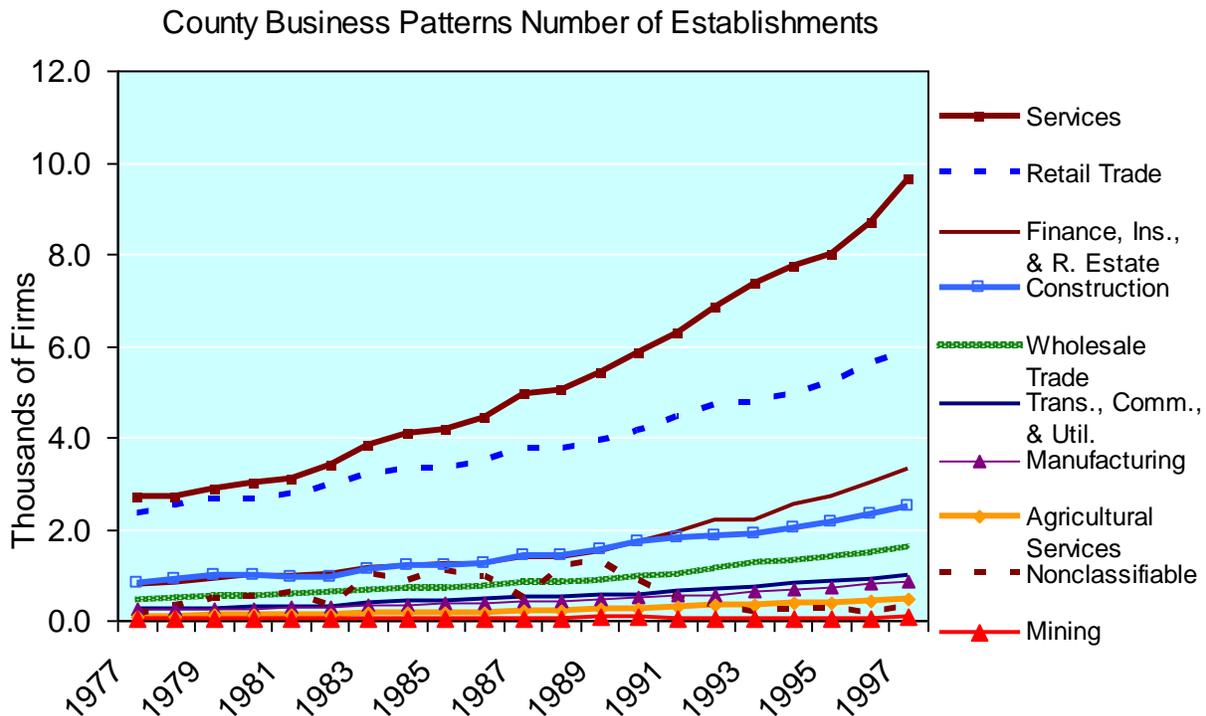
Unemployment Insurance Compensation – Unemployment insurance compensation includes state unemployment compensation, unemployment compensation of Federal civilian employees, unemployment compensation of railroad employees, unemployment compensation of veterans, and trade adjustment allowances to workers who are unemployed because of adverse economic effects of international trade arrangements.

Retirement and Other – Retirement and other consists of retirement and disability insurance benefit payments, medical benefits, veterans benefit payments, federal education and training benefits, other government payments to individuals, government payments to nonprofit institutions, and business payments. However, disbursements receive from private retirement programs (e.g., from 401k accounts) are not included. The BEA REIS data does not currently capture this source of income.

3.4. FIRMS

The largest number of firms in the socioeconomic study area by SIC code from 1977 to 1997 was in *Services*, followed by *Retail Trade*, with *Services* gaining an increasing share of the market, as represented in Figure 19. Clark and Nye Counties had very similar employment categories and relative numbers of firms (also similar to the state), so the data for both counties is presented together. The primary difference between the counties is that *Services* was the largest and fastest growing sector in Clark County, whereas *Retail Trade* was the largest sector in Nye County with *Services* as the second largest but fastest growing for most of the time period. In the late 1990s the number of *Services* firms in Nye County exceeded the number of *Retail Trade* firms. Generally, the other industries showed a moderate increase in the number of firms over time as the population of the area increased. Data ends in 1997 because the source, County Business Patterns (CBP), switched to a different classification system (NAICS) in 1997.

Figure 19. Number of Firms by Sector (SIC Code) in the Socioeconomic Study Area, 1977 to 1997

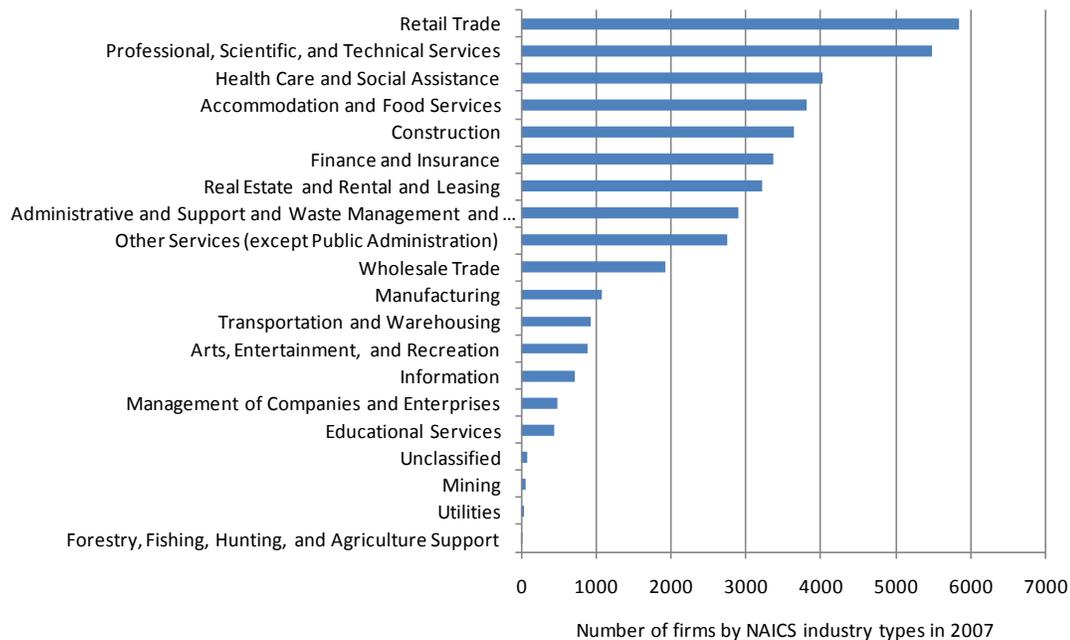


Source: EPS 2007, based on U.S. Census Bureau CBP 2007.

Figure 20 and Figure 21 show more recent data for 2007 based on NAICS codes. *Retail Trade* had the largest number of firms in both Clark County and Nye County (U.S. Census Bureau 2007). Following

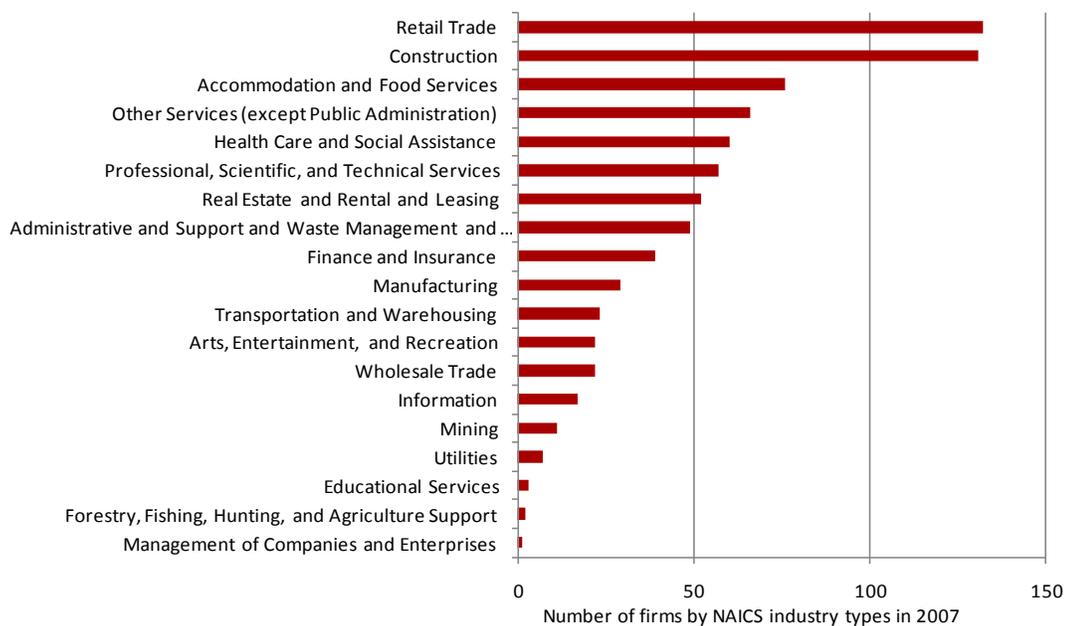
that, the rankings differ somewhat between counties, but the sectors with the largest number of firms in each county include *Professional, Scientific & Technical Services; Health Care and Social Assistance; Accommodations & Food Services; and Construction*. The sectors with the lowest count of firms in the counties include *Forestry, Fishing, Hunting & Agriculture; Utilities; Mining; Educational Services; and Management of Companies and Enterprises*.

Figure 20. Number of Firms in Clark County by NAICS, 2007



Source: U.S. Census Bureau 2007.

Figure 21. Number of Firms in Nye County by NAICS, 2007



Source: U.S. Census Bureau 2007.

3.5. ECONOMIC BASE

An area's economic base is comprised of "basic industries" that bring outside income into the local economy. These industries export most or all of their goods and services outside the region, serving economic demand generated by non-local businesses and consumers. This brings new income into the region. Manufacturing and mining are often thought of as basic industries, as they usually export most of their goods outside of a local area and are dependent on non-local economic factors. By bringing in outside income, basic industries help support "non-basic" industries such as retail trade, housing, construction, and personal services that primarily serve locally generated economic demand. Some industries may be partly basic and partly non-basic, depending on local conditions. For instance, restaurants are largely non-basic when they primarily serve local businesses and residents; in other areas they may be strongly basic if they serve large amounts of tourist-generated demand, thereby bringing outside income into the local economy.

Another way to think of economic base is in terms of specializations in the local economy compared to a larger economy such as the national economy. The specialization of certain geographic areas in certain industries has traditionally been tied to such factors as the natural resource base, transportation and other infrastructure, and cost factors such as labor. In areas with a high proportion of public lands, industries such as mining, grazing, and recreation may be important local economic specializations that bring outside income into the local economy.

Calculation of "location quotients" is one way of assessing an area's economic base or specializations (Florida State University 2010). A location quotient compares an industry's share of total local economic activity to the industry's share in a larger economy, such as the state or nation. The quotient is a ratio, where 1.0 indicates an equal share percentage between the local and larger economies. Location quotients under 1.0 signify a lesser share locally than for the larger economy; figures over 1.0 signify a greater share locally, and thus some degree of specialization of the local economy in that sector compared to the larger economy.⁸ The greater the ratio, the greater the degree of specialization. However, location quotients must be interpreted along with data on the size of an industry. An industry could have a very high location quotient but not be especially important locally if it provides only a small share of an area's jobs or earnings.

Location quotients for employment and earnings for Clark County and Nye County are shown in Table 26. These quotients are based on a comparison of the counties to the national economy. It would not be informative to develop quotients in relation to the state economy because the socioeconomic study area makes up a very large proportion of the state economy.

In Clark County, the following industries have particularly high location quotients *and* have a large share of employment (over seven percent; see Table 18): construction; and accommodation and food services. Likewise, in Nye County the following industries have high quotients *and* have a large share of employment (see Table 19): real estate and rental and leasing; professional, scientific, and technical services; administrative and waste services; accommodation and food services; and local government. These industries bring a significant amount of outside income into the local economies of their respective counties.

In Clark County, the following industries have high quotients, but have a smaller share of employment (less than seven percent): management of companies and enterprises; and arts entertainment and

⁸ Put another way, if a ratio of 1.0 indicates the "expected" amount of economic activity based on the profile of the larger economy, the amount of activity that brings the ratio up to 1.0 probably serves local needs, while the amount that increases the ratio beyond 1.0 probably serves non-local needs.

recreation. In Nye County, the following industries fit the same description: all private farm earnings; mining; utilities; and arts entertainment and recreation. These industries bring meaningful outside income into the local economy, but the relative impact to the local economy is smaller than other industries due to the lower levels of employment for each industry.

Table 26. Location Quotients for Employment & Earnings in Clark and Nye Counties, Relative to the U.S. (2008)

NAICS Category	Clark County		Nye County	
	Employment	Earnings	Employment	Earnings
Private Farm Earnings	0.01	0.00	1.23	2.89
Private Non-Farm Earnings	1.06	1.04	1.01	0.96
Forestry, fishing, and related activities	0.06	0.03	(D)	(D)
Mining	0.30	0.12	9.51	9.50
Utilities	0.84	0.83	2.34	2.57
Construction	1.49	2.12	1.00	0.78
Manufacturing	0.31	0.27	0.14	0.09
Wholesale trade	0.68	0.68	0.30	0.19
Retail trade	0.98	1.09	1.13	1.14
Transportation and warehousing	1.05	1.09	0.50	0.37
Information	0.65	0.48	0.39	0.22
Finance and insurance	1.08	0.66	0.64	0.16
Real estate and rental and leasing	1.38	1.48	1.79	0.69
Professional, scientific, and technical services	0.77	0.69	1.90	2.31
Management of companies and enterprises	1.21	1.48	(D)	(D)
Administrative and waste services	1.10	1.07	1.12	2.12
Educational services	0.34	0.32	0.41	0.46
Health care and social assistance	0.60	0.71	0.52	0.47
Arts, entertainment, and recreation	1.39	1.63	2.31	2.66
Accommodation and food services	3.25	6.27	1.28	1.48
Other services, except public administration	0.74	0.84	1.06	1.02
Government and government enterprises	0.72	0.83	0.89	1.09
Federal, civilian	0.64	0.61	0.55	0.61
Military	0.98	1.02	0.67	0.69
State and local	0.70	0.86	0.96	1.27
State government	0.47	0.52	0.32	0.45
Local government	0.78	0.99	1.20	1.58

Source: Data from BEA REIS 2008 CA25N & BEA REIS 2008 CA05N.

The Location Quotient (LQ) is calculated as $LQ = (e_i/e)/(E_i/E)$, where e_i is equal to the local measure (i.e., employment or earnings) in industry i , e is equal to the total local measure, E_i is equal to the reference area measure in industry i , and E is equal to the total reference area measure.

(D) Indicates that the value was not disclosed due to confidentiality.

3.6. SPECIFIC ECONOMIC SECTORS

This section discusses the economic sectors that are the most relevant to some of the largest economic activities on BLM public lands. For this RMP revision, these sectors include tourism (recreation), mining, and renewable energy.⁹ Uses supported by the BLM Lands and Realty program (e.g., communication sites, rights of way, public purpose withdrawals and leases, land disposals) make substantial contributions to the local economy, but are not included here because these uses are spread across many economic sectors.

⁹ Agriculture is often addressed in this section of socioeconomic baselines for other Field Offices; however, for this Field Office, agriculture accounts for only a very small portion of economic activity. There were only 353 animal unit months (AUMs) of licensed use annually for livestock grazing within the planning area, on average, from 2005 to 2009 (see Section 4.2).

3.6.1. Tourism

There are a variety of tourist sites in and around the socioeconomic study area, including the Las Vegas Strip, national parks, state parks, and national wildlife refuges, among other attractions. Each of these tourist activities contributes to the local economy by attracting visitors who spend money in the area. Clark County's Las Vegas Valley offers various forms of entertainment, casinos, dining, and shopping. According to the county, the economic impact of tourism in the county was estimated to be \$39.4 billion in 2006, with 27 percent of that being money spent on gambling. Of visitors to Las Vegas, the average person stays 3.6 nights and pays an average room rate of \$120 per day, spends \$141 per visit shopping, has 2.6 people in their party, and spends \$652 on gambling losses (Clark County 2010c).

Visitation to the Las Vegas Valley is estimated to attract 39.2 million visitors each year (Clark County 2010c), although visitation in recent years has dipped due to the slower economy (Las Vegas Review-Journal 2009). Despite declines and flat growth in visitation, recreation and tourism-related sectors have substantial potential for growth. Long-term increases in recreation visits are likely as a result of projected state and regional population growth, interest in the world-class recreational resources of southern Nevada, and an aging population that will demand increased opportunities for leisure and recreation.

National Park units in or near the socioeconomic study area include Death Valley, Lake Mead, Zion, Cedar Breaks, and Mojave. Of those, Lake Mead is located partially within the study area, and the others are outside of the study area (excepting a very small portion of Death Valley within the study area but outside the planning area). National Wildlife Refuges in or near the study area include Ash Meadows, Desert, Moapa, and Pahrangat. Of those, all but Pahrangat have at least some land within the study area. State parks that are in the study area include Big Bend of the Colorado State Recreation Area, Old Las Vegas Mormon Fort, Spring Mountain Ranch, Valley of Fire, Floyd Lamb, and Belmont Courthouse; nearby state parks include Beaver Dam, Cathedral Gorge, Echo Canyon, Elgin Schoolhouse, and Kershaw-Ryan. Table 27 shows the annual visitation to each of these areas, from 2005 to 2009.

Table 27. Annual Visitation to National Parks, Wildlife Refuges & State Parks, 2005 to 2009

Area	Proximity to Study Area	2005	2006	2007	2008	2009
Cedar Breaks National Park	Near	505,158	488,376	514,871	538,016	492,353
Death Valley National Park	In	800,113	744,440	704,122	871,938	828,574
Lake Mead National Recreation Area	In	7,692,438	7,777,753	7,622,139	7,601,863	7,668,689
Mojave National Preserve	Near	632,521	537,250	582,675	618,285	528,865
Zion National Park	Near	2,586,665	2,567,350	2,657,281	2,690,154	2,735,402
Ash Meadows National Wildlife Refuge	In	-	53,000	65,000	67,300	75,588
Desert National Wildlife Refuge	In	100,000	78,912	78,132	95,016	92,063
Moapa National Wildlife Refuge	In	70	0	100	0	212
Pahrangat National Wildlife Refuge	Near	35,000	37,000	30,000	30,000	30,000

Area	Proximity to Study Area	2005	2006	2007	2008	2009
Belmont Courthouse State Historic Site	In	4,118	3,268	4,192	4,045	-
Beaver Dam State Park	Near	7,149	5,939	5,769	6,558	4,645
Big Bend of the Colorado State Recreation Area	In	58,362	54,064	31,192	53,784	80,407
Floyd Lamb State Park	In	197,938	210,047	148,697	-	-
Cathedral Gorge State Park	Near	59,940	59,705	60,940	54,220	52,540
Echo Canyon State Park	Near	42,375	38,118	39,221	35,645	37,371
Elgin School House State Park	Near	-	706	808	102	-
Kershaw-Ryan State Park	Near	25,121	28,254	35,666	60,349	50,221
Old Las Vegas Mormon Fort State Park	In	12,181	10,383	11,384	10,551	9,744
Spring Mountain Ranch State Park	In	213,929	206,838	206,249	195,674	193,613
Valley of Fire State Park	In	429,158	472,489	451,194	446,693	519,732
Total Visitation IN the study area ^(a)	--	9,508,307	9,611,194	9,322,401	9,346,864	9,468,622
Total Visitation IN and NEAR the study area ^(a)	--	13,402,236	13,373,892	13,249,632	13,380,193	13,400,019

Sources: National Parks data -- NPS 2010b; National Wildlife Refuge data -- U.S. Fish and Wildlife Service 2010; State Parks data -- Nevada Division of State Parks 2010.

^(a) Use care in comparing numbers over time because data is not available and not included for all years for all sites.

Visitation at most of these sites fluctuated up and down slightly over the period from 2005 to 2009. Few showed patterns of strong overall growth or decline in visitation. The totals in the table are not adjusted for the lack of data at some sites in some years, but this does not make a significant difference the largely flat visitation trend across the combined sites. Despite these visitation statistics, recreation and tourism-related sectors could have potential for meaningful growth. Long-term increases in recreation visits could potentially result from, for example, the NPS effort to increase visitation to national parks, an ongoing interest in the world-class recreational resources of southern Nevada, and an aging population that will demand increased opportunities for domestic leisure and recreation.

3.6.2. Mining

The minerals mined in Nevada include gold, silver, barite, copper, diatomite, dolomite, gypsum, limestone, lime, lithium, magnesium, manganese, mercury, perlite, precious opal, salt, silica sand, specialty clays, and turquoise. Mineral energy resources extracted in Nevada includes oil, gas, and geothermal (Nevada Taxpayer Association 2008). Mineral materials such as sand, gravel, crushed rock, and decorative rock are also important resources. Nevada does not produce any coal.

Both Nye County and Clark County have mineral resources. The combined socioeconomic study area contains one major metal mine, Round Mountain Mine, in northern Nye County, and six major industrial mineral mines spread across Nye and Clark Counties, including Premier Magnesite Mine (far NW Nye), IMV Nevada Clay (SE Nye), Apex Lime Plant (Central Clark), PABCO Gypsum (Central Clark), Pioneer

Gypsum mine (east central Clark), and Simplot Silica Products (NW Clark) (University of Nevada 2009a). Of these, the Round Mountain Mine and Premier Magnesite Mine are in the socioeconomic study area but outside the SNDO and therefore outside of the planning area. Both counties produce significant amounts of mineral materials to serve development in southern Nevada. Nye County has oil production; currently Clark County does not. There are no geothermal plants, nor production, in the socioeconomic study area (University of Nevada 2009a).

According to the Nevada Division of Minerals, oil production in Nye County accounts for about 90 percent of the oil production in the state, based on a 3-year average from 2007 to 2009 (Nevada Division of Minerals 2009). However, all of this production occurs outside the planning area, in the northern part of the county. Therefore, oil production is not detailed further here. Further, no other “leasable minerals” (BLM’s term for oil, gas, geothermal, coal, phosphate, potash, and sodium) are currently produced in the planning area. Recent interest in oil exploration and development and geothermal development on BLM lands in the planning area is discussed in the BLM Public Land Uses and Values section.

Table 28 shows net proceeds from mineral sales¹⁰ in the two-county socioeconomic study area from 2006 to 2009. Net proceeds for the area averaged \$188 million in the years 2006 to 2009, reaching a high of \$200 million in 2009, as reported by the Nevada Department of Taxation in its 2009 Annual Report. Nye County accounted for the large majority (98 percent to 99 percent) of mineral proceeds in the study area during this timeframe. However, it is important to note that much of this value is due to production of oil and other minerals in central or northern Nye County, outside of the planning area. The study area has represented a declining percentage of the state’s net mineral proceeds, with 19 percent in 2006 down to 11 percent in 2009. Proceeds in the state have increased at a faster rate than in the study area during this time. This is due in part to the large amount of gold and silver produced in Nevada outside of the socioeconomic study area, and to the increase in the price of gold (University of Nevada 2009a).

Table 28. Net Proceeds of Minerals in the Socioeconomic Study Area, 2006 to 2009

	FY2006	FY2007	FY2008	FY2009
Clark County	\$3,665,792	\$3,108,788	\$1,795,865	\$2,489,979
Nye County	\$154,270,419	\$195,164,744	\$193,586,148	\$198,471,385
Study Area	\$157,936,211	\$198,273,532	\$195,382,013	\$200,961,364
Nevada	\$853,038,767	\$1,270,839,999	\$1,531,548,125	\$1,833,998,864

Source: Nevada Department of Taxation 2010.

The planning area is a significant producer of gypsum, silica, and specialized clay products (BLM 2010a; University of Nevada 2009a). These are all known as “locatable minerals” in the BLM minerals program because they are located (staked) under the General Mining Law of 1872, as amended. Two gypsum mines are active, with annual production of 1.8 million tons in 2005. The area contains three wallboard plants that process gypsum. PABCO Gypsum in Clark County northeast of Las Vegas was the largest Nevada producer in 2008. Gypsum is also produced for use in agriculture and making Portland cement. Silica has recently been produced in two areas for use in glass and stucco manufacturing. Simplot Silica Products at Overton in Clark County is Nevada’s larger producer. Rare magnesium clays are currently produced in the Amargosa Valley for specialized uses in the drilling industry, as binding agents, thickeners, gels, and in certain filtering applications. The IMV Nevada clay operation located in southern Nye County is the only commercial producer of sepiolite and saponite in North America.

¹⁰ Net proceeds are defined as the amount of money received from a sale after subtracting transaction costs.

The planning area is also an important producer of lime, in the Apex mining district northeast of Las Vegas. Chemical Lime Company's operation there is the second-largest in Nevada. They produce high calcium quicklime for metallurgical processing, paper manufacturing, and environmental markets, and dolomitic lime and hydrated high calcium lime, mainly for construction uses (University of Nevada 2009a).

Mineral materials (or "saleable minerals" in BLM parlance) are particularly important in the planning area given the amount of development in and around Las Vegas over recent decades. The following excerpts from a 2008 review (University of Nevada, 2009a) of the mineral industry in Nevada provide a high-level view of this segment of the industry in the region:

Construction aggregate produced in the Las Vegas area in 2008, estimated at about 28 million tons, was about 35% lower than in 2007. Sand and gravel operations accounted for about 75% of the aggregate used in the Las Vegas metropolitan area in 2007. As in past years, the Lone Mountain area in northwest Las Vegas remained the most important source of sand and gravel aggregate. The Lone Mountain area produced more than 10 million tons in 2005 and 2006, but is estimated to have fallen below that in 2007 and 2008. Significant production also came from sand and gravel pits and stone quarries south and northeast of Las Vegas, and in the El Dorado Valley area west of Boulder City. Portable crushers at construction sites were also important producers of sand and gravel in Las Vegas. ...

Companies in the Las Vegas area that produced more than one million tons of aggregate in 2008 were Aggregate Industries, Diamond Construction, Impact Sand and Gravel, Las Vegas Paving Corp., and Nevada Ready Mix Corp. Companies with production in excess of 500,000 tons per year were American Sand and Gravel, Cemex, and Wells Cargo. American Sand and Gravel and Wells Cargo each had produced over a million tons in 2006 but each produced less than that in both 2007 and 2008. Hollywood Sand and Gravel, which produced more than 500,000 tons in 2006, produced less than that both in 2007 and 2008. ...

Community pits and other aggregate mining facilities administered by the U.S. Bureau of Land Management and operated by a number of companies, including some of those already mentioned, contributed about 8 million tons to the total production of the Las Vegas and adjacent southern Nevada area in 2008. ...

In addition, Las Vegas Rock produces flagstone, ashlar, boulders, and crushed landscape rock from its Rainbow Quarries near Goodsprings, about 32 miles southwest of Las Vegas at the base of Mount Potosi. The operation consists of a main quarry and a number of satellite quarries located according to the color of the stone (University of Nevada, 2009a). Of note, Las Vegas Rock is recognized by BLM as a locatable mineral operation, rather than a saleable mineral operation, because of the uncommon variety of flagstone (countertop) rock it produces.

The recent construction slowdown has curtailed production of gypsum, silica, specialized clay products, and mineral materials significantly. However, production is ongoing and increased production and exploration is anticipated once the building industry rebounds.

3.6.3. Renewable Energy

Renewable energy is an important emerging industry in Nevada. According to the Nevada Commission on Economic Development (NCED), "With a growing number of companies and a priority focus on

renewable resources, clean energy is the fastest-growing industry in the state of Nevada.” A key driver, according to NCED, is the state’s aggressive renewable portfolio standard (RPS) that requires all public utilities to generate 25 percent of their electricity from renewable energy resources by 2025, with at least 6 percent from solar energy from 2016 through 2025. NCED also credits the state’s high tech companies and progressive research centers (NCED 2010). Nevada also figures prominently within the U.S. in renewable energy resource potential, especially for solar radiation and geothermal resources (see, e.g., National Renewable Energy Laboratory 2010). Southern Nevada has particularly high potential for solar energy. The State government is actively pursuing and encouraging the development of renewable energy sources through financing options and various tax incentive and rebate programs. Federal funding from the American Reinvestment & Recovery Act (ARRA), various grants from the U.S. Department of Energy, and other federal incentives are also available.

Currently, the large majority of developed renewable energy in Nevada is located outside of the socioeconomic study area in the northwest part of the state, where many geothermal resources have been tapped, as reported by the Nevada State Office of Energy (NSOE 2010a). However, many additional renewable energy projects are underway in the study area. A list prepared by NSOE in August 2010 includes nine projects in Clark County and five projects in Nye County totaling 2,042 megawatts in electricity generation capacity (NSOE 2010b). Several of these projects are on BLM land within the planning area (see Section 4.8).

3.7. PUBLIC FINANCE

Lands and federal mineral estate managed within the socioeconomic study area affect local, county, state, and Federal Government budgets based on accruals from mineral royalties, taxes, Payments in Lieu of Taxes (PILT), fees, and other revenues. Likewise, lands and federal mineral estates in the study area result in government expenditures for management, law enforcement, and other activities.

The Nevada state government levies the following taxes: property tax, sales tax, use tax, licenses tax, death and gift tax, documentary and stock transfer tax, severance tax, and other tax; the state does not have any form of an income tax (U.S. Census Bureau 2010b). Nevada state government tax collections, which are collected by the counties, averaged a total of \$4.5 billion per year from 2005 to 2009, as depicted in Table 29 (Nevada Department of Taxation 2010). During that timeframe, 2009 returned the lowest level of tax revenues (\$4.1 billion), which is attributable in large part to the recession at that time.

The state taxes that are most related to BLM resources are the net proceeds of minerals tax and the lodging and sales and use taxes generated by recreationists, State *Sales and Use Taxes* represented between 20 and 21 percent of total tax revenues from 2005 to 2009. Of the Sales and Use Taxable Sales in 2008 and 2009, 75 percent came from Clark County and 1 percent came from Nye County (Nevada Department of Taxation 2010). The *Net Proceeds of Minerals Tax* continued to increase each year from 2005 to 2009, but accounted for only a small portion of total state tax revenues – 1 percent in 2005 and increasing to 3.5 percent in 2009. The *Lodging Tax* increased from 2005 to 2007 and then decreased in 2008 and 2009; this tax accounted for a very small percentage of the tax revenues (less than 1 percent in 2009). The large majority of state tax revenues comes from all other taxes (see note in Table 29 for list of all other taxes) and accounted for between 76 and 78 percent of the state tax revenues from 2005 to 2009. The taxable sales on natural resource-related business codes¹¹ was a very small percentage of the overall

¹¹ In this report and based on all business codes that are applicable to the state, natural resources-related business codes include the following: 111 Crop Production, 112 Animal Production, 113 Forestry and Logging, 115 Support Activities for Agriculture and Forestry, 221 Oil and Gas Extraction, 212 Mining (except Oil & Gas), 213 Support Activities for Mining, and 531 Real Estate.

state tax base in 2008 and 2009, accounting for less than one percent of all taxable sales in Clark County, and close to three percent of all taxable sales in Nye County.

Table 29. Nevada State Tax Revenues (millions), 2005 to 2009

	2005	2006	2007	2008	2009	Average ('05-'09)	% Total 2009
Sales and Use Taxes	\$896.0	\$985.0	\$1,000.2	\$966.7	\$844.1	\$ 938.4	20%
Net Proceeds of Minerals Tax	\$39.7	\$44.5	\$62.2	\$74.1	\$145.4	\$ 73.2	4%
Lodging Tax	\$15.1	\$17.3	\$18.4	\$19.1	\$18.2	\$17.6	<1%
All Other*	\$3,292.8	\$3,659.5	\$3,725.7	\$3,572.4	\$3,174.5	\$3,485.0	76%
Total	\$4,243.7	\$4,706.3	\$4,806.4	\$4,632.2	\$4,182.2	\$4,514.2	100%

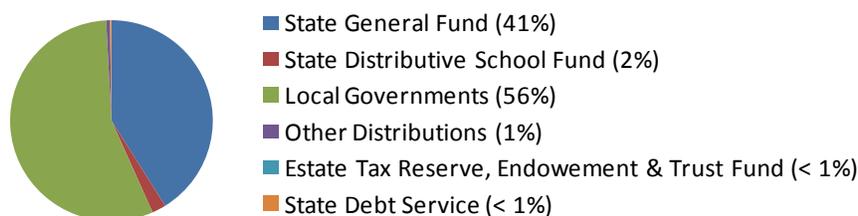
Source: Nevada Department of Taxation 2010.
All tax revenues are shown in millions of dollars.

* All Other includes Local School Support Tax, City/County Relief Tax, Local Option Taxes, Intoxicating Beverage Taxes, Cigarette Tax and Fees, Other Tobacco Products, Estate Tax, Centrally Assessed Property Tax, Business Tax, Insurance Premium Tax, Tire Tax, Government Services Fee, Bank Excise Tax, Business License Fee, Live Entertainment Tax, Modified Business Tax, and Real Property Transfer Tax.

The taxes that are levied on minerals in Nevada include sales and use tax, property tax, business license / modified business tax, and net proceeds of minerals (NPOM) (University of Nevada 2009b). The NPOM tax is an industry specific ad valorem property tax that is applied on certain minerals (metals, industrial minerals, gemstones, oil and natural gas, and geothermal energy) when they are sold or removed from Nevada; the tax is not applied to sand or gravel. Net proceeds tax payments are distributed to the county in which the tax was levied and to the State General Fund.

The state of Nevada distributes 100 percent of its gross tax revenues. Based on an average of 2008 and 2009 distributions¹², about 56 percent of the revenues went back to local governments, 41 percent went to the State General Fund, and the remainder was split among the other receiving pools, as shown in Figure 22 (Nevada Department of Taxation 2010). Percentages reflect the percentage of total distributions as an average of 2008 and 2009 distributions.

Figure 22. Nevada Distributions of Gross State Tax Revenues, 2008 to 2009



Source: Nevada Department of Taxation 2010.

Average county revenues from fiscal year 2009 to fiscal year 2011 are shown in Table 30.¹³ During that timeframe, county revenues averaged just under \$2.9 billion in Clark County and just over \$65 million in Nye County. During the same time, nearly half (49 percent) of the county revenues in the socioeconomic

¹² The percentage of total revenues allocated to each fund category was within one percentage point in all categories in the years 2008 and 2009, which is reflective of the consistency with which funding is distributed to each receiving pool.

¹³ Average tax revenues are based on FY2009 funds, estimated FY2010 funds, and budgeted FY2011 funds.

study area came from intergovernmental resources, followed by property tax (27 percent in Clark County and 34 percent in Nye County), and a variety of other smaller contributing sources. In Clark County, licenses and permits were also a significant source of revenue (9 percent).

Table 30. County Revenue Sources, Average FY2009-2011* (\$ in thousands)

	Clark County		Nye County	
Property Taxes	\$791,242	27%	\$21,863	34%
Other Taxes	\$48,285	2%	\$63	0%
Licenses and Permits	\$268,694	9%	\$736	1%
Intergovernmental Resources	\$1,412,285	49%	\$31,973	49%
Charges for Services	\$159,204	6%	\$4,244	7%
Fines and Forfeits	\$27,371	1%	\$991	2%
Miscellaneous	\$175,228	6%	\$5,166	8%
TOTAL	\$2,882,310	100%	\$65,036	100%

Sources: Clark County 2010a; Nye County 2010.

*Dollar values represent the average of actual FY2009 funds, estimated FY2010 funds, and budgeted FY2011 funds.

PILT are payments from the Federal Government to local governments to help compensate for lost property taxes resulting from tax exempt federal lands located within the local jurisdiction (DOI 2010). PILT payments are administered by the DOI and are made for lands managed by BLM, NPS, FWS, as well as some federal water projects and military installations. Local governments use PILT payments to pay for various government services such as law enforcement and infrastructure. The payments are calculated based on acreage of eligible lands within the county, population, and other federal transfers such as mineral royalties. In 2009, annual PILT payments were approximately \$3.1 million in Clark County and \$2.9 million in Nye County. Table 31 contains PILT payments to the socioeconomic study area and the state from 2006 to 2009. PILT payments are for all federal lands and cannot readily be segregated out to BLM versus other federal lands.

Table 31. PILT Payments in the Socioeconomic Study Area, 2005 to 2009

	Payment 2005	Payment 2006	Payment 2007	Payment 2008	Payment 2009	Acres 2009
Clark County	\$1,900,732	\$1,938,337	\$1,920,874	\$3,056,564	\$3,137,454	4,810,654
Nye County	\$1,624,644	\$1,713,019	\$1,709,951	\$2,770,679	\$2,865,101	8,523,975
Study Area	\$3,525,376	\$3,651,356	\$3,630,825	\$5,827,243	\$6,002,555	13,334,629
Nevada	\$13,732,723	\$14,135,972	\$13,895,664	\$22,610,017	\$23,269,350	56,698,742

Source: DOI 2010a.

3.8. GOVERNMENT EXPENDITURES

3.8.1. Local Government Expenditures and Services

Management of BLM-administered land may affect state and local expenditures. For instance, recreation on public lands requires some support from local government for road maintenance, law enforcement, and search and rescue. It is difficult to separate expenditures related to BLM-administered land from expenditures related to other land. The types of state and local expenditures that may be affected include:

- Maintenance of state and local roads
- Law enforcement personnel and equipment
- Emergency medical services
- Search and rescue teams
- Conservation and wildlife management
- Fire management
- Solid waste collection and disposal
- Public utilities

3.8.2. BLM Expenditures

Federal Government expenditures related to federal lands in the socioeconomic study area benefit the local economy. Federal salaries to BLM staff that reside in the study area and BLM contracts to businesses located in or with employees residing in the study area represent inflows of money. When these business and employees spend this income with other businesses in the study area, additional jobs are generated.

4.0 BLM PUBLIC LAND USES AND VALUES

This section profiles the many uses that are made of BLM public lands in the decision area. It describes some of the economic and social implications of those uses, including quantitative values where available. In order to describe uses of BLM public lands, the material below provides overviews of various BLM policies and programs, and their implementation in the SNDO. This section also includes a discussion of non-market values, which are often overlooked when the economics of BLM public lands are discussed.

4.1. FORESTRY AND WOODLAND PRODUCTS

Forests occupy a very small portion of the decision area. Ponderosa pine conifer forests and woodlands occupy roughly 1,561 acres, 0.05 percent of the surface land decision area, and are located at the highest elevations of the Virgin and McCullough Mountains. Pinyon juniper woodlands occupy roughly 30,820 acres, or approximately 1.0 percent of the decision area, at lower elevations of the Virgin and McCullough Mountains. Mesquite-acacia woodlands occupy roughly 3,332 acres, or 0.11 percent, of the decision area.

Currently, BLM does not issue timber, firewood, and Christmas tree sales permits because these activities are not sustainable and compatible with general management objectives for the Virgin Mountains ACEC and South McCullough Mountains Wilderness where these vegetation types occur. Casual collection of firewood in conifer forests and pinyon juniper woodlands for a personal campfire is authorized but subject to seasonal restrictions.

Mesquite trees produce an aromatic hardwood that is occasionally harvested for firewood. Within the decision area, BLM does not issue firewood sale permits to collect mesquite wood because this activity is not sustainable and compatible with management objectives. Casual collection of dead firewood in mesquite woodlands for a personal campfire is authorized but subject to seasonal restrictions.

Cactus and yucca are an important component of creosote bursage and blackbrush vegetation types that comprise roughly 88 percent of the decision area. They are extremely slow growing and slow to reproduce. Removal of cactus and yucca is not sustainable and is generally not compatible with conservation of desert tortoise habitat.

Cactus and yucca are commodities regulated under the Nevada BLM forestry program, and the sale and transportation of cactus and yucca are regulated by the Nevada Division of Forestry (NDF). To discourage illegal collection, all wild collected cacti and yucca moved or sold in the state must have a tag issued by NDF, regardless of where they are collected. Because of high public demand and the environmental sensitivity of the area, the Southern Nevada District only occasionally authorizes permits to remove cactus and yucca. Typically, collection permits are issued as part of a salvage events held on lands that are being disposed or where right of way authorizations will result in long-term ground disturbing activities. The District maintains a mailing list of individuals interested in receiving notification of the next event. In fiscal year 2009, BLM issued 15 sales contracts for salvaged cactus and yucca. In 2003, BLM issued 279 cactus and yucca salvage sale contracts.

Under the forestry program, BLM also authorizes commercial collection of native seed and other plant materials from public lands. In the planning area, BLM has designated eight seed collection zones on multiple use lands in low density desert tortoise habitat. These zones are distributed throughout the planning area. Public demand for these materials is variable. BLM issued five sales contracts in 2009, seven in 2008, one in 2007, and one in 2006. Collection is regulated because excessive collection of seed

from native shrubs, grasses, and forbs can diminish the soil seed banks, decrease recruitment, and reduce plant species.

Public demand for salvaged cactus and yucca plants is high and likely to remain so. Public demand for seed and plant material sales contracts is likely to increase as the need for habitat and fire rehabilitation projects requiring native seeds grows.

4.2. LIVESTOCK GRAZING

The planning area is divided into 52 grazing allotments comprising approximately 2,867,508 acres of public lands. Grazing allotments were originally delineated in 1934; allotment boundaries, grazing preference (number of animal unit months, or AUMs¹⁴), season of use, and base property (private land or water rights) were established. Active grazing use was authorized through Term Permits generally issued for a period of 10 years.

In 1969, all grazing allotments in Clark County were designated as ephemeral (forage not available regularly) in response to the Ephemeral Range Rule of 1968. This rule describes rangelands as ephemeral or annual in nature, as well as establishing special rules for ephemeral rangelands. On ephemeral allotments, grazing preference was eliminated and season of use became contingent on the availability of ephemeral forage. Revised regulations for grazing administration of public lands by BLM became effective in 1995, and required development of Standards for Rangeland Health and guidelines for grazing administration for BLM lands within a region or state. On February 12, 1997, the standards and guidelines for three regions in Nevada were approved by the Secretary of the Interior. The standards and guidelines for the Mojave-Southern Great Basin area apply to livestock grazing in this planning area.

Of the total allotments, only three – Flat Top Mesa, Hidden Valley, and Lower Mormon Mesa – have had authorized grazing over the last ten years. Each allotment has one permittee. The stocking numbers of livestock on the authorized grazing allotments ranges from as few as two cows and three horses to as many as 75 cattle. Licensed use, which is the forage the permittees paid to utilize in a given season or year, totaled 353 AUMs per year on average (based on data from 2005-2009). Seasonal changes in precipitation and temperature result in more or less available forage. Range inspections are made prior to approving grazing authorizations to determine if adequate forage is available.

The grazing fee for 2009 was \$1.35 per AUM. The fee was the same in 2008. The Federal grazing fee is computed by using a 1966 base value of \$1.23 per AUM for livestock grazing on public lands in Western states. The figure is then adjusted each year according to three factors – current private grazing land lease rates, beef cattle prices, and the cost of livestock production. In effect, the fee rises, falls, or stays the same based on market conditions, with livestock operators paying more when market conditions are better and less when conditions have declined.

The value of cattle grazing can be estimated from the average value for an AUM. According to Workman (1986), it takes 16 AUMs to produce a marketable cow. Thus, the value of an AUM in Nevada can be estimated using data on the value of cattle production and the number of cattle produced on a yearly basis, to determine value per head, and then dividing by 16. This approach is summarized in Table 32. Data on value and number of cattle are from statistics jointly maintained by the Nevada Department of Agriculture and the National Agricultural Statistics Service. The most recent data available is for 2008.

¹⁴ An AUM is the amount of forage needed to sustain a cow and her calf (up to weaning) for a month. According to the Natural Resources Conservation Service (2003), this amount is 30 pounds of air dry forage or 26 pounds of oven dried forage per day.

Table 32. Production Value of AUMs in Nevada

Year	Value of Production (1,000\$s) ^a	Beef Cows that have Calved (1,000 Head) ^b	Value Per Cow	Conversion to AUMs (AUMs/cow) ^c	Value of Production Per AUM (Nominal \$)	Value of Production Per AUM (2010 \$) ^d
2004	\$256,237	245	\$650.01	16	\$40.63	\$46.79
2005	\$233,546	240	\$692.49	16	\$43.28	\$48.27
2006	\$210,401	238	\$637.83	16	\$39.86	\$42.99
2007	\$260,681	238	\$627.51	16	\$39.22	\$41.10
2008	\$242,276	238	\$656.70	16	\$41.04	\$42.03
5-year Average (2005-2009)					\$40.81	\$44.24

^a Nevada Department of Agriculture and National Agricultural Statistics Service, Nevada Agricultural Statistics 2009, p. 32.

^b U.S. Department of Agriculture, National Agricultural Statistics Service, Quick Stats, Nevada, data for "Cattle, Cows, Beef – Inventory," accessed 16 July 2010 at http://quickstats.nass.usda.gov/?agg_level_desc=STATE&state_name=NEVADA&Select.

^c Workman 1986.

^d Nominal dollars adjusted to 2010 dollars by applying Gross Domestic Product (GDP) deflator factors from the 2011 Federal Budget Historical Tables, accessed 16 July 2010 at <http://www.gpoaccess.gov/usbudget/fy11/hist.html>.

Using this approach, the average value per AUM in Nevada for the 5 years between 2004 and 2008 was \$44.24. Applying this value to the average value for licensed use of 353 AUMs per year for 2005-2009 shows that the average annual value of production for livestock grazing within the decision area in recent years is \$15,600.

4.3. WILD HORSES AND BURROS

The Bureau of Land Management is responsible for the protection, management and control of wild horses and burros on public lands in accordance with the Wild Free-Roaming Horses and Burros Act (WFRHBA) of 1971 as amended (Public Law 92-195), which states that BLM "shall manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands." The WFRHBA directs the Departments of Interior and Agriculture to protect wild free-roaming horses and burros from capture, branding, harassment, or death, and to accomplish this in areas where they were found in 1971 (Herd Areas). BLM regulations and policy state that wild horses and burros shall be managed as viable, self-sustaining populations of healthy animals in balance with other multiple uses and the productive capacity of their habitat (CFR 4700.0-6).

Wild horses and burros in this area originally escaped or were abandoned by settlers, ranchers, prospectors, and/or Native American tribes. Many of today's wild horses were altered by registered animals released by local ranchers to "enhance" the wild herds by introducing new genetic diversity to the local herds. The ranchers would then capture the wild horses for sale or use on their ranch. The varieties of wild horses and burros in this area are directly linked to their diverse background.

Wild horses and burros are found within five Herd Management Areas (HMAs) throughout the Southern Nevada District. Gold Butte and Wheeler Pass are within the Las Vegas Field Office's boundary, Red Rock is within the Red Rock/Sloan Field Office's boundary, and Johnnie and the Nevada Wild Horse Range, are within the Pahrump Field Office's boundary. Two of these HMAs are outside the planning area for this RMP. Red Rock HMA is currently managed specifically under the 2005 Red Rock Canyon National Conservation Area Resource Management Plan. The Nevada Wild Horse Range is currently managed specifically under the 2004 Nevada Test and Training Range Resource Management Plan and the 2008 Nevada Wild Horse Range Herd Management Area Plan (NV052-2008-223).

Wild horse and burro populations generally increase by 20% annually. This increase will be closely monitored to determine when a gather will take place to remove the excess animals. Removing the excess wild horses and burros helps maintain a healthy and viable population of wild horses and burros remaining on the rangeland while maintaining or improving the health of the rangeland. Fertility control methods will be evaluated prior to future removals. The last major gathers in the planning area took place in 2007. These gathers removed 49 wild horses and 362 wild burros from the Johnnie HMA, 240 wild horses and 37 wild burros from the Wheeler Pass HMA, 172 wild burros from the Red Rock HMA, 10 wild burros from outside the El Dorado HMA, 140 wild burros from outside the Gold Butte HMA, 66 wild burros from outside the Muddy Mountains HMA, 2 nuisance wild burros near Crystal, and 14 nuisance wild burros from within the Red Rock HMA.

BLM hires contractors to conduct the wild horse and burro gathers. The animals are placed in an adoption program or sold. The minimum adoption fee is \$125. However, some of the wild horses go on to compete in the Mustang Heritage Foundation's Extreme Mustang Makeover events, and those animals have been adopted at fees all the way up to \$50,000. The BLM is also authorized to sell "without limitation" animals that are either more than 10 years old or that have been passed over for adoption at least three times. BLM does not sell wild horses or burros to slaughterhouses or to "killer buyers." The proceeds from the sale of eligible animals go back to the BLM's wild horse and burro adoption program. Animals that are not adopted or sold are held in short-term corrals or long-term holding pastures.

Successful adoption and sale of wild horses and burros is a clear indication that people place social and economic value on these animals. Wild horses and burros also provide value in their natural settings. Some people derive enjoyment from seeing these animals on the range. Some people also value knowing these animals exist, even if they do not see them; this is called "existence value" by economists (see Section 4.9 on nonmarket values).

4.4. RECREATION

BLM public lands in the planning area are used for a wide variety of recreational pursuits. These activities are categorized in three ways: dispersed recreation, developed recreation, and activities managed under special recreation permits.

- Dispersed Recreation – OHV use is the major dispersed recreation use across the entire planning area. Because of its relationship to transportation and access issues, further discussion of OHV use can be found in the Transportation section of this document. Other popular uses include: hunting, hiking, mountain biking, photography, automobile touring, backpacking, bird watching, target shooting, model rocket launching, camping, rock hounding, and visiting archaeological sites. The Gold Butte and Logandale areas have become very popular for OHV activities, cultural site visits, and camping.
- Developed Recreation – Developed recreation sites incorporate visitor use infrastructure such as roads, parking areas, and facilities to protect the resource and support recreational users in their pursuit of activities, experiences, and benefits. Visitor use infrastructure is a management tool that can minimize resource impacts, concentrate use, and reduce visitor conflicts. There is one developed non-fee site within the decision area, the Logandale Trails site. It includes several parking areas, interpretive kiosks and panels, restrooms, picnic tables, and protective fence structures, but does not have potable water.
- Special Recreation Permitting – Five types of uses requiring special recreation permits (SRPs) are authorized by the Federal Lands Recreation Enhancement Act of 2004: commercial, competitive, vending, individual or group use in special areas, and organized group activity and event use. SRPs are issued to manage visitor use, protect natural and cultural resources, and accommodate commercial recreational uses and may be issued for ten years or less with annual renewal.

Commercial SRPs are issued to outfitters, guides, vendors, recreation clubs, and commercial competitive event organizers providing recreational opportunities or services without employing permanent facilities. SRPs for competitive and organized group events are also included in this category.

Within the planning area, as of September 2010, the Las Vegas Field Office has 17 SRPs authorized for commercial use excluding competitive use, 4 vendor SRPs, and 22 race (competitive) SRPs. On average, the Las Vegas Field Office issues approximately 30 competitive SRPs per year. Speed-based events are a particularly notable use of SRPs in this area. As of November 2010, the Pahrump Field Office has 1 commercial touring SRP and 3 commercial competitive use (OHV event) SRPs authorized. In addition, there is an outfitter/guide service SRP that is issued by the Black Rock Field Office that includes hunts conducted in the Pahrump Field Office. The maximum number of commercial SRPs in place at one time for the Southern Nevada District Office during the last ten years was 74, in 2004.

All recreation activities provide socioeconomic value. The value may be as simple as increased quality of life for the participants, which can be measured as described in the section on non-market values. In addition, recreationists often spend money in order to recreate. Local recreationists pay for gas to reach a site, and may buy equipment, purchase food and drink, and make other purchases locally. Non-local recreationists may do all this, and pay for lodging, restaurants, guides and outfitters, etc. All these actions generate local economic activity. Expenditures by non-local recreationists are particularly important as they represent new income in the region.

In addition, in some situations recreationists pay fees to BLM to use BLM public land resources. No fees are associated with dispersed recreation in the SNDO, and the SNDO has no fee sites for developed recreation. Fees are required for SRPs. The fee structure is as follows. BLM charges 3 percent of the gross revenue of the activities under the SRP, with a minimum fee of \$100. In the case of events, the fee is as just described or \$5.00 per event participant, whichever is greater. For race events specifically, BLM charges fees as just described, plus a cost recovery fee that covers the cost of staff time associated with managing the event.

Funds from the 3 percent / \$5.00 fee go to BLM's 1232 fund under the national fee demonstration program. Most of the money in the fund returns to the field office where it was generated. Money from the cost recovery fees goes through a cost recovery account and is returned to the applicable field office.

Recreation Management Areas and Other Recreational Resources

Recreation Management Areas are BLM's primary means of managing recreational use of the public lands. Public lands are designated as a Special Recreation Management Area (SRMA) or Extensive Recreation Management Area (ERMA). SRMAs require a recreation investment where more intensive recreation management is needed and where recreation is a principal management objective. These areas often have high levels of recreation activity, contain valuable natural resources, or require recreational settings that need special management. ERMAs constitute all public lands outside SRMAs and they are areas where recreation is non-specialized, dispersed, and does not require intensive management. Recreation may not be the primary management objective in these areas, and recreational activities are subject to few restrictions. Eight SRMAs (seven in Clark County / Las Vegas Field Office and one in Nye County / Pahrump Field Office) are identified in the 1998 RMP. The 8 SRMAs are the following:

- Muddy Mountains SRMA: 123,400 acres, established for recreational and off-road vehicle values.
- Nellis Dunes SRMA: 10,000 acres, established for OHV high-speed & open play opportunities.
- Sunrise Mountain SRMA: 37,620 acres, established for recreation opportunities, sensitive plants, scenic, cultural, and geologic values (ACEC).

- Las Vegas Valley SRMA: 197,300 acres, established for open space and trail connectivity with the local community.
- Nelson Hills/Eldorado SRMA: 81,600 acres, established for competitive OHV events.
- Jean/Roach Dry Lakes SRMA: 216,300 acres, established for competitive OHV events and dry lakes open OHV play areas.
- Laughlin SRMA: 25,600 acres, established for permitted OHV events.
- Big Dune SRMA: 11,600 acres, established for recreational and off-road vehicle values.

BLM public lands are an important component of the many outdoor recreation resources in Southern Nevada. Other major recreation resources in the region include the Red Rock Canyon National Conservation Area and Sloan Canyon National Conservation Area managed by BLM; the Spring Mountains National Recreation Area managed by the U.S. Forest Service; the national parks, national wildlife refuges, and state parks noted in Table 27; and many local parks managed by local governments in the region. BLM land adjoins many of these other recreation resources.

Planning for trails to link regional recreation resources is underway. The Southern Nevada Regional Planning Coalition (local agencies) and the Southern Nevada Agency Partnership (federal agencies) have jointly chartered a Regional Open Space and Trail Workgroup, which meets monthly to oversee the development and implementation of the Regional System. The Workgroup developed a brand for the regional system – “Neon to Nature” – to emphasize the extraordinary opportunities for residents and visitors to experience the other side of Las Vegas, the natural non-Strip experience. The purpose of the “Neon to Nature” Open Space & Trails System is to improve the quality of life and community character by providing an interconnected system of trails in Southern Nevada linking residential, civic, commercial and business landscapes to park, open space and recreational facilities operated by federal, state and local governments (Outside Las Vegas Foundation, 2010).

BLM public lands figure prominently in such local and regional plans for interconnected trails. Many local cities, particularly in the Las Vegas Valley, are planning connectivity from city to BLM lands. Such plans are also underway in the Moapa area, Logandale, and Searchlight. The socioeconomic significance of BLM’s place in development of a regional trails system is that by helping increase connectivity, BLM lands: a) contribute to greater accessibility to recreation resources, with attendant quality of life benefits, and b) contribute to the overall appeal of southern Nevada as an outdoor recreation area, thereby generating new trips to the region or leading to extension of trips made for other purposes, which increases the influx of non-local dollars to the regional economy.

Recreation Use Levels and User Characteristics

BLM accounts for different types of annual recreation use through the Recreation Management Information System (RMIS). RMIS measures recreation participation in 65 types of recreation activities. Much recreational use of BLM lands occurs as casual use, which does not require a permit. Therefore, RMIS data sources for most of these activities depend entirely upon observations and professional judgment. Table 33 provides RMIS data by activity for the LVFO and PFO combined, including the number of participants and the number of visitor days. (One visitor day is equivalent to 12 hours spent in the planning area.)

Table 33. Recreation Activities on BLM Decision Area Lands, 2006–2010

Activity	Oct 2005-Sep 2006		Oct 2006-Sep 2007		Oct 2007-Sep 2008		Oct 2008-Sep 2009		Oct 2009-Sep 2010	
	Partici-pants	Visitor Days								
Bicycling - Mountain	4,420	910	25,989	4,498	29,286	5,068	32,176	5,553	32,820	5,664
Camping	2,236	2,786	6,023	7,905	7,038	8,851	7,638	9,642	7,886	9,899
Climbing - Mountain/Rock	624	312	400	200	448	224	450	225	456	228
Driving For Pleasure	28,080	6,933	146,110	41,011	165,386	46,342	177,838	50,329	181,392	51,335
Hang-Gliding/Parasailing	***	***	***	***	30	20	***	***	***	***
Hiking/Walking/Running	10,920	3,553	104,926	33,898	117,623	38,067	120,497	38,872	122,919	39,652
Horseback Riding	37	25	45	30	***	***	***	***	***	***
Hunting - Small Game	676	338	4,998	2,499	5,633	2,817	6,207	3,103	6,331	3,165
Land/Sand Sailing	400	133	1,532	511	1,751	584	1,789	596	1,825	608
Model Airplane/Rocket	224	187	315	218	***	***	***	***	***	***
Nature Study	1,040	173	1,000	167	1,120	187	1,142	190	1,165	194
OHV - ATV	16,132	3,557	103,541	18,452	115,028	19,959	126,545	21,894	129,076	22,332
OHV - Cars/Trucks/SUVs	83,169	22,444	454,078	107,834	514,516	122,757	537,182	127,301	547,939	129,850
OHV - Dunebuggy	***	***	6,540	2,180	***	***	***	***	***	***
OHV - Motorcycle	17,572	2,950	115,278	19,213	130,223	21,728	142,027	23,671	144,867	24,145
Other Motor Land Sport/Event	81	41	***	***	***	***	***	***	***	***
Other Motor Water Sport/Event	34	3	***	***	***	***	***	***	***	***
Racing - ATV	489	326	501	334	438	292	***	***	***	***
Racing - Auto Track	16,820	14,593	122,661	100,107	138,286	112,540	141,194	115,055	144,023	117,362
Racing - Foot	***	***	390	260	***	***	***	***	***	***
Racing - Horse Endurance	249	208	***	***	***	***	***	***	***	***
Racing - Motorcycle	1,622	1,069	1,176	784	996	664	***	***	95	63
Racing - OHV Cars/Trucks/Buggies	590	575	1,092	651	800	401	600	150	646	176

Activity	Oct 2005-Sep 2006		Oct 2006-Sep 2007		Oct 2007-Sep 2008		Oct 2008-Sep 2009		Oct 2009-Sep 2010	
	Partici-pants	Visitor Days	Partici-pants	Visitor Days	Partici-pants	Visitor Days	Partici-pants	Visitor Days	Partici-pants	Visitor Days
Re-enactment Events/Tours	***	***	***	***	172	344	***	***	***	***
Rock Crawling-4WD	38	114	212	141	161	134	***	***	***	***
Social Gathering/Festival/Concert	1,679	8,266	235	857	28	19	28	19	29	19
Specialized Sport/Event (Non-Motor)	2,084	1,042	***	***	***	***	***	***	***	***
Spectator Sport	***	***	***	***	***	***	***	***	95	63
Staging/Comfort Stop	20,000	1,667	76,607	6,384	87,548	7,296	89,455	7,455	91,245	7,604
Target Practice	676	113	4,998	833	5,633	939	6,207	1,034	6,331	1,055
Viewing - Cultural Sites	39	7	525	88	552	92	628	105	641	107
Viewing - Other	9,880	823	61,017	5,085	68,953	5,746	74,922	6,244	76,420	6,368
Viewing - Scenery/Landscapes	1,273	849	***	***	***	***	***	***	***	***
Unspecified	***	***	1,762	729	***	***	***	***	***	***
Totals	221,084	73,997	1,241,951	354,869	1,391,649	395,071	1,466,525	411,438	1,496,201	419,889

Source: BLM Recreation Management Information System (RMIS).

*** Not available in the RMIS data for this year.

Data on recreational user characteristics is available from the National Visitor Use Monitoring (NVUM) survey (Southern Nevada Agency Partnership 2009). NVUM has standardized measures of visitor use to ensure comparability across different agencies and geographic units throughout the country. In southern Nevada, NVUM surveys have been completed for National Forest units and BLM lands. For BLM, recreationists were surveyed at Red Rock Canyon National Conservation Area and other BLM lands in Federal Fiscal Year 2006. A total of 955 complete surveys representing 2,229 individuals were obtained for Red Rock Canyon, and 36 surveys representing 86 individuals were obtained for other BLM lands. Given the differences in sample size, the data for Red Rock Canyon or all BLM lands combined are more accurate than the data for other BLM lands.

For the purposes of socioeconomic impact analysis, the most useful information from the BLM NVUM data is the information on visitor expenditures. The data includes spending profiles per visiting party to BLM lands by spending segment, for Red Rocks and other BLM lands combined. Data is only available for the following spending segments: Local Day Use, Local Overnight off BLM Lands, and Non-Local Overnight off BLM. Based on the information presented and professional judgment, the data for the Local Day Use spending segment appears robust, but the data for the other two segments does not appear to be robust. Therefore, only the expenditure data for Local Day Use is presented here, in Table 34.

Table 34. Expenditures of Local Day Use Visitors to BLM Lands in 2006 Dollars

Spending Item	Spending Per Party	Spending Per Person*
Camping	\$0.00	\$0.00
Motels, lodges, cabins, B&B, etc	\$0.00	\$0.00
Food/drink bought at Grocery Stores	\$11.22	\$5.34
Food / Drink bought at Restaurants / Bars	\$23.70	\$11.29
Gasoline / oil	\$15.49	\$7.38
Local transportation	\$0.44	\$0.21
Entry, parking or use fees	\$5.99	\$2.85
Recreation, guides, or entertainment fees	\$2.59	\$1.23
Sporting goods	\$0.17	\$0.08
Souvenirs, clothing or other expense	\$6.49	\$3.09

Source: Southern Nevada Agency Partnership 2009, Table 16.

*Based on reported average party size of 2.1 persons per party.

The data in Table 34 provide a partial glimpse at the spending patterns of users of BLM lands. The NVUM report extrapolates this data to estimates of total direct spending made within 50 miles of the interview location. According to the report, visitors to Red Rock Canyon spent a little over \$62 million, and visitors to other BLM lands spent just under \$4.5 million (2006 dollars). However, the exact calculation procedure for these figures is not given, and the figure for other BLM lands is based on a very small survey sample size. Therefore, use of additional sources of recreation visitor spending data may be necessary during the impact analysis phase of the RMP revision/EIS.

In addition to the value of recreational expenditures in the local economy, recreation provides economic benefits in the form of nonmarket values enjoyed by the recreationists themselves. Section 4.9 discusses nonmarket values further.

Changes in recreational use of BLM public lands are expected to continue. As communities continue to grow in Clark and Southern Nye Counties, and many visitors to Red Rock NCA are being displaced by overcrowding in the NCA, there is more demand for places to walk, bicycle, ride horses, use OHVs, and enjoy other forms of recreation on BLM lands in the decision area of the RMP revision. Local communities have been developing trailheads that access adjacent public lands. This trend is expected to continue. Also, speed-based OHV events continue to be popular in both the Las Vegas and Pahrump Field Offices. Conflicts between land uses are expected to occur; for instance, solar and wind energy developments are being proposed in areas of high recreation demand, including OHV racing areas.

4.5. TRANSPORTATION

Transportation involves access to public lands and infrastructure management. Within the planning area, local dependence on public land to meet transportation needs occurs mostly in terms of access to public and private lands, in contrast to town-to-town or city-to-city destination type travel. Development of the existing transportation system in the planning area has been associated with providing access for resource uses such as rights-of-ways (ROWs) and recreation. The transportation program encompasses Off Highway Vehicles (OHVs).

Passage through and access to public lands via the transportation system is essential to economic activity and quality of life. For instance, access to ROWs, communication sites, mining sites, and other commercial sites may impact the commercial viability of the operations at these sites, and thereby effect the contributions of these sites to the local economy. Recreational use of OHVs also contributes to the local economy when OHV users make local expenditures for goods and services associated with their use of BLM public lands for OHV riding.

Transportation System

Increased demand for access to public lands, along with sensitivity to the impacts of roads and trails to resources and resource uses, requires a well-designed and managed transportation system. The transportation system includes county and BLM system roads, some of which receive regular maintenance. Various government entities and individuals acquire ROWs from BLM for portions of the transportation system roads that cross BLM-administered land. Issuance of ROWs is based on access needs and resource considerations. County roads are usually constructed and maintained to higher standards than BLM roads and provide the local road systems for access to and through BLM lands, supporting a higher volume of traffic than other roads in the planning area. These roads are maintained by the local highway districts.

In addition to these collector and local routes, numerous smaller routes are laced throughout the planning area connecting more remote locations to the larger roads. These resource roads are used for administrative access, recreational purposes, access to in-holdings, and access to mining or ROW infrastructure. Some of these routes are maintained as needed and are of native surface: dirt, gravel, or sand. According to a recent route inventory, there are an estimated 10,133 miles of mapped routes in the Las Vegas Field Office outside of ACEC areas (Advanced Resource Solutions 2009). Table 35 provides a breakdown by type. Similar information is not currently available for the Pahrump Field Office.

Table 35. Mileage of Transportation System by Route Type in the LVFO

Route Type	Miles
Paved	366
Improved	2,271

Route Type	Miles
Unimproved/ 2 Track	5,377
ATV	526
Single Track	1,528
Reclaiming	66
Total	10,133
Total Net of Routes Being Reclaimed	10,067

Source: Advanced Resource Solutions (2009).

Figures do not include routes on ACEC areas and a few other pockets of BLM lands.

Public concern over management of these non-collector and non-local routes has increased in the past decade. One issue concerns potential ROWs and management responsibility. Revised Statute 2477 (RS-2477), contained in the Mining Law of 1866, was intended to facilitate settlement of the West by granting the ability for State and local governments to assert a “right-of-way for the construction of highways over public lands.” Congress repealed RS-2477 when FLPMA was enacted in 1976. Since then, determining which routes were developed under the RS-2477 authority and are the responsibility of the counties has been an ongoing issue between the Federal Government and Western States and counties. In 1997, Congress directed the Department of the Interior not to issue any new regulations on RS-2477. In *Southern Utah Wilderness Alliance v. Bureau of Land Management* (2005), the Tenth Circuit Court of Appeals determined only a court of law could make a binding determination on the validity of an RS-2477 right-of-way.

Off Highway Vehicles (OHVs)

For many years, the term “off-highway vehicle” (OHV) has been used by the public, industry, and the BLM interchangeably with the term “off-road vehicle” (ORV). The term “off-road vehicle” has a legally established definition in the Presidential Executive Order 11644 (1972) and BLM regulations. BLM has chosen to use OHV, partly because it is a more popular term, but also because the regulations address vehicles that use roads and trails on BLM-administered land, and are therefore not just “off-road.”

The national BLM objectives for OHV management are to protect the resources of public lands, promote the safety of all users of those lands, and minimize conflicts among the various uses of those lands (BLM, 2001). OHVs are defined as “any motorized vehicle capable of or designated for, travel on or immediately over land, water, or other natural terrain, excluding (1) any non-amphibious registered motorboat; (2) any military, fire, emergency or law enforcement vehicle when being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicle in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies” (43 CFR 8340.0-5).

OHVs are used within the planning area for recreational and non-recreational purposes. Much of the non-recreational OHV use, or administrative use, involves BLM administrative activities and mining access. OHV use has become a popular method of recreation in itself, as well a means of transportation while pursuing other forms of recreation such as hunting, fishing, or camping. Many people participating in these activities use OHVs to cover more ground than can be done on foot or horseback.

OHV areas and routes are designated during the planning process in accordance with BLM regulations and include the following three management categories:

- Open – An area where all types of vehicle use are permitted at all times, anywhere within the designated “open” area. This refers to cross-country travel both on and off roads.
- Limited – Areas where vehicle use is restricted at certain times, in certain areas, and/or to certain vehicular use in order to meet specific resource management objectives. These limitations may include: limiting the number or types of vehicles; limiting the time or season of use; permitted, administrative, or licensed use only; use on existing roads and trails; and limiting use to designated roads and trails.
- Closed – Motorized vehicles are permanently or temporarily prohibited. The use of motorized vehicles in closed areas may be allowed for certain reasons; such use shall be made only with the approval of the BLM authorized officer.

When the 1998 RMP was completed, the level of OHV use in the planning area did not warrant extensive management restrictions. As a result, much of the SNDO area has an OHV designation of Limited to Existing Roads, Trails and Dry Washes. Most of the Areas of Critical Environmental Concern (ACECs) are Limited to Designated Roads and Trails. Acreages in the 1998 RMP are shown in Table 36.

Table 36. OHV Area Designations

Area Designation	Acres
Open to All Motorized and Mechanized Vehicles	24,600
Closed to All Motorized and Mechanized Vehicles	3,560*
Limited to Designated Roads and Trails for All Motorized and Mechanized Vehicles	1,117,252**
Limited to Existing Roads, Trails and Dry Washes for All Motorized and Mechanized Vehicles	2,186,483

Source: 1998 RMP/EIS.

*Plus any areas designated by Congress as wilderness subsequent to the RMP.

**Plus all land in disposal areas.

Although some use occurs along existing routes, ways, or other areas that are already disturbed, increased use in some areas has resulted in new resource disturbance. New disturbance is causing issues with invasive weeds, impacts on wildlife, cultural resources, and other sensitive values.

The following SRMAs continue to be popular areas for OHV activities: Jean/Roach, Nellis Dunes, Nelson Hills/Eldorado, Laughlin, Big Dune, and the Muddy Mountains. Areas near Big Dune, Gold Butte, and Logandale have become increasingly popular destination sites over the last five years. BLM staff have observed noticeable increases in use from OHV recreationists and reported resource impacts related to the creation of unauthorized new routes.

LVFO and PFO public lands are used for a number of organized OHV events each year. Special Recreation Permits (SRPs) are issued for these events, as described in the recreation section above. In the LVFO, each year there are typically 6 to 8 complex high-speed truck and buggy events, 12 motorcycle/all-terrain vehicle events, and 2 to 3 other high-speed events. In the PFO, typically there are 2 to 3 competitive OHV events each year.

4.6. LANDS AND REALTY

The lands and realty program of the Bureau of Land Management (BLM) is a support program to all other resources and resource uses. The mission of the lands and realty program is to manage BLM public lands in support of the goals and objectives of other resource programs, provide for uses of public lands in accordance with applicable laws and regulations while protecting sensitive resources, and to improve management of public lands through land tenure adjustments. The primary responsibilities of the lands and realty program include:

- Land tenure adjustments – Disposals (sales and exchanges), and acquisitions.
- Withdrawals – Reserving public land for a certain use by removing it from the operation of one or more of the public land laws.
- Land Use Authorizations – Rights-of-way, communication sites, corridors, leases, and permits.

BLM lands and realty actions and policies can have important socioeconomic effects. Land disposals, rights-of-way, leases, and permits allow for economic activity and may further the economic development of communities within the socioeconomic study area or serve other important social purposes. Withdrawals and acquisitions may be pursued to protect important resources of economic or social significance to the public.

Lands and realty actions also have important implications to public finance. Leases of BLM land and federal mineral estate produce revenue for the government. Disposal of BLM lands to private ownership may reduce Payments In Lieu of Taxes (PILT) by the Federal Government to local government, but also result in payments of property taxes to local government by the new private property owner(s). Acquisition of private land by BLM reduces property taxes paid to local government but typically increases PILT payments.

The lands and realty program responds to requests from other programs and/or outside entities. The frequency of such requests is anticipated to increase as neighboring communities grow and the demand for use of public lands increases. As a result, future management of the lands and realty program will likely become more intense, complex, and costly. The following sections describe the current conditions and status of lands and realty within the decision area.

4.6.1. Land Tenure Adjustments

Land tenure adjustments are often associated with accommodating public and private needs, enabling community expansion, consolidating public land, acquiring and protecting important resources, acquiring access to public lands, or serving a national priority. All land tenure adjustments must be in conformance with applicable land use plans and be subject to valid existing rights. BLM uses several authorities to make land tenure adjustments through disposal and acquisition actions such as sales, exchanges, grants, color of title, state In Lieu selections, and desert land entries.

Disposals

Federally owned lands can be disposed of through various disposal authorities including: The Federal Land Policy and Management Act (FLPMA) of 1976, as Amended (P.L. 94-579); The Southern Nevada Public Lands Management Act (SNPLMA) of 1998 (P.L. 105-263); The Recreation and Public Purposes Act (R&PP) of 1926 as amended; The Santini-Burton Act of December 23, 1980 (P.L. 96-586); the Federal Land Transaction Facilitation Act (FLTFA) of 2000 (P.L. 106-248); or through other targeted

Federal legislation. Regulations found at 43 Code of Federal Regulations (CFR) 2700, and BLM policy and guidance, also apply to land disposals.

Public lands have potential for disposal when they are isolated and/or difficult to manage. Disposal actions are usually in response to public requests, such as community expansion or individual needs. Disposals result in a title transfer, wherein the lands leave the public domain. All disposal actions are coordinated with adjoining landowners, local governments, and current land users. If a parcel of land is to be disposed of, a hazardous material evaluation pursuant to section 120(h) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) is prepared. Disposal actions require an environmental analysis in accordance with the National Environmental Policy Act (NEPA). This NEPA analysis may reveal resource conditions that could not be mitigated to the satisfaction of the authorized officer and may therefore preclude disposal.

Public lands determined suitable for sale are offered on the initiative of BLM unless their disposal was specifically directed by Federal legislation. The lands are not sold at less than fair market value unless otherwise provided for by law. Specific lands suitable for sale must be identified in the applicable land use plan. Any lands to be disposed of through sale that were not identified in the land use plan would require a plan amendment before a sale could occur.

Disposal actions were considered in previous land use plans. The Record of Decision for the Approved Las Vegas Resource Management Plan and Final Environmental Impact Statement (Las Vegas RMP) approved October 1998, identified approximately 175,314 acres of public lands that would be made available for potential disposal. Since that time, BLM has conveyed many acres to other parties through various land disposal authorities and land exchanges. Table 37 identifies the amount of land BLM conveyed from January 1, 1998 through December 31, 2009, by the authority used. All the disposals are considered to have taken place “under” FLPMA, but in some cases additional specific authorities shown in Table 37 were utilized. SNPLMA and Santini Burton disposals were all in the Las Vegas Valley. The remainder of the disposal acres may or may not have been in the Valley; data on the conveyance locations is not readily compilable.

Table 37. Land Conveyed Within the Planning Area by Authority^a

Authority	Acres Identified for Disposal	Acres Conveyed ^b
FLPMA	Not Applicable ^c	26,617
FLTFA	9,300	801
SNPLMA	72,000	39,496 ^d
R&PP	Not Applicable ^c	3,156 ^e
Santini-Burton	9,300	74
Affordable Housing	1,195	15
Land Exchanges	Not Applicable ^c	10,090
Total		78,507

a Source: LR 2000 February 26, 2010

b Depending upon authorities acres conveyed may show up under two or more categories.

c FLPMA authority did not identify a set number of acres to be disposed of.

d Acreage conveyed includes R&PPs within the Las Vegas Valley.

e Number of actions is 76.

As to trends in land disposals, Table 38 shows acreage conveyed since 2005. BLM land disposals have slowed considerably since 2006. Table 39 shows the dollar value of the land sales conducted since 2005.

Table 38. Acreage Conveyed Since 2005, by Year

Calendar Year*	Acres**
2005	9,539
2006	7,490
2007	215
2008	673
2009	356
Total	

*The acres are shown by calendar year – not Fiscal Year.

**Rounded to nearest whole number.

Table 39. Dollar Value of Land Conveyed (Land Sales) Since 2005, by Year

Calendar Year*	Revenue
2005	\$791,006,711
2006	\$678,601,450
2007	\$35,273,422
2008	\$16,084,450
2009	\$2,532,100
Total	

*The dollar figures are shown by calendar year – not Fiscal Year.

Key aspects of the available authorities for land disposal actions are noted below.

The Federal Land Policy Management Act

In The Federal Land Policy Management Act (FLPMA) of 1976, Congress declared that it is the policy of the United States that the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in the Act, it is determined that disposal of a particular parcel will serve the national interest.

Southern Nevada Public Land Management Act

The Southern Nevada Public Land Management Act (SNPLMA) became law in October 1998. It allows BLM to sell public land within a specific boundary around Las Vegas, Nevada. A key provision of the law is that money generated by these land sales remains in Nevada. The money provides funding for a variety of land management activities, with an emphasis on recreation sites. Up to 85% of the funds received may be used for:

- Acquisition of environmentally sensitive land in the State of Nevada, with priority given to lands located within Clark County;
- Capital improvements at the Lake Mead National recreation area, the Desert National Wildlife Refuge, The Red Rock Canyon National Conservation Area and the Spring Mountains National Recreation Area (subject to annual limitation);
- Development of a multi-species habitat conservation plan in Clark County; and
- Development of parks, trails, and natural areas in Clark County.

The revenue derived from land sales under SNPLMA is split between the State of Nevada General Education Fund (5%), the Southern Nevada Water Authority (10%), and a special account available to the Secretary of the Interior for:

- Parks, Trails, and Natural Areas
- Capital Improvements
- Conservation Initiatives
- Multi-Species Habitat Conservation Plans (MSHCP)
- Environmentally Sensitive Land Acquisitions
- Lake Tahoe Restoration Act Projects.

Other provisions in SNPLMA direct certain land sale and acquisition procedures, direct the BLM to convey title of land in the McCarran Airport noise zone to Clark County, and provide for the sale of land for affordable housing. SNPLMA also provides for BLM to sell public land, through consultation with the Department of Housing and Urban Development (HUD), for Affordable Housing purposes within the State of Nevada at less than fair market value. Under Section 7 (b) of SNPLMA, and section 203 of FLPMA, eligible lands are made available to State and local governmental entities, including local public housing authorities.

BLM maintains a SNPLMA reservation file which identifies lands reserved under SNPLMA for Affordable Housing uses. The governing entities have identified approximately 1,195 acres of land for Affordable Housing purposes. Since this program was implemented, two Affordable Housing land sales have been completed totaling 15 acres, resulting in the construction of 285 units of affordable housing in the state of Nevada. Both parcels were sold to Clark County at fair market value (FMV) which was discounted by 95% pursuant to the Nevada Guidance on Policy and Procedures for Affordable Housing Disposals (April 8, 2006). The 105-unit Harmon Pines Senior Housing Project was opened in early 2009.

Recreation & Public Purposes Act

The Recreation & Public Purposes Act (R&PP) of 1926, as amended, authorizes the sale or lease/conveyance of public lands for recreational and public purposes to State and local governments and to qualified nonprofit organizations. Examples of qualified uses under the act are historic monument sites, campgrounds, schools, fire houses, law enforcement facilities, municipal facilities, landfills, hospitals, parks, fairgrounds, and churches.

While most land disposals under the R&PP Act are executed through a lease/conveyance process it is possible under extenuating circumstances to go directly to sale/patent. Such an instance would be where there is the potential for release of hazardous materials such as in public sanitary landfill. In a case where a direct sale is involved there is no lease, and no revert clause, whereby the United States would regain title to the land. For a R&PP sale or lease/conveyance within the SNPLMA disposal boundaries, the administrative local government and the State of Nevada must agree through “joint selection” that they (government entities) have no objections to the proposed use of the lands selected for a public purpose under the R&PP Act.

Santini-Burton Act

The Santini-Burton Act of 1980 (PL 96–586) provided for the disposal of small parcels of public land interspersed adjacent to private lands in urban areas of Clark County, Nevada. No more than 700 acres per calendar year may be offered by the BLM under the provisions of this act. At the time of enactment there was in excess of 9,300 acres of public land identified for disposal. BLM has currently identified approximately 1,213 acres of public land that remains available for sale within the Santini-Burton Act

boundaries. The Act provides that 85% of annual revenues be used to acquire environmentally sensitive lands in the Lake Tahoe Basin.

Federal Land Transaction Facilitation Act of 2000

The Federal Land Transaction Facilitation Act of 2000 (FLTFA), commonly referred to as the “Baca” bill, provides further authority and guidance for the sale of certain public lands, the deposit of sale proceeds, and the further use of those funds.

Land Exchanges

Land exchanges continue to be a land tenure adjustment tool, and are an important part of BLM’s strategic goal to serve current and future publics. However, a greater emphasis will be placed on land sales as a land tenure management tool, especially in areas with competitive market potential. The Southern Nevada Public Land Management Act has been very successful for competitive land sales in the Las Vegas, Nevada area. The Federal Land Transaction Facilitation Act provides additional incentives to utilize land sales as a land tenure management tool in other areas as well.

Acquisitions

Acquisition of lands and/or interest in lands can be pursued to facilitate various resource management objectives. Acquisitions, including easements, can be completed by negotiated purchase, exchange, donation, cooperative agreements, and transfers from other Federal agencies. Funding sources for acquisitions include revenue pursuant to the Federal Land Transaction Facilitations Act (FLTFA), the Southern Nevada Public Lands Management Act (SNPLMA), and the Land and Water Conservation Fund (LWCF). Other funding sources may include support from benefitting resource areas, which is especially important in exchanges and easement (including access) acquisition programs.

Since inception of the SNPLMA (1998) and pursuant to the appropriate authorities the SNDO has acquired approximately 3,500 acres of private lands and approximately 160 acre-feet of annual water rights through funds generated by SNPLMA. The SNDO has acquired 1,944 acres in three land exchange transactions between May 1999 and May 2003.

No acquisition transactions under FLTFA have occurred in areas covered under this RMP. Nor has the SNDO acquired any interest in lands utilizing LWCF.

Future land acquisitions are anticipated, as opportunities arise to acquire access to public lands such as Areas of Critical Environmental Concern (ACEC), Instant Study Areas (ISA), and Wilderness Study Areas (WSA). Acquisitions would be utilized to acquire and protect important resources. Such resources would include, but not be limited to, threatened or endangered species, historic and pre-historic cultural sites.

4.6.2. Withdrawals

A withdrawal is a formal land designation that has the effect of reserving land for a certain use. Withdrawals remove public lands from the operation of one or more of the public land laws. Withdrawals exclude public lands from settlement, sale, location, or entry, including actions under the general mining laws and mineral leasing laws. Withdrawals are used to protect major Federal investments in facilities or other improvements, reserve lands for specific purposes and use, support national security, protect resources, and provide for public health and safety. Section 204(l) of FLPMA requires the review of existing withdrawals to determine if they are still serving the purposes for which they were made. If the

withdrawals are no longer serving their intended purpose, they are to be revoked and the lands opened or partially opened to the uses that were previously prohibited. If withdrawals are determined to still be meeting the purposes for which they were made, they are recommended for extension for a specific term. While BLM can make recommendations to designate, revoke, or extend withdrawals, only the Secretary has the authority to actually take these actions. Table 40 shows the type, number, and total acres by withdrawal type for all current, non-expired withdrawals in the planning area, not including military withdrawals. In the planning area, there are approximately 3.03 million acres of land withdrawn to the U.S. Air Force.

Table 40. Withdrawals Within the Planning Area (Non-Military)

Withdrawal Type	Withdrawn To	Number of Cases	Acres*
Wilderness Designation	BLM	13	352,459
ACEC	BLM	22	944,343
Special Designation	BLM	7	294,682
Miscellaneous	BLM	5	172,477
	U.S. Bureau of Reclamation	3	270,007
National Refuge System	U.S. Fish & Wildlife Service	1	769,543
Wildlife Management System	U.S. Fish & Wildlife Service	1	26,433
Wilderness Designation	U.S. National Park Service	5	99,456
National Recreation Area	U.S. National Park Service	1	10
National Recreation Area	U.S. Forest Service	1	316,000
Miscellaneous	U.S. Forest Service	2	280
	U.S. Department of Energy	1	308,600
	Nuclear Regulatory Commission	1	4,255
	Federal Energy Regulatory Commission	5	2,246
	Federal Aviation Administration	6	462

* Acreages are by individual designation type and do not reflect adjustments for acres that have multiple designations. Table 46 below provides an overall view of the impact of withdrawals on minerals uses.

4.6.3. Land Use Authorizations

Rights-of-Way

A right-of-way (ROW) grant is an authorization to use a specific piece of public land for specific projects, such as roads, pipelines, transmission lines and communication sites. A ROW grant authorizes rights and privileges for a specific use of the land for a specific period of time. Generally, a BLM ROW is granted for a term appropriate for the life of the project. The vast majority of ROWs granted are authorized by Title V of FLPMA (43 U.S.C. 1761-1771), and Section 28 of the Mineral Leasing Act of 1920, as amended (43 U.S.C. 185). It is the policy of the BLM to authorize ROW applications at the discretion of the authorized officer in the most efficient and economical manner possible.

Many ROWs exist within the Las Vegas and Pahrump Field Offices, authorizing construction, operation and maintenance of power lines, telephone lines and fiber optic cables, irrigation and culinary water

facilities and pipelines, mineral material sites, communication sites, ditches and canals, pipelines for mineral resources, roads, highways, and other similar uses. These ROWs have been granted to various towns, cities, counties, individuals, companies, organizations, government agencies, and other entities. Whenever feasible, BLM encourages joint use and placement of new facilities in existing use areas that have already been disturbed, such as existing communication sites, roads, and highways. BLM does not issue exclusive use rights-of-way, therefore, more than one grant may be issued for the same area, resulting in the same acreage being counted more than once. For example a fiber optic cable, a water pipeline, a power transmission line, and a telephone line may all exist within the same footprint resulting in the same acreage being counted for each individual use. In such instances the actual acreage impacted will appear inflated. Table 41 and Table 42 show the numbers and acres of ROWs in the two Field Offices in the planning area.

Table 41. Existing Rights-of-Way Within the Las Vegas Field Office

Right-of-Way Type	Number of Cases	Acres
Roads and Highways	518	28,750
Power Transmission Lines	643	128,505
Telephone Lines	259	3,380
Water Facilities and Pipelines	378	7,285
Oil and Gas Pipelines	107	2,613
Miscellaneous ROWs	312	36,043
Total	1,958	19,379

Source: LR 2000 02/25/2010

Note: Segments of some of these ROWs are located in both the Las Vegas and the Pahrump Field Offices, and are reflected in both tables.

Table 42. Existing Rights-of-Way Within the Pahrump Field Office

Right-of-Way Type	Number of Cases	Acres
Roads and Highways	29	11,380
Power Transmission Lines	28	12,415
Telephone Lines	22	1,072
Water Facilities and Pipelines	12	7,285
Miscellaneous ROWs	30	2,045
Total	121	26,994

Source: LR 2000 02/25/2010

Note: Segments of some of these ROWs are located in both the Las Vegas and the Pahrump Field Offices, and are reflected in both tables.

ROW users pay rents to BLM on an annual basis. The rental schedule varies by county, with a county's "zone" depending on average property values in the county. Clark County is in BLM's zone 6, which has an annual fee of \$95.96 per acre of ROW for 2011. Nye County is in zone 4, which has an annual fee of \$95.96 per acre of ROW for 2011 (BLM undated).

Communication Sites

Communication sites host communication equipment and facilities for various uses, such as television, radio, microwave, seismograph, cellular, and internet. The following table depicts the number of

communication sites, users, uses and acres authorized within the Planning Area. In some instances these authorizations include ancillary facilities such as roads, power lines, and fuel storage facilities necessary to sustain the operation of the site which are factored into the total acreage granted to the site. Communication site authorizations are issued under a “communications use lease,” unless the use involves a third party that wants to co-locate in a BLM owned facility, in which case the authorization is a right-of-way (ROW) grant. Both authorizations are administered under the ROW regulations and are referred to as a ROW authorization. Table 43 summarizes the existing communication sites in the planning area. BLM does not issue exclusive use authorizations, therefore, more than one use may be issued for the same area, resulting in the acreage being counted more than once.

Table 43. Communication Sites Within the Planning Area

Field Office	Named Sites	Number of Users	Number of Uses	Acres
Las Vegas Field Office	47	202	405	1,421
Pahrump Field Office	5	12	6	30
Total	52	214	411	1,451

Source: LR 2000; and Jane Miller.

The BLM issued final regulations on November 13, 1995, establishing a rental schedule for communication uses located on public lands. The schedule establishes a rental amount based upon the population of the area served and the type of communication use. Currently there are ten categories of use and nine population strata areas represented by the schedule. The rent schedule is adjusted annually based on changes in the CPI-U index.

Facility owners and facility managers are required to have authorizations. Tenants and customers who do not own their own building, equipment shelter, tower, or other improvements do not need a separate authorization. Total rent assessed a facility owner or facility manager is based on 100% of the highest valued use in the building, plus 25% of scheduled rent for all other communication uses subject to rent. Tenants and customers who are collocated within a Federal Agency owned facility, or a rental exempt agency facility, must have their own authorization for any and all facilities or equipment located on public land.

Corridors

Corridors are established to bring together within a designated area several linear rights-of-way (ROWs). The locations of corridors for the decision area lands identified in the 1998 Resource Management Plan (RMP) are the results of efforts to minimize acreage disturbance, provide for the needs of future users, and respond to concerns of the private and local agency landowners. The intent of the identification process is to restrict the random distribution and proliferation of ROWs in an unorganized pattern. Identification of utility corridors provides specific areas for future linear ROWs such as powerlines, pipelines, fiber optic and other communication lines. Existing corridors within the planning area are to be maintained, and where needed and practical expanded to meet current and anticipated future needs. The Energy Policy Act of 2005 created special requirements for identification and management of corridors for energy transmission. The existing corridors in the planning area encompass a total of 228,863 acres, including the West-wide Energy Corridor.

Leases and Permits

The Federal Land Policy and Management Act, Section 302 provides BLM the authority to issue leases and permits for the use, occupancy, and development of public lands. Leases and permits are issued for

purposes such as advertising displays, commercial or noncommercial croplands, apiaries, livestock holding or feeding areas not related to grazing permits and leases, commercial filming, harvesting of native or introduced species, temporary or permanent facilities for commercial purposes (does not include mining claims), residential occupancy, ski resorts, construction equipment storage sites, assembly yards, oil rig stacking sites, mining claim occupancy if the residential structures are not incidental to the mining operation, and water pipelines and well pumps related to irrigation and non-irrigation facilities.

One important use of permits in the planning area is for the motion picture industry. The western deserts, dry lake beds, and mountain terrain are strong attractions to national and international television and film production companies. Many major motion pictures and television commercials have been filmed on public lands within the Planning Area. Since 1990, an average of 15 to 30 permits has been issued each year for various commercial filming activities. During fiscal year 2009, 19 permits were issued for commercial filming in the Las Vegas Field Office, while in FY 2008 41 permits were issued.

The Recreation and Public Purposes Act (R&PP) of 1926, as amended, is a commonly used authority for leases. It authorizes the sale or lease/conveyance of public lands for recreational or public purposes to State and local governments and to qualified nonprofit organizations. Examples of qualified uses under the act are historic monument sites, campgrounds, schools, fire houses, law enforcement facilities, municipal facilities, landfills, hospitals, parks, fairgrounds, and churches. Leases are issued for a specific time allowing the lease holder adequate time to substantially build and follow their approved plan of development. Table 44 summarizes the current status of R&PP leases.

Table 44. Recreation and Public Purposes Act Leases in the Planning Area

Category	Field Office	Number of Cases	Acres
Authorized	Las Vegas Field Office	133	9,753
	Pahrump Field Office	5	843
	Total	138	10,596
Expired but Not Closed	Las Vegas Field Office	14	1,154
	Pahrump Field Office	1	10
	Total	15	1,164

Source: LR 2000 05/02/2011

During the lease period the holder pays an annual rental to the United States based on appraised value at a reduced rate depending upon the planned-for use. Rental paid during the time of the lease is not applied toward the purchase price of the land when substantial development warrants sale and conveyance of the land. Patents issued under the R&PP Act convey a restricted title, since they contain certain provisions or clauses that, if not complied with, may result in reversion of the title to the United States.

Federal regulations (43 CFR. 2911) provide the authority for the Secretary of the Interior to lease Federal lands for public airports. Public Airport means an airport open to use by all persons without prior permission of the airport lessee or operator, and without restrictions within the physical capacity of its available facilities. Table 45 shows airport leases of BLM lands in the planning area.

Table 45. Airport Leases of BLM Public Lands in the Planning Area

Airport Name	County	Acres	Comments
Henderson Executive Airport	Clark	140	

Airport Name	County	Acres	Comments
North Las Vegas	Clark	102	
Searchlight	Clark	21	
Sandy Valley	Clark	266	Expired lease, now being renewed
November Scorpio Ent.	Nye	60	Expired lease
Ash Meadows	Nye	520	Expired lease
Jackass Airport	Nye	860	Expired lease, now being closed
Total		1,969	

Source: LR 2000 02/01/2010

4.7. MINERALS

The Bureau of Land Management permits mineral extraction on public lands and federal mineral estate through three programs – Saleable Minerals, Locatable Minerals, and Leasable Minerals.

- *Leasable minerals* are minerals for which BLM issues leases, often through a competitive bidding process, allowing producers to access the mineral. Leasable minerals are divided into fluid and solid minerals. Leasable fluids include oil, gas, and geothermal.¹⁵ Solid leasables include coal, phosphate, potash, and sodium. Excepting coal, most solid leasables are used to make fertilizer and as feedstock for other industrial processes. Revenues from the leases are shared by the Federal Government and the state of origin. Many states direct portions of these revenues to local government.
- *Locatable minerals* include hard-rock minerals such as gold, silver, molybdenum, and uranium, and other minerals such as gypsum, silica, and specialized clay products. Miners “locate claims” in order to acquire the right to develop the mineral values in a specified area, under the provisions of the General Mining Law of 1872 as amended. Locatable minerals include both metallic minerals (precious and base metals) and non-metallic minerals (gemstones and industrial minerals). Locatable minerals produce severance tax and other revenues to state government and annual mining claim fees to the state and Federal Government.
- *Saleable minerals, also known as mineral materials*, consist of common varieties of sand, stone, gravel, cinders, clay, pumice and pumicite as described under the Materials Act of 1947 and the Surface Resources Act of 1955. No mining claims are required for their extraction. They are used in everyday building and other construction uses. These materials generally are bulky and their sheer weight makes their transportation costs very high. Adequate local supplies of these basic resources are vital to the economic life of any community. Saleable minerals are disposed of through a variety of contracted sales; most of the revenue goes to the Federal Treasury.

The SNDO’s Minerals Program handles a large federal mineral estate that encompasses surface and subsurface mineral estates. In total, between 2 to 3 million acres of public *surface* land are currently open for mineral development and exploration within the planning area, depending on the mineral resource (Table 46) BLM manages the subsurface federal mineral estate for these lands. In addition, BLM manages minerals for additional land where the surface has passed into other ownership, but the Federal Government has retained the subsurface mineral estate. The precise additional acreage is not presently known, and is difficult to determine as this “split estate” has not been tracked over time, and would now require researching hundreds of land patents. The acreage is thought to be approximately 1 million acres.

¹⁵ *Geothermal resources are addressed in this document under Renewable Energy.*

Table 46. Number of Developable Acres Administered by SNDO Available to Mining

Type of Land	Acres
Total SNDO Administered Lands	3,130,157
(1) Total SNDO Administered Lands Open to Locatable & Solid Leasable Development ^a	2,026,443
(2) Total SNDO Administered Lands Open to Saleable Mineral Development ^b	2,482,981
(3) Total SNDO Administered Lands Open to Oil & Gas Development ^c	3,007,244
(4) Total SNDO Administered Lands Open to Geothermal Development ^d	2,969,891
Total SNDO Withdrawn Lands	1,103,714

Source: BLM 2010a, based on SNDO GIS layers.

^aThis acreage excludes all of the lands withdrawn as ACECs or Wilderness and only refers to solid leasable and locatable mineral resources.

^bSaleable minerals can be located within all lands open to mineral development and lands within the urban disposal boundaries.

^cOil & Gas can be leased in all ACECs but is unavailable for leasing in the wilderness areas.

^dGeothermal can be leased in all ACECs, except the Ash Meadows ACEC, but is unavailable for leasing in the wilderness areas.

Mineral exploration, development, and production on BLM-managed Federal mineral estate have many socioeconomic implications:

- Mineral exploration and mineral production generate economic activity through payments to labor and to capital both inside and outside of the socioeconomic study area.
- Mineral production generates tax revenue. These revenues include Nevada's net proceeds of minerals tax (see Section 3.7). Table 29 shows the net proceeds of minerals tax revenues generated within Nye and Clark Counties. It is not possible to determine the portion of these revenues that come from mining on BLM-administered resources. Additional tax revenues include property taxes on mining equipment and any other mine-related assets, business license / modified business tax, personal income tax on mining income, and sales taxes.
- Some mineral production on Federal mineral estate generates revenues to the Federal Government. This is generally true for leasable minerals and saleable minerals, but not for locatable minerals. Some of these Federal revenues are shared with the state, which may in turn share the revenues with local governments. The types of revenues and revenue sharing are described in the sections below on the BLM mineral programs.
- Mineral exploration and production have social significance as livelihoods for persons in the industry, and to the cultural identity of certain communities and stakeholder groups.
- Mineral exploration and production may result in environmental impacts, demands on physical infrastructure, increased traffic, "boom and bust" economic cycles, and other impacts that have economic and social costs.

BLM and the state apply various fees and requirements to some or all mining operations. These include but are not limited to the following:

- Claim staking and maintenance fees – For locatable minerals, a claim staking fee of \$189 per claim is applied BLM-wide, and a maintenance fee of \$140 per year per claim. A Small Miner's Waiver may be filed in lieu of paying the annual maintenance fee.
- Reclamation bond – All mining operations, excluding some sand and gravel operations, must post a bond with BLM or the state that ensures adequate funds are available to reclaim the mine site when the mining operation is completed. The amount of the bond is calculated with a spreadsheet

program developed by BLM, the Nevada Department of Environmental Protection, and the Nevada Mining Association for operations in Nevada. The bonds are reviewed within specific timeframes and reflect the current costs to reclaim these sites. These costs include inflation, labor, equipment, and administrative costs so the BLM can contract out, via a third party, to reclaim a site should it become abandoned.

- Reclamation fee – A payment made in lieu of a bond for some sand and gravel production.
- Tortoise fee – A fee paid to BLM to offset loss of tortoise habitat. The current fee (adjusted every January) is \$774.00 per acre and is applied to all disturbances related to all mineral development activities (locatables, leasables, and saleables) outside of the community pits. In the community pits it is applied to salable mineral production on a volume basis (\$0.25/cubic yard or \$0.14/ton).
- Cost recovery – BLM charges cost recovery fees when permitting some mineral production, on a case by case basis. The fees cover the cost of BLM staff time for the NEPA process (when applicable), for claim validity examinations, and some other mineral program costs.

The following subsections summarize historical and current mineral development and production activity, and provide current views on future potential. Except where specifically mentioned otherwise, the historical and current data is for sites (e.g., wells, lease parcels, mining operations) that were under SNDO jurisdiction at the time permitted/proposed. In some cases these sites have since passed into other ownership. Note that mining activity within the Red Rocks Canyon and Sloan Canyon NCAs is included in the historical data, but these areas have been withdrawn from mineral development since designation.

4.7.1. Leasable Minerals

The SNDO has no recorded production of any solid or fluid leasable minerals and no active leases. Some portions of the SNDO, e.g. the Muddy Mountains, have similar geologic settings to the oil and gas fields in eastern Nevada and Utah, which could spur future exploration for fluid minerals. The potential for valley brines containing potassium or sodium salts is unknown. There are no known solid leasable mineral resources within the SNDO. Various sources have stated there is the potential of potash in the Ash Meadows area, but this has not been substantiated by other authors. Thus, the potential for development of a leasable mineral resource within the SNDO's jurisdictional area is low as no economic deposits have been located to date.

From 1929 to 1989, 76 oil and gas wells were permitted on BLM jurisdiction in Clark County, according to the AMS (BLM 2010a). The number of wells in Nye County portions of the planning area in this period has not been determined due to the records research time that would be required. Of the 76 permitted wells in Clark County, only 63 were drilled. Approximately half of the drill sites have had shows of oil, but none were production capable.

The majority of the permitted wells were located within the Las Vegas Valley (LVV, including Henderson), with 28 drilled, and 5 never drilled (BLM 2010). The majority of these wells were drilled between 1940 through 1960. Following the LVV, the Jean / Goodsprings, Apex, and Gold Butte areas had the next most permitted oil and gas drilling locations. The Muddy Mountains area had 5 total oil and gas permits issued from 1929 to 1989, of which only 3 were drilled.

Although there are no Known Geothermal Resource Areas (KGRA) managed by the SNDO, 16 geothermal wells have been permitted by the state on BLM-managed mineral estate (BLM 2010). Half of the geothermal sites were located within vicinity of the towns of Glendale and Moapa in Moapa Valley. The Mesquite and Bunkerville area had the second highest concentration of issued geothermal permits (37.5% of permits) followed by the Logandale and Overton area (southern Moapa Valley, 12.5% respectively). The highest documented temperature from these wells is 32 C (89.6 F). Economically exploitable geothermal resources generally have higher temperatures.

Since 2004, there have been 101 proposed lease parcels in the SNDO for fluid leasable minerals competitive sales – 98 for oil and gas, and 3 for geothermal resources, totaling just over 201.7 thousand acres. Two of the proposed parcels were for geothermal resources in Nye County; the remaining parcels were in Clark County. None of these proposed parcels have advanced to the bidding or leasing phases. The majority of the proposed fluid leasable mineral lease parcels have been identified as occurring in areas designated as No Surface Occupancy. These could be leased but would require stipulations prior to approval, so they have not been advanced. In addition, a few parcels have been proposed in disposal areas or closed locations. Parcels which involve split estate lands have also not been leased as there is no definitive guidance on handling parcels on these lands.

In the future, as the cost of oil and gas continue to rise, there may be a need to locate new resources of fluid leasable minerals domestically to maintain the public's demand for fuel or energy without depending so heavily on foreign sources. Development of fluid leasable resources could take place on decision area lands at some time. As for solid leasable minerals, although there are currently no known solid leasable resources, there is a low potential that future exploration may locate a resource for development.

Should oil and gas production occur at some time in the SNDO, the lessee(s) would pay a royalty to the Federal Government. The royalty is usually 12.5 percent of the value of production, and sometimes additional bonus payments are made. The Federal Government returns half of mineral royalty revenues to the state where the production occurs, and each state typically passes some portion of the revenue back to local government.

4.7.2. Locatable Minerals

Locatable mineral mining operations on BLM-managed mineral estate must be approved by the local jurisdictional office. Under the Surface Management regulations, 43 CFR 3809, there are two kinds of mining operations allowed for locatable minerals, Notice level and Plan of Operations (Plan) level. Notice level operations are exploration-directed endeavors to locate and identify the extent of a mineral resource and are limited to a maximum of 5.0 acres. A notice is a two-year permit that can be renewed prior to the end of the two year cycle and is less restrictive on environmental issues than a Plan of Operations) because Notices are not subject to NEPA since they are not a Federal Action. They can be renewed indefinitely, but the associated bonds are updated with each extension to remain current. Historically, there have been rare circumstances where a small mine has been permitted under a Notice level operation. Since the Surface Management regulation changes (43 CFR 3809) in 2001, Notice level operations are restricted to be exploratory in nature with minimal disturbance such as drilling, bulk sampling, and trenching programs. If the intent is to actively mine a specific deposit, a Plan is required regardless of disturbance size.

A Plan has no limit to size of disturbance that is proposed and can range from small (less than 5.0 acres) to large (hundreds of acres) operations. Plans are heavily scrutinized for environmental, cultural, and safety concerns, and therefore are subject to NEPA. All Plan level operations are required to obtain all of the necessary state and local permits prior to final authorization from the SNDO. Most Plans are evaluated under an Environment Assessment, as long as their impact does not exceed 640 acres. If the operation exceeds 640 acres, it is evaluated under an Environmental Impact Statement in accordance with the NEPA Handbook and BLM would initiate cost recovery.

According to records summarized in the AMS (BLM 2010a), a total of 87 Plans of Operations (for 2,851 acres) and 361 Notices (for 1,076 acres) have been made in the SNDO. Of these, 19 Plans are currently active, and 16 Plans are pending. The minerals included in these active and pending Plans are clay, gold, gypsum, limestone, magnesium, perlite, silicon, dimensional stone, zeolites, and “to be defined.” Currently 11 Notices are active and 4 Notices are pending. The minerals included in these active and

pending Notices are calcium (limestone), gemstone (diamond), gold, silicon, specialty stone, and “to be defined.”

Locatable minerals produce severance tax and other revenues to state government and annual mining claim fees to the state and Federal Government. Locatable mineral production generates no royalty payments for the Federal Government. As a result, it is difficult to determine the value of production of locatable minerals on BLM-managed mineral estate.

Metallic Resources

Historically, many of the mining districts within the SNDO have mined metallic resources. The Goodsprings, Railroad Pass, and Sandy Valley areas have primarily produced base metals (copper, lead, and zinc) with minor accessories of gold and silver. The Bare Mountains, Copper King District (Bunkerville area and Virgin Mountains), Crescent Peak, Gold Butte, Johnnie District, Nelson, and Searchlight areas have primarily produced precious metals (gold and silver) with base metal accessories. Two areas, Copper King and Gold Butte mining districts, may have some minor occurrences of platinum group metals (PGMs, platinum and palladium) in addition to the previously mentioned mineral assemblage. Through 2008, no production of any metals has occurred anywhere within Clark County (all BLM and non-BLM mineral estate) since 2001.

Recently there has been Notice level exploration in the Bare Mt., Johnnie, Searchlight, Nelson, Goodsprings, and Crescent Peak areas. There is some exploration currently taking place in the Goodsprings District for both precious and base metals. The Bare Mt. District (southern Nye County) is the only area where significant precious metal exploration is occurring. Currently there are two authorized metallic mining operations in the SNDO, both in the Bare Mountains and managed by the PFO. Gold production is expected to occur in the near future at the Sterling and Reward Mines in the Bare Mt. District. Currently, there are no operations in Clark County managed by the LVFO.

As metallic mining is dependent on market value for the commodity, it is difficult to discern a forecastable trend. The current market trend (through 2007 into 2010) shows that metal commodity prices continue to rise to unseen values across the globe. As technology advances or as the price of the commodity increases, it could become economic to mine lower grade resources. That could create the potential for future mining operations in the SNDO for these resources. If the commodity values plunge, then it is very likely that fewer operations will conduct exploratory activities or develop large mining operations for these resources.

Non-metallic Resources

Non-metallic minerals are the primary forms of locatable minerals found within the jurisdictional boundary of the SNDO. They can be further subdivided as gemstones and industrial minerals.

The presence of gemstones is extremely limited within the district. Turquoise can be found in the Crescent Peak area and near Boulder City. In addition to turquoise, the Crescent Peak area may have some fluorite and jade. Lapidary grade agates and chalcedony are located in isolated portions of the Muddy Mountain Wilderness area and chalcedony is also found near Henderson. The potential for gemstone mineral development is extremely low as these resources are small and primarily in withdrawn areas.

Industrial minerals form the bulk of locatable minerals found within the jurisdictional boundary of the SNDO and provide resources to numerous industries. Extensive gypsum deposits occur within the Blue Diamond (Arden), Bunkerville, Lake Mead, and Muddy Mountains areas. These deposits are used for wallboard production, additives for concrete and cement, and agricultural needs. Borates are found in the

Amargosa, eastern Lake Mead, and Muddy Mountains areas. Rare magnesium clays are currently produced in the Amargosa Valley for specialized uses in the drilling industry, as binding agents, thickeners, gels, and in certain filtering applications. Silica sand for glass and foundry use is located near Goodsprings, Mercury, and Overton areas. High grade limestone can be located in the Apex, Overton, and Sloan areas. Perlite for lightweight concrete is located in the Bare Mountains, Jean, southeastern Sandy Valley, and Searchlight areas. Saline brines and evaporites can be located in Amargosa and the Overton areas.

Industrial mineral production has been impacted by the current economic recession, but not as severely as saleable mineral resources. Production has slowed substantially, but has not come to a near halt. As the economy recovers, production from the active industrial mineral operations will improve. There are several large resource areas within the district that may promote future growth for operations to expand into as the commercial market improves.

4.7.3. Saleable Minerals (Mineral Materials)

BLM's policy is to make mineral materials available to the public and local governmental agencies whenever possible and wherever environmentally acceptable. BLM sells mineral materials to the public at fair market value, but gives them free to states, counties, or other government entities for public projects. Also a limited amount may be provided free to non-profit groups. Materials obtained free of charge cannot be bartered or sold.

Saleable minerals are disposed of through a variety of contracted sales. The material has an appraised fair market value which becomes the price for the commodity, and is sold on either a per ton or per cubic yard basis. These contracts have a specified term and volume, which can be renewed for additional time, additional material (if contracted volume is exhausted before the end of the contract's timeframe) or both as long as there is sufficient remaining material within the contracted boundary

There are two main types of saleable minerals, decorative and aggregate, that are disposed of in the SNDO, and each has its own appraised fair market value. Appraised values are based on the commodity, the surrounding market, location, and the potential use of the material. Decorative, or landscape, rock typically has a higher appraised value that is based on color or aesthetic schemes and tends to be location specific. Decorative rock is used as ground cover for xeriscaping or as a grass alternative and is sold in smaller quantities. Common variety limestone and sandstone, and valley fill (sand and gravel) is typically sold from community pits which are located around many of the population centers of the SNDO and may have a lower appraised value. These materials are used typically for a variety of construction purposes and are sold in large bulk amounts. Mineral materials are found in widespread locations in the SNDO; there are no regions within the SNDO where saleable minerals are not found.

The SNDO is the leading producer of saleable minerals (specifically, sand, gravel, crushed stone, and decorative rock) in the entire BLM program. The SNDO produces more than 50% of the BLM's total national income from saleable mineral resources on public lands.

BLM public lands provide an important component of mineral material production in southern Nevada. In 2006, a peak production year, BLM SNDO mineral material sales amounted to 11,730,334 tons, at a value of \$7,310,929. This represented approximately 20-25% of all 2006 sand and gravel production in the district. The remainder came from private lands and a large landfill operation.

As urban development has grown, the need for construction materials has risen rapidly to accommodate those needs. According to data from the AMS (BLM 2010a), although mineral material contracts over the last decade (Fiscal Years 2000 through 2009) only constituted 37% of the total contracts issued, nearly

80% of the total historic production from mineral material sites has come from the last decade. Over the last decade, mineral material contracts and sales from the SNDO have sold nearly 128 million cubic yards of material equating to \$147.5 million in sales, of which 40 million cubic yards, with a sales value of \$42 million, has been mined. This compares to total historic sales and production of 150 million cubic yards of material equating to \$166.8 million in sales, of which over 52 million cubic yards, worth approximately \$53.5 million, has been mined.

The demand for sand, gravel, and decorative rock declined significantly in 2008 and 2009 due to the construction slowdown. However, there will be significant demand for these products in the future even at reduced rates of population and building growth in the Las Vegas and Pahrump areas. The Las Vegas Field Office is preparing an EIS to address proposals to construct and operate two mineral material mines in the Sloan Hills located at the south end of the Las Vegas Valley. The first phase of development of this resource is the sale of two mineral material contracts equaling a sale of 100 to 125 million cubic yards of material split between both contracts. The two contiguous sites propose to mine and crush a total of 10 million tons of limestone rock per year for construction aggregate. Other sand and gravel quarries at existing community pits will also be expanded to meet near term demand. New decorative rock quarries may be proposed to supply increased demand or customer preferences for landscaping materials.

Mineral materials are sold by BLM under competitive contracts, and through permits to take materials from “Community Pits” that are available to any user. In either case, approximately 76 percent of the revenue from mineral material sales is deposited in the Federal Government’s Reclamation (trust) Fund, 20 percent goes to the Federal Treasury, and 4 percent goes to the government of the state where the minerals were produced.

4.8. RENEWABLE ENERGY

Renewable energy development on public lands is tied to land availability, power line access, and reasonable access to utility markets. This also varies with the type of renewable energy development. Solar needs relatively flat lands with less than 2% slope. Wind is typically cited in hilly areas.

Not all BLM public lands are open to renewable energy development, due to restrictions on right-of-way (ROW) development and other considerations. The current Las Vegas RMP, signed in October 1998, specifically excludes all ACECs from site type ROWs such as renewable energy projects or substation facilities that support renewable energy projects. There are also congressionally delegated non-discretionary areas that are excluded from ROW development. These areas total 866,067 acres. Additional areas are precluded based on other BLM policies.¹⁶

As local governments such as Boulder City, through their planning processes set aside lands for renewable energy development that are adjacent to BLM lands, there will be increased pressure for BLM to make adjacent land available. Boulder City is currently using lands in the north end of the Eldorado Valley and southwest of Dry Lake as their Renewable Energy development zone. The south half of Eldorado Valley is public lands administered by BLM. Most of these public lands are in Piute/Eldorado

¹⁶ *Applicable policies include the Final Programmatic Environmental Impact Statement – Geothermal Leasing in the Western United States; Final Programmatic Environmental Impact Statement – Wind Energy Development on BLM-Administered Lands in the Western United States; BLM Instruction Memorandum 2009-043 – Wind Energy Development Policy; and BLM Instruction Memorandum 2007-097 – Solar Energy Development Policy. A Solar Energy Development Programmatic EIS is underway. Key aspects of these policies are summarized in the AMS. Notably, BLM Instruction Memorandum 2009-043 – Wind Energy Development Policy, advises all offices that all new, revised, or amended land use planning efforts will address and analyze ACEC land use restrictions individually, including restrictions to wind energy development. Therefore one or some of the SNDO ACECs may become available for wind energy and possibly geothermal and solar development.*

ACEC, but there are some pockets of open public lands. Within these open areas are approximately eight applications for wind and solar.

Access to power lines is another key to renewable energy development. For instance, several major power lines go through the Piute/Eldorado ACEC near Boulder City and may provide fresh opportunities for development with proper planning. A major issue facing renewable energy developers is that the existing power lines need to be upgraded to handle the planned power output. SNDO has two applications for power line upgrades: the Southern California Edison (SCE) line, which originates in California and terminates in the Eldorado Valley; and the Western Area Power Administration line in Searchlight, Nevada. Both lines are being developed to support renewable energy development. Several other renewable energy projects are proposing to build their own lines to interconnect with major transmission lines.

The SNDO has been involved in renewable energy development on public lands since FY2000 with initial applications for Geothermal Energy (2002), Wind Energy (2000), and Solar Energy (2007). Table 47 provides a list of all active solar and wind applications as of September 30, 2010. As shown, the SNDO has 74 “first position” solar and wind energy cases pending or authorized. This includes a number of applications for wind or solar monitoring applications. There are also 23 “second position” applications (not shown), which are applications filed for the same location as first position applications. There is no action occurring on any of the second applications until SNDO either approves or rejects the first position application. As of November 19, 2010, two projects have been approved in the SNDO – the Silver State North Solar Project by First Solar, Inc. (which bought out NextLight Renewable Power, LLC), and the Amargosa Farm Road Solar Project being developed by Solar Millennium LLC.

Renewable energy development has important economic implications for the socioeconomic study area. Such projects generate new income and jobs in the study area. For instance, the recently approved Silver State North Solar Project is projected to generate 300 construction jobs, up to 10 permanent operation jobs, and \$250,000 of tax revenue annually in property taxes paid to Clark County (Department of the Interior 2010b). The Amargosa Farm Road Solar Project is projected to generate 1,300 construction jobs and up to 200 permanent operation jobs (Department of Energy 2010a).

Table 47. Active SNDO Solar and Wind Applications as of September 30, 2010

Case Number	Applicant	Type	Status	Acres	Descriptors
NVN 083083	Cogentrix Solar Services LLC	Solar	Pending	9,760	1000 MW
NVN 083129	Cogentrix Solar Services LLC	Solar	Pending	19,840	1200 MW
NVN 083130	Cogentrix Solar Services LLC	Solar	Pending	4,480	1000 MW
NVN 083150	Cogentrix Solar Services LLC	Solar	Pending	13,440	1400mw CSP Trough
NVN 083151	Cogentrix Solar Services LLC	Solar	Pending	21,141	Solar Thermal Energy
NVN 083220	Cogentrix Solar Services LLC	Solar	Pending	12,800	1400 MW CSP Trough
NVN 083221	Cogentrix Solar Services LLC	Solar	Pending	22,400	1400mw CSP Trough
NVN 083914	Bright Source Energy Solar Ptrn	Solar	Pending	14,960	800 MW
NVN 084052	NV Power Co	Solar	Pending	1,959	150-300 CSP Trough
NVN 08405201	NV Power Co	Solar	Pending	1	
NVN 084232	First Solar, Inc.	Solar	Pending	3,215	400 MW
NVN 084359	Solar Millennium LLC	Solar	Pending	5,880	500 MW CSP Trough
NVN 084465	PSI Inc. C/O Iberdrola Renewab	Solar	Pending	10,006	300 MW PV
NVN 084466	PSI Inc. C/O Iberdrola Renewab	Solar	Pending	4,480	300 MW PV
NVN 084467	PSI Inc. C/O Iberdrola Renewab	Solar	Pending	11,000	1000 MW
NVN 084631	Bright Source Energy Solar Ptrn	Solar	Pending	2,000	1000 MW
NVN 084704	Amargosa Flats Energy LLC	Solar	Pending	7,040	140 MW CSP Linear Fresnel Reflector
NVN 085077	Nextlight Renewable Power LLC	Solar	Pending	7,677	Photovoltaic (CPV)
NVN 085117	Bull Frog Green Energy LLC	Solar	Pending	3,639	Solar Energy Facility
NVN 085201	EWindfarm Inc	Solar	Pending	11,238	500 MW PV Flat Plate
NVN 085601	Cogentrix Solar Services LLC	Solar	Pending	2,000	
NVN 085602	Cogentrix Solar Services LLC	Solar	Pending	7,040	Solar Thermal Energy
NVN 085603	Cogentrix Solar Services LLC	Solar	Pending	4,700	Solar Thermal Energy
NVN 085611	Cogentrix Solar Services LLC	Solar	Pending	3,200	Solar Thermal Energy
NVN 085612	Cogentrix Solar Services LLC	Solar	Pending	2,012	Solar Thermal Energy

Case Number	Applicant	Type	Status	Acres	Descriptors
NVN 085616	Cogentrix Solar Services LLC	Solar	Pending	10,880	Solar Thermal Energy
NVN 085619	Cogentrix Solar Services LLC	Solar	Pending	12,000	Solar Thermal Energy
NVN 085620	Cogentrix Solar Services LLC	Solar	Pending	24,000	Solar Thermal Energy
NVN 085621	Cogentrix Solar Services LLC	Solar	Pending	1,775	Solar Thermal Energy
NVN 085651	Cogentrix Solar Services LLC	Solar	Pending	5,500	Solar Thermal Energy
NVN 085652	Cogentrix Solar Services LLC	Solar	Pending	3,800	Solar Thermal Energy
NVN 085654	Cogentrix Solar Services LLC	Solar	Pending	3,597	Solar Thermal Energy
NVN 085656	Cogentrix Solar Services LLC	Solar	Pending	7,500	Solar Thermal Energy
NVN 085657	Cogentrix Solar Services LLC	Solar	Pending	7,700	Parabolic Trough
NVN 085680	Cogentrix Solar Services LLC	Solar	Pending	11,000	Solar Thermal Energy
NVN 085773	Cogentrix Solar Services LLC	Solar	Pending	11,584	Solar Thermal Energy
NVN 085801	Nextlight Renewable Power LLC	Solar	Pending	2,560	Photovoltaic (CPV)
NVN 086158	Power Partners Southwest LLC	Solar	Pending	3,885	Solar Generation Plant
NVN 086159	Power Partners Southwest LLC	Solar	Pending	1,751	Solar Generation Plant
NVN 086217	Nye County Solar I, LLC	Solar	Pending	14,160	300 MW CSP Trough
NVN 086248	Ausra NV I LLC	Solar	Pending	10,080	Solar Energy Facility
NVN 086249	Ausra NV I LLC	Solar	Pending	4,480	Solar Energy Facility
NVN 086571	Abengoa Solar Inc	Solar	Pending	5,280	250 MW CSP Trough
NVN 086589	Cogentrix Solar Services LLC	Solar	Pending	0.002	
NVN 086590	Cogentrix Solar Services LLC	Solar	Pending	0.002	
NVN 086591	Cogentrix Solar Services LLC	Solar	Pending	0.002	
NVN 086782	Southwest Solar Land Co LLC	Solar	Pending	2,640	50 MW PV
NVN 087313	Pacific Solar Investments Inc	Solar	Authorized	15	
NVN 087366	Solar Millennium LLC	Solar	Pending	6,400	
NVN 087756	Solar Millennium LLC	Solar	Pending	13,571	
NVN 088156	EWindfarm Inc	Solar	Pending	50,470	

Case Number	Applicant	Type	Status	Acres	Descriptors
NVN 088337	Element Power	Solar	Pending	643	Photovoltaic (PV)
NVN 088338	Element Power	Solar	Pending	1,040	Photovoltaic (PV)
NVN 088552	GA-SNC Solar, LLC	Solar	Pending	825	
NVN 088870	Moapa Solar LLC	Solar	Pending	168	
NVN 073726	Table Mtn Wind Co LLC	Wind	Pending	8,320	
NVN 082311	Competitive Power Vent Inc	Wind	Authorized	8,944	Wind Farm Met Towers
NVN 082632	NV Power Co	Wind	Authorized	8,320	
NVN 082648	Searchlight Wind Energy Project	Wind	Authorized	24,383	
NVN 082729	Oak Creek Energy Systems	Wind	Authorized	34,456	
NVN 083041	Table Mtn Wind Co LLC	Wind	Authorized	11,570	
NVN 083063	Turning Pt Consltn Inc DBA	Wind	Pending	5,800	Met Towers
NVN 084464	Desert Queen Wind LP	Wind	Pending	5	
NVN 084626	Searchlight Wind Energy Project	Wind	Pending	24,383	
NVN 085746	Desert Research Institute	Wind	Pending	28	
NVN 086300	Great Basin Wind Energy LLC	Wind	Pending	14,181	
NVN 087907	Pacific Wind Development LLC	Wind	Pending	2,200	
NVN 087966	Maglev Wind Turbine Tech., Inc	Wind	Pending	6,400	
NVN 087970	Pacific Wind Development LLC	Wind	Pending	5,089	
NVN 088164	Maglev Wind Turbine Tech., Inc	Wind	Pending	6,400	
NVN 088599	White Oak Wind Energy, LLC	Wind	Pending	10	
NVN 088600	White Oak Wind Energy, LLC	Wind	Pending	10	
NVN 088601	White Oak Wind Energy, LLC	Wind	Pending	10	
NVN 088602	White Oak Wind Energy, LLC	Wind	Pending	10	

CSP: Concentrating Solar Power
MW: Megawatts
PV: Photovoltaic
CPV: Concentrated Photovoltaics
Met: Meteorology

The following subsections summarize the status of renewable energy development on decision area lands, and related policy development.

Solar

The SNDO received its first solar energy application in 2007. This was also the same time when BLM released its Solar Energy Development Policy Instruction Memorandum No. 2007-097 (http://www.blm.gov/wo/st/en/prog/energy/solar_energy.html). This policy officially announced that public lands would be made available for solar energy development.

The SNDO has two solar energy projects that have been processed as fast track projects and recently approved. The first project is the 50 MW Silver State Solar project (NVN-085077, which was amended to include NVN-085801) filed by NextLight Renewable Power, LLC and now owned by First Solar, Inc. This is an approximately 7,000 acre photovoltaic (PV) site located immediately east of Primm, Nevada. The second project is the 500 MW Solar Millennium, LLC Amargosa Farm Road Solar Project (NVN-84359). This is a concentrated solar power (CSP) facility that utilizes dry cooling technology. The project encompasses 4,350 acres of public lands.

The SNDO has also identified two solar study areas as part of the Solar Energy Development Programmatic EIS (<http://solareis.anl.gov/>). They are identified as the Amargosa Valley Solar Study area and the Dry Lake Solar Study area. The solar study areas are mentioned as a part of this RMP for information purposes only. The study areas will be analyzed in the Solar Energy Development Programmatic EIS which will amend all RMPs. Solar Energy applications within the solar study area may still be subject to site-specific NEPA analysis (EA/EIS) depending on the scope of the project. There are a number of existing solar energy applications in the solar study areas. No new applications are being considered in these locations with the creation of the solar study areas.

Wind

The first SNDO wind energy application came in 2000 with the Table Mountain Wind Co. LLC, project located south of Good Springs, Nevada (NVN-073726). This project is authorized for wind monitoring only. It has 12 anemometer sites located on it. The proposed project has been reduced in size and scope by approximately 48%. A supplemental EIS has been proposed to address the reduced project size and changes to the proposed action. No action has occurred on the proposed supplemental EIS.

The Final Programmatic Environmental Impact Statement (FPEIS) on Wind Energy Development on BLM-Administered Lands in the Western United States was published June 2005 (<http://windeis.anl.gov/>). The FPEIS on Wind Energy Development evaluates the potential impacts associated with the proposed action to develop a Wind Energy Development Program, including the adoption of policies and best management practices (BMPs) and the amendment of 52 BLM land use plans, including the 1998 Las Vegas RMP, to address wind energy development on public lands. The ROD for the FPEIS was signed on December 2005.

In FY2006 BLM received six renewable energy applications for wind energy monitoring. These applications are currently authorized for monitoring purposes only. Of these six wind energy applications only the Searchlight Wind Energy project (NVN-084626) has initiated an EIS. The project initially called for 167 wind turbines. The current proposal is 87 wind turbines located on the west side of State Route 95 north and south of Searchlight.

Geothermal

There were two geothermal applications received in 2002 in the Las Vegas Valley. They were closed in 2002 because lands within the Las Vegas Valley are withdrawn from mineral entry under the Southern Nevada Public Lands Act.

In May 2007, the Department of the Interior published final regulations on geothermal energy production on public lands requiring more competitive leasing, offering simplified royalty calculations, and sharing \$4 million per year in current royalties with counties where production occurs. A Programmatic Environmental Impact Statement (EIS) relating to the authorization of geothermal leasing was completed in October 2008 and the Record of Decision was signed in December 2008. The Record of Decision amended 114 Bureau of Land Management resource management plans, including the 1998 Las Vegas RMP, and allocated about 111 million acres of Bureau-managed public lands as open for leasing (<http://www.blm.gov/wo/st/en/prog/energy/geothermal.html>).

As detailed in the minerals section, 16 geothermal wells have been permitted by the state on SNDO BLM-managed mineral estate (BLM 2010). However, the temperatures recorded at these wells are low, which reduces the economic feasibility of geothermal projects. In FY2009 the SNDO minerals staff evaluated three ten site nominations for locating potential geothermal energy sites. This is a precursor step to leasing and filing an Application for Permit to Drill. All three nominations were denied due to requirements for no surface occupancy.

4.9. NONMARKET VALUES

Market values of BLM public lands and federal mineral estate are relatively easy to understand and assess. Commodities produced through use of BLM public lands – such as oil and gas, hard rock minerals, mineral materials, livestock, timber, electricity from renewable energy projects, etc. – have a price in the marketplace that can be easily determined. Economic methods are readily available for measuring the flow of income and employment resulting from the production of commodities; e.g., production of electricity from renewable energy projects. A renewable energy development EIS presumes a certain number of wind turbines or solar panels developed over a specified period of time and constructed and operated by a workforce that can be estimated reasonably well. Using economic impact models, economists can then work “upstream” to estimate the purchases that renewable energy developers and operators will make from other firms, and work “downstream” to estimate how much their employees’ wages will contribute to other businesses throughout the local economy.

The term “nonmarket value” refers to the benefits individuals attribute to experiences of the environment or uses of natural and cultural resources that do not involve market transactions and therefore lack prices. Examples include the benefits received from wildlife viewing, hiking in a wilderness, or hunting for subsistence rather than commercial purposes. Nevertheless, such values are important to consider because they help tell the entire economic story. Estimates of nonmarket values supplement estimates of income generated from commodity uses to provide a more complete picture of the economic implications of proposed resource management decisions.

To follow the example above, if renewable energy development represents one use, other uses may involve managing for some combination of habitat conservation and recreation. While this may be relatively straightforward from a management standpoint, for determining economic impacts this is problematic. Herds of desert bighorn sheep do not pay user fees to graze on the public lands. Visiting fishers, hunters, and climbers may spend money on motels and restaurants, but for the most part recreation on BLM-managed lands comes free or at a nominal charge. Thus, much of the value that humans might place on maintaining lands for conservation and recreation is never measured in the market

economy. BLM is increasingly asked to consider these values; in effect, to replace that “zero” with a more useful number for planning and analysis purposes.¹⁷

Despite the difficulties associated with measurement of nonmarket values, it is well-accepted that the natural and cultural resources of an area and the open space the area may provide can have dollar values. For example, it is common for real estate investors to pay more for view lots or property adjacent to open space, or for people to make financial donations to help protect old-growth forests, endangered species, or other sensitive resources.

There is a body of evidence suggesting that “natural amenities” such as scenery, access to recreation, and the presence of protected areas (such as designated wildernesses or other forms of protection) have positive economic benefits for communities possessing such amenities. A recent study by Headwaters Economics (Headwaters Economics, 2007) summarizes much of the available research and reaches several conclusions:

- Retirees are attracted to areas which possess high levels of natural amenities.
- Entrepreneurs and employees who are not dependent on a particular workplace location (“cyber-commuters”) are attracted to areas that possess high levels of natural amenities.
- A positive relationship exists between environmental protection and in-migration, retaining businesses, and attracting new businesses.
- There is no evidence to suggest that protection of public lands is detrimental to local economies.

The above conclusions are reinforced by several other comprehensive studies, including those by the Sonoran Institute (2004) and the Wilderness Society (2007). A study of second home ownership in central Colorado (Venturoni, Long and Perdue, 2005), while not addressing protected public lands, concludes that access to scenery and recreation are prime motivators behind second home ownership in the areas studied. This paper further concludes that the second home ownership phenomenon, although not without its negative impacts, is an important economic engine in job creation and income generation. Data from the U.S. Bureau of Labor Statistics reinforces the importance of second home owners to local economies, particularly in terms of spending (Francese, 2003).

Another economic benefit of natural amenities is the enhancement effect of open space, including protected lands, on property values. The studies noted above, among others, have demonstrated that homes and properties located close to open space are more valuable relative to properties located further away, holding all else constant. This relationship varies based on the various characteristics (type, size, location, etc.) of open space resources, including the quality of views provided by the open space near a property. Open space can indirectly affect property tax revenues realized by local jurisdictions through the effect open spaces have on property value assessments.

In examining nonmarket values, economists often distinguish between “use values” and “non-use values.” *Use value* refers to the benefits an individual derives from some direct experience or activity, such as climbing a spectacular peak, hiking, or wildlife viewing. In contrast, *non-use value* refers to the utility or psychological benefit some people derive from the existence of some environmental condition that may never be directly experienced: an unspoiled Grand Canyon or the reintroduction of wolves to the Rockies.

Economists measure nonmarket use values by estimating the “consumer surplus” associated with these activities, which is defined as the maximum dollar amount – above any actual payments made – that a consumer would be willing to pay to enjoy a good or service. For instance, hikers pay a market price for

¹⁷ BLM has recently issued guidance on considering nonmarket values: Instruction Memorandum No. 2010-061, *Guidance on Estimating Nonmarket Environmental Values*, February 16, 2010 (BLM 2010c). This discussion draws on that guidance.

gasoline used to reach a trail, but pay nothing to use the trail. Any amount that a recreationist would be willing to pay to use this otherwise free resource represents the nonmarket consumer surplus value of that resource to that consumer. There are many techniques for measuring this nonmarket use value. One common way is to collect data on variations in what recreationists do pay (gasoline, hotels, restaurants, entry fees, guides or outfitters, etc.); economists then use quantitative techniques to impute the additional willingness to pay that constitutes consumer surplus.

For BLM planning purposes, it is often useful to evaluate the market expenditures associated with recreation or other activities on BLM public lands. Section 4.4 provides some local data on expenditures of recreationists.

It may also be useful to address the additional nonmarket economic values derived from BLM public lands. Nonmarket use values have been studied extensively for a wide variety of recreation “goods.” To help the reader understand the potential value of some of the decision area’s natural and cultural resources, an example of a range of typical nonmarket use values for recreation activities is summarized in Table 48, derived from a U.S. Forest Service report titled *Updated Outdoor Recreation Use Values on National Forests and Other Public Lands* (Loomis 2005). That study summarizes the findings from 1,239 studies covering much of the nation from 1967-2003, and separates out the studies by region. Table 48 provides summary statistics for the Intermountain Region, in which the SNDO is situated. Because the table reports on activities enjoyed across the Intermountain Region, it necessarily includes activities not typically available in the decision area (e.g., snow-based activities). It does report some activities one would expect to be popular in the decision area, such as hiking, wildlife viewing, and several other activities. Additionally, it summarizes reported consumer surplus on activities occurring in wilderness areas in the intermountain region.

Table 48. Average Consumer Surplus Values and Additional Statistics, Per Person Per Day, Intermountain Region, 1967 to 2003

Activity	N	Mean	Std. Error	Minimum	Maximum
Camping	21	\$34.72	\$6.64	\$2.03	\$116.66
Cross-Country Skiing	7	\$29.88	\$4.58	\$14.05	\$46.49
Downhill Skiing	3	\$39.62	\$13.88	\$15.05	\$63.11
Fishing	48	\$49.57	\$6.96	\$8.96	\$227.28
Non-motorized Boating	22	\$67.70	\$14.33	\$2.70	\$316.42
General Recreation	12	\$48.46	\$20.92	\$7.91	\$257.51
Hiking	7	\$38.53	\$7.84	\$12.85	\$75.76
Hunting	109	\$48.55	\$3.35	\$2.60	\$169.31
Motorboating	7	\$53.68	\$25.93	\$5.29	\$203.62
Mountain Biking	6	\$184.48	\$41.05	\$65.88	\$295.69
OHV Driving	7	\$22.81	\$4.31	\$7.96	\$40.86
Other Recreation	10	\$56.35	\$17.36	\$12.17	\$206.82
Picnicking	5	\$28.27	\$4.09	\$136.61	\$38.76
Driving for Pleasure	4	\$69.74	\$33.23	\$26.41	\$167.24
Rock Climbing	3	\$50.45	\$7.58	\$35.78	\$61.14
Sightseeing	11	\$23.58	\$8.65	\$0.65	\$100.73
Snowmobiling	8	\$36.29	\$13.24	\$10.79	\$124.44

Activity	N	Mean	Std. Error	Minimum	Maximum
Swimming	1	\$29.54	N/A	\$29.54	\$29.54
Waterskiing	2	\$56.96	\$13.09	\$43.87	\$70.07
Wildlife Viewing	61	\$37.24	\$3.30	\$5.26	\$193.91
All Wilderness Activities	32	\$41.68	N/A	N/A	N/A

Source: Loomis 2005, Table 3. All dollar figures are in 2004 dollars.

N: Number of studies measuring specific recreation activity.

N/A: Not available.

Mean: Average (arithmetic mean) consumer surplus per visitor day for that activity.

Std. Error: Standard error of the mean, with larger values relative to the mean indicating larger response variability.

Minimum: Average minimum consumer surplus per visitor day for that activity.

Maximum: Average maximum consumer surplus per visitor day for that activity.

By applying the range of values in Table 48 to recreational usage figures (visitor days), or a range from specific individual studies that are most comparable to the decision area, an estimate of the recreation-related non-market use value – the consumer surplus – can be derived for the decision area. The resulting figure represents the total nonmarket use value recreationists derive from these activities, or alternatively, can be seen as the total additional amount recreationists would likely be willing to pay for the related recreation activities if a fee for participation were required. Those who are accustomed to free access and use of public land tend to forget that it represents a recreation opportunity and experience for which many would be willing to pay.¹⁸ This type of calculation must be done very carefully, with great attention to the reliability of the recreational usage numbers and the validity of the consumer surplus values derived from the literature. The results must also be carefully interpreted, as consumer surplus estimates are not directly comparable to estimates of income derived from commodity uses (BLM 2010c). Nonmarket use value calculations will be considered for relevancy in the economic impact analysis phase of the RMP revision process, and undertaken if useful to decision making and if possible with available data.

With respect to non-use values, economists differentiate various types, including option values and existence values. Option value represents the benefits from having natural or cultural resources available for future use, while existence value reflects the benefits derived from knowing these resources simply exist. Evidence for the existence of these non-use values is ample. Local, state and national taxpayers support a large variety of conservation and protection programs (e.g., National Park Service, state parks, local parks and parkways, open space initiatives, etc.) through their tax dollars – programs that are very popular but support many resources that many taxpayers will never visit. A large number of non-profits are devoted a wide variety of conservation and wildlife-related causes; many if not most donors to these groups derive no direct benefit from their contributions. Based on IRS filings, Giving USA reported charitable contributions by individuals, foundations, and corporations reached over \$307 billion in 2008, of which \$6.58 billion accrued to animal and conservation-classified charities (Giving USA, 2009). Examples of individual organizations with substantial contributions include the World Wildlife Fund with over \$221 million in contributions from all sources in 2009 (WWF, 2009 annual report). The Nature Conservancy, with over 1,000,000 members, primarily in the U.S., received over \$665 million in contributions (TNC, 2009 Annual Report). While this generalized evidence of non-use values is clear, estimating non-use values for specific resources is difficult and often controversial. BLM guidance recommends that use values be emphasized rather than non-use values (BLM 2010c).

Nonmarket values of open space and well-managed natural resources also include a broad range of human benefits resulting from healthy ecosystem conditions and functions. These benefits include potable water

¹⁸ This observation is not meant to suggest that such fees should be charged. There are many philosophical and practical issues associated with charging fees for recreational use of public land.

from groundwater recharge, flood control from intact wetlands, and carbon sequestration from healthy forests and certain agricultural lands. These human benefits from ecosystems are known as “ecosystem services” (Ruhl et al. 2007). Ecosystem services are receiving increasing attention from economists. As with the nonmarket values discussed above, there are many techniques available for estimating the dollar value of these ecosystem services.¹⁹ It may be useful in the planning process to further consider the economic value of maintaining or improving the functional benefits of ecosystems.

4.10. TRIBAL USES

The United States has a unique legal relationship with Indian tribal governments as set forth in the Constitution of the United States, treaties, statutes, executive orders, and court decisions. The United States recognizes the right of Indian tribes to self-government and supports tribal sovereignty and self-determination. As domestic nations, Indian tribes exercise inherent sovereign powers over their members and territory. All federally recognized tribes have off-reservation interests in public lands as traditional tribal territories and many retain pre-existing rights reserved in treaties, executive order, agreements, and federal statutes.

Within the current planning area are four reservations: three are home to the Southern Paiutes and one to the Mohaves. The Las Vegas Paiute Tribe and the Moapa Band of Paiutes are related culturally and linguistically. The Las Vegas Paiute Tribe owns two parcels of land: 12.5 acres in downtown Las Vegas and 3,800 acres at the Snow Mountain Reservation northwest of town, where the tribe operates the Las Vegas Paiute Golf Resort. The Moapa Band of Paiutes reservation is located 30 miles northeast of Las Vegas and consists of 71,954 acres. The Ft. Mojave Indian Tribe has lands in the southern tip of Nevada along the Colorado River and extending into Arizona and California. More than 5,500 acres are located in the planning area. In addition, more than 15 groups consider portions of southern Nevada as their traditional tribal territory. These include the Colorado River Indian Tribes, the Quechan, the Hualapai, the Western Shoshone, the Timbisha Shoshone, the Chemehuevi, and numerous Southern Paiute bands in Utah and Arizona.

Consultation through the years has demonstrated a wide range of tribal interests are present in the planning area. These include concerns about potential impacts to resources associated with practices like gathering medicinal plants or Native foods, and other natural products; access to traditional hunting and ceremonial areas; the availability of water and healthy plant and animal populations; as well as potential impacts and threats to Native American archaeological sites, sacred sites, and traditional cultural properties.

¹⁹ *The ecosystem services framework actually encompasses the amenity, recreational, and other values discussed above. For purposes of this brief discussion, the emphasis is on the additional functional benefits ecosystems provide.*

5.0 CONCLUSIONS

The socioeconomic study area has many significant economic and social conditions that strongly affect the uses and values of BLM public lands and mineral estate in the RMP revision decision area. Some important economic and social conditions and trends include the following:

- A very large proportion of land in the socioeconomic study area is federally owned (95 percent overall).
- Clark County has a very large population, 1.95 million as of 2009, largely concentrated in the Las Vegas Valley.
- Nye County has a small population, 46 thousand as of 2009, largely concentrated in the community of Pahrump.
- Since at least 1970, both Clark County and Nye County have grown at much faster rates than the state of Nevada and the U.S. Much of this growth has been due to in-migration. Key drivers of in-migration in Clark County are economic opportunities in the Las Vegas area that attract workers, and amenities that attract retired persons. In southern Nye County, the lower cost of living and proximity to Las Vegas have attracted a substantial population of retired persons (as shown by a much higher median age than the state or nation).
- Population growth in both counties dropped substantially in the recent recession. Unemployment is currently much higher than the national average. However, after past recessions, population and employment growth in both counties have recovered at faster rates than those of the state or nation.
- Clark County's proportions of whites and racial minorities are roughly similar to those of the nation, with the exception of the Hispanic population, which is nearly double that of the nation (28 vs. 15 percent).
- Nye County's white population is proportionally higher than that of the nation (88 vs. 74 percent), and its minority populations are proportionally lower.
- Average income levels in Clark County are similar to those of the nation, while average income in Nye County is substantially lower, reflecting in part the large proportion of retired persons.
- Some sub-areas of the socioeconomic study area have somewhat elevated proportions of minority and low-income populations. These potential "environmental justice populations" may be important to consider in the formulation and analysis of the RMP management alternatives.
- There are many stakeholders to the management of BLM public lands and mineral resources, and their attitudes and beliefs are diverse.
- The largest employment sectors in Clark and Nye Counties from 1970 to 2000 were services and professional, government and government enterprises, and construction. In Nye County, mining was the second or third largest employment sector, depending on the year, although much of the county's mining activity is located outside of the SNDO planning area.
- In the 2000s, similar sectors (but under a different classification system) were also the largest sources of employment and earnings.
- In 2007, the largest numbers of firms in Clark County were found in the retail trade sector and the professional, scientific, and technical services sector. In Nye County, the largest numbers of firms were in retail trade, and construction.
- From 1970 to 2008, non-labor sources of income in Clark County grew from 17 percent to 33 percent of total personal income. In Nye County, non-labor income grew from 13 percent to 45 percent of total personal income. These trends generally correspond to national trends, and in these counties particularly reflect in-migration of retired persons, who rely more on non-labor income than working persons.

The biophysical characteristics of decision area lands and BLM-managed federal mineral estate in the planning area, together with social and economic conditions and trends within and in some cases beyond the socioeconomic study area (e.g., local recreation demand, broader tourism patterns, demand for specialty minerals), strongly affect the many uses and values of BLM public resources in the Las Vegas and Pahrump Field Offices. Particularly notable aspects of those uses and values include:

- The popularity of OHV use, including numerous group and competitive events that use BLM public lands.
- Substantial demand for many other recreational uses. Also, the connectivity of BLM lands to other regional recreational resources is important, particularly given the expansion of communities in the greater Las Vegas area.
- A very active lands and realty program. The planning area has large numbers and acreages of land withdrawals, rights of way, communication sites, and leases and permits – which are important to regional economic development. In addition, many thousands of acres of land have been conveyed to the private sector in recent decades, particularly in the Las Vegas Valley of the Las Vegas Field Office due to special federal enabling legislation. These land sales and exchanges also facilitate regional economic development.
- Rapidly growing demand for BLM public lands for siting of renewable energy projects, with a number of significant projects being approved recently, and many more under consideration.
- A saleable minerals program (specifically, sand, gravel, crushed stone, and decorative rock) that is the largest across all of BLM. Production of these mineral materials is important to the local construction and development sectors. Gypsum, magnesium clays, silica sand, and other industrial minerals are also important economic products in the two field offices.
- Low presence and use of forestry and woodland products, and livestock grazing resources, compared to many other BLM field offices.

The various factors and characteristics noted above are key drivers that affect use and management of BLM public resources, and the socioeconomic implications thereof. Many additional factors addressed in this Socioeconomic Baseline Report also impact use and management of these resources. Analysis of the RMP management alternatives will need to take into account these many considerations in order to assess the potential impacts of the alternatives.

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