



Basin and Range National Monument

Economic Values and Economic Contributions

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Introduction

The purpose of this paper is to provide information on the economic values and economic contributions of the activities and resources associated with Basin and Range National Monument (BARNM) as well as to provide a brief economic profile of Lincoln County.¹

Background

The Basin and Range National Monument was designated in 2015 to protect cultural, prehistoric, historic, paleontological, and geologic resources in the Great Basin between the Sierra Mountains and Colorado Plateau. Spanning a total of approximately 703,500 acres in southeastern Nevada, about 526,000 acres are in Lincoln County, Nevada, with the remaining 177,000 acres in a remote area of northeastern Nye County, Nevada.² Prior to designation, the land was managed by the Bureau of Land Management (BLM) Ely Field Office, with the exception of approximately 4,400 acres of private inholdings that continue to exist within Monument boundaries. The designation does not affect grazing operations in the Monument, including use of motorized vehicles, construction and maintenance of water infrastructure, and construction of fences and other range improvements relating to grazing operations. Additionally, the designation does not affect U.S. military uses of the airspace and allows continued military access for emergency response and training activities.

Since the passage of the Lincoln County Conservation, Recreation, and Development Act of 2004, there has been over 768,000 acres of designated wilderness as components of the National Wilderness Preservation System in the county.³ One of these wilderness areas (Worthington Mountains Wilderness) is within the Monument boundary.

Public outreach

A public meeting regarding a proposal to withdraw land in the area from mining was held in February 2015. Since designation, six scoping meetings have been held in the surrounding communities to identify issues and planning criteria to be considered in the BLM

Basin and Range National Monument

Location: Lincoln County and Nye County, NV
 Managing agencies: BLM
 Adjacent cities: Ely, NV; Caliente, NV; Alamo, NV.
 Tribes: Shoshone; Paiute
 Resource Areas:
☒ Recreation ☐ Energy ☐ Minerals
☒ Grazing ☐ Timber ☒ Scientific Discovery
☒ Tribal Cultural

Table 1. Lincoln County and State of Nevada Economic Snapshot

Measure	Lincoln County, NV	Nevada
Population, 2016 ^a	5,194	2,798,636
Employment, December 2016 ^c	1,234	1,307,813
Unemployment rate, April 2017 ^b	3.9%	4.6%
Median Household Income, 2015 ^a	\$44,866	\$51,847

^aU.S. Census Bureau, 2011-2015 American Community Survey

^b<http://nevadaworkforce.com/>

^chttps://data.bls.gov/cew/apps/data_views/data_views.htm#tab-Tables

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¹ The BLM provided data used in this paper.

² Approximately 4,400 acres (0.6% of the Monument) are private inholdings.

³ <https://www.gpo.gov/fdsys/pkg/PLAW-108publ424/pdf/PLAW-108publ424.pdf>

Resource Management Plan and as part of complying with the National Environmental Policy Act.⁴ The approved RMP is anticipated to be published in late 2018.⁵ In addition, in May 2017 the Nevada Legislature passed an assembly joint resolution (ARJ13) expressing support for the enactment and use of the Antiquities Act and the designation of the BARNM.⁶

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Local Economy and Economic Impacts

BARNM is located far from population centers and areas adjacent to the Monument are sparsely populated. The Monument has no facilities and few access roads. Table 1 presents socio economic metrics for Lincoln County and the state of Nevada. While 25% of the Monument is in Nye County, it is geographically not located near the areas of Nye County where the majority of the population resides.⁷ Lincoln County is a remote and rural area of Nevada containing roughly 0.2% of the State's population. The population of the county increased about 25% from 2000 to 2015, compared to a 40% increase in State population. Compared to the State, the percentage of household income associated with labor earnings was lower while the percentage of household income resulting from Social Security or retirement income was higher.

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Activities and Resources

Information on the economic contributions associated with the activities occurring at Basin and Range National Monument are provided below.

- **Recreation:** A variety of recreation activities are available at BARNM including: dispersed camping, hiking, biking, OHV riding, rock climbing, wildlife and wild horse viewing, and viewing sites associated with cultural, prehistoric, and historic legacies. Hunting and trapping are also permitted as regulated by the State of Nevada. Visitor use has only been tracked through visitor registration sheets at the most popular petroglyph sites within the Monument, though BLM plans to install traffic counters in the fall of 2017 in order to more accurately track visitation. Estimates of visitation for FY 2016 range from 550 to 1,100 visitors. The value added associated with those recreation visits is estimated to be about \$35,000.
- **Energy:** There is no history of energy production in the area.
 - **Coal.** There have been no coal developments in the Monument area.
 - **Oil and gas.** There are currently no producing oil and gas wells within the Monument. The most recent well was drilled in 1996 and in the past 50 years, only four oil wells have been drilled; none were developed. There are several parcels with existing leases for oil and gas, and development on those existing leases could occur. Additionally, an application for permit to drill (APD) was approved in February 2016 for a lease that expires in 2020, though no wells have yet been drilled.⁸

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⁴ Basin and Range National Monument Resource Management Plan Scoping Report, 2016.

⁵ <https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=88819>.

⁶ <https://www.leg.state.nv.us/App/NELIS/REL/79th2017/Bill/5507/Overview>.

⁷ Over 80% of the population of Nye County resides in the Pahrump Census-designated place, which is an area bordering California to the west of Las Vegas.

⁸ BLM data.

- **Geothermal.** The area included in the Monument is within an area identified by USGS as having medium geothermal favorability.⁹
- **Non fuel minerals.**
 - While there has been historic mining in the area by early European and American settlers, there has been no recent locatable mineral production on lands within the Monument boundaries.
 - There are three existing gravel pits that are used by Lincoln County for road maintenance but are not sold pursuant to any market activities. The sand and gravel permits were issued in 2012 to Lincoln County for ten years. They will expire in 2022.
- **Timber.** There is no commercial timber production in BARNM but timber harvest activities such as non commercial Christmas tree cutting and collection of wood for posts and firewood are allowed by permit. The Monument proclamation allows for the continuation of all pre designation timber activities.
- **Grazing.** The allotments that are wholly or partially contained within the boundaries of BARNM include approximately 32,000 permitted Animal Unit Month (AUMs).¹⁰ About 10,200 AUMs were billed in FY 2016. Those AUMs were associated with economic output of about \$2.1 million and supported about 27 jobs. The Monument proclamation allows for the continuation of all pre designation grazing activities, including use of motorized vehicles, construction and maintenance of stock watering facilities, and construction of fences and other range improvements related to grazing operations.
- **Tribal cultural, archeological, and historic resources.** Numerous tribes have ties to the BARNM area and the Monument contains resources that continue to be utilized by contemporary Native Americans. As over 90% of the Monument has not been inventoried for cultural resources, it is likely that there are many unknown cultural resources that have been neither documented nor evaluated for inclusion in the National Register of Historic Places.¹¹ Documented resources include prehistoric and historic artifacts and sites. There are two archaeological districts and several sites within the Monument to view petroglyphs. Traces of early Euro American settlement, including mining structures, and the continuation of ranching lifestyles dating back to the late 19th century, also exist on the Monument. American artist Michael Heizer has been granted a Conservation Easement for his private land within BARNM, on which he is constructing a piece of art work that is similar in size to the National Mall. This work is expected to be completed in 2020 and has attracted interest in the art community.

Multiple Use and Tradeoffs Among Resource Uses

This section presents some information to help understand land management tradeoffs. Decision making often involves multiple objectives and the need to make tradeoffs among those objectives. However, tradeoffs and decision making are often subject to constraints, such as Monument designations. In general, market supply and demand conditions drive energy and minerals activity; societal preferences

⁹ <https://pubs.usgs.gov/fs/2008/3082/>.

¹⁰ BLM measures an AUM as the amount of forage needed to sustain one cow and her calf, one domestic horse, or 5 sheep or goats for one month. <https://www.blm.gov/programs/natural-resources/rangelands-and-grazing/livestock-grazing/fees-and-distribution>.

¹¹ BLM data.

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and household disposal income affect recreation activity levels; and market prices and range conditions affect the demand for forage. Culturally important sites and unique natural resources, by definition, have limited or no substitutes and thus tradeoffs are typically limited. A particularly challenging component of any tradeoff analysis is estimating the nonmarket values associated with BARNM resources, particularly the nonmarket values associated with cultural and scientific resources.

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Planning for permitted resource use on National Monuments will involve trade offs among different activities on the land area being managed in order to allow permitted activities that are compatible with monument objects. Once designated, National Monuments continue to be managed under the multiple use mandate outlined in Federal Land Management and Policy Act of 1976. In some cases, certain areas of the Monument may be appropriate for more than one use. After the careful consideration of tradeoffs, management decisions in those cases may prioritize certain uses over others. In other cases, land areas may be more appropriate for a particular use and activities could be restricted to certain areas of the Monument. These decisions are based upon whether a use is compatible with the designation. Factors that could inform these tradeoffs include demand for the good or activity, prices, costs, and societal preferences. Other considerations might include the timeframe of the activity how long the benefits and costs of a given activity would be expected to extend into the future. Trust responsibilities and treaty rights should also be considerations.

In considering any trade offs, it is not just the level and net economic value associated with an activity that occurs in a given year that is relevant to decision making. Virtually all activities within the Monument occur over time and it is the stream of costs and benefits over a given period of time associated with each activity that is relevant. For example, recreation activities could continue indefinitely assuming the resources required for recreation remain intact and of sufficient quality for the activity. Likewise, the values associated with the natural and cultural resources could continue indefinitely provided they are not degraded by other activities. Grazing could also continue indefinitely as long as the forage resource is sustainably managed and remains consistent with the protection of monument objects. Timber harvest may also continue indefinitely as long as the timber resource is sustainably managed. The stream of costs and benefits associated with some other non renewable resources would be finite, however (assuming these activities were consistent with the designation). For example, oil, gas, coal and minerals are all non renewable resources and would only be extracted as long as the resource is economically feasible to produce.

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The available information is insufficient to allow a full understanding of management tradeoffs, such as how expanding any mineral development would affect recreational visitation and cultural and natural resources. A comprehensive evaluation of trade offs would require a significant amount of research and additional analysis.

The total value or amount of energy or mineral production foregone as a result of the designation cannot be determined. Although information may exist (e.g. USGS Mineral Resource Data) on past or present mineral history, mineral potential or minerals that may be prospectively valuable within and around the monument, developing a total value or a total value as a result of the designation would be highly speculative. Classification information typically only describes or refers to the potential presence (occurrence) of a concentration of one or more energy and/or mineral resource. It does not refer to or imply potential for development and/or extraction of the mineral resource(s) or determine the feasibility.

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