

From: Moore, Nikki
To: [Benjamin Simon](#); [Bowman, Randal](#); [Miller, Ann](#)
Cc: [John Ruhs](#); [Michael Nedd](#); [McAlear, Christopher](#); [Peter Mali](#); [Kathleen Benedetto](#); [Sally Butts](#); [Timothy Fisher](#); [Wootton, Rachel](#); [Aaron Moody](#); [Matthew Allen](#); [Timothy Spisak](#); [Kristin Bail](#); [Karen Kelleher](#); [Tryon, Steve](#); [Joseph Stout](#); [Perez, Jerome](#)
Subject: National Monument Review - Comments on Sand to Snow NM
Date: Thursday, July 27, 2017 4:09:58 PM
Attachments: [Sand to Snow Review Economic Report - BLM reviewed_final.docx](#)

Hi Ben,

The BLM has reviewed the draft Department of Interior economic report for the Sand to Snow National Monument. Our suggested edits are compiled and provided in comments and track changes within the attachment.

Thanks for the opportunity to review and provide feedback on this report,

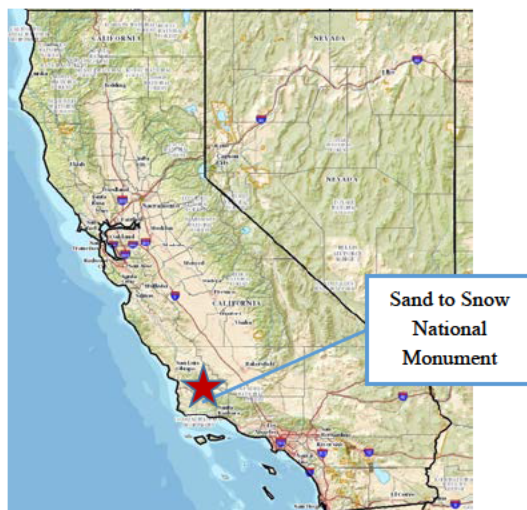
Nikki Moore
Acting Deputy Assistant Director
National Conservation Lands and Community Partnerships
Bureau of Land Management, Washington D.C.
202.219.3180 (office)
202.740.0835 (cell)



Sand to Snow National Monument

Economic Values and Economic Contributions

DRAFT



Introduction

The purpose of this paper is to provide information on the economic values and economic contributions of the activities and resources associated with Sand to Snow National Monument (STSNM) as well as to provide a brief economic profile of San Bernardino and Riverside Counties.¹

Background

STSNM was established in 2016 and encompasses 83,000 acres of ~~Bureau of Land Management (BLM)~~ and 71,000 US Forest Service lands, to be managed jointly by both agencies. The San Geronio Wilderness ~~lies largely within~~ makes up almost two-thirds of STSNM. Public lands in the Monument are withdrawn from mineral exploration under the General Mining Act of 1872, however valid existing rights are protected under the Monument proclamation.

Neither The BLM nor the Forest Service has initiated public scoping for STSNM Management Plan. However, a series of public workshops were hosted by the San Bernardino National Forest and the ~~Bureau of Land Management~~ BLM California Desert District in July of 2016. The ~~w~~Workshops focused on gathering information about what workshop participants value most about STSNM and to identify the types of experiences participants want ~~to have within it~~ when visiting. The information gathered at the ~~w~~Workshops will inform the development of the Monument Management Plan.

For the BLM portion of STSNM, the ~~following planning documents apply to all or a portion of STSNM in the interim:~~ 1980 California Desert Conservation Area Plan (CDCA) and its various amendments, ~~including proposed amendments for the Coachella Valley and the West Mohave; Final Environmental Impact Statement (EIS) for BLM National Monument Lands in the Whitewater, Desert Hot Springs, and Seven Palms Valley, and parts of the Catalaw Flat, Morongo Valley, and Yucca Valley South; and the 2016 Desert Renewable Energy Conservation Final Plan and Proposed EIS~~ will be followed in the

Sand to Snow National Monument

Location: Southern California

Managing agencies: BLM, USFS

Adjacent cities/counties/reservations:

- Counties: San Bernardino, Riverside
- Cities: Palm Springs; Palm Desert; Cathedral City; Desert Hot Springs; La Quinta; Riverside; Los Angeles.
- Tribes: San Manuel Band of Mission Indians; Twenty-Nine Palms Band of Mission Indians; Soboba; Cahuilla; Morongo; Los Coyotes; La Jolla; Santa Ysabel; Pauma and Yuma; Pechanga; Pala.

Resource Areas:

- ☒ Recreation ☐ Energy ☒ Minerals
☐ Grazing ☐ Timber ☒ Scientific
Discovery ☒ Tribal Cultural

Comment [SMJ1]: There are dozens of amendments to the CDCA plan that should be properly cited

¹ The BLM provided data related to public land resources used in this paper.

interim.² For the portion of the monument that lies within the San Bernardino National Forest, the 2006 San Bernardino National Forest Land Management Plan will be followed in the interim.³

Public outreach prior to designation

(b) (5) DPP



Comment

(b)
(5)
DPP

Local Economy and Economic Impacts

² California Desert Conservation Plan: https://eplanning.blm.gov/epl-front-office/projects/lup/66949/82080/96344/CDCA_Plan.pdf; Proposed California Desert Conservation Area Plan Amendment for the Coachella Valley and Final Environmental Impact Statement (for BLM National Monument Lands in the Whitewater, Desert Hot Springs, and Seven Palms Valley 24K quads, and parts of the Catclaw Flat, Morongo Valley, and Yucca Valley South 24K quads): <https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=dispatchToPatternPage¤tPageId=96939>; 2005 West Mojave Plan Amendment to the California Desert Conservation Plan: <https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=renderDefaultPlanOrProjectSite&projectId=72544&dctmId=0b0003e880e36812>; 2016 Desert Renewable Energy Conservation Final Plan and Proposed EIS: <http://www.drecp.org/finaldrecp/>.

³ Online at <https://go.usa.gov/xNpBU>

Table 1 presents socio-economic information on San Bernardino County and the state of California. The County contains approximately 5% of the State’s population. About 2% of the population is American Indian. The population of the county has increased about 50% since 1990. The median household income in the county is about 86% of the state average. The unemployment rate in the county increased from about 5.6% in 2007 to 13.5% in 2010, and has since declined to about 4.5%.

The largest sectors, as measured by employment, in San Bernardino County are health care and social assistance, manufacturing, and transportation and warehousing.⁴

Comment [Crow5]: It’s unclear what this citation was for:
https://data.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables

Comment [SBM6]: We have county-level unemployment data in a sub folder in the monuments folder on the O drive.

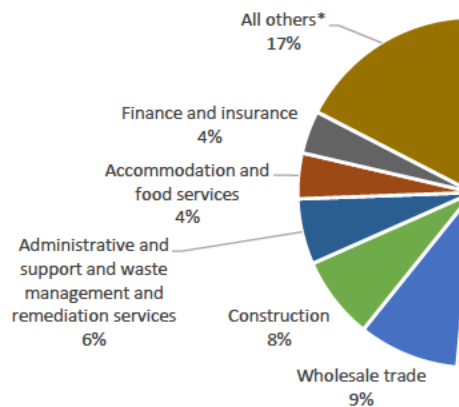
Table 1. San Bernardino County and State of California Economic Snapshot

Measure	San Bernardino County	State of California
Population, 2015 ^a	2,094,769	38,421,464
Employment, December 2016 ^{b,c}	878,350	17,982,086
Unemployment rate, April 2016 ^{b,c}	5.6	5.5
Median Household Income, 2015 ^a	53,433	61,818

Comment [Crow3]: <https://data.bls.gov/cgi-bin/survey/most>
Riverside-San Bernardino-Ontario, CA Metropolitan Statistical Area
Year

Comment [Crow4]: <https://data.bls.gov/time-series/LASST0600000000000003>
California (B) = revised
Year

Figure 1. Employment by sector in San Bernardino County, 2015



^a U.S. Census Bureau, 2011-2015 American Community Survey
^b State data: <https://data.bls.gov/timeseries/LASST0600000000000003>
^c County data: <https://www.bls.gov/web/metro/laucntycur14.txt>

* The “All others” category includes agriculture/forestry; utilities; wholesale trade; real estate; professional, scientific and technical services; admin and support services; waste management; educational services; and arts and entertainment. Each of

⁴ U.S. Census Bureau County Business Patterns, 2015.

these represents less than 4% of total employment
Source: 2015 County Business Patterns, U S Census Bureau

Information is provided below on two different types of economic information: “economic contributions,” and “economic values.” Both types of information are informative in decision making.

Economic contributions track expenditures as they cycle through the local and regional economy, supporting employment and economic output. Table 2 provides estimates of the economic contribution of activities associated with STSNM.

Definitions

Value Added: A measure of economic contributions; calculated as the difference between total output (sales) and the cost of any intermediate inputs.

Economic Value: The estimated net value, above any expenditures, that individuals place on goods and services; these are particularly relevant in situations where market prices may not be fully reflective of the values individuals place on some goods and services.

Employment: The total number of jobs supported by activities.

Economic values, in contrast to economic contributions, represent the net value, above and beyond any expenditures, that individuals place on goods and services. The term “consumer surplus” is often used to characterize economic values. It is not appropriate to sum values for economic contributions and economic values because they represent different metrics. To the extent information is available some economic values are presented in Table 3 along with information on the timing and drivers of future activity. For commodities bought and sold in markets (e.g., oil, gas, etc.), the economic values are closely related to the market prices of the commodities. For goods and services – such as recreation – typically not bought and sold in markets, the values are estimated based on surveys for estimating values individuals have beyond direct expenditures.

Activities and Resources Associated With Sand to Snow National Monument

Details on the activities occurring at STSNM are provided below.

Recreation: A wide variety of outdoor recreation activities are available to STSNM visitors including: horseback riding, backpacking, rockhounding/mineral collecting, viewing historic sites/areas, target shooting, photography, environmental/outdoor classroom education, wildflower viewing, hiking/biking/running/walking, off-highway vehicle use on designated routes, nature study, picnicking, hunting, (b) (5) DPP

BLM data indicate that STSNM visitation was increasing during the years prior to designation. Visitation information for two BLM visitor contact areas (Big Morongo Canyon and Whitewater Preserve) includes:

- Big Morongo had an estimated 66,675 visitors in 2016
- Whitewater Preserve had an estimated 139 hunting visits in 2016, compared to 152 in 2015, and 36 in 2014.⁵

⁵ Visitation information is not available for the Forest Service lands.

Comment (b) (5) DPP

Comment [FTJ8]: Added below

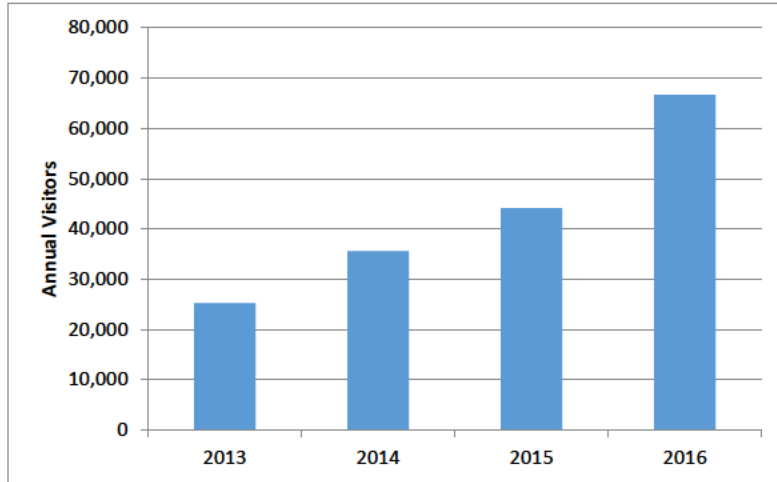


Figure 1. Annual Visitation at STSNM (does not include Forest Service areas). Source: BLM

(b) (5) DPP

Comment (b) (5) DPP

⁶ Recreation unit value is a survey-based value for general recreation for the Intermountain region from the USGS Benefit Transfer Toolkit <https://my.usgs.gov/benefit-transfer/>. Economic value is the net benefit to recreational users (total benefits minus total costs).

⁷ Anecdotal information from the BLM Palm Springs South Coast Field Office suggests that requests for overnight camping at the Whitewater Preserve area have increased by 12 % since designation and visitation to the Black Lava Buttes unit of the monument increased by 15% since designation.



(b) (5) DPP



Formatted: Font: (Default) Times New Roman

Formatted: Indent: Left: 0.25"

(b) (5) DPP



⁸ Hunerlach, M.P. (2012): "California Blue Mine Yucca Valley, San Bernardino County, California A New Gem Pegmatite." *Rocks & Minerals* 87:6, 502-509. Online at <http://dx.doi.org/10.1080/00357529.2012.728923>

- **Cultural, archeological, and historic resources.**

- Cultural resources: Tribes use the lands within STSNM for ceremonies and visitation of sacred sites. Traditions of gathering medicinal and ceremonial plants, edible plants, herbs, and materials for crafting items such as footwear, are still practiced by tribal members. Prior to the designation of STSNM, BLM had, and still has, a gathering policy with tribes that ensures traditional practitioners maintain access to plants. Gathering permits are not required for Native Americans. BLM policy, then as now, also emphasizes local collaboration, implementation, and issue resolution.
- Archeological resources: Dozens of recorded archaeological sites lie within STSNM. The majority of these sites are prehistoric (predating the 1800s). These prehistoric sites include pottery, stone tool (lithic) scatters, remains of cooking features (hearths), rock shelters, prehistoric roads, and an estimated 1,700 petroglyphs and pictographs.
- Historic resources: An important prehistoric travel corridor between the San Bernardino Mountains, interior deserts, and the California Coastal regions is also found within STSNM. Known historic resources include cattle ranching/grazing related items such as structures, foundations, infrastructure such as corrals, wells, check-dams, and fencing. Bonnie Bell, a known 1850s stagecoach stop, was located in Whitewater Canyon. Other historic resources include those related to mining, such as old cabins, mine shafts, prospecting pits, and refuse deposits. The BLM has not completely surveyed the Monument for cultural resources. To date 7.2% of STSNM has been surveyed for cultural resources.

Comment [SMJ14]: (b) (5)

DPP

Land Management Tradeoffs

This section presents some information to help understand land management tradeoffs. The designation of the monument has closed lands to certain types of development, so within the context of the Monument Designation, some tradeoffs are not relevant.

Decision-making often involves multiple objectives and ~~the~~ requires making tradeoffs among those objectives. In general, market supply and demand conditions drive energy and minerals activity; societal preferences 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. A particularly challenging component of any tradeoff analysis is estimating the nonmarket values associated with STSNM resources, particularly the nonmarket values associated with cultural resources.

Comment [SMJ15]:

b

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 protection of the 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

Comment [SMJ16]: (b) (5) DPP

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. (b) (5) DPP

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 are of sufficient quality for individuals to remain interested in participating. Likewise, the values associated with the natural and cultural resources could continue indefinitely provided they are not degraded by (b) (5) DPP

-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.

The STSNM Proclamation contains specific provisions for the protection of heritage objects and values extending beyond specific resources concerns. This emphasis on protection rather than mitigation, is a critical distinction in the preservation of significant historic objects within STSNM. The STSNM proclamation states that STSNM contains “exceptional objects of scientific and historic interest” and that the purpose of this designation, and the provisions it contains, is the “protection of these objects”. This protection is largely derived through the extra regulatory proclamation provisions for limitations on uses which are known to impact heritage objects and values, and requirements that the BLM implement the purposes of the proclamation to protect these resources.

(b) (5) DPP

(b) (5) DPP

Comment (b) (5) DPP

Comment (b) (5) DPP

(b) (5) DPP



Table 3. Summary of STSNM Activities and Economic Values, FY 2016

Activities	Level of annual activity	Economic Value	Timing	Drivers of current and future levels of activity
Recreation	FY 2015: 66,675 visits or days (BLM)	\$17.97 to \$43.27/visitor-day (2016-\$) ^a	Visitation could continue indefinitely if landscape resources remain intact and of sufficient quality.	Societal preferences for outdoor recreation; disposable income; changing individual preferences for work and leisure time
Non-energy Minerals	n/a	n/a	Development of energy and non-energy minerals is subject to market forces (worldwide supply and demand, prices). Mineral extraction is non-renewable and occurs only as long as the resource is economically feasible to produce.	Market prices of non-energy commodities affect both supply and demand. Mineral production is limited to 200,000 cubic yards over a 10-year period per the existing resource management plan.
Cultural resources	Indigenous communities often use natural resources to an extent and in ways that are different from the general population, and the role that natural resources play in the culture of these indigenous communities may differ from that of the general population. Culturally important sites and unique natural resources, by definition, have limited or no substitutes. Recognizing this is a critical consideration in land management because it may affect consideration of tradeoffs. STSNM contains substantial cultural resources that have not been fully surveyed. Tribes use the sacred sites within STSNM for hunting; fishing; gathering; wood cutting; and for collection of medicinal and ceremonial plants, edible herbs, and materials for crafting items like baskets and footwear.			
Benefits of nature	Services provided by nature underpin all sectors of a local economy. As many of these services are not sold in markets, we have limited information on their prices or values. Specific benefits related to STSNM include protection of (b) (5) DPP			

^a This range covers the estimated consumer surplus associated with backpacking, OHV use, mountain biking, and hiking for the Pacific coast region, from the USGS Benefit Transfer Toolkit (<https://my.usgs.gov/benefit-transfer/activityCalc/calculate/7524>). Consume surplus represents values individuals hold for goods and services over and above expenditures on those goods and services.

^b All prices are from EIA.gov.

Comment [Crow19]: USGS meta-regression calculator for Pacific coast <https://my.usgs.gov/benefit-transfer/activityCalc/calculate/7524>
Activity 2014-\$ 2016-\$

Hiking: \$42.68 \$43.27
Backpacking \$17.73 \$17.97
Mountain Biking \$35.07 \$35.55
OHV \$30.05 \$30.46

Comment (b) (5) DPP

DRAFT – July 17, 2017 – Figures, values, and text are subject to revision