November 13, 2017

Delivered by hand

Bureau of Land Management
Nevada State Office
1340 Financial Boulevard
Reno, Nevada 89502-7147

Re: Protest of December 2017 oil and gas lease sale

To Whom It May Concern:

Please accept and fully consider this timely protest of BLM Nevada's December 2017 lease sale. Due to our broad concerns with BLM's failure to adequately address lands with wilderness characteristics and protected lands, conflicts with other resources, and the lack of oil and gas potential in the proposed parcels, our organizations previously recommended deferral of this sale. Our comments on the preliminary EA are attached and incorporated by reference as Exhibit 1. In this protest, we are not only reiterating our concerns with the process leading up to this lease sale but also protesting the sale of specific lease parcels.

This protest challenges BLM's Environmental Assessment (EA), DOI-BLM-NV-L030-2017-0021–EA, and the agency's decision to proceed with the sale of new leases located in the Ely District. We specifically protest the following parcels, referencing the resource-focused discussions set out below:

For lands with wilderness characteristics:

NV-17-12-013	NV-17-12-033	NV-17-12-097	NV-17-12-294
NV-17-12-015	NV-17-12-035	NV-17-12-100	NV-17-12-295
NV-17-12-016	NV-17-12-036	NV-17-12-206	NV-17-12-296
NV-17-12-018	NV-17-12-038	NV-17-12-207	NV-17-12-297
NV-17-12-019	NV-17-12-039	NV-17-12-208	NV-17-12-298
NV-17-12-021	NV-17-12-048	NV-17-12-209	NV-17-12-299
NV-17-12-024	NV-17-12-049	NV-17-12-211	NV-17-12-314
NV-17-12-025	NV-17-12-050	NV-17-12-212	NV-17-12-348
NV-17-12-027	NV-17-12-052	NV-17-12-219	NV-17-12-352
NV-17-12-028	NV-17-12-053	NV-17-12-222	NV-17-12-353
NV-17-12-029	NV-17-12-059	NV-17-12-235	NV-17-12-356
NV-17-12-030	NV-17-12-062	NV-17-12-236	NV-17-12-360
NV-17-12-031	NV-17-12-064	NV-17-12-292	NV-17-12-361
NV-17-12-032	NV-17-12-067	NV-17-12-293	NV-17-12-363

NV-17-12-368	NV-17-12-399	NV-17-12-438	NV-17-12-441
NV-17-12-397	NV-17-12-400	NV-17-12-439	NV-17-12-446
NV-17-12-398	NV-17-12-437	NV-17-12-440	NV-17-12-447

For lack of impact analysis on protected lands:

NV-17-12-187	NV-17-12-353	NV-17-12-372	NV-17-12-384
NV-17-12-188	NV-17-12-356	NV-17-12-373	NV-17-12-385
NV-17-12-189	NV-17-12-358	NV-17-12-374	NV-17-12-386
NV-17-12-190	NV-17-12-359	NV-17-12-375	NV-17-12-387
NV-17-12-292	NV-17-12-360	NV-17-12-376	NV-17-12-388
NV-17-12-293	NV-17-12-361	NV-17-12-377	NV-17-12-389
NV-17-12-294	NV-17-12-362	NV-17-12-378	NV-17-12-390
NV-17-12-295	NV-17-12-363	NV-17-12-379	NV-17-12-391
NV-17-12-296	NV-17-12-364	NV-17-12-380	NV-17-12-392
NV-17-12-297	NV-17-12-365	NV-17-12-381	NV-17-12-393
NV-17-12-298	NV-17-12-366	NV-17-12-382	NV-17-12-394
NV-17-12-299	NV-17-12-367	NV-17-12-383	NV-17-12-395
NV-17-12-314	NV-17-12-368	NV-17-12-397	NV-17-12-396
NV-17-12-317	NV-17-12-369	NV-17-12-398	
NV-17-12-348	NV-17-12-370	NV-17-12-399	
NV-17-12-352	NV-17-12-371	NV-17-12-400	

For greater sage-grouse:

NV-17-12-191	NV-17-12-192	NV-17-12-060	NV-17-12-217
NV-17-12-201	NV-17-12-193	NV-17-12-061	NV-17-12-231
NV-17-12-199	NV-17-12-205	NV-17-12-138	NV-17-12-213
NV-17-12-202	NV-17-12-197	NV-17-12-100	NV-17-12-215
NV-17-12-200	NV-17-12-202	NV-17-12-137	NV-17-12-219
NV-17-12-204	NV-17-12-198	NV-17-12-139	NV-17-12-224
NV-17-12-208	NV-17-12-203	NV-17-12-140	NV-17-12-221
NV-17-12-209	NV-17-12-210	NV-17-12-141	NV-17-12-234
NV-17-12-211	NV-17-12-040	NV-17-12-093	NV-17-12-225
NV-17-12-212	NV-17-12-059	NV-17-12-216	NV-17-12-220

Interests of the Protesting Parties

The Wilderness Society ("TWS") has a long-standing interest in the management of Bureau of Land Management lands in Nevada and engages frequently in the decision-making processes for land use planning and project proposals that could potentially affect wilderness-quality lands and other important natural resources managed by the BLM in Nevada. TWS members and staff enjoy a myriad of recreation opportunities on BLM-managed public lands, including hiking, biking, nature-viewing, photography, and the quiet contemplation in the solitude offered by wild places. TWS members and staff also enjoy visiting our national parks to experience exceptional viewscapes, the sounds of nature, and starry night skies. Founded in 1935, our mission is to protect wilderness and inspire Americans to care for our wild places.

The mission of the National Parks Conservation Association ("NPCA") is to protect and enhance America's National Park System for present and future generations. Founded in 1919, NPCA is the leading citizen voice for the national parks. We are a national non-profit with 27 regional and field offices across the country, including offices of our Pacific Region in Oakland, Barstow, Fresno, Los Angeles, and Joshua Tree, CA, which cover Nevada public lands. NPCA represents over 1.3 million members and supporters who care about America's shared natural and cultural heritage preserved by the National Park System.

Authorization to File This Protest

Nada Culver is authorized to file this protect on behalf of The Wilderness Society and its members and supporters as Senior Counsel and Director of The Wilderness Society's BLM Action Center.

Neal Desai is authorized to file this protest on behalf of the National Parks Conservation Association as the Director of Field Operations for NPCA's Pacific Region.

Statement of Reasons

I. **Lands with Wilderness Characteristics**

a. **BLM has failed to respond to significant new information submitted by the public regarding lands with wilderness characteristics.**

The following parcels overlap with the citizen-inventoried Portuguese Mountain LWC unit, which we submitted with our comments on the preliminary EA for this lease sale:

NV-17-12-048	NV-17-12-053
NV-17-12-049	NV-17-12-064
NV-17-12-050	NV-17-12-067
NV-17-12-052	

That inventory information meets the minimum standards for review of new information set forth in BLM Manual 6310:

i. a map of sufficient detail to determine specific boundaries of the area in question;

ii. a detailed narrative that describes the wilderness characteristics of the area and documents how that information substantially differs from the information in the BLM inventory of the area's wilderness characteristics; and

iii. photographic documentation.

BLM Manual 6310 at .06(B)(1)(b). *See* Exhibit 2. When BLM receives information that meets these minimum standards, the agency is directed to review the information "as soon as practicable," "make the findings available to the public," and "retain a record of the evaluation and the findings as evidence of the BLM's consideration." *Id.* at .06(B)(2).

BLM did not respond to our Portuguese Mountain inventory information in the revised EA, including in the comment summary which BLM posted, or otherwise respond to our inventory information in any way. The inventory we submitted constitutes significant new information about the affected environment that BLM is required to consider in this EA.

The decision to ignore public input on affected wilderness resources contravenes the "hard look" requirement of the National Environmental Policy Act (NEPA). *See* 42 U.S.C. § 4332(2)(C). Numerous courts have applied the hard look mandate to overturn agency decisions that ignored substantive, relevant wilderness information provided by the public, including citizen-submitted wilderness inventories. *See, e.g., Or. Natural Desert Ass'n v. Rasmussen,* 451 F. Supp. 2d 1202, 1211-13 (D. Ore. 2006) (holding that BLM violated the hard-look requirement of NEPA when it dismissed a citizen-submitted inventory "[w]ith a broad brush"); *SUWA v. Norton*, 457 Supp. 2d 1253, 1263-65 (D. Utah 2006) ("...Utah BLM ignored significant new information...information provided by the Southern Utah Wilderness Alliance...presented a textbook example of significant new information about the affected environment (the wilderness attributes and characteristics...)"); *Biodiversity Conservation Alliance*, 183 IBLA 97, 2013 IBLA Lexis *1, *28-*29 (2013) (rejecting a claim that BLM violated the hard-look requirement where BLM "specifically evaluated citizens' wilderness proposals [so that the citizens' proposals had] become administratively final...").

The inventory information we submitted for Portuguese Mountain documents new information that is not incorporated into BLM's current LWC inventory for this area, which was last updated in 2015. In that inventory report, BLM found the area to meet the size and naturalness criteria, but that it does not contain outstanding opportunities for solitude or primitive and unconfined recreation. *See* Exhibit 3. BLM found that the unit provides opportunities for solitude as well as hunting, hiking and horseback riding, but that they are not outstanding. The report includes no photos to document BLM's inventory. The inventory information we submitted documents extensive and outstanding opportunities for solitude and primitive recreation in great detail, with supporting photos. For example, our report finds that the complex and rugged terrain within the unit enhance opportunities for solitude and dense forest and convoluted canyons provide almost unlimited opportunities to find secludes spots; that Portuguese Mountain offers a special challenge of its own, standing as the highest peak in the Pancake Range, and providing recreation for peak baggers and mountain climbers alike; and that the unit is within one of the darkest regions of the United States, providing a truly outstanding opportunity for star gazing and night sky photography. BLM has not responded to this or the additional information provided in our report.

Therefore, BLM has not taken the requisite "hard look" at how the sale of the parcels listed above would affect wilderness resources in the Ely District, as required by the cases cited above. The Ely District has disregarded substantive new information submitted by the public describing wilderness values that would be affected by the lease sale. BLM cannot be said to have taken the requisite hard look where, as here, the agency ignored significant new information.

Furthermore, even if the agency were found to have considered, and decided against, an inventory update, the decision not to update would likely be found arbitrary and capricious under the Administrative Procedure Act (APA). *See* 5 U.S.C. § 706. The inventory information we submitted specifically described how our inventory findings differ from information in the BLM inventory of the area's wilderness characteristics. At the time we submitted our inventory, the

most current information from BLM that we could locate about the wilderness characteristics for this unit was found in the BLM 1980 Proposed Wilderness Study Areas (Intensive Wilderness Inventory), because BLM did not make its most current inventory information available to the public during the public comment period, as we addressed in our comments on the preliminary EA. We recently acquired BLM's 2015 inventory for the area, as described above, which has not been incorporated into the land use plan that is being applied to the December 2017 lease sale (2008 Ely RMP). Surely, BLM cannot conduct a deficient wilderness inventory, ignore citizen inventories and comments submitted in response to its inventory, and then rely on its inventory to make project-level decisions that could compromise wilderness quality lands within its jurisdiction. Since the agency has no obligation to involve the public during its inventory process, the duty to maintain a current inventory, which includes the obligation to consider updates before project-level decisions, was doubtlessly designed to safeguard wilderness lands, as well as the public interest in protecting those lands. Therefore, any agency decision not to update its existing inventory in light of this information would likely constitute an abuse of agency discretion under the APA.

BLM must defer all of these parcels until the agency has updated its inventory for the Portuguese Mountain area in response to the significant new information we submitted with our comments on the preliminary EA. For all areas that BLM finds to possess wilderness characteristics, BLM must defer leasing until the agency has made management decisions for those lands through a public planning process.

b. BLM must defer leasing in lands with wilderness characteristics until management decisions are made for those areas.

The EA indicates that BLM has conducted extensive lands with wilderness characteristics inventory work in the Ely District since completion of the 2008 Ely RMP:

> In 2011, the Ely District Office BLM began updating the lands with wilderness characteristics (LWC) inventory on a project-by-project basis until there is a land use plan revision. The project area has received an inventory update. Of the 208 proposed oil and gas lease parcels, 61 parcels overlap 15 inventory units which were found to possess wilderness characteristics (see Table 3.9). Of this, eight of the inventory units were found to possess wilderness characteristics on their own merits. The other seven units inherited the outstanding opportunities of adjacent wilderness areas.

EA, p. 62. The EA goes on to state that in total, oil and gas lease parcels proposed for this sale overlap with 59,739 acres of lands with wilderness characteristics that have been inventoried and identified as LWC by BLM.[1] These areas have not been considered for protective management in a land use plan: "There has not been a land use plan amendment to determine if or how these LWC units would be managed to protect the wilderness characteristics." *Ibid.* Therefore, BLM must defer leasing these areas until the agency has had an opportunity to make management decisions for those lands through a public planning process consistent with BLM Manual 6320.

[1] It is unclear to us whether this figure includes the South Mail Summit unit, which BLM recently updated its inventory for and found to possess wilderness characteristics. That unit does appear in Table 3.10, but not in Map 3.2.

BLM's Land Use Planning Handbook 1601-1, § VII (E) specifically states that it may defer decisions in a planning area even when the existing plan allows the action if the choice of alternatives in an RMP revision may be impacted. The 10th Circuit Court of Appeals confirmed this discretion in *New Mexico v. BLM*, 565 F.3d. 683 at 698 (10th Cir. 2009) when it stated, "[i]f the agency wishes to allow oil and gas leasing in the plan area it must undertake additional analysis...but it retains the option of ceasing such proceedings entirely". BLM regularly exercises this discretion to defer parcels in inventoried lands with wilderness characteristics for which the agency has not yet made management decisions.

For example, the White River Field Office deferred leasing on over 250,000 acres of inventoried wilderness characteristics while it was completing an oil and gas RMP amendment:

> The WRFO is currently working on a Resource Management Plan Amendment and associated EIS that will address the potential impacts of significant increases in oil and gas development within the field office over the next 20 years... Because the leasing of lands with wilderness characteristics is likely to result in indirect, adverse impacts to this resource value, it is recommended that until a decision is made on the management of these units, the areas where lands with wilderness characteristics units overlap with nominated parcels be deferred, as under Alternative 3, with the exception being the tracts from Alternative 2 listed in the above . . . which can be leased, and mitigated if needed, to result in not impacting lands with wilderness characteristics.[2]

As another example, the Grand Junction Field Office is deferring lease parcels from its December 2017 lease sale in areas that BLM recently inventoried and found to have wilderness characteristics. BLM states: "Portions of the following parcels were deferred due to having lands with wilderness characteristics that require further evaluation." Preliminary DNA, p. 1. The Grand Junction Field Office completed its RMP revision in 2015 but has still determined that it is inappropriate to lease areas that have been inventoried and found to possess wilderness characteristics since the RMP was completed in order to consider management options for those wilderness resources.

BLM Nevada must similarly defer leasing in inventoried lands with wilderness characteristics that have not been considered for protective management in a land use plan. This approach is consistent with agency policy and authority, and is critical to preserving BLM's ability to make management decisions for those newly-inventoried wilderness resources through a public planning process.

c. BLM has failed to consider alternatives for protecting wilderness resources in the Ely District, in violation of NEPA.

BLM has not evaluated a reasonable range of alternatives for protecting the wilderness characteristics of parcels in the Ely District. As discussed in our comments on the preliminary EA,

[2] BLM, EA for the White River Field Office June 2014 Competitive Oil & Gas Lease Sale at 77, *available at* http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/oil_and_gas/Lease_Sale/2014/may_2013.Par.34116.File.dat/WR_doiblmco11020130099ea_3.12.14_EA_MLP%20format_Master.pdf.

the EA offers only two alternatives: a No Action alternative, and a Proposed Action alternative. An obvious reasonable alternative which should have been analyzed is one in which parcels overlapping areas with wilderness characteristics are deferred, and other parcels are leased. Under NEPA, BLM must consider a broad range of alternatives to mitigate environmental impacts. 40 C.F.R. § 1502.14(a); *see also Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 72-73 (D.C. Cir. 2011) (requiring BLM to consider a reasonable range of alternatives for oil and gas activity); IM 2010-117 (requiring consideration of "alternatives to the proposed action that may address unresolved resource conflicts."). This requirement applies equally to EAs and EISs. *Davis v. Mineta*, 302 F.3d 1104, 1120 (10th Cir. 2002); *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 122829 (9th Cir. 1988).

The range of alternatives is the heart of a NEPA document because "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of [a NEPA analysis] to inform agency deliberation and facilitate public involvement would be greatly degraded." *New Mexico ex rel. Richardson v. BLM*, 565 F.3d 683, 708 (10th Cir. 2009). That analysis must cover a reasonable range of alternatives, so that an agency can make an informed choice from the spectrum of reasonable options. An EA offering a choice between leasing every parcel nominated, and leasing nothing at all, does not present a reasonable range of alternatives. *See TWS v. Wisely*, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007) (BLM violated NEPA by failing to consider "middle-ground compromise between the absolutism of the outright leasing and no action alternatives"); *Muckleshoot Indian Tribe v. US Forest Serv.*, 177 F.3d 800, 813 (9th Cir. 1999) (NEPA analysis failed to consider reasonable range of alternatives where it "considered only a no action alternative along with two virtually identical alternatives").

Current policies confirm the manner in which the alternatives requirement applies to wilderness characteristics, providing that BLM must fully "consider" wilderness characteristics during planning actions and evaluate a range of measures to protect wilderness characteristics during the leasing process, including measures not contained in existing RMPs. *See* IM 2011-154 at Att. 2; IM 2010-117 at III. E., F.

A "rule of reason" is used to determine if an adequate range of alternatives have been considered; this rule is governed by two guideposts: (1) the agency's statutory mandates; and (2) the objectives for the project. *New Mexico ex rel. Richardson*, 565 F.3d at 708. Here, there is no doubt that BLM's legal mandates under FLPMA and NEPA require it to fully consider the protection of wilderness values, and under IM 2010-117, the agency must treat the "protection of other important resources and values" as an equally important objective to leasing.

Yet, in the EA, BLM has failed to evaluate an adequate range of alternatives that would protect the wilderness characteristics of parcels in the Ely District from the impacts of the lease sale. Such alternatives include offering the parcels with NSO stipulations or deferring the parcels. Because the BLM has not considered those alternatives, or additional alternatives to protect the wilderness characteristics of the proposed parcels, it must defer the parcels from the lease sale.

II. Great Basin National Park and Basin and Range National Monument

We raised major concerns in our comments on the preliminary EA that BLM completely failed to analyze potential impacts on Great Basin National Park and Basin and Range National Monument in violation of NEPA, which BLM has not rectified in the revised EA. BLM is proposing

to offer oil and gas parcels for lease in the December 2017 sale that are very close to Great Basin National Park (approximately 4 miles away) and immediately adjacent to as well as in close proximity to Basin and Range National Monument. BLM is required by NEPA and other applicable laws and regulations to analyze potential impacts to National Park Service and National Conservation Lands units from the proposed action. Yet the EA fails to include any analysis whatsoever of potential impacts to Great Basin National Park or Basin and Range National Monument.

The EA only references Great Basin National Park in the location description for Group F parcels – no analysis of potential impacts on Park resources is included at all. The EA only addresses Basin and Range National Monument to state: "None of the proposed lease parcels are located within the Basin and Range National Monument." EA, p. 53. This is true – and the Monument is in fact legally closed to new oil and gas leasing – but parcels are immediately adjacent to the Monument as well as being in the near vicinity. In total abdication of BLM's obligation to analyze potential impacts to protected lands when considering oil and gas leasing, the EA state: "The lease of oil and gas parcels does not entail ground disturbing activities as part of the undertaking. Therefore, this undertaking would not result in impacts to Heritage Special Designated areas." *Ibid.*

As we demonstrated in our comments, BLM acknowledges that the agency is required to analyze potential impacts from leasing on nearby protected lands and routinely examines these types of impacts when oil and gas leases are proposed near national parks and national monuments. We are re-attaching to these comments portions of two oil and gas lease sale EAs in which BLM conducted thorough impact analysis on national parks, in New Mexico and Colorado, which we provided as examples with our comments on the preliminary EA.

The EA recognizes that oil and gas development can and likely would impact visual resources. For example, it asserts that: "Exploration and development within these parcels have a high probability of not meeting the VRM II objectives. Mitigation measures would be needed to address potential issues at the development stage." EA, p. 55. However, BLM does not go on to analyze or consider needed mitigation measures for visual impacts to VRM II areas, or the Park or Monument, instead proposing to plow ahead with reckless leasing of public lands in close proximity to these areas with important and protected visual assets.

BLM must defer all lease parcels in Groups B and F until the agency completes adequate environmental impact analysis and considers necessary mitigation measures for protecting Park and Monument resources.

a. BLM did not take a "hard look" at the impacts of its proposed action on National Park Service and National Conservation Lands units.

BLM is obligated to take a "hard look" at the impacts of leasing the proposed parcels on these protected lands, including their protected resources, recreation and tourism. 40 C.F.R. § 1502.16. At a minimum, BLM must consider the following direct, indirect and cumulative impacts in the EA, all of which have a critical impact on the visitation experience:

- Viewshed analyses;

- Air quality analysis that includes the impact to the visitor experience from dust caused by transportation and traffic from heavy vehicles and pollution caused by drilling activities;
- Impacts to dark skies; and
- Noise impacts from operations.

The revised EA still does not even mention the possibility of impacts on the viewshed, night skies and soundscape of the Park or Monument, let alone take the required "hard look." Thus the EA violates NEPA because it fails to explore important and potentially significant environmental impacts of the proposed action on nearby protected lands. The purpose of an EA is to determine whether environmental impacts are significant enough to warrant preparation of an EIS. 40 C.F.R. § 1508.9. The EA must provide "sufficient evidence and analysis" to justify this determination, in part by taking a "hard look" at potential direct, indirect and cumulative impacts of the proposed action. *See Wilderness Soc. v. Forest Serv.*, 850 F. Supp. 2d 1144, 1155 (D. Idaho 2012). Specifically, the EA ignores direct and indirect impacts of noise and light pollution and visual intrusions on Monument and Park visitation and revenue. These are all important and potentially significant impacts the EA should have explored.

b. The EA fails to explore light, noise and visual impacts on Great Basin National Park and Basin and Range National Monument.

To comply with NEPA, BLM must both identify and explore relevant environmental impacts. *See, e.g., Grand Canyon Trust v. FAA*, 290 F.3d 339, 346 (D.C. Cir. 2002) ("First, the agency has accurately identified the relevant environmental concern. Second, once the agency has identified the problem it must have taken a 'hard look' at the problem in preparing the EA."). In evaluating the environmental impacts of proposed leasing near national parks and monuments, BLM routinely analyzes the impacts of noise and light pollution. *See, e.g.*, New Mexico BLM, January 2014 Competitive Oil and Gas Lease Sale EA at pp. 4-7.[3] Courts have readily overturned agency actions that ignore these types of effects. *See, e.g., Grand Canyon Trust v. FAA*, 290 F.3d 339 (D.C. Cir. 2002) (EA failed to adequately analyze noise impacts from agency action on Zion National Park).

The EA fails to identify potential impacts on these protected lands from oil and gas leasing, and also fails to explore the likely impacts of the leasing decision to night skies, soundscape, scenic values and other resources of these protected areas. In particular, Great Basin National Park is a designated International Dark Sky Park and maintains an astronomy program that is highly valued by Park visitors. Yet the EA does not even identify this potential conflict, let alone attempt to measure, quantify or objectively define what these effects might look like, or evaluate whether they are "significant," thus warranting preparation of an EIS. *See Klamath-Siskiyou v. BLM,* 387 F.3d 989, 994 (9th Cir. 2004) ("...[g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.")(citations omitted). Nor does it identify and evaluate the extent to which lease stipulations may successfully mitigate visual, noise and sound impacts to the Park.

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[3] Available at https://www.nm.blm.gov/oilGas/leasing/leaseSales/2014/january2014/Jan%202014%20OG%20Lease%20Sale%20EA_Public%20Review_Farmington_Change%201.pdf.

To satisfy NEPA, BLM must actually explore how development on the proposed leases would affect the soundscape, night skies and visual setting within these protected lands. This means answering key questions about impacts to Park and Monument resources, such as:

- How would development on the proposed leases affect night sky visibility from key and popular observation points, such as the location of the Great Basin National Park astronomy program?
- Would truck traffic to the parcels be audible from popular visitor locations?
- What would be the air quality impacts on the protected areas from nearby development?
- How will development affect ambient sound levels in the Park and Monument?

These are all important questions BLM must answer to inform its leasing decision and evaluate of the significance of the impact of the leasing decision. To satisfy the hard look requirement, BLM must do more than recognize that certain types of impacts might exist – it must actually explore those impacts.

For example, in 2009, a federal district court enjoined BLM from issuing oil and gas leases in the vicinity of Dinosaur National Monument that were proposed in Utah BLM's December 2008 oil and gas lease sale. The court ruled that prior to selling the leases, BLM had failed to "engage[] in quantitative ozone dispersion modeling" and thus was "unable to assess the concentration of pollution in the air. . . ." The court also found that BLM had failed to adequately evaluate and address potential impacts on cultural, scenic, scientific and other resources under the National Historic Preservation Act and Federal Land Policy and Management Act. *S. Utah Wilderness Alliance v. Allred*, No. 08-2187, 2009 U.S. Dist. LEXIS 30664, at *7-8 (D.D.C. Jan. 17, 2009).

c. The EA fails to explore cumulative impacts of the proposed action on tourism and visitation to Great Basin National Park and Basin and Range National Monument.

The EA also ignores important cumulative social and economic impacts that leasing and development can have on visitation and tourism to these protected lands. To be sure, social and economic impacts, such as impacts to visitation, tourism and revenue to a National Monument, are environmental effects for purposes of NEPA analysis. *See* 40 CFR § 1508.8 ("Effects include ecological, aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative."). NEPA's implementing regulations define a cumulative impact as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 CFR § 1508.7. "A proper consideration of the cumulative impact of a project requires some quantified or detailed information...[g]eneral statements about possible effects and some risk do not constitute a hard look absent justification regarding why more definitive information could not be provided." *See Klamath-Siskiyou v. BLM,* 387 F.3d 989, 994 (9th Cir. 2004) (citations omitted).

III. The EA is not consistent with the Nevada and NE California Greater Sage-Grouse Approved RMP Amendment, as required by FLPMA.

BLM has not prioritized leasing outside of PHMAs and GHMAs, as required by the Great Basin ROD, Nevada and NE California Greater Sage-Grouse Approved RMP Amendment (Nevada ARMPA) and IM 2016-143. Under FLPMA, BLM must manage public lands "in accordance with the [applicable] land use plans . . . ." 43 U.S.C. § 1732(a); S. Utah Wilderness Alliance v. Norton, 542 U.S. 55, 59-60 (2004). Here, the Draft EA is not consistent with provisions of the Rocky Mountain ROD and HiLine ARMP, which require the "prioritization" of oil and gas leasing outside of PHMAs and GHMAs.

Under the Great Basin Region ROD, BLM must:

> prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs . . . to further limit future surface disturbance and to encourage new development in areas that would not conflict with GRSG. This objective is intended to guide development to lower conflict areas and, as such, protect important habitat and reduce the time and cost associated with oil and gas leasing development. It would do this by avoiding sensitive areas, reducing the complexity of environmental review and analysis of potential impacts on sensitive species, and decreasing the need for compensatory mitigation.

Great Basin Region ROD at 1-23. The Nevada ARMPA echoes this directive and includes the following objective: "Prioritize the leasing and development of fluid mineral resources outside GRSG habitat." Nevada ARMPA at 1-10.

Further, in IM 2016-143, BLM has issued guidance elaborating on the way agency staff are to comply with the requirement to prioritize leasing and development outside of sage-grouse habitat: "Lands within GHMAs: BLM state offices will consider EOIs for lands within GHMAs, after considering lands outside of both GHMAs and PHMAs. When considering the GHMA lands for leasing, the BLM State Office will ensure that a decision to lease those lands would conform to the conservation objectives and provision in the GRSG Plans (e.g., Stipulations)."

Importantly, the IM also sets out "factors to consider" (i.e., parcel-specific factors) after applying this prioritization sequence:

- Parcels immediately adjacent or proximate to existing oil and gas leases and development operations or other land use development should be more appropriate for consideration before parcels that are not near existing operations. This is the most important factor to consider, as the objective is to minimize disturbance footprints and preserve the integrity of habitat for conservation.
- Parcels that are within existing Federal oil and gas units should be more appropriate for consideration than parcels not within existing Federal oil and gas units.
- Parcels in areas with higher potential for development (for example, considering the oil and gas potential maps developed by the BLM for the GRSG Plans) are more appropriate for consideration than parcels with lower potential for development. The Authorized Officer may conclude that an area has "higher potential" based on all pertinent

information, and is not limited to the Reasonable Foreseeable Development (RFD) potential maps from Plans analysis.

- Parcels in areas of lower-value sage-grouse habitat or further away from important life-history habitat features (for example, distance from any active sage-grouse leks) are more appropriate for consideration than parcels in higher-value habitat or closer to important life-history habitat features (i.e. lek, nesting, winter range areas). At the time the leasing priority is determined, when leasing within GHMA or PHMA is considered, BLM should consider, first, areas determined to be non-sage-grouse habitat and then consider areas of lower value habitat.
- Parcels within areas having completed field-development Environmental Impact Statements or Master Leasing Plans that allow for adequate site-specific mitigation and are in conformance with the objectives and provisions in the GRSG Plans may be more appropriate for consideration than parcels that have not been evaluated by the BLM in this manner.
- Parcels within areas where law or regulation indicates that offering the lands for leasing is in the government's interest (such as in instances where there is drainage of Federal minerals, 43 CFR § 3162.2-2, or trespass drilling on unleased lands) will generally be considered more appropriate for leasing, but lease terms will include all appropriate conservation objectives and provisions from the GRSG Plans.
- As appropriate, use the BLM's Surface Disturbance Analysis and Reclamation Tracking Tool (SDARTT) to check EOI parcels in PHMA, to ensure that existing surface disturbance does not exceed the disturbance and density caps and that development of valid existing rights (Solid Minerals, ROW) for approved-but-not-yet-constructed surface disturbing activities would not exceed the caps.

Yet, the EA fails to cite the "prioritization" requirement altogether. There is no discussion of the prioritization sequence or parcel-specific factors set forth in IM 2016-143 or of the broader requirement to "prioritize" established in the Great Basin Region ROD and Nevada ARMPA. As a consequence, BLM is now proposing to lease at least thirty-nine parcels within GHMAs and PHMAs, without making any effort to prioritize leasing in other, less sensitive areas. 2018 Ely District Office Oil and Gas Lease Sale Preliminary EA Comments Summary at 7.

In other recent lease sale EAs, BLM has applied the parcel specific factors and described how the factors informed its proposed action. For example, in the Draft EA for Wyoming BLM's August 2017 Lease Sale, BLM applied the parcel-specific factors to justify a deferral decision:

> After careful review of the parcels, the BLM has determined that it was appropriate to defer certain parcels nominated for inclusion in the August 2017 oil and gas lease sale...These deferrals were made consistent with the BLM's sage-grouse conservation plans and strategy, which direct the BLM to prioritize oil and gas leasing and development in a manner that minimizes resource conflicts in order to protect important habitat and reduce development time and costs. Parcels deferred are generally located in sage-grouse important life-history habitat features such as active or occupied leks, and/or are not proximate to existing development, and are in areas of low oil and gas development potential.

Draft EA at 1-2, 1-3. In that same sale, BLM also applied the parcel-specific factors to justify a decision to carry forward parcels for leasing:

> Parcels WY-1708-153 and WY-1708-154 are proximate or adjacent to federal oil and gas leases with active development and production (within 2 miles of leases currently held by production), and have no known sage-grouse leks within the boundaries. The area is also proximate to bentonite mining claims, disturbance, and activity.

Draft EA at 3-8. Thus, in the Wyoming sale, BLM proposed deferring parcels on lands with high-quality sage-grouse habitat, low potential for oil and gas development, and minimal nearby development, and it proposed carrying forward parcels on lands with lower-quality habitat near existing development. BLM clearly applied and weighed the factors to reach a reasoned leasing decision.

As another, more recent example, in the Draft EA for Utah's December 2017 Oil and Gas Lease Sale in the Vernal Field Office, BLM applied each of the parcel specific factors to each of the proposed parcels in or near sage-grouse habitat. For each individual parcel, BLM determined whether it was adjacent to an existing lease, within an existing unit, within an area with a field development EIS, or within an area with high development potential. *See* Draft EA at 35 – 45. BLM also evaluated the quality of the sage-grouse habitat within each of the parcels, including the amount and percentage of winter and brood-rearing habitat and the distance of each parcel to nearby leks. Id. BLM clearly and carefully applied each of the relevant parcel specific factors to each of the parcels. It also directly addressed the "most important factor" – the proximity of the leases to existing leases and development.

These examples underscore the inadequacy of the EA for the Ely District Office's December 2017 lease sale and confirm that when parcels are proposed in or near PHMA and GHMA, BLM must apply the prioritization sequence and weigh the parcel-specific factors in reaching a leasing decision. It must also comply with the requirement in the Great Basin Region ROD and Nevada ARMPA to prioritize development outside of GHMA and PHMA, guiding development to lower conflict areas so as to thereby protect important habitat areas and reduce the time and cost associated with oil and gas development.

IV. No Reasonable Belief Lease Sale Parcels Will Be Developed.

BLM must develop alternatives that satisfy the "purpose and need" for the project. 40 C.F.R. § 1502.13. Here, BLM justifies the purpose and need for the sale in part on responsibilities established by the Mineral Leasing Act (MLA). EA, p. 1. The MLA directs BLM to hold periodic oil and gas lease sales for "lands...which are known or believed to contain oil or gas deposits..." 30 U.S.C. § 226(a). These sales are supposed to foster responsible oil and gas development, which lessees must carry out with "reasonable diligence." 30 U.S.C. § 187; *see also* BLM Form 3100-11 § 4 ("Lessee must exercise reasonable diligence in developing and producing...leased resources."). However, the proposed action does not satisfy the purpose and need for the lease sale, and as a consequence, BLM must adopt the no-action alternative. Further, in prioritizing leasing of low potential lands, BLM is violating FLPMA's multiple use mandate and improperly limiting the range of alternatives.

a. The EA lacks "reasonable assurance" that the proposed parcels "are known or believed to contain oil or gas deposits."

The EA provides no evidence that the proposed parcels contain oil or gas deposits, as required by the MLA. 30 U.S.C. § 2269(a); *see also Vessels Coal Gas, Inc.*, 175 IBLA 8, 25 (2008) ("It is well-settled under the MLA that competitive leasing is to be based upon reasonable assurance of an existing mineral deposit."). In fact, there is abundant evidence to the contrary – that the lands encompassed by the parcels are wholly lacking in marketable oil and gas resources. The EA explicitly states: "There are no known oil reserves within any of the proposed parcel areas." EA, p. 24. According to the EA, the Ely District has only approved 13 APDs since the Ely RMP was finalized in 2008, and only 10 wells were actually drilled. EA, p. 73. Thus, the EA contains no "reasonable assurance" that the proposed leases actually contain oil or gas deposits that would support a leasing decision under the MLA.

This problem is prevalent in Nevada, where BLM is currently spending an excessive amount of time and resources evaluating oil and gas leases that industry is either not bidding on or will likely never develop. In fact, only 2 percent of leased acres in Nevada are actually producing oil or gas.[4] Over the past three years, BLM Nevada has held three oil and gas leases sales where industry did not bid upon a single parcel. Over that same time period, industry purchased less than 9% of acres offered for lease, and BLM collected only $0.26 in bonus bids per acre offered:

SALE[5]	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Mar. 2015	24 / 25,882	13 / 15,244	$30,496
June 2015	124 / 256,875	0	0
Dec. 2015	3 / 3,641	0	0
Mar. 2016	39 / 50,416	0	0
June 2016	42 / 74,661	4 / 3,765	$24,740
Mar. 2017	67 / 115,970	20 / 35,502	$74,780
June 2017	106 / 195,614	3 / 5,760	$29,440
Sept. 2017	3 / 3,680	3 /3,680	$33,120
Total	408 / 726,739	43 / 63,951 (9% of acres offered)	$192,576 ($0.26/acre offered)

Contrast these figures with those for other states, where BLMgenerally offers significantly fewer acres for lease, but collects significantly higher bonus binds – often hundreds of dollars per acre offered. *See* Exhibit 5. This underscores just how inefficient and wasteful the oil and gas program in Nevada has become, and also demonstrates that BLM Nevada's oil and gas leasing program is inconsistent with the direction set forth in the MLA.

[4] https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/oil-and-gas-statistics

[5] All data obtained from BLM (https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/regional-lease-sales/nevada) and EnergyNet (https://www.energynet.com/govt_listing.pl).

b. The proposed action conflicts with FLPMA's multiple-use and unnecessary and undue degradation mandates, while also improperly limiting the range of alternatives.

FLPMA requires that BLM manage federal public lands "on the basis of multiple use and sustained yield..." FLPMA § 102(a)(7), 43 U.S.C. §§ 1701(a)(7)-(8), 1702(c), 1702(h). This requires that BLM "manage[] the public lands and their various resource values so they are utilized in the combination that will best meet the future needs of the American people" and make "the most judicious use of the land." *Id.* at § 103(c). Under the multiple-use mandate, "there is no presumed preference for oil and gas development over other uses" of public lands and minerals. IM 2010-117; *see also N.M. ex rel. Richardson v. BLM*, 565 F.3d 683, 710 (10th Cir. 2009) ("It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses.).

FLPMA also requires that BLM prevent "unnecessary or undue degradation" (UUD) of the public lands. *See* 43 USC § 1732(b). This creates a dual requirement that BLM "prevent, not only unnecessary degradation, but also degradation that, while necessary . . . , is undue or excessive." *Mineral Policy Center v. Norton*, 292 F. Supp. 2d 30, 42 (D.D.C. 2003). To satisfy these requirements, BLM must "disapprove an otherwise permissible . . . operation because the operation, . . . would unduly harm or degrade the public lands." *Id.* at 43.

To help balance the multiple-uses of public lands and prevent unnecessary and undue degradation, Interior Department policies direct BLM to manage lands with low oil and gas potential for alternative uses and resource values. Under IM 2010-117, for example, BLM must consider whether "[i]n undeveloped areas, non-mineral resource values are greater than potential mineral development values." *See* § III.C.5. Recent guidance on oil and gas leasing within greater sage-grouse habitat likewise requires that BLM prioritize leasing away from low potential areas with valuable habitat characteristics. IM 2016-143, § (A).

Leasing in low potential areas, like those in this sale, gives preference to oil and gas development at the expense of other uses because the presence of leases can limit BLM's ability to manage for other resources. In the recently finalized Colorado River Valley Resource Management Plan, for example, BLM decided against managing lands for protection of wilderness characteristics in the Grand Hogback LWC unit based specifically on the presence of oil and gas leases, even though the leases were non-producing:

> The Grand Hogback citizens' wilderness proposal unit contains 11,360 acres of BLM lands. All of the proposed area meets the overall criteria for wilderness character...There are six active oil and gas leases within the unit, totaling approximately 2,240 acres. None of these leases shows any active drilling or has previously drilled wells. The ability to manage for wilderness character would be difficult. If the current acres in the area continue to be leased and experience any development, protecting the unit's wilderness characteristics would be infeasible...

Proposed Colorado River Valley RMP (2015), p. 3-135. Similarly, in the Grand Junction Resource Management Plan in Colorado, BLM expressly stated that undeveloped leases on low-potential lands had effectively prevented management to protect wilderness characteristics, stating:

> 133,900 acres of lands with wilderness characteristics have been classified as having low, very low, or no potential...While there is not potential for fluid mineral development in most of the lands with wilderness characteristics units, the majority of the areas, totaling 101,100 acres (59 percent), are already leased for oil and gas development.

Proposed Grand Junction Proposed RMP (2015), pp. 4-289 – 4-290. The presence of leases can also limit BLM's ability to manage for other important, non-wilderness values, like renewable energy projects. *See, e.g.,* Proposed White River Resource Management Plan, p. 4-498 ("Areas closed to leasing...indirectly limit the potential for oil and gas developments to preclude other land use authorizations not related to oil and gas (e.g., renewable energy developments, transmission lines) in those areas.").

In offering the leases involved in this sale, BLM runs a similar risk of precluding management decisions for other resources in the Ely District. As described in the EA, the proposed leases overlap areas with wilderness qualities, water resources, sensitive species habitat, and other important public lands resources. The area also has almost no history of successful oil and gas exploration and development or potential for future successful development. In leasing these lands now, BLM gives unfair preference to oil and gas leasing and development over other resource uses and values present in these very same areas. *See* IM 2010-118 ("Under applicable laws and policies, there is no presumed preference for oil and gas development over other uses.").

In recognition of the environmental components of the multiple use mandate, courts have repeatedly held that under FLPMA's multiple use mandate, development of public lands is not required, but must instead be weighed against other possible uses, including conservation to protect environmental values. *See, e.g., New Mexico ex rel. Richardson*, 565 F.3d at 710 ("BLM's obligation to manage for multiple use does not mean that development *must* be allowed. . . . Development is a possible use, which BLM must weigh against other possible uses — including conservation to protect environmental values, which are best assessed through the NEPA process."); *Rocky Mtn. Oil & Gas Ass'n v. Watt*, 696 F.2d 734, 738 n.4 (10th Cir. 1982) ("BLM need not permit all resource uses on a given parcel of land."). And, just as BLM can deny a project outright in order to protect the environmental uses of public lands, it can also condition a project's approval on the commitment to mitigation measures that lessen environmental impacts. *See, e.g., Pub. Lands Council v. Babbitt*, 167 F.3d 1287, 1300-01 (10th Cir. 1999) ("FLPMA unambiguously authorizes the Secretary to specify terms and conditions in livestock grazing permits in accordance with land use plans"); *Grynberg Petro*, 152 IBLA 300, 306-07 (2000) (describing how appellants challenging conditions of approval bear the burden of establishing that they are "unreasonable or not supported by the data").

The multiple use framework's emphasis both on environmental resources and on the need to balance between present and future generations are highly relevant to consideration of climate change-related impacts. For example, multiple use includes "the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; . . . a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources . . . ; and harmonious and coordinated management of

the various resources without permanent impairment of the productivity of the land and the quality of the environment. . . ." 43 U.S.C. § 1702(c).

Here, the BLM appears to be grounding the analysis and decisions proposed in the EA on recent presidential and executive actions on "American energy independence" or "dominance." *See* Press Release, BLM To Offer 208 Parcels in December Oil and Gas Lease Sale (Oct. 16, 2017) ("In keeping with the Administration's goal of strengthening America's energy independence, the Bureau of Land Management will offer 208 parcels. . . .")[6]; The White House, *Presidential Executive Order on Promoting Energy Independence and Economic Growth* (March 28, 2017)[7],; DOI, Secretary of the Interior, Order No. 3349 – American Energy Independence (March 29, 2017)[8]. Such a decision would clearly violate the multiple-use mandate of FLPMA, which states in no uncertain terms that BLM "shall manage public lands under principles of multiple use and sustained yield" and contains specific provisions and procedures for broadly "excluding" principal uses of the public lands, including outdoor recreation and fish and wildlife development and utilization, none of which have been followed here and more broadly by the Interior Department. 43 U.S.C. §§ 1732(a), 1712(e)(2). Further, by focusing on energy development, disregarding the other resources at risk (including those BLM is explicitly required to prioritize under current land use plans) and refusing to consider alternatives to leasing, BLM is improperly narrowing the range of alternatives, in violation of NEPA.

Conclusion

We hope to see BLM complete needed analysis and fully comply with applicable law and guidance prior to proceeding with leasing the protested parcels.

Sincerely,

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[6] Available at: https://www.blm.gov/press-release/blm-offer-208-parcels-december-oil-and-gas-lease-sale
[7] Available at: https://www.whitehouse.gov/the-press-office/2017/03/28/presidential-executive-order-promoting-energyindependence-and-economi-1
[8] Available at: https://www.doi.gov/sites/doi.gov/files/uploads/so_3349_-american_energy_independence.pdf

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Exhibits:

1. TWS and NPCA comments on preliminary EA
2. Citizen wilderness inventory for Portuguese Mountain area
3. BLM Lands with Wilderness Characteristics report for Portuguese Mountain area
4. Example EA analyses of impacts to protected lands from oil and gas leasing
   a. EA for the Jan. 2014 Competitive Oil & Gas Lease Sale (BLM Farmington Field Office), pp. 3-6, 27-30
   b. BLM Final EA for the June 8, 2017 Competitive Oil & Gas Lease Sale (BLM Colorado State Office), p. 202-213
5. BLM State Office Lease Sale Figures for the Past 3 Years (2015-2017)

EXHIBIT 1

September 18, 2017

Submitted via email (blm_nv_ely_oil_and_gas2017@blm.gov)

Jeremiah Wagener
BLM Caliente Field Office
1400 South Front Street
Caliente, Nevada 89008

Re: Comments on the Nevada December 2017 Oil and Gas Lease Sale

Dear Mr. Wagener,

Thank you for the opportunity to submit comments on the Environmental Assessment (EA) for BLM Nevada's December 2017 oil and gas lease sale. We have significant concerns with the proposed lease sale, including BLM's failure to comply with the National Environmental Policy Act in analyzing lease parcels proposed for sale and potential impacts on multiple public lands resources that the BLM Ely District is charged with stewarding. We therefore recommend BLM defer this lease sale until the agency completes adequate analysis to support leasing in the Ely District.

I. Public Participation

BLM has failed to provide meaningful opportunity for public participation in the Nevada December 2017 lease sale. Not only is public participation in review of agency actions foundational to the National Environmental Policy Act (NEPA) and BLM's oil and gas leasing policy, it assists the agency with conducting more thorough, efficient and effective environmental review processes. BLM is impeding public participation in this lease sale by neglecting to provide a public scoping opportunity and by not posting relevant lease sale information on BLM Nevada's oil and gas leasing website.

A key, overarching purpose of NEPA is to increase public knowledge and participation in agency decision-making. NEPA requires that agencies make "*diligent efforts* to involve the public in preparing and implementing their NEPA procedures." *See* 40 CFR § 1506.6(a) (emphasis added). Agencies must provide "public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons or agencies who may be interested or affected." *Id.* § 1506.6(b). NEPA also directs that "There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. This process shall be termed scoping." *Id.* § 1501.7. Although scoping is not strictly required for EAs, BLM almost always conducts scoping for lease sale EAs, and the absence of a scoping period here evidences a lack of diligent efforts to involve the public.

The absence of a public scoping period also undermines the oil and gas leasing policy as set forth in IM 2010-117. That IM "established a process for ensuring orderly, effective, timely, and environmentally responsible leasing of oil and gas resources." IM 2010-117 at 1. Toward this end, the IM calls for increased public participation in lease sales: "The process outlined in this IM—which includes site-specific parcel analysis and increased public participation—will help identify, address, and resolve most issues before the lease sale." IM 2010-117 at 13. Declining to provide a public scoping opportunity undermines the vision articulated in IM 2010-117 of increasing public participation and conducting more efficient and effective oil and gas leasing.

Additionally, the public has valuable information that BLM must consider in the NEPA review for this lease sale, which could have been provided to the agency during a scoping period if one was offered. For example, as detailed below, we have information regarding lands with wilderness characteristics that must be addressed in the EA and which we could have provided BLM during scoping. Instead, BLM has now prepared an entire environmental assessment without that information, and must revise the environmental assessment in light of that information.

As another example further detailed below, BLM precluded the public from proposing reasonable alternatives that should have been evaluated in this EA by not providing public scoping. Interestingly, the EA states: "No other alternatives to the proposed action were apparent that would meet the purpose and need of the Proposed Action. No other alternatives were submitted or proposed during the public scoping period." EA, p. 15. This statement is clearly a fabrication, since BLM did not hold a public scoping period for this lease sale. As this is the first public comment opportunity for this lease sale, we are now putting forth alternatives that BLM should evaluate, detailed below. Thus, the NEPA review for this lease sale would have been more thorough, efficient and effective if BLM had provided a public scoping opportunity, a fact recognized by BLM in many other states where the agency regularly conducts public scoping as part of analyzing oil and gas lease sales.

In addition to not providing a public scoping opportunity, BLM has failed to make "diligent efforts to involve the public" by not posting this lease sale on BLM Nevada's oil and gas leasing webpage.[1] While BLM has posted information on this sale to an ePlanning site, omitting this sale from the agency's official webpage for oil and gas lease sales in Nevada significantly reduces the likelihood of the public knowing that this lease sale is moving forward and that public comment periods are occurring.

Lastly, we note the document posted for public comment is titled "Final Environmental Assessment" when it should in fact be a preliminary EA, which the agency will finalize taking into account public comments received during this comment period. Rather, BLM seems to indicate the agency is not anticipating incorporating public comments into a revised, final EA but is instead treating the analyses and decisions contained in this EA as a foregone conclusion.

These points are even more concerning to us because we have noticed a troubling trend in which BLM Nevada is limiting and minimizing public participation in oil and gas lease sales, inconsistent with NEPA and agency policy and unlike BLM's oil and gas lease sale processes in other states. We have raised these points in our comments on multiple lease sales in Nevada. BLM must address these issues immediately and move forward with an oil and gas leasing process that is transparent, engages the public and complies with NEPA.

[1] https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/regional-lease-sales/nevada

II. Range of Alternatives

The EA fails to consider a reasonable range of alternatives, in contravention of NEPA. NEPA requires that BLM analyze in detail "all reasonable alternatives." 40 C.F.R. § 1502.14(a). The range of alternatives is the heart of a NEPA document because "[w]ithout substantive, comparative environmental impact information regarding other possible courses of action, the ability of [a NEPA analysis] to inform agency deliberation and facilitate public involvement would be greatly degraded." New Mexico v. BLM, 565 F.3d 683, 708 (10th Cir. 2009). That analysis must cover a reasonable range of alternatives, so that an agency can make an informed choice from the spectrum of reasonable options. The EA for the December lease sale fails to meet this requirement. It only analyzes two alternatives:

- The No Action alternative, which would exclude all lease parcels from the sale; and
- Leasing all nominated parcels, comprising 208 lease parcels covering approximately 388,960 acres (the Lease Everything Alternative).

EA, p. 4. An EA offering a choice between leasing every parcel nominated, and leasing nothing at all, does not present a reasonable range of alternatives. BLM must consider reasonable alternatives that fall between the two extremes. At a minimum, as detailed further later in these comments, BLM should analyze the following alternatives:

- Defer leases in priority greater sage-grouse habitat;
- Defer leases in inventoried lands with wilderness characteristics;
- Defer leases in areas with low or no potential for oil and gas development.

Failing to analyze such middle-ground options would violate NEPA. See TWS v. Wisely, 524 F. Supp. 2d 1285, 1312 (D. Colo. 2007) (BLM violated NEPA by failing to consider "middle-ground compromise between the absolutism of the outright leasing and no action alternatives"); Muckleshoot Indian Tribe v. US Forest Serv., 177 F.3d 800, 813 (9th Cir. 1999) (NEPA analysis failed to consider reasonable range of alternatives where it "considered only a no action alternative along with two virtually identical alternatives").

These alternatives are made even more reasonable by the fact that BLM anticipates very little, if any, development on these parcels. The EA states that "there are no known oil reserves within any of the proposed parcel areas." EA, p. 23. Furthermore, there are only two wells currently in production in the entire Ely District. EA, p. 66. There is simply no legal requirement or other reason to offer these leases if BLM does not expect them to be developed. If the parcels are not developed, leasing them offers little benefit because they will generate no royalties, and no significant additional employment or investment in the area. Moreover, the bonus payments and rentals from such leases will likely be minimal. Nor can BLM conclude that the potential economic benefits of leasing them outweigh the environmental and economic harms to the local community and other resources.

BLM should wait until development interest manifests in the area before deciding to offer these parcels. If significant development starts occurring on nearby lands, BLM is likely to receive much higher bonus bids for these parcels than it will now. Moreover, if development begins on nearby lands, it will generate additional information about the impacts and development patterns that can be expected on public lands. That information will allow the agency to make a much better-informed decision on whether the economic and environmental costs of oil and gas leasing are outweighed by the purported benefits.

III. Lands with Wilderness Characteristics

BLM must inventory the proposed lease parcels for lands with wilderness characteristics (LWC) and defer parcels where wilderness resources are identified in compliance with the Federal Land Policy and Management Act (FLPMA), NEPA and relevant agency policy issued under those statutes.

a. FLPMA requires BLM to maintain an inventory of lands with wilderness characteristics.

Lands with wilderness characteristics are one of the resources of the public lands that must be inventoried under the Federal Land Policy and Management Act (FLPMA). 43 U.S.C. § 1711(a); see also *Ore. Natural Desert Ass'n v. BLM*, 625 F.3d 1092, 1122 (9th Cir. 2008) (holding that "wilderness characteristics are among the 'resource and other values' of the public lands to be inventoried under § 1711"). Instruction Memorandum 2011-154 directs BLM to consider lands with wilderness characteristics in land use plans and when analyzing projects under NEPA. The IM promulgates current agency policy for considering the wilderness characteristics on public lands as part of its multiple-use mandate in developing and revising land use plans *and when making subsequent project level decisions*, consistent with FLPMA. The IM directs BLM to "conduct and maintain inventories regarding the presence or absence of wilderness characteristics, and to consider identified lands with wilderness characteristics in land use plans and when analyzing projects under [NEPA]." BLM Manual 6310 directs BLM on how to conduct lands with wilderness characteristics inventories in compliance with FLPMA and agency policy.

We appreciate that BLM addresses lands with wilderness characteristics in this EA, and indicates that the agency has updated inventory information for the full project area. However, we have been unable to review BLM's inventory information, as detailed below. Therefore we reiterate that BLM must have an updated inventory of wilderness resources, and so the agency should review its inventory information and consider whether additional inventory is necessary to ensure current resource information is being relied upon for this NEPA analysis, consistent with FLPMA and NEPA.

b. BLM must provide inventory information to the public.

BLM Manual 6310 requires district and field managers to "Maintain a permanent documentation file for inventoried areas." BLM Manual 6310 at .04(C)(3). The Manual explains further, "It is essential that an adequate record of the inventory and subsequent updates be maintained to ensure proper documentation of inventory findings, including relevant narratives, maps, photographs, new information, and any other relevant information." *Id.* at .06(A). We requested this information from BLM for the LWC inventory units that overlap with proposed lease parcels, and BLM was unable to produce the information in a timely manner. This seems to indicate that BLM does not have permanent documentation files for the inventoried areas with the necessary information as required by agency policy.

Even if BLM does have permanent documentation files for the LWC inventory units impacted by this lease sale, those must be made available to the public in order to inform our comments and facilitate our engagement in this NEPA process. IM 2013-106 directs that BLM field offices should make finalized and signed wilderness characteristics inventory findings available to the public **before the inventory data is used to inform decisions.** The IM specifies this should occur "prior to, and no later than, the publication of the draft NEPA analysis associated with the action." It is unacceptable for BLM to reference updated LWC inventory information in an EA without having that information publicly posted,

and especially egregious that BLM is unable to produce that information to the public upon request during the public comment period.

Other BLM state and field offices routinely ensure relevant LWC inventory information is available to the public during public comment periods in NEPA processes. In fact, BLM Colorado has adopted state policy to ensure this is the case. To certify compliance with IM 2013-106 and other relevant agency policy, IM CO-2016-023 directs:

> *Making Inventory Information Available to the Public*
> All BLM Field Offices should make finalized and signed wilderness characteristics inventory findings available to the public as soon as practicable *after* their completion and *before* the inventory data is used to inform decisions. This should occur no later than the publication of any draft NEPA analysis associated with an action. These forms should be made available on each Field Office's own webpage, with a dedicated link specifically for lands with wilderness characteristics so that it is easy for the public to locate. Hard copies of all documentation should also be kept in the Field Office.
>
> At a minimum, the following items should be displayed on BLM's webpage for **every** lands with wilderness characteristics unit that was inventoried:
> - Forms 1 and 2 in Appendix B of BLM Manual 6310
> - A map of each inventoried area, clearly depicting the general location of the area, the boundaries of the area, and any routes that have been cherry-stemmed out of the unit
> - Documentation of any updates to the inventory for the unit (including maps)

IM CO-2016-023, Attachment 1-4. Clearly BLM recognizes that providing inventory information to the public is critical to comply with agency guidance and facilitate public engagement in NEPA processes. We appreciate that the Ely District was responsive to our requests for LWC inventory information, but our inability to acquire this information during the public comment period severely hampered our efforts to produce substantive comments on wilderness resources and casts doubt that BLM has the inventory information it is required to maintain under FLPMA and BLM Manual 6310.

We note that without accurate inventory information, BLM would be violating NEPA's requirement to analyze accurate baseline information. NEPA requires BLM to analyze baseline conditions when undertaking environmental analysis. 40 C.F.R. § 1502.15 requires agencies to "describe the environment of the areas to be affected or created by the alternatives under consideration." In *Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that "without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." As established above, lands with wilderness characteristics are one of the resources of the public lands that must be inventoried under FLPMA. Therefore, BLM must have accurate LWC inventory information available to establish baseline conditions required for NEPA analysis. BLM claims in the EA that it has accurate LWC inventory to establish baseline conditions, but again that information has not been provided to the public.

c. We are submitting new wilderness inventory information that BLM must consider in this NEPA process.

We are including with these comments citizens' lands with wilderness characteristics inventories for the following units:

- Portuguese Mountain/South Pancakes: Overlaps with proposed lease parcels 48, 49, 50, 52, 53, 64, and 67
- South Mail Summit: Overlaps with proposed lease parcels 348, 352, 353, and 356

These citizen inventories meet the minimum standards for review of new information set forth in BLM Manual 6310:

i. a map of sufficient detail to determine specific boundaries of the area in question;

ii. a detailed narrative that describes the wilderness characteristics of the area and documents how that information substantially differs from the information in the BLM inventory of the area's wilderness characteristics; and

iii. photographic documentation.

BLM Manual 6310 at .06(B)(1)(b). When BLM receives information that meets these minimum standards, the agency is directed to review the information "as soon as practicable," "make the findings available to the public," and "retain a record of the evaluation and the findings as evidence of the BLM's consideration." *Id.* at .06(B)(2). As stated above, IM 2013-106 directs that BLM field offices should make finalized and signed wilderness characteristics inventory findings available to the public before the inventory data is used to inform decisions. Therefore, BLM must respond to our citizen inventory information prior to offering parcels for lease that overlap with our citizen inventory areas.

BLM must consider our LWC inventories in order to comply with the "hard look" requirement of NEPA. *See* 42 U.S.C. § 4332(2)(C). Numerous courts have applied the hard look mandate to overturn agency decisions that ignored substantive, relevant wilderness information provided by the public, including citizen-submitted wilderness inventories. *See, e.g., Or. Natural Desert Ass'n v. Rasmussen,* 451 F. Supp. 2d 1202, 1211-13 (D. Ore. 2006) (holding that BLM violated the hard-look requirement of NEPA when it dismissed a citizen-submitted inventory "[w]ith a broad brush"); *SUWA v. Norton,* 457 Supp. 2d 1253 1263-65 (D. Utah 2006) ("...Utah BLM ignored significant new information...information provided by the Southern Utah Wilderness Alliance...presented a textbook example of significant new information about the affected environment (the wilderness attributes and characteristics...)").

d. BLM must defer leasing in lands with wilderness characteristics until management decisions are made for those areas.

The EA indicates that BLM has conducted extensive lands with wilderness characteristics inventory work in the Ely District since completion of the 2008 Ely RMP:

> In 2011, the Ely District Office BLM began updating the lands with wilderness characteristics (LWC) inventory on a project-by-project basis until there is a land use plan revision. The project area has received an inventory update. Of the 208 proposed oil and gas lease parcels, 71 parcels

> overlap 15 inventory units which were found to possess wilderness characteristics (see Table 3.9).

EA, p. 58. The EA goes on to state that in total, oil and gas lease parcels proposed for this sale overlap with 63,188 acres of lands with wilderness characteristics that have been inventoried and identified as LWC by BLM. These areas have not been considered for protective management in a land use plan in accordance with BLM Manual 6320, as the agency identified them since the Ely RMP was last revised. Therefore, BLM must defer leasing these areas until the agency has had an opportunity to make management decisions for those lands through a public planning process consistent with BLM Manual 6320.

BLM's Land Use Planning Handbook 1601-1, § VII (E) specifically states that it may defer decisions in a planning area even when the existing plan allows the action if the choice of alternatives in an RMP revision may be impacted. The 10th Circuit Court of Appeals confirmed this discretion in *New Mexico v. BLM*, 565 F.3d. 683 at 698 (10th Cir. 2009) when it stated, "[i]f the agency wishes to allow oil and gas leasing in the plan area it must undertake additional analysis...but it retains the option of ceasing such proceedings entirely". BLM regularly exercises this discretion to defer parcels in inventoried lands with wilderness characteristics for which the agency has not yet made management decisions.

For example, the White River Field Office deferred leasing on over 250,000 acres of inventoried wilderness characteristics while it was completing an oil and gas RMP amendment:

> The WRFO is currently working on a Resource Management Plan Amendment and associated EIS that will address the potential impacts of significant increases in oil and gas development within the field office over the next 20 years... Because the leasing of lands with wilderness characteristics is likely to result in indirect, adverse impacts to this resource value, it is recommended that until a decision is made on the management of these units, the areas where lands with wilderness characteristics units overlap with nominated parcels be deferred, as under Alternative 3, with the exception being the tracts from Alternative 2 listed in the above . . . which can be leased, and mitigated if needed, to result in not impacting lands with wilderness characteristics.[2]

As another example, the Grand Junction Field Office is deferring lease parcels from its December 2017 lease sale in areas that BLM recently inventoried and found to have wilderness characteristics. BLM states: "Portions of the following parcels were deferred due to having lands with wilderness characteristics that require further evaluation." Preliminary DNA, p. 1. The Grand Junction Field Office completed its RMP revision in 2015 but has still determined that it is inappropriate to lease areas that have been inventoried and found to possess wilderness characteristics since the RMP was completed in order to consider management options for those wilderness resources.

BLM Nevada must similarly defer leasing in inventoried lands with wilderness characteristics that have not been considered for protective management in a land use plan. This approach is consistent with agency policy and authority, and is critical to preserving BLM's ability to make management decisions for those newly-inventoried wilderness resources through a public planning process.

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[2] BLM, EA for the White River Field Office June 2014 Competitive Oil & Gas Lease Sale at 77, *available at* http://www.blm.gov/pgdata/etc/medialib/blm/co/programs/oil_and_gas/Lease_Sale/2014/may_2013.Par.34116.File.dat/WR_doiblmco11020130099ea_3.12.14_EA_MLP%20format_Master.pdf.

e. Offering the lease parcels in the Ely District that possess wilderness characteristics would violate NEPA.

BLM has not evaluated a reasonable range of alternatives for protecting the wilderness characteristics of parcels in the Ely District. As discussed above, the EA offers only two alternatives: a No Action alternative, and a Proposed Action alternative. An obvious reasonable alternative which should have been analyzed is one in which parcels overlapping areas with wilderness characteristics are deferred, and other parcels are leased. Under NEPA, BLM must consider a broad range of alternatives to mitigate environmental impacts. 40 C.F.R. § 1502.14(a); *see also Theodore Roosevelt Conservation P'ship v. Salazar*, 661 F.3d 66, 72-73 (D.C. Cir. 2011) (requiring BLM to consider a reasonable range of alternatives for oil and gas activity); IM 2010-117 (requiring consideration of "alternatives to the proposed action that may address unresolved resource conflicts."). Additionally, under current policies, BLM must fully "consider" wilderness characteristics during planning actions and evaluate a range of measures to protect wilderness characteristics during the leasing process, including measures not contained in existing RMPs. *See* IM 2011-154 at Att. 2; IM 2010-117 at III. E., F.

A "rule of reason" is used to determine if an adequate range of alternatives have been considered; this rule is governed by two guideposts: (1) the agency's statutory mandates; and (2) the objectives for the project. *New Mexico ex rel. Richardson*, 565 F.3d at 708. Here, there is no doubt that BLM's legal mandates under FLPMA and NEPA require it to fully consider the protection of wilderness values, and under IM 2010-117, the agency must treat the "protection of other important resources and values" as an equally important objective to leasing.

Yet, in the EA, BLM has failed to evaluate an adequate range of alternatives that would protect the wilderness characteristics of parcels in the Ely District from the impacts of the lease sale. Such alternatives include offering the parcels with NSO stipulations or deferring the parcels. Because the BLM has not considered those alternatives, or additional alternatives to protect the wilderness characteristics of the proposed parcels, it must defer the parcels from the lease sale.

IV. Impacts to Nearby Protected Lands

BLM is proposing to offer oil and gas parcels for lease in the December 2017 sale that are very close to Great Basin National Park and adjacent to Basin and Range National Monument, as well as in the vicinity of the Pony Express National Historic Trail. While BLM may offer oil and gas leases in the vicinity of these protected lands, the agency is required by NEPA and other applicable laws and regulations to analyze impacts to National Park Service and National Conservation Lands units from the proposed action. Yet the EA fails to include any analysis whatsoever of potential impacts to Great Basin National Park or Basin and Range National Monument, and only minimally mentions potential visual impacts to the Pony Express National Historic Trail.

As detailed below, the EA lacks the necessary hard look at the impacts of leasing the proposed parcels on these protected lands, including their protected resources, recreation and tourism. 40 C.F.R. § 1502.16. At a minimum, BLM must consider the following direct, indirect and cumulative impacts in the EA, all of which have a critical impact on the visitation experience:

- Viewshed analyses;
- Air quality analysis that includes the impact to the visitor experience from dust caused by transportation and traffic from heavy vehicles and pollution caused by drilling activities;
- Impacts to dark skies; and

- Noise impacts from operations.

In spite of the close proximity of the proposed parcels to Great Basin National Park, the EA does not even mention the possibility of impacts on the park's viewshed, night skies and soundscape, let alone take the required "hard look." The only potential reference to impacts on the Park are found in one sentence in which BLM states that "the southern parcels of Group F may be in visual range of the Osceola Ditch." EA, p. 48. It is unclear if BLM is referring to the interpretive trail within Great Basin National Park with this statement. Regardless, the EA contains no further analysis of what these visual impacts may entail or consider potential mitigation measures. Similarly, the only reference to impacts on the Pony Express Trail are summarized as, "The Pony Express NSHT does not cross, but is within visual range of several Group H parcels." *Ibid.* There is no discussion at all of potential impacts on Basin and Range National Monument, despite the fact that proposed parcels are adjacent to and contiguous with the Monument, as well as other parcels in the near vicinity.

BLM routinely examines these types of impacts when oil and gas leases are proposed near national parks and national monuments. As examples, we are attaching to these comments portions of two oil and gas lease sale EAs in which BLM conducted thorough impact analysis on national parks, in New Mexico and Colorado. BLM Nevada must revise the EA for the December 2017 oil and gas lease sale to include similarly thorough impact analysis for Great Basin National Park, Basin and Range National Monument and the Pony Express National Historic Trail.

a. BLM did not take a "hard look" at the impacts of its proposed action on National Park Service and National Conservation Lands units.

The EA violates NEPA because it fails to explore important and potentially significant environmental impacts of the proposed action on nearby protected lands. Of particular concern is Basin and Range National Monument, which is bordered by proposed lease parcels. However, BLM must also analyze potential impacts to Great Basin National Park and the Pony Express National Historic Trail, and demonstrate that those National Park Service units would not be impacted if that is the case. The purpose of an EA is to determine whether environmental impacts are significant enough to warrant preparation of an EIS. 40 C.F.R. § 1508.9. The EA must provide "sufficient evidence and analysis" to justify this determination, in part by taking a "hard look" at potential direct, indirect and cumulative impacts of the proposed action. *See Wilderness Soc. v. Forest Serv.*, 850 F. Supp. 2d 1144, 1155 (D. Idaho 2012). Specifically, the EA ignores direct and indirect impacts of noise and light pollution and visual intrusions on Monument and Park visitation and revenue. These are all important and potentially significant impacts the EA should have explored.

b. The preliminary EA fails to explore light, noise and visual impacts on Great Basin National Park, Basin and Range National Monument and the Pony Express National Historic Trail.

To comply with NEPA, BLM must both identify and explore relevant environmental impacts. *See, e.g., Grand Canyon Trust v. FAA*, 290 F.3d 339, 346 (D.C. Cir. 2002) ("First, the agency has accurately identified the relevant environmental concern. Second, once the agency has identified the problem it must have taken a 'hard look' at the problem in preparing the EA."). In evaluating the environmental impacts of proposed leasing near national parks and monuments, BLM routinely analyzes the impacts of noise and light pollution. *See, e.g.*, New Mexico BLM, January 2014 Competitive Oil and Gas Lease Sale

EA at pp. 4-7.[3] Courts have readily overturned agency actions that ignore these types of effects. *See, e.g., Grand Canyon Trust v. FAA*, 290 F.3d 339 (D.C. Cir. 2002) (EA failed to adequately analyze noise impacts from agency action on Zion National Park).

The EA fails to identify potential impacts on these protected lands from oil and gas leasing, and also fails to explore the likely impacts of the leasing decision to night skies, soundscape, scenic values and other resources of these protected areas. In particular, Great Basin National Park is a designated International Dark Sky Park and maintains an astronomy program that is highly valued by Park visitors. Yet the EA does not even identify this potential conflict, let alone attempt to measure, quantify or objectively define what these effects might look like, or evaluate whether they are "significant," thus warranting preparation of an EIS. *See Klamath-Siskiyou v. BLM*, 387 F.3d 989, 994 (9th Cir. 2004) ("...[g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.")(citations omitted). Nor does it identify and evaluate the extent to which lease stipulations may successfully mitigate visual, noise and sound impacts to the Park.

To satisfy NEPA, BLM must actually explore how development on the proposed leases would affect the soundscape, night skies and visual setting within these protected lands. This means answering key questions about impacts to Park and Monument resources, such as:

- How would development on the proposed leases affect night sky visibility from key and popular observation points, such as the location of the Great Basin National Park astronomy program?
- Would truck traffic to the parcels be audible from popular visitor locations?
- What would be the air quality impacts on the protected areas from nearby development?
- How will development affect ambient sound levels in the Park, Monument, and on the Trail?

These are all important questions BLM must answer to inform its leasing decision and evaluate of the significance of the impact of the leasing decision. To satisfy the hard look requirement, BLM must do more than recognize that certain types of impacts might exist – it must actually explore those impacts. For example, in 2009, a federal district court enjoined BLM from issuing oil and gas leases in the vicinity of Dinosaur National Monument that were proposed in Utah BLM's December 2008 oil and gas lease sale. The court ruled that prior to selling the leases, BLM had failed to "engage[] in quantitative ozone dispersion modeling" and thus was "unable to assess the concentration of pollution in the air. . . ." The court also found that BLM had failed to adequately evaluate and address potential impacts on cultural, scenic, scientific and other resources under the National Historic Preservation Act and Federal Land Policy and Management Act. *S. Utah Wilderness Alliance v. Allred*, No. 08-2187, 2009 U.S. Dist. LEXIS 30664, at *7-8 (D.D.C. Jan. 17, 2009).

c. The EA fails to explore cumulative impacts of the proposed action on tourism and visitation to Great Basin National Park and Basin and Range National Monument.

The EA also ignores important cumulative social and economic impacts that leasing and development can have on visitation and tourism to these protected lands. To be sure, social and economic impacts, such as impacts to visitation, tourism and revenue to a National Monument, are environmental effects for purposes of NEPA analysis. *See* 40 CFR § 1508.8 ("Effects include ecological, aesthetic, historic,

[3] Available at https://www.nm.blm.gov/oilGas/leasing/leaseSales/2014/january2014/Jan%202014%20OG%20Lease%20Sale%20EA_Public%20Review_Farmington_Change%201.pdf.

cultural, economic, social, or health, whether direct, indirect, or cumulative."). NEPA's implementing regulations define a cumulative impact as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." 40 CFR § 1508.7. "A proper consideration of the cumulative impact of a project requires some quantified or detailed information...[g]eneral statements about possible effects and some risk do not constitute a hard look absent justification regarding why more definitive information could not be provided." *See Klamath-Siskiyou v. BLM,* 387 F.3d 989, 994 (9th Cir. 2004) (citations omitted).

V. Greater Sage-Grouse

a. BLM failed to prioritize leasing outside of greater sage-grouse habitat.

BLM has not prioritized leasing outside of greater sage-grouse (GRSG) habitat, as required by the Great Basin Region GRSG ROD (2015), Nevada and Northeastern California GRSG ARMPA (2015) and Instruction Memorandum 2016-143. Under the Great Basin Region GRSG ROD, BLM must:

> Prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs to further limit future surface disturbance and to encourage new development in areas that would not conflict with GRSG. This objective is intended to guide development to lower conflict areas and, as such, protect important habitat and reduce the time and cost associated with oil and gas leasing development. It would do this by avoiding sensitive areas, reducing the complexity of environmental review and analysis of potential impacts on sensitive species, and decreasing the need for compensatory mitigation.

ROD, p. 1-23. The Nevada and Northeastern California GRSG ARMPA echoes this directive, including the following objective:

> Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMAs and GHMAs. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG.

See p. 2-28, Further, in IM 2016-143, BLM has issued guidance elaborating on the way agency staff are to comply with the requirement to prioritize leasing and development outside of sage-grouse habitat:

> Lands within PHMA: Authorized Officers will use the prioritization sequence to meet conservation objectives and provisions in the GRSG land use Plans by encouraging development, first outside of GHMA/PHMA, and then in GHMA, before development in PHMA, while taking into consideration the factors and existing prioritizations (as detailed below) when processing permits for well locations.

Importantly, the IM also sets out "factors to consider" (i.e., parcel-specific factors) after applying this prioritization sequence:

- Parcels immediately adjacent or proximate to existing oil and gas leases and development operations or other land use development should be more appropriate for consideration before

parcels that are not near existing operations. This is the most important factor to consider, as the objective is to minimize disturbance footprints and preserve the integrity of habitat for conservation.

- Parcels that are within existing Federal oil and gas units should be more appropriate for consideration than parcels not within existing Federal oil and gas units.

- Parcels in areas with higher potential for development (for example, considering the oil and gas potential maps developed by the BLM for the GRSG Plans) are more appropriate for consideration than parcels with lower potential for development. The Authorized Officer may conclude that an area has "higher potential" based on all pertinent information, and is not limited to the Reasonable Foreseeable Development (RFD) potential maps from Plans analysis.

- Parcels in areas of lower-value sage-grouse habitat or further away from important life-history habitat features (for example, distance from any active sage-grouse leks) are more appropriate for consideration than parcels in higher-value habitat or closer to important life-history habitat features (i.e. lek, nesting, winter range areas). At the time the leasing priority is determined, when leasing within GHMA or PHMA is considered, BLM should consider, first, areas determined to be non-sage-grouse habitat and then consider areas of lower value habitat.

- Parcels within areas having completed field-development Environmental Impact Statements or Master Leasing Plans that allow for adequate site-specific mitigation and are in conformance with the objectives and provisions in the GRSG Plans may be more appropriate for consideration than parcels that have not been evaluated by the BLM in this manner.

- Parcels within areas where law or regulation indicates that offering the lands for leasing is in the government's interest (such as in instances where there is drainage of Federal minerals, 43 CFR § 3162.2-2, or trespass drilling on unleased lands) will generally be considered more appropriate for leasing, but lease terms will include all appropriate conservation objectives and provisions from the GRSG Plans.

- As appropriate, use the BLM's Surface Disturbance Analysis and Reclamation Tracking Tool (SDARTT) to check EOI parcels in PHMA, to ensure that existing surface disturbance does not exceed the disturbance and density caps and that development of valid existing rights (Solid Minerals, ROW) for approved-but-not-yet-constructed surface disturbing activities would not exceed the caps.

These prioritization requirements apply to this sale. The following proposed parcels overlap PHMA: NV-17-12-003, 004, 005, 006, 007, 008, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 0254, 025, 026, 027, 028, 029, 030, 031, 032, 033, 035, 036, 038, 039, 205, 207, 213, 214, 215, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 237, 238, 292, 293, 294, 295. The Nevada and Northeastern California GRSG ARMPA governs decision-making in the Ely District and applies to oil and gas leasing decisions within priority habitat. And FLPMA requires that lease sale decisions comply with their governing land use plans. *See* FLPMA § 302(a), 43 USC § 1732(a) ("The Secretary shall manage public lands...in accordance with land use plans developed by him under section 1712 of this title..."); *see also* 43 C.F.R. § 1610.5-3(a) (May 5, 1983; 48 Fed. Reg. 20,368) ("All future resource management authorizations and actions...shall conform to the approved plan."). Yet, the EA does not make any

reference to, let alone apply, the prioritization sequence or parcel-specific factors that are supposed to guide leasing in GRSG habitat in the Ely District.

b. BLM failed to ensure a net conservation gain for greater sage-grouse.

BLM also failed to undertake management actions necessary to ensure a net conservation gain to GRSG. Under the Nevada and Northeastern California GRSG ARMPA:

> In PHMA, in undertaking BLM management actions, and, consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation...

See Nevada and Northeastern California GRSG ARMPA at p. 2-8, 2-9 (regarding GHMA). Like the prioritization requirement, the net conservation gain requirement is a binding obligation of a governing land use plan. *See* 43 U.S.C. §1732(a) ("The Secretary shall manage public lands...in accordance with the land use plans developed by him...").

Leasing confers valid existing rights and constitutes an irretrievable and irreversible commitment of resources. *New Mexico ex rel. Richardson v. BLM*, 565 F.3d 683, 717-18 (10th Cir. 2009). For purposes of the net conservation gain requirement, leasing "authoriz[es] third-party action[] that result[s] in habitat loss and degradation." *See* Nevada and Northeastern California GRSG ARMPA at p. 2-8, 2-9. Therefore, the Nevada and Northeastern California GRSG ARMPA requires that BLM take action now, at the leasing stage, to achieve a net conservation gain to GRSG. In the final EA, BLM must contemplate and take these actions.

VI. Development Potential

There is very low potential for oil and gas development in the Ely District. According to the EA, the Ely District has only approved 13 APDs since the Ely RMP was finalized in 2008, and only 10 wells were actually drilled. EA, p. 69. Copeland et al. mapped oil and gas development potential across the West in 2009, and the results confirm historic trends and demonstrate that the Ely District would anticipate little or no development:

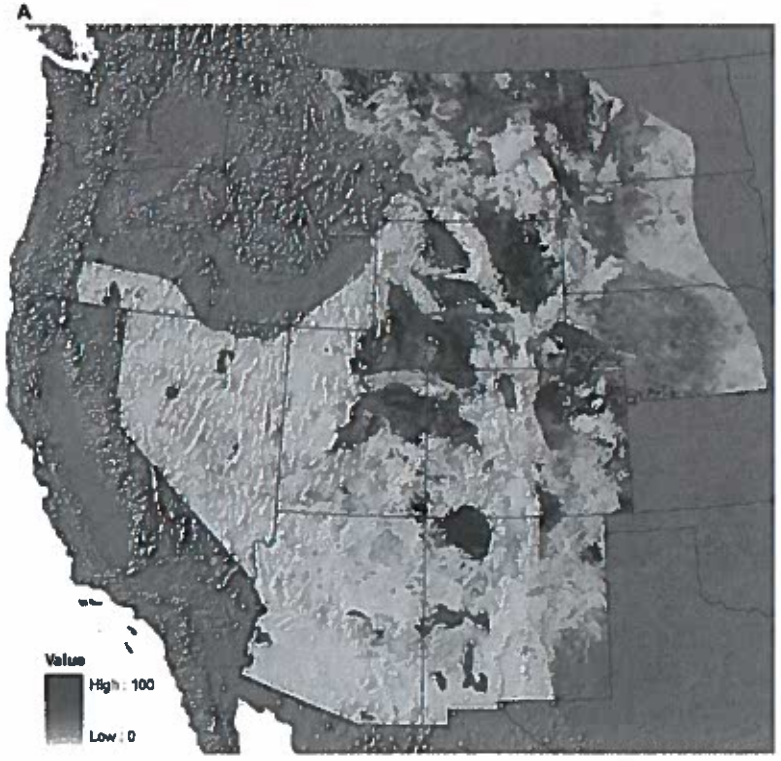

Figure A. Oil and Gas Development Potential in the US Intermountain West.[4]

Due to the low development potential in the Ely District, any leases issued would be speculative in nature. Speculative leasing ties up public lands, creates unnecessary public conflict, and generates minimal revenue. One of the most egregious problems associated with speculative leasing is that existing oil and gas leases tend to preclude protective management of other resources, thus restricting BLM's ability to manage for other multiple uses.

For example, in the Colorado River Valley Resource Management Plan, BLM decided not to manage lands for the protection of wilderness characteristics in the Grand Hogback lands with wilderness characteristics unit based on the presence of oil and gas leases, even though the leases had never experienced any development:

> The Grand Hogback citizens' wilderness proposal unit contains 11,360 acres of BLM lands. All of the proposed area meets the overall criteria for wilderness character...There are six active oil and gas leases within the unit, totaling approximately 2,240 acres. None of these leases shows any active drilling or has previously drilled wells. The ability to manage for wilderness characteristics in the unit would be difficult. If the current acres in the area continue to be leased and experience any development, protecting the unit's wilderness characteristics would be infeasible. . . .

Colorado River Valley PRMP (2015) at p. 3-135.

[4] Journal article available online at: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0007400.

The Colorado River Valley RMP was finalized in July 2015, and within a year 5 of the 6 leases in the Grand Hogback lands with wilderness characteristics unit had expired. Yet, BLM has made a 20-year decision to not protect the wilderness qualities of this area.

Similarly, recently Wyoming BLM declined to manage the Rough Gulch area in the Cody Field Office for protection of wilderness characteristics because "64% of the area [was] covered] by oil and gas leases," even though the leases had never been drilled. Rough Gulch borders a WSA—the McCullough Peaks WSA—and has "very low" potential for oil and gas development. Like most federal leases, especially those in areas with low development potential, the leases in Rough Gulch were never drilled, and they expired within a year of the RMP being finalized. Yet, because the leases were in effect when Wyoming BLM made its land use planning decision for the area, BLM is not currently managing Rough Gulch for protection of wilderness characteristics.

Leases in low potential areas generate minimal revenue but can carry significant cost. In terms of revenue, they are most likely to be sold at or near the minimum bid of $2/acre, and they are least likely to actually produce oil or gas and generate royalties.[5] *See* Bighorn Basin PRMP (2015) at p. 73 ("Leasing may be based on speculation, with leases within high risk prospects usually purchased for the lowest prices."); White River PRMP (1996) at p. A-7 ("At any given time, most of the acreage that is available for oil and gas leasing in the WRRA is under lease. . . . Most of the area is leased for speculative purposes and consequently only a small percentage of leases will ever be developed."). In terms of costs, leasing in low potential areas requires processing lease nominations, preparing environmental reviews, and resolving protests and resource use conflicts.

On the other hand, limiting leasing in low potential areas conflicts the least with industry objectives and can confer significant public benefits. Low potential lands are the "low-hanging fruit" by which the BLM can fulfill other objectives of its multiple-use mission, such as managing for wilderness, wildlife and recreation. Yet, as described above, speculative leases on low potential lands can prevent the BLM from otherwise managing lands for alternative purposes and fulfilling its multiple-use mandate. *See also* White River DRMPA (2012) at p. 4-377 (". . . authorized oil and gas uses would likely preclude other incompatible land use authorizations"). In addition, limiting exploration and development on low potential lands necessarily conflicts the least with industry objectives. As discussed in the Bighorn Basin PRMP (2015):

> [A]lternatives D and F place additional stipulations on oil and gas-related surface disturbances in the Absaroka Front, Fifteenmile, and Big Horn Front MLP analysis areas for the protection of big game, geologic features, and LRP soils. As a result, alternatives D and F could have additional adverse impacts on oil and gas development in these MLP analysis areas. . . . However, because of the generally low to very low potential for oil and gas development and redundancies with other restrictions on mineral leasing from the management of other program areas, management specific to the MLP is less likely to adversely affect oil and gas development in these areas.

[5] Center for Western Priorities, "A Fair Share" ("Oil Companies Can Obtain an Acre of Public Land for Less than the Price of a Big Mac. The minimum bid required to obtain public lands at oil and gas auctions stands at $2.00 per acre, an amount that has not been increased in decades. In 2014, oil companies obtained nearly 100,000 acres in Western states for only $2.00 per acre. . . .Oil companies are sitting on nearly 22 million acres of American lands without producing oil and gas from them. It only costs $1.50 per year to keep public lands idle, which provides little incentive to generate oil and gas or avoid land speculation.").

Bighorn Basin PRMP at p. 4-87; *see also* White River DRMP (1994) at p. 4-21 ("Prohibiting development in Class I areas would not affect oil and gas production because oil and gas potential in these areas is low.").

In summary, leasing lands with low potential for oil and gas development – speculative leasing – carries significant costs by precluding BLM from managing for other multiple uses, creating unnecessary public conflict, and wasting agency resources while generating minimal revenue.

This problem is prevalent in Nevada, where BLM is currently spending an excessive amount of time and resources evaluating oil and gas leases that industry is either not bidding on or will likely never develop. For example, over the past three years, BLM Nevada has held three oil and gas leases sales where industry did not bid upon a single parcel. Over that same time period, industry purchased less than 9% of acres offered for lease, and BLM collected only $0.26 in bonus bids per acre offered:

SALE[6]	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Mar. 2015	24 / 25,882	13 / 15,244	$30,496
June 2015	124 / 256,875	0	0
Dec. 2015	3 / 3,641	0	0
Mar. 2016	39 / 50,416	0	0
June 2016	42 / 74,661	4 / 3,765	$24,740
Mar. 2017	67 / 115,970	20 / 35,502	$74,780
June 2017	106 / 195,614	3 / 5,760	$29,440
Sept. 2017	3 / 3,680	3 /3,680	$33,120
Total	408 / 726,739	43 / 63,951 (9% of acres offered)	$192,576 ($0.26/acre offered)

Contrast these figures with those for other states, where BLM is normally offers significantly fewer acres for lease, but collects significantly higher bonus binds – often hundreds of dollars per acre offered. *See* Attachment 3. This underscores just how inefficient and wasteful the oil and gas program in Nevada has become. And with only 2 percent of leased acres in Nevada actually producing oil or gas, BLM would be well-served by deferring leasing in the Ely District and preparing a programmatic EIS that considers alternative approaches for managing the oil and gas program in Nevada.[7]

VII. BLM's Multiple Use and Sustained Yield Mandate

Prioritizing oil and gas leasing above other multiple uses violates FLPMA. BLM proposes to offer all nominated oil and gas lease parcels for sale in the December 2017 lease sale, regardless of other values present on these public lands that could be harmed by oil and gas development such as wilderness-quality lands and greater sage-grouse habitat. This proposed action indicates a preference for oil and gas leasing and development over other multiple uses, in contravention of FLPMA, which establishes a multiple use and sustained yield mandate for the agency.

[6] All data obtained from BLM (https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/regional-lease-sales/nevada) and EnergyNet (https://www.energynet.com/govt_listing.pl).

[7] https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/oil-and-gas-statistics

BLM is subject to a multiple-use mandate, which prohibits the Department of the Interior (DOI) from managing public lands primarily for energy development or in a manner that unduly or unnecessarily degrades other uses. See 43 U.S.C. § 1732(a). Instead, the multiple-use mandate directs DOI to achieve "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations." 43 U.S.C. § 1702(c). Further, as co-equal, principal uses of public lands, outdoor recreation, fish and wildlife, grazing, and rights-of-way must receive the same consideration as energy development. 43 U.S.C. § 1702(l).

None of the overarching legal mandates under which BLM operates – be it multiple-use or non-impairment – authorizes DOI to establish energy development as the dominant use of public lands. On our public lands, energy development is an allowable use that must be carefully balanced with other uses. Thus, any action that attempts to enshrine energy development as the dominant use of public lands is invalid on its face and inconsistent with the foundational statutes that govern the management of public lands.

Federal courts have consistently rejected efforts to affirmatively elevate energy development over other uses of public lands. In the seminal case, *N.M. ex rel. Richardson v. BLM*, the Tenth Circuit put to rest the notion that BLM can manage chiefly for energy development, declaring that "[i]t is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses." 565 F.3d 683, 710 (10th Cir. 2009); *see also S. Utah Wilderness Alliance v. Norton*, 542 U.S. 52, 58 (2004) (defining "multiple use management" as "striking a balance among the many competing uses to which land can be put"). Other federal courts have agreed. *See, e.g., Colo. Envtl. Coalition v. Salazar*, 875 F. Supp. 2d 1233, 1249 (D. Colo. 2012) (rejecting oil and gas leasing plan that failed to adequately consider other uses of public lands). Thus, any action by BLM that seeks to prioritize oil and gas leasing and development as the dominant use of public lands would violate FLPMA.

Thank you for considering these comments. Please contact us with any questions.

Sincerely,

Juli Slivka, Senior Planning & Policy Specialist
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Attachments

1. Lands with Wilderness Characteristics Inventories
   a. Portuguese Mountain
   b. South Mail Summit

2. Example EA analyses of impacts to protected lands from oil and gas leasing
   a. EA for the Jan. 2014 Competitive Oil & Gas Lease Sale (BLM Farmington Field Office), pp. 3-6, 27-30
   b. BLM Final EA for the June 8, 2017 Competitive Oil & Gas Lease Sale (BLM Colorado State Office), p. 202-213

3. BLM State Office Lease Sale Figures for the Past 3 Years (2015-2017)

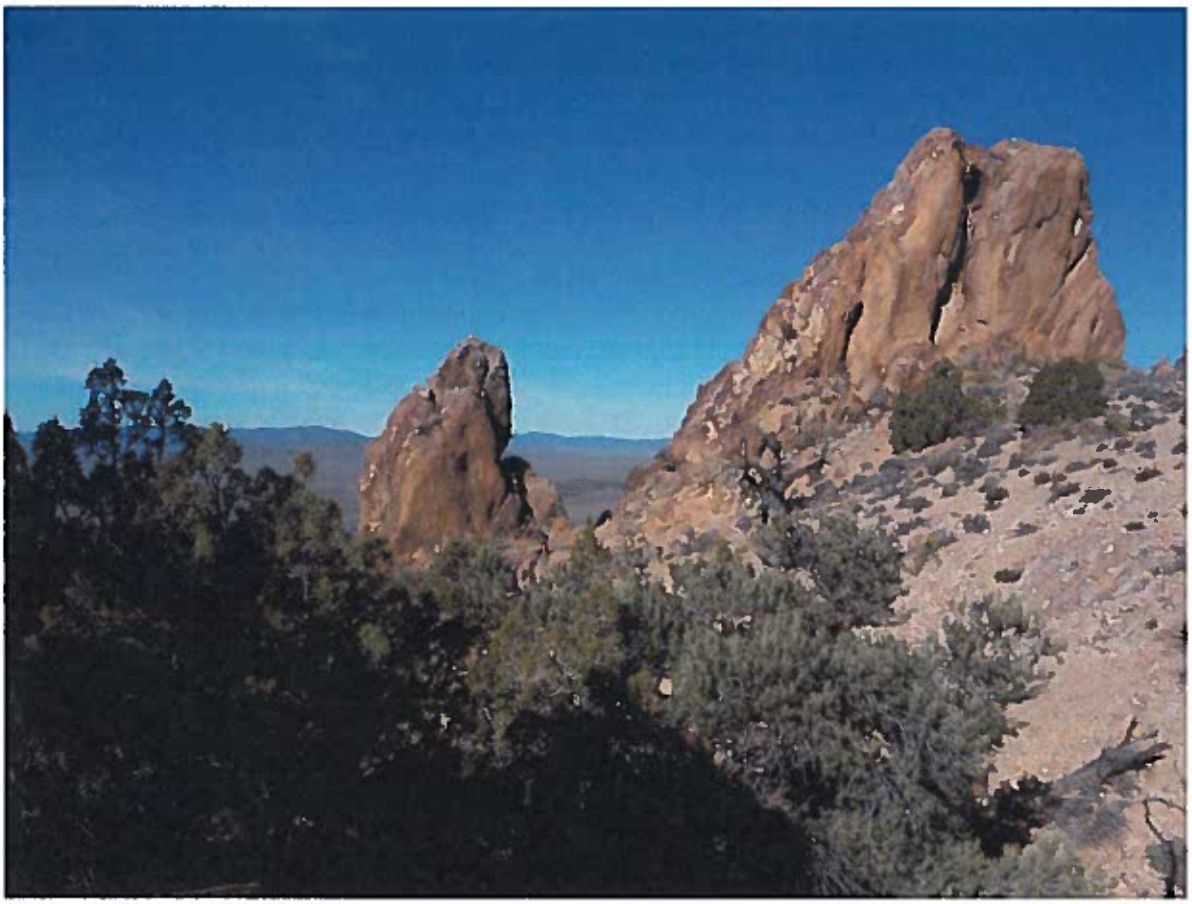
EXHIBIT 2

WILDERNESS CHARACTERISTICS INVENTORY
INVENTORY AREA EVALUATION (FORM 2)

Current Conditions: Presence or Absence of Wilderness Characteristics
Area Unique Identifier: **Portuguese Mountain/South Pancakes (NV-040-155)**
Acreage: **95,300**

NOTE: This area straddles the Battle Mountain District and Ely District boundary.

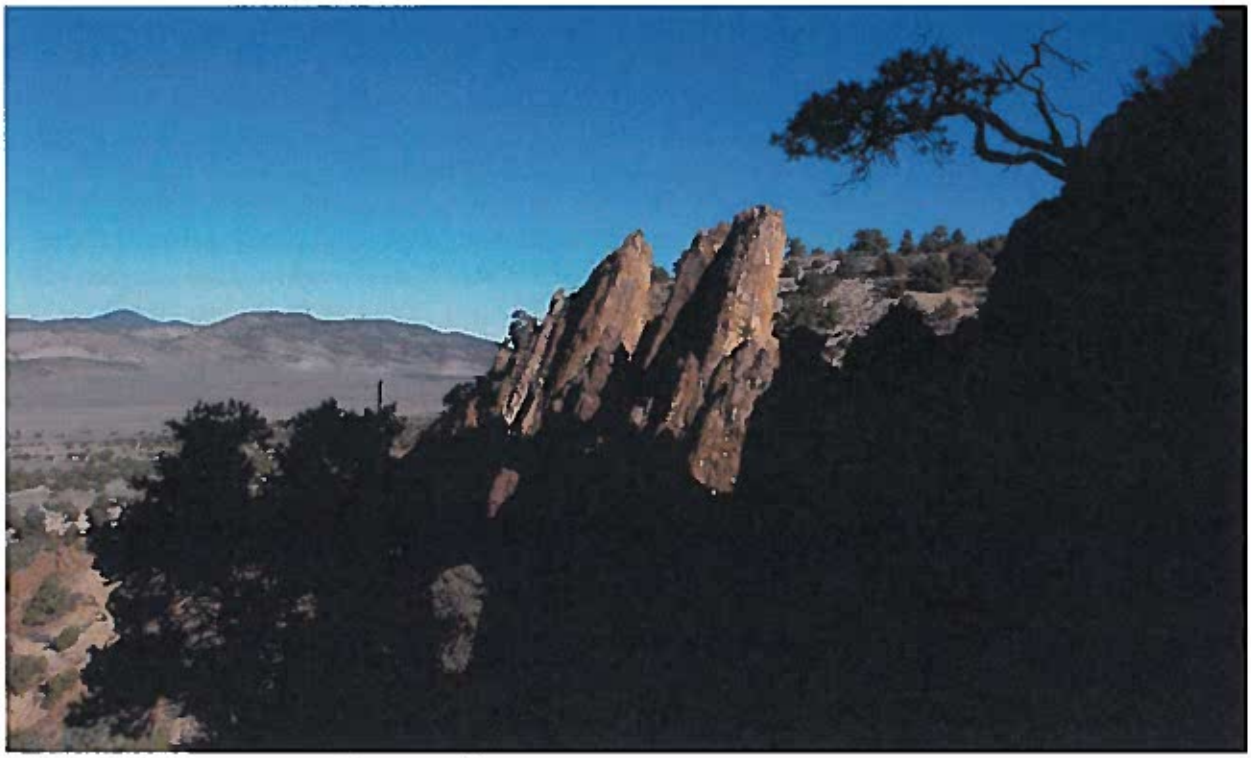
(If the inventory area consists of subunits, list the acreage of each and evaluate each separately). In completing steps (1)-(5), use additional space as necessary.



(1) Is the area of sufficient size? (If the area meets one of the exceptions to the size criterion, check "Yes" and describe the exception in the space provided below),

YES
Description (describe the boundaries of the area--wilderness inventory roads, property lines, etc): **The southeast boundary starts at the Ike Spring Wash and continues south along the foothills, following a low use, but smooth two track. This track disappears while crossing a large wash at**

the mouth of the largest unnamed canyon, but can be found again on the washes southern side. That track is highly overgrown and sees little use. The boundary continues south on these tracks to Wood Canyon, where a more major route heads west into the mountains. This route has been bladed, but is in very rough condition due to recent flooding. It also serves as a boundary for the adjacent North Pancake III unit, and for the North Pancake II unit further west. At the time of visitation this route was nearly impassable, and with more flooding and no maintenance it is highly likely that some of these units could be combined. This would increase the overall naturalness and wilderness appeal of this region. The road up Wood Canyon continues to a large flat, where another route ties in from the south, marking the boundary for North Pancake II LWC. From here the boundary continues to be very washed out and nearly impassable, climbing through a canyon and over a small pass. The route then descends towards Big Sand Springs Valley, heading north near the Red Hills. This begins the western boundary, which is defined by a well-maintained graded vehicle route until entering the Ely BLM district. Once crossing districts, the route becomes much fainter but is still an effective boundary. This minor road continues north toward Portuguese Mountain, defining the western boundary. Almost due west of Portugese Mountain, this minor boundary route rejoins the better developed route running north up Big Sand Springs Valley. There is a substantial water development a Martilletti Spring, which supplies water through pipelines to several stock troughs on the eastern edge of Big Sand Springs Valley. The western boundary for the LWC leaves the developed route to follow one of these old pipelines up to the mouth of Martilletti Spring canyon, then step up into the canyon to exclude a section of the pipeline and the route associated with it. North of here, the boundary continues on the main route to Sand Spring. Another small embayment exists at Sand Spring, which excludes a buried water pipeline (or non-functioning ditch) and historic stock development including a corral and structure. From Sand Springs, the initial proposed boundary followed a minor two track north along the alluvial fans and sage flats. The 2015 FNW Inventory initially inventoried this route then concluded that this un-constructed, unused two-track did not meet the criteria for a road and moved the boundary out the graded road to the west of this route. This two-track way, parallel to the main graded route really serves no purpose. The western boundary continues along the main until an intersection along the northern reaches of Big Sand Springs Valley, just south of Browns Summit. From here, the north boundary crosses the range over a low pass and descends down into Duckwater Valley northern boundary begins at a small pass just south of Brown Summit. The 2015 FNW survey the entire north boundary and down the east side boundary to the McClure Spring route. The east boundary south of the McClure Spring route was not evaluated by the 2015 FNW Inventory. (For more information on the boundaries of this unit, see the GIS information and Route Analysis section of the 2015 FNW Inventory report for this unit.)



(2) Does the area appear to be natural?
YES

Note: If "No" is checked the area does not have wilderness characteristics; check "NA" for the remaining questions below.

Description (include land ownership, location, topography, vegetation, and summary of major human uses/activities):

The 2015 FNW Inventory found this until to be natural in appearance and predominately controlled by the forces of nature. All of this unit, as described, is comprised of public lands managed by the BLM. The core of Unit 155 is comprised of the highest peaks of the Pancake Range. To the west, the mountains descend into Big Sand Springs Valley, with sage flats and alluvium dominating the landscape. The LWC boundary sits along these alluvial fans, stretching across the valley and foothills for many miles. The eastern side of the LWC is similar, stretching into the Railroad Valley along its southern portions. This valley is slightly lower in elevation, and much more arid in comparison to the Big Sand Springs Valley. Humongous washes and very expansive alluvial fans drain southeast towards the valley floor, and are covered in low shrubs. In contrast to the core of the area, these valleys are wildly desolate and wide-open, offering outstanding views and increasing the variety of natural landscapes found within the unit.

The Pancake Range itself also varies dramatically throughout the LWC. In general, this is controlled by geology, and can be separated into three distinct zones: South, Middle, and North. The southern part of the unit is very bulky, and it is here the unit is widest. Volcanic rock composes the hills, with tall bluffs and cliffs punctuating the landscape. Extensive drainages carve through the mountains, creating a maze of canyons and forested hills. Many of these washes and

ravines connect to Wood Canyon, which marks the LWC's southern boundary. Another major wash also sits along the eastern side of the mountains, draining an extensive series of unnamed canyons into the Railroad Valley. Little Ike Spring Wash drains to the Railroad Valley as well, and marks the northern extent of this zone with a broad flat landscape. The western slope of the mountains are similar in this area, but much less extensive. Several lesser drainages finger out into Big Sand Springs Valley, and the terrain is rugged. As with much of the LWC, old growth forest densely covers the hills in a magnificent display, lending a green hue to the landscape. On the western side of the mountains the transition northward is much less notable, with forested hills quickly gaining elevation towards Portuguese Mountain. The geology rapidly changes from volcanic formations to tough limestone, which has led to the increased elevations. This central block of mountains towers above the surrounding landscape, and marks the middle of the unit. This is also the highest portion of the Pancake Range, with Portuguese Mountain sitting at an elevation of 9240 feet. Huge juniper trees can be found throughout this part of the LWC, their gnarled forms lending evidence to the tough desert weather that is common here. Large cliffs and a prominent ridge head north from Portuguese Mountain, losing elevation after a few miles. Another break in the range exists here, with several extensive drainages and very low hills composing the landscape. Mountains pick up again north of Portuguese and Martilletti Springs, beginning the northern zone of this LWC. This portion of the area is characterized by one long ridge running north-south, rising to an apex within the west/central part of the unit. This ridge is composed of layered sedimentary rock and volcanic ash flows, which have been tilted on end in a dramatic geologic display. The ridge itself is quite long and spectacular, featuring many interesting rock towers and several eroded formations which resemble the Boulder Flatirons. The range is mostly dominated by this one crest, but to the north several other ridges parallel the main spine. Deep canyons are also present along the northern extents of the LWC, especially near McClure Spring. Tall cliffs rise above the canyon bottoms, capping the ridges in a splendid geologic exhibit. The entire LWC is a fantastic example of wild Nevada lands, and an expansively varied natural area.

In the core of the unit the Pinion/juniper forest is very dense at some elevations and within canyon bottoms near water, providing plenty of shade and seclusion. Mahogany and other trees can also be found at higher elevations throughout the area, especially along the tall flanks of Portuguese mountain. These trees share space with service berry, Mormon tea, sagebrush, rabbit brush, and other vegetation which is prevalent throughout the range. While many of these plants are common at all elevations, this LWC offers a very diverse range of environments and ecosystems. Within the low valleys the landscape is stark and barren, carpeted by saltbush and dead-looking plants. In contrast, some of the wetter canyon bottoms are choked with willows, wild rose, massive rabbit brush and sage, and brush. These pockets of lush vegetation are scattered throughout the area. The enormous expanse of this unit provides a habitat for many wild animals which call this range home. These include most creatures that are common to the great basin, varying from small insects to large predators. Rodents such as mice, jackrabbits, ground squirrels, and chipmunks are most common. Snakes and lizards are also abundant here, and some amphibians may exist in the unit's wetter spots. Antelope and mule deer are also widespread across these lands, and the unit's rocky terrain provides an excellent habitat for big horn sheep. Predators such as mountain lions and bobcats lurk the hills as well, slinking through the dense forest and stalking potential prey. In the evenings and at night, coyotes can frequently be heard yipping and howling, giving evidence to their prevalence within the desert. Finally,

many birds call these mountains home. These run the gamut from small songbirds, sage birds, raptors, falcons, and eagles. These birds find the dense forest and rocky terrain of the area perfect for nests and roosts. The natural landscape that exists here is a habitat for many desert beasts, and provides a hideout for all such creatures. This is an incredible unit of natural land, diverse in both flora and scenic beauty.

Historically, this unit has seen human uses in the form of mining exploration activity in the north and several spring and water developments within some of the canyons. Over the intervening decades, the mining exploration activity found nothing of value and was abandoned and several of the springs have dried-up, leaving the associated water developments non-functioning and of little value. Many routes and tracks associated with these disturbances within the unit are disappearing simply due to a lack of use or maintenance, and it is obvious that nature controls this landscape. Recent flash-flooding resulting from climate-change intensified storms have wreaked much damage on these routes, rendering them virtually impassible. Dense forest and other vegetation is also encroaching and reclaiming such disturbances, and many of these are now substantially unnoticeable and have no effect on the apparent naturalness of the unit. One of these old routes (associate with Route 20 in the route analysis with this report) may have crossed the unit north of Portuguese Peak. While may have been the rationale for dividing the unit into natural sub-units in the 1980 BLM wilderness inventory report, that route today is impassible and has been substantially reclaimed by nature. Today there is no logical reason to divide this unit into natural sub-units. It would take sharp vision or a trained eye to even recognize many of these antique ways, and the unit is not adversely affected by these former intrusions. In addition, the massive size and thick vegetation of this LWC help to hide such traces, and few of them are visible from a distance. Most of these historic disturbances are simply so faint and unused that they are not worth recognition. With a few more years many of these old disturbances will simply fade into the desert.

South of Little Ike Spring Wash, several faint two-tracks enter the unit but do not travel far. Another route originates just south of a massive unnamed wash, but quickly disappears into the wash. The beginning of this route is bladed, and maps show it potentially penetrating deep into the area and connecting with other routes, but this track is no longer apparent. Natural forces have done their part at erasing all signs of it beyond the origin. More faint tracks exist further south, but none of these are overly notable. An unevaluated route originating in Little Ike Spring wash, may have historically connected through to the south boundary (which may have justified the 1980 division of the unit into natural subunits). The most likely connection would have been through the FNW 2015 Inventoried Route 38. Today the southern end of this route appears to be substantially washed out and revegetated and there is no indication that this route current connect through the unit to the Little Ike Springs route. This route is shown on several maps, but only annotated as a faint jeep trail. The 2015 FNW Inventory found that many routes marked on maps and in GIS route layers are erroneous and do not exist on the ground or have been abandoned and become substantially revegetated. These route should be confirmed by field checking before they are used as a basis for making management decisions. While there are many routes and tracks which penetrate this LWC, most of them are faint and very minor. No large developments or intrusions exist within the unit's core, leaving a broad and expansive natural swath of land to characterize this region. (For more information on these routes, see the Route Analysis forms include with this 2015 FNW Inventory report.)

(3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?
YES

Description (describe the area's outstanding opportunities for solitude): **These mountains are located in one of the most remote parts of Nevada, and offer outstanding opportunities for solitude. Few visitors make the trip to this remote region, and those who do rarely take the time to explore the lands on foot. Throughout this unit the complex and rugged terrain within the unit enhance opportunities for solitude and dense forest and convoluted canyons provide almost unlimited opportunities to find secludes spots. This is an immense desert landscape full of hidden hideouts and desolate views. Even at night there are no signs of other humans, especially along the Big Sand Valley. With sweeping views for many miles in all directions, it is remarkable that no lights are visible within this valley. Within the unit itself, one could wander for days with no signs of other humans. This is the kind of place that an outlaw would use to hideout in, because they would never be found. Thick forest covers the hillsides, offering countless shaded campsites and concealed destinations. The unit is also very quiet, with little sound except for the wind in the trees or occasional birdsong. The outside world feels very distant, and one can truly relax with no**

fear of interruption. It is hard to imagine a place within the continental United States that is more removed from society and the outside world, further from major towns or cities, or located within a more desolate region. Outstanding opportunities for solitude are absolutely phenomenal here.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?
YES

Description (describe the area's outstanding opportunities for primitive and unconfined recreation):
This unit offers outstanding opportunities for primitive and unconfined recreation. Nearly every inch of this unit is accessible to the visitor with the determination and skills to traverse trackless wilderness. Countless destinations exist for hiking and picnicking, offering many secluded spots amongst the forest and hills. Canyons and ridges are also plentiful, and there are a number of interesting hiking routes one could take across the area, ranging from an hour or two, to extending backpacking trips and multiday excursions. Portuguese Mountain offers a special challenge of its own, standing as the highest peak in the Pancake Range, and providing recreation for peak baggers and mountain climbers alike. Its craggy limestone ridges and cliffs present many intriguing routes and plenty of opportunities for exploration. Rock climbing and scrambling opportunities exist on these steep walls as well, and are scattered elsewhere throughout the unit. In addition to climbing potential on the slopes of Portuguese Mountain, several dramatic towers and spires are present along the northern end of the unit. These spires offer excellent recreation opportunities in the form of rock climbing. Large cliffs and bluffs elsewhere in the LWC could also provide some fun and challenging routes. Bouldering can also be found within the unit, with several notable areas sitting near the Railroad Valley. Large washes have cleaned the rock surfaces, and allow for flat and relatively sandy landings. Summiting Portuguese Mountain in the winter would offer an outstanding and challenging winter recreational opportunity. The varied geology of the unit combined with the mining history provides opportunities for geological sightseeing and rockhounding. Burro packing provides a visitor with a remarkable opportunities to explore a truly wild area and to make a living-history connection with the challenges faced by early Nevada explorers and prospectors. Other recreation opportunities include horseback riding and horse packing, hunting, wildlife viewing, photography, rock hounding, tree climbing, route finding, slacklining, meditation, yoga, rock throwing, rock stacking, geocaching, and camping. This unit is within one of the darkest regions of the United States. The opportunity for star gazing, and night sky photography are truly outstanding.

The 2012 FNW inventory found that the South Pancakes Unit offers outstanding opportunities for primitive and unconfined recreation in hiking, camping, exploration, route finding, rock climbing and bouldering, and in winter recreation. The 2012 FNW inventory found also found that this unit offers a wide diversity of primitive and unconfined type of recreational activities.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?
YES

Description:
This unit contains an immense old-growth forest full of gnarled junipers and enormous pinion pines. The mountains do not appear to have been affected by mining impacts or clear cutting, and are an incredible example of a pristine Nevada forest. This area also has historic and prehistoric values. Several old ruins exist within the area or along its margins, giving evidence to past habitation and lending clues into a hard lifestyle. In addition, the northeastern corner of the unit has long been inhabited by members of the Duckwater Tribe. This area has a deep prehistoric human occupation (as indicated by lithic scatters) and significance for contemporary native people. Within the northern extents of the LWC, geologic layers have been strongly up thrust in a fantastic display. These tilted beds contain many interesting geologic features, including preserved streambed ripples and other stratigraphic remnants. These features are rare and very evident here, which provides an interesting window into the geological history of the region. In addition, the proximity of this parcel to its neighboring LWCs provides a large and more substantial natural landscape. In conjunction with each other, this is a massive and unique undisturbed piece of the Great Basin.

Friends of Nevada Wilderness (FNW)
Citizen-Submitted Wilderness Characteristics Inventory Information

CITIZEN NAME: **Portuguese Mountain/South Pancakes**
BLM UNIT NAME: **South Pancakes** BLM UNIT NUMBER: **NV-040-155**

Narrative documentation of how the Citizen-Submitted information substantially differs from the information in the BLM inventory of the area's wilderness characteristics (as per BLM Manual 6310; .06; B; 1; b; ii.)

The 2015 FNW Inventory looked at an area that included most of Unit 194. The most current information from the BLM that Friends of Nevada Wilderness (FNW) could locate about the wilderness characteristics for this unit was found in the BLM 1980 Proposed Wilderness study Areas (Intensive Wilderness Inventory). This BLM information document is summarized below.

SUMMARY OF BLM 1980 PROPOSED WILDERNESS STUDY AREAS (Intensive Wilderness Inventory)
UNIT NUMBER: NV-040-155 **UNIT NAME:** South Pancakes

AREA DESCRIPTION: The western third of the unit is in the central portion of the Pancake Range with the remainder of the unit adjacent to the Duckwater Indian Reservation. Vegetation ranges from sagebrush and bushes to pinyon/juniper on the higher elevations.

CHARACTERISTICS INVENTORIED:
1. Size: The unit contains 140,400 acres of public land.
2. Naturalness: A 59,700-acre portion of the unit containing unreviewed ways, corrals, troughs, and stock tanks, is in an unnatural condition. The remaining 80,700 acres are in a substantially natural condition and have been divided into five natural portions (NV-040-155 of 47,000 acres, NV-040-155C of 6,100 acres, NV-040-155D of 7,100 acres, NV-040-155E of 14,800 acres, and NV-040-155F of 5,000 acres).
3. Outstanding Opportunities for:
- **A. Solitude:** Topographic screening, ranging from good to poor, and only fair vegetative screening result in less than outstanding opportunities for solitude in all subunits.
- **B. A Primitive and Unconfined Type of Recreation:** Some diversity recreation activities is available in the subunits, but quality and diversity of opportunities are less than outstanding in all subunits.

4. Supplemental Values: Historical and archaeological values exist in the area.

ORIGINAL RECOMMENDATION:
Zero acres are recommended for Wilderness Study Area status. 140,400 acres should be dropped from further wilderness consideration.

SUMMARY OF PUBLIC COMMENTS: BLM received 10 specific comments on this unit. Five noted presence of wilderness characteristics, one noted other resource values, and the rest cited roads, intrusions, or lack of outstanding opportunities. One stated the unit does not meet the wilderness criteria. A few noted supplemental values. Also received were 2,326 general comments stating the unit meets the wilderness criteria.

Friends of Nevada Wilderness (FNW)
Citizen-Submitted Wilderness Characteristics Inventory Information

FINAL DECISION: Zero acres are designated as a Wilderness Study Area. 140,400 acres are dropped from further wilderness consideration.

RATIONALE FOR DECISION: Even though comments were received both supporting and opposing WSA designation, the evidence available to the Bureau indicates the area does not possess the necessary criteria for WSA designation.

FNW FINDINGS for NV-060-(194)

CHARACTERISTICS INVENTORIED:
1. Size: The BLM 1980 Proposed Wilderness Study Areas (Intensive Wilderness Inventory) documented Unit 155 as being 140,400 acres and defined 80,700 acres as being natural. These natural acres were then subdivided into five natural areas. The rationale for subdividing the natural portion of the unit is not explained in the 1980 BLM report. The 2015 FNW Inventory could not find any reason for subdividing the natural portion of this unit. The 2015 FNW Inventory describes the contiguous roadless portion of this unit as 95,300 acres. (See Appendix C: Route Analysis and GIS data for more information on routes and boundaries.)

2. Naturalness: The BLM 1980 Proposed Wilderness study Areas (Intensive Wilderness Inventory) stated that 80,700 acres of Unit 155 *"are in a substantially in a natural condition."* The 2015 FNW Inventory found that many routes marked on maps and in GIS route layers are erroneous and do not exist on the ground. These route should be confirmed by field checking before they are used as a basis for making management decisions. The 2015 FNW Inventory found all **95,300** acres of this unit, as described, appear to be effected primarily by natural processes. (See Wilderness Characteristics Form 2 provided with the FNW Inventory of this unit for more information about the naturalness of this unit.)

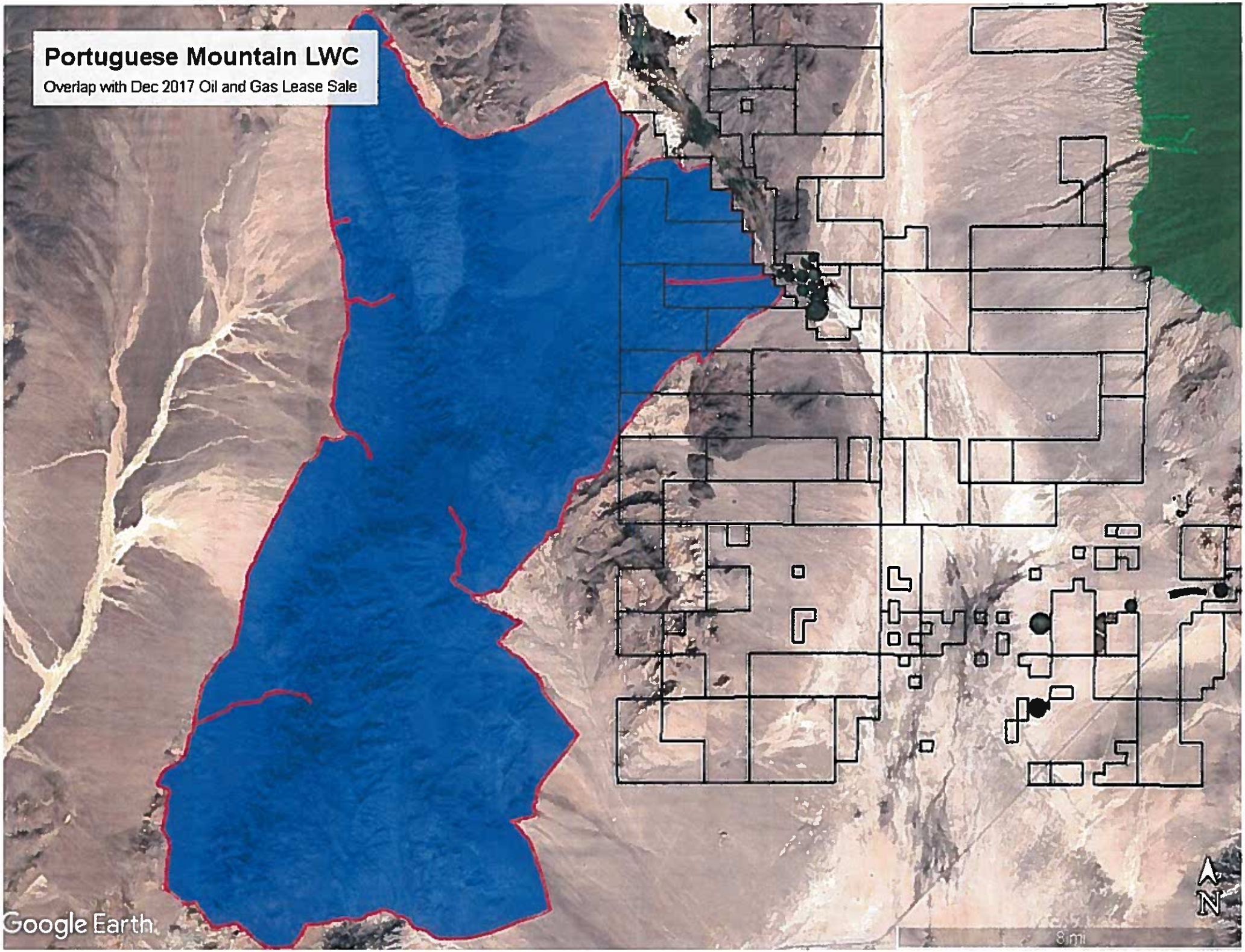
3. Outstanding Opportunities for:
A. Solitude: The BLM 1980 Proposed Wilderness Study Areas (Intensive Wilderness Inventory) stated, for Unit 155, that *"[t]opographic screening, ranging from good to poor, and only fair vegetative screening result in less than outstanding opportunities for solitude."* This reasoning for the not finding opportunities for solitude within this **95,300** unit by the 1980 BLM Inventory demonstrates and unfamiliarity with the area and BLM wilderness characteristic guidelines, and mis-represents the character of the unit. The 2015 FNW inventory of this unit found multiple outstanding opportunities for solitude and secluded spots throughout the unit. The basis for this FNW finding of solitude is include within the Wilderness Characteristics Form 2 provided with the FNW Inventory of this unit. The FNW inventory based these findings for solitude on the current BLM Manual 6310 guidelines. Two of the more significant changes in these current guidelines since the initial decisions were made are: *"[o]utstanding opportunities for solitude can be found in areas lacking vegetation or topographic screening;"* and *"[a]n area can have wilderness characteristics even though every acre within the area may not meet all the criteria. The boundary should be determined largely on the basis of wilderness inventory roads and naturalness rather than being constricted on the basis of opportunity for solitude or primitive and unconfined recreation."* (See Wilderness Characteristics Form 2 provided with the FNW Inventory of this unit for more information about the solitude of this unit.)

B. Primitive and Unconfined Type of Recreation: The BLM 1980 Proposed Wilderness Study Areas

(Intensive Wilderness Inventory) stated, for Unit 155, that *"[s]ome diversity recreation activities is available in the subunits, but quality and diversity of opportunities are less than outstanding."* The 2015 FNW Inventory strongly disagrees with this finding and found the 1980 statement is a misrepresentation of the recreational resources and is biased against primitive and unconfined type of recreation. The 2015 FNW inventory of this unit found both outstanding opportunities in several primitive and unconfined types of recreation and a multiple recreational opportunities within the unit. The basis for these findings of primitive and unconfined type of recreation is include within the Wilderness Characteristics Form 2 provided with the FNW Inventory of this unit. The FNW inventory based these findings for primitive and unconfined type of recreation on the current BLM Manual 6310 guidelines. One of the more significant changes in these current guidelines since the initial decisions were made is: *"[a]n area can have wilderness characteristics even though every acre within the area may not meet all the criteria."* (See Wilderness Characteristics Form 2 provided with the FNW Inventory of this unit for more information about the primitive and unconfined recreational opportunities of this unit.)

FNW is providing the BLM with New Information about Unit NV-040-155:

The wilderness characteristics generated from the FNW 2015 Inventory for the unit substantially differ from the information in the BLM 1980 Proposed Wilderness Study Areas (Intensive Wilderness Inventory) on the area's wilderness characteristics. Under current 6310 guidelines, FNW recommends that this unit should be re-considered for LWC status.


Portuguese Mountain LWC
Overlap with Dec 2017 Oil and Gas Lease Sale
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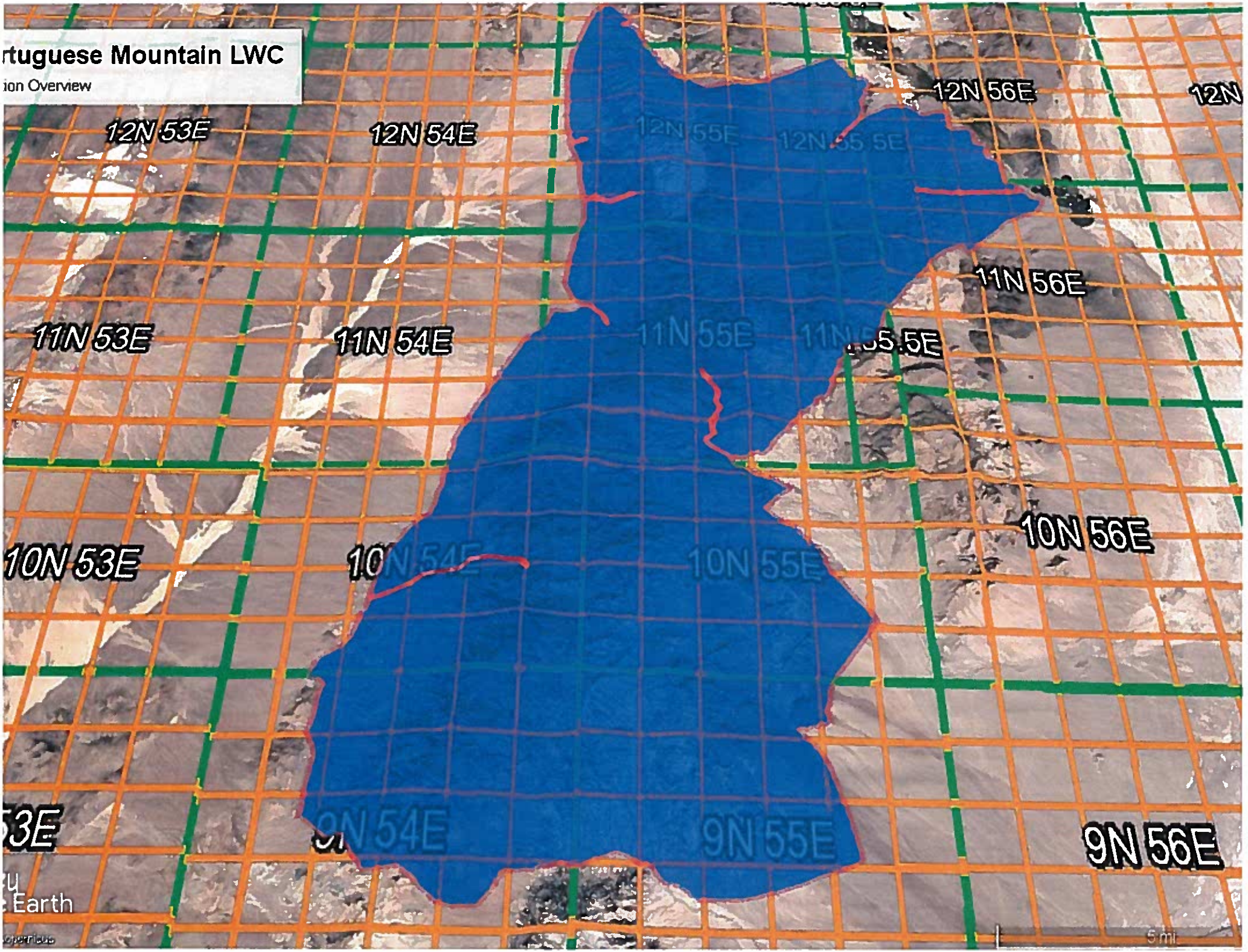
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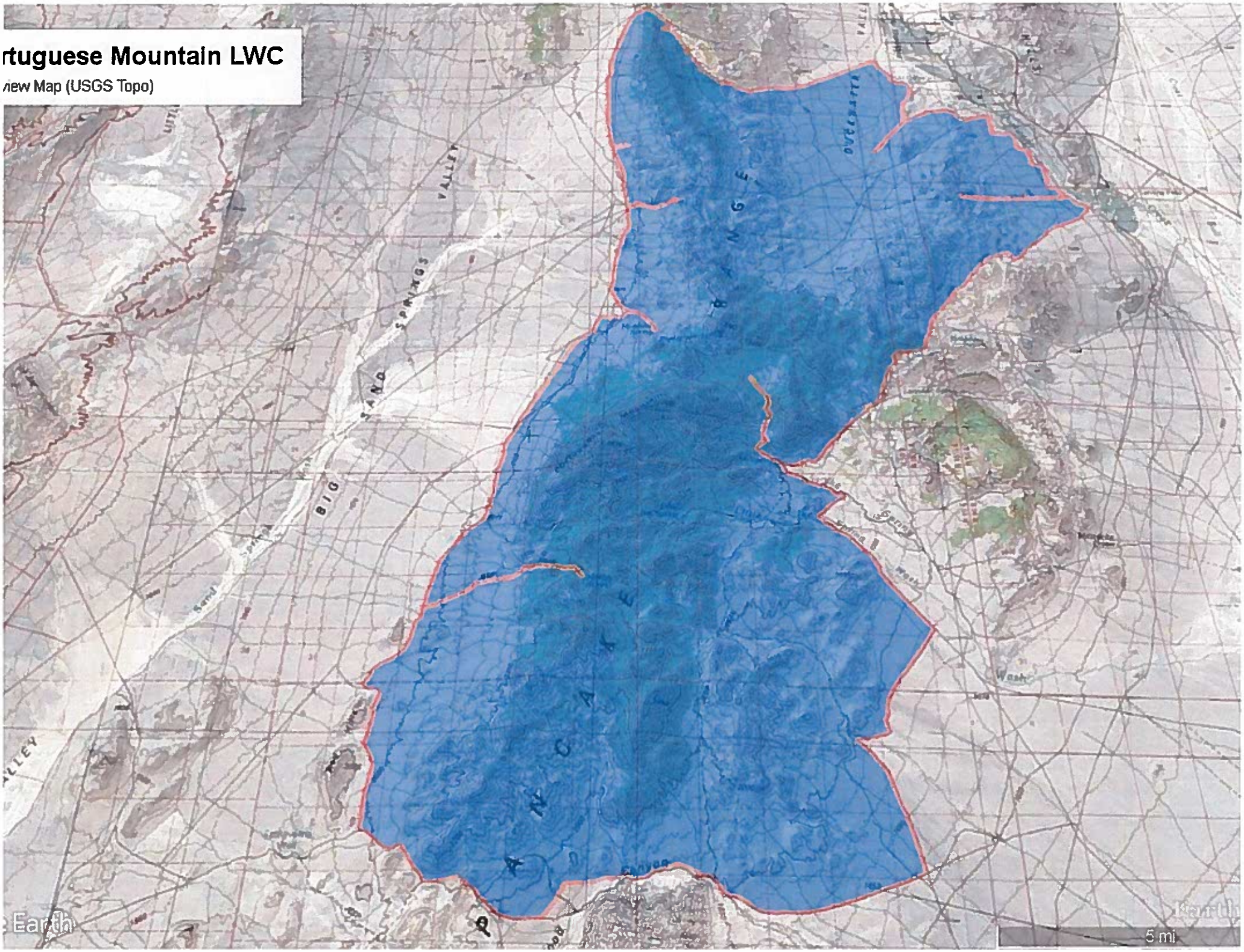

rtuguese Mountain LWC
iew Map (USGS Topo)
BIG SAND SPRINGS VALLEY
Sand Spring Wash
Earth
5 mi

EXHIBIT 3

FORM 2

Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: **NV-040-155-1** Acreage: **144,771**
(If the inventory area consists of subunits, list the acreage of each and evaluate each separately).

In completing steps (1)-(5), use additional space as necessary.

(1) Is the area of sufficient size? (If the area meets one of the exceptions to the size criterion, check —Yes and describe the exception in the space provided below),
☒ Yes ☐ No
Note: If No is checked the area does not have wilderness characteristics; check —NA for the remaining questions below.
Description (describe the boundaries of the area--wilderness inventory roads, property lines, etc.):
This unit encompasses the southern end of the Duckwater Valley, and a portion of the Pancake Range, including Portuguese Mountain. The northern boundary is a bladed and maintained road. The northeastern boundary is a bladed road, or the Duckwater Reservation lands (BIA), interchangeably. The eastern portion is bounded by a bladed road. The southern boundary is a road that has been maintained in the past, and receives regular use. The western boundary is a maintained road (Wood Canyon), and a BLM-maintained road.

(2) Does the area appear to be natural?
☒ Yes ☐ No ☐ N/A
Note: If No is checked the area does not have wilderness characteristics; check NA for the remaining questions below.
Description (include land ownership, location, topography, vegetation, and summary of major human uses/activities):
From the 1980 Wilderness Study Area Decisions (Nevada BLM Intensive Wilderness Inventory):

UNIT NUMBER: NV-040-155 UNIT NAME: South Pancakes

AREA DESCRIPTION: The western third of the unit is in the central portion of the Pancake Range with the remainder of the unit adjacent to the Duckwater Indian Reservation. Vegetation ranges from sagebrush and bushes to pinyon-juniper on the higher elevations.

CHARACTERISTICS INVENTORIED:

1. Size: The unit contains 140,400 acres of public land.

2. Naturalness: A 59,700-acre portion of the unit containing unreviewed ways, corrals, troughs, and stock tanks, is in an unnatural condition. The remaining 80,700 acres are in a substantially natural condition and have been divided into five natural portions (NV-040-155 of 47,000 acres, NV-040-155C of 6,100 acres, NV-040-155D of 7,100 acres, NV-040-155E of 14,800 acres, and NV-040-155F of 5,000 acres).

3. Outstanding Opportunities for:

   A. Solitude: Topographic screening, ranging from good to poor, and only fair vegetative screening result in less than outstanding opportunities for solitude in all subunits.

   B. A Primitive and Unconfined Type of Recreation: Some diversity of recreation activities is available in the subunits, but quality and diversity of opportunities are less than outstanding in all subunits.

4. Supplemental Values: Historical and archaeological values exist in the area.

ORIGINAL RECOMMENDATION:

Zero acres are recommended for Wilderness Study Area status.

140,400 acres should be dropped from further wilderness consideration.

SUMMARY OF PUBLIC COMMENTS: BLM received 10 specific comments on this unit. Five noted presence of wilderness characteristics, one noted other resource values, and the rest cited roads, intrusions, or lack of outstanding opportunities. One stated the unit does not meet the wilderness criteria. A few noted supplemental values. Also received were 2,326 general comments stating the unit meets the wilderness criteria.

FINAL DECISION:

Zero acres are designated as a Wilderness Study Area.

140,400 acres are dropped from further wilderness consideration.

RATIONALE FOR DECISION: Even though comments were received both supporting and opposing WSA designation, the evidence available to the Bureau indicates the area does not possess the necessary criteria for WSA designation.

Today's review of this unit shows that it contains a number of two-track routes (over 100 miles). In the northern third of the unit a road extends across the width of the unit, however in the central portion where it enters a wash, it is not considered a maintained road, therefore it does not bisect or divide the unit into two parts. Another road in Ike Spring Wash enters the unit from the southeastern boundary and continues into the unit where it dead ends.

Martilletti Spring pipeline to western boundary (almost three miles). Several other springs exist in the unit: Leoman, Indian, Ike, Little Ike, McClure, Martin and Sand. Many of these may be dry during this time of drought.

The various two-track routes and Jeep trails limitedly impact the area's naturalness, however the overall condition is natural.

3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?
☐ Yes ☒ No ☐ N/A
Description (describe the area's outstanding opportunities for solitude):
While there are some topographic features (Portuguese Mountain) and very limited vegetative screening to allow for fair opportunities solitude, they are considered to be less than outstanding.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?
☐ Yes ☒ No ☐ N/A
Note: If —No is checked for both 3 and 4 the area does not have wilderness characteristics; check —NA for question 5.
Description (describe the area's outstanding opportunities for primitive and unconfined recreation):
The unit does not provide for outstanding opportunities for primitive or unconfined recreation. The area does contain opportunities for hunting, hiking or horseback riding, but the quality and diversity is not outstanding.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?
☐ Yes ☐ No ☒ N/A
Description:

Summary of Analysis•
This form documents information that constitutes and inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

Area Unique Identifier: NV-040-155-1

Summary
Results of analysis:
(Note: explain the inventory findings for the entirety of the inventory unit. When an LWC has been identified that is smaller than the size of the total inventory unit, explain why certain portions of the inventory unit are not included in the LWC (e.g. the inventory found that certain parts lacked naturalness).

1. Does the area meet any of the size requirements? ☒ Yes ☐ No

2. Does the area appear to be natural? ☒ Yes ☐ No ☐ N/A

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation?
☐ Yes ☒ No ☐ N/A

4. Does the area have supplemental values? ☐ Yes ☐ No ☒ N/A

Check one:

____The area, or a portion of the area, has wilderness characteristics and is identified as Land with Wilderness Characteristics (LWC).

__X_ The area does not have wilderness characteristics.

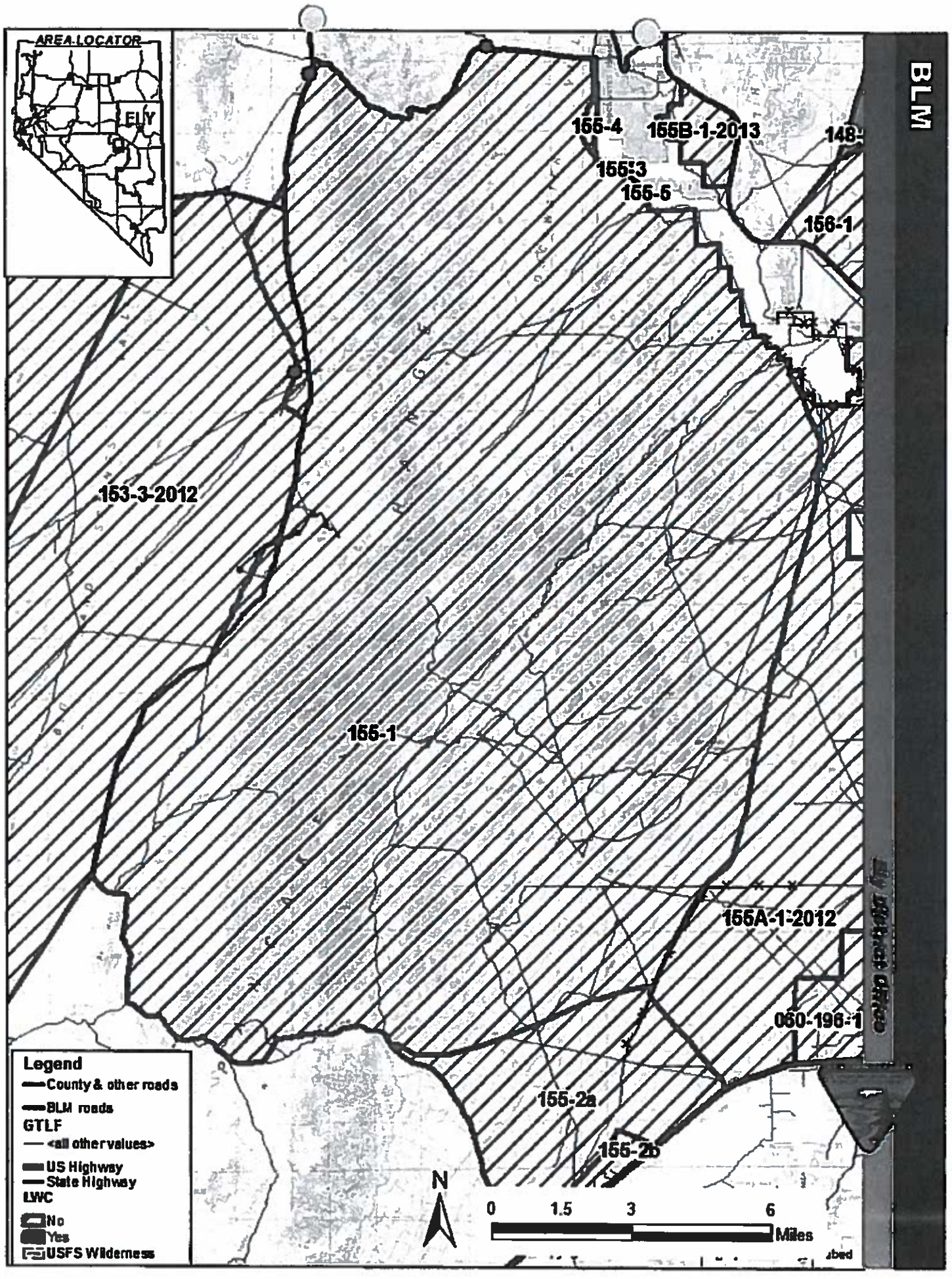
Prepared by (team members):
Emily Simpson, Wilderness Planner, 05-08-15
(Name, Title, Date)

Reviewed by (District or Field Manager):

Name: _____ **Title:** Egan Field Manager

Date: _____

• This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.


AREA LOCATOR
ELY
155-4
155B-1-2013
148-
155-3
155-5
156-1
153-3-2012
155-1
155A-1-2012
060-196-1
155-2a
155-2b
BLM
Legend
County & other roads
BLM roads
GTLF
<all other values>
US Highway
State Highway
LWC
No
Yes
USFS Wilderness
N
0
1.5
3
6
Miles

FORM 2

Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: **NV-040-155-2** Acreage: **12,294**
(If the inventory area consists of subunits, list the acreage of each and evaluate each separately).

In completing steps (1)-(5), use additional space as necessary.

(1) Is the area of sufficient size? (If the area meets one of the exceptions to the size criterion, check —Yes and describe the exception in the space provided below),
☒ Yes ☐ No
Note: If No is checked the area does not have wilderness characteristics; check —NA for the remaining questions below.
Description (describe the boundaries of the area–wilderness inventory roads, property lines, etc.):
This unit is just north of Highway 6. The western boundary is a maintained road, and a BLM-maintained road that heads toward Wood Canyon. The eastern and northern boundaries are constructed roads.

(2) Does the area appear to be natural?
☒ Yes ☐ No ☐ N/A
Note: If No is checked the area does not have wilderness characteristics; check NA for the remaining questions below.
Description (include land ownership, location, topography, vegetation, and summary of major human uses/activities):
From the 1980 Wilderness Study Area Decisions (Nevada BLM Intensive Wilderness Inventory):

UNIT NUMBER: NV-040-155 UNIT NAME: South Pancakes

AREA DESCRIPTION: The western third of the unit is in the central portion of the Pancake Range with the remainder of the unit adjacent to the Duckwater Indian Reservation. Vegetation ranges from sagebrush and bushes to pinyon-juniper on the higher elevations.

CHARACTERISTICS INVENTORIED:

1. Size: The unit contains 140,400 acres of public land.

2. Naturalness: A 59,700-acre portion of the unit containing unreviewed ways, corrals, troughs, and stock tanks, is in an unnatural condition. The remaining 80,700 acres are in a substantially natural condition and have been divided into five natural portions (NV-040-155 of 47,000 acres, NV-040-155C of 6,100 acres, NV-040-155D of 7,100 acres, NV-040-155E of 14,800 acres, and NV-040-155F of 5,000 acres).

3. Outstanding Opportunities for:

   A. Solitude: Topographic screening, ranging from good to poor, and only fair vegetative screening result in less than outstanding opportunities for solitude in all subunits.

   B. A Primitive and Unconfined Type of Recreation: Some diversity of recreation activities is available in the subunits, but quality and diversity of opportunities are less than outstanding in all subunits.

4. Supplemental Values: Historical and archaeological values exist in the area.

ORIGINAL RECOMMENDATION:

Zero acres are recommended for Wilderness Study Area status.

140,400 acres should be dropped from further wilderness consideration.

SUMMARY OF PUBLIC COMMENTS: BLM received 10 specific comments on this unit. Five noted presence of wilderness characteristics, one noted other resource values, and the rest cited roads, intrusions, or lack of outstanding opportunities. One stated the unit does not meet the wilderness criteria. A few noted supplemental values. Also received were 2,326 general comments stating the unit meets the wilderness criteria.

FINAL DECISION:

Zero acres are designated as a Wilderness Study Area.

140,400 acres are dropped from further wilderness consideration.

RATIONALE FOR DECISION: Even though comments were received both supporting and opposing WSA designation, the evidence available to the Bureau indicates the area does not possess the necessary criteria for WSA designation.

Today's review of this unit, for the 2015 Oil and Gas Lease Sale, shows that it contains a several two track routes (about 17 miles). A significant gravel pit is off Highway 6 and covers some 160 acres. Also, a road extends about a mile off the highway to a reclaimed drilling pad. This disturbances remove a portion from the unit that is not natural (155-2b).
155-2b = 761 acres – not natural
1552a = 11,533 acres – generally natural

3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?
☐ Yes ☒ No ☐ N/A
Description (describe the area's outstanding opportunities for solitude):
Across this subunit (155-2a) there are few topographic features or vegetative screening to allow for opportunities solitude. Consequently, the opportunities are considered to be less than outstanding.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?
☐ Yes ☒ No ☐ N/A
Note: If –No is checked for both 3 and 4 the area does not have wilderness characteristics; check –NA for question 5.
Description (describe the area's outstanding opportunities for primitive and unconfined recreation):
The unit does not provide for outstanding opportunities for primitive or unconfined recreation. The area does contain opportunities for hunting, hiking or horseback riding, but the quality and diversity is not outstanding.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?
☐ Yes ☐ No ☒ N/A
Description:

Summary of Analysis•
This form documents information that constitutes and inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

Area Unique Identifier: NV-040-155-2

Summary
Results of analysis:
(Note: explain the inventory findings for the entirety of the inventory unit. When an LWC has been identified that is smaller than the size of the total inventory unit, explain why certain portions of the inventory unit are not included in the LWC (e.g. the inventory found that certain parts lacked naturalness).

1. Does the area meet any of the size requirements? ☒ Yes ☐ No

2. Does the area appear to be natural? ☒ Yes ☐ No ☐ N/A

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation?
☐ Yes ☒ No ☐ N/A

4. Does the area have supplemental values? ☐ Yes ☐ No ☒ N/A

Check one:

____The area, or a portion of the area, has wilderness characteristics and is identified as Land with Wilderness Characteristics (LWC).

__X_ The area does not have wilderness characteristics.

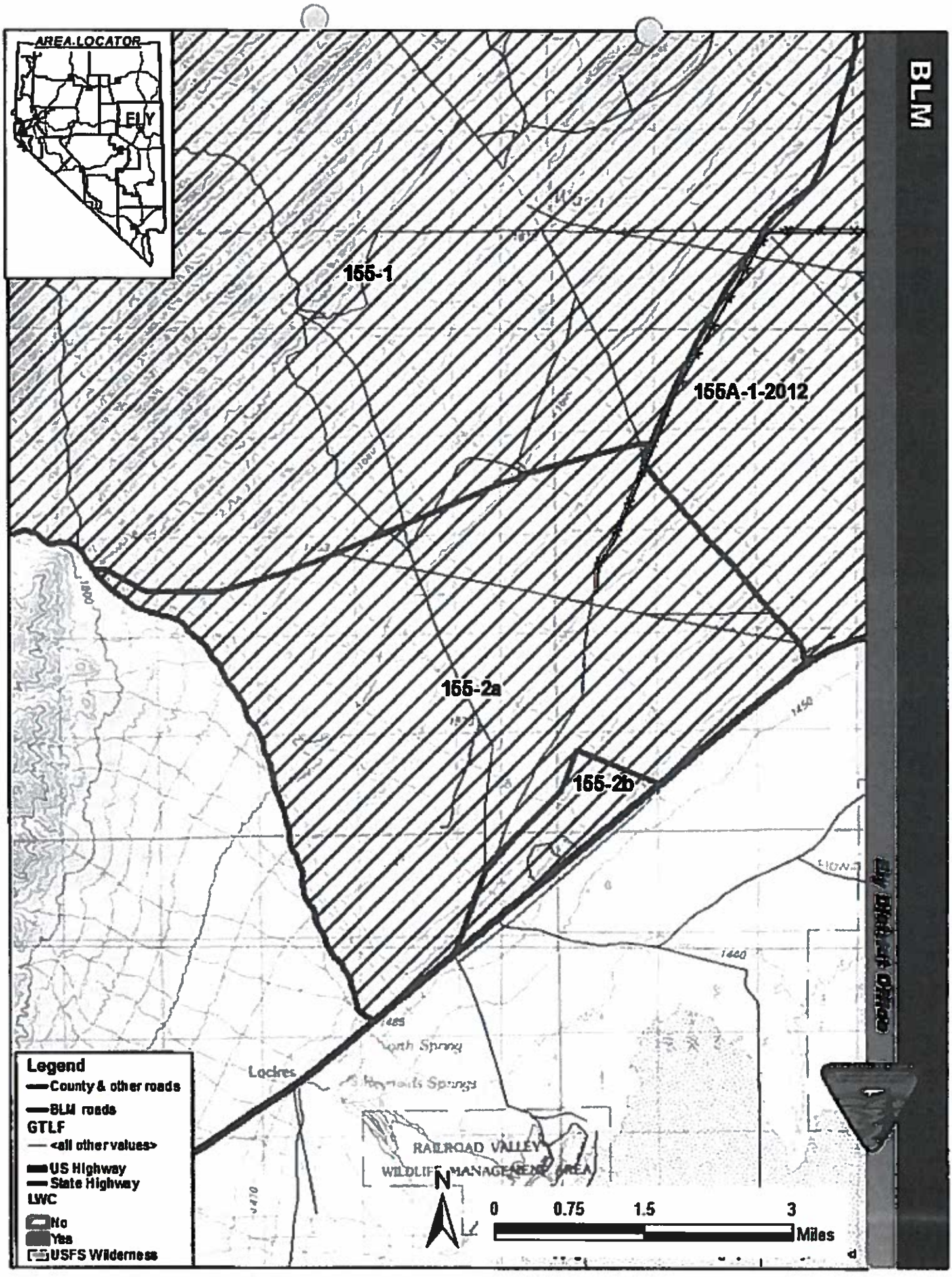
Prepared by (team members):
Emily Simpson, Wilderness Planner, 05-08-15
(Name, Title, Date)

Reviewed by (District or Field Manager):

Name: _____ **Title:** Egan Field Manager

Date: 5/15/15

•This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.


AREA LOCATOR
ELY
155-1
155A-1-2012
155-2a
155-2b
BLM
Ely District Office
Legend
County & other roads
BLM roads
GTLF
<all other values>
US Highway
State Highway
LWC
No
Yes
USFS Wilderness
Lockes
RAILROAD VALLEY
WILDLIFE MANAGEMENT AREA
N
0
0.75
1.5
3
Miles

FORM 2

Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: **NV-040-155-3** Acreage: **84**
Area Unique Identifier: **NV-040-155-4** Acreage: **220**
Area Unique Identifier: **NV-040-155-5** Acreage: **9**
(If the inventory area consists of subunits, list the acreage of each and evaluate each separately).

In completing steps (1)-(5), use additional space as necessary.
(1) Is the area of sufficient size? (If the area meets one of the exceptions to the size criterion, check —Yes and describe the exception in the space provided below),
☐ Yes ☒ No
Note: If No is checked the area does not have wilderness characteristics; check —NA for the remaining questions below.
Description (describe the boundaries of the area--wilderness inventory roads, property lines, etc.):
These units are sandwiched between a bladed road and the Duckwater Reservation lands (BIA) and private property.

(2) Does the area appear to be natural?
☐ Yes ☐ No ☒ N/A
Note: If No is checked the area does not have wilderness characteristics; check NA for the remaining questions below.
Description (include land ownership, location, topography, vegetation, and summary of major human uses/activities):

3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?
☐ Yes ☐ No ☒ N/A
Description (describe the area's outstanding opportunities for solitude):

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?
☐ Yes ☐ No ☒ N/A
Note: If —No is checked for both 3 and 4 the area does not have wilderness characteristics; check —NA for question 5.
Description (describe the area's outstanding opportunities for primitive and unconfined recreation):

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?
☐ Yes ☐ No ☒ N/A
Description:

Summary of Analysis•
This form documents information that constitutes and inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

Area Unique Identifier: NV-040-155-3, 4, 5

Summary
Results of analysis:
(Note: explain the inventory findings for the entirety of the inventory unit. When an LWC has been identified that is smaller than the size of the total inventory unit, explain why certain portions of the inventory unit are not included in the LWC (e.g. the inventory found that certain parts lacked naturalness).

1. Does the area meet any of the size requirements? ☐ Yes ☒ No

2. Does the area appear to be natural? ☐ Yes ☐ No ☒ N/A

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation?
☐ Yes ☐ No ☒ N/A

4. Does the area have supplemental values? ☐ Yes ☐ No ☒ N/A

Check one:

____The area, or a portion of the area, has wilderness characteristics and is identified as Land with Wilderness Characteristics (LWC).

__X_ The area does not have wilderness characteristics.

Prepared by (team members):
Emily Simpson, Wilderness Planner, 05-08-15
(Name, Title, Date)

Reviewed by (District or Field Manager):

Name: _____ **Title:** Egan Field Manager

Date: 5/15/15

• This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

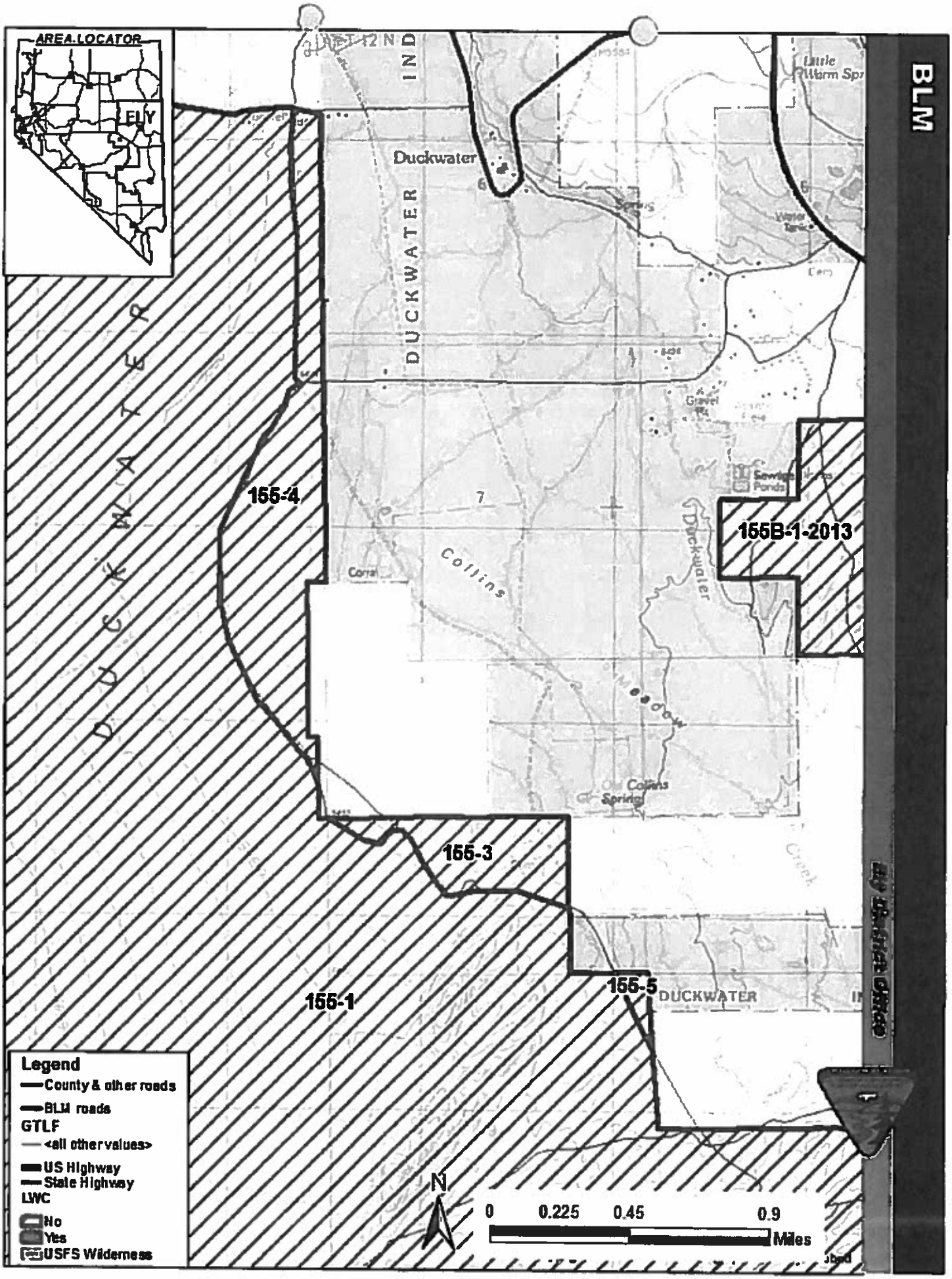

AREA LOCATOR
EUY
BLM
DUCKWATER
Duckwater
Little Warm Spr
Gravel Pit
Sewage Ponds
Corral
Collins
Duckwater
Collins Spring
DUCKWATER
155-4
155-1
155-3
155-5
155B-1-2013
Legend
County & other roads
BLM roads
GTLF
<all other values>
US Highway
State Highway
LWC
No
Yes
USFS Wilderness
N
0
0.225
0.45
0.9
Miles

EXHIBIT 4

Exhibit 4-a

Chacoans are distinguished as a sub group within the prehistoric Anasazi culture. Distinctions of subgroups within a culture rely on slight variations in life style, material culture and technology. However, slight variations are not what characterize the Chaco Anasazi. Their deviations are of considerable scope and magnitude.

The structures in Chaco Culture are the most outstanding examples of the communities that were built during the 10th through the 12th centuries. Chaco Canyon with 2800 archaeological sites including 795 prehistoric structures represents the nucleus of the Chaco culture. The structure of the prehistoric Chaco Canyon society is not exactly known. However there is evidence to indicate that it supported positions of high social status and that the economy involved the redistribution of resources among outlying communities, as well as possible pilgrimages of large numbers of people to the central canyon area.

The development of the Chaco phenomenon in the canyon began as early as AD 900 with the construction of large masonry structures. Eventually the system comprised scores of outlying communities, encompassing most of northwestern New Mexico and extending across the Colorado Plateau into Arizona, southeast Utah and southwest Colorado. After the basic network became formalized, the people enjoyed approximately 150 years of the system's success before it collapsed, resulting in the ultimate extinction of the Chacoan adaptation soon after AD 1150. The scale of effort depicted in almost all Chacoan features surpasses anything achieved by their contemporary neighbors. At the very least, Chaco is a remarkable example of early massive pueblo architecture. The scale and planning of these buildings, which is most evident in the geometry and symmetry of their plan or layout, and labor investment, is unique in the Southwest. The buildings preserved at Chaco Canyon are by far the earliest examples of the modern Pueblo Indian building tradition: terraced room blocks massed around plazas, with central kivas. This concept continues over 1,000 years later in the modern pueblos.

The Chaco road system is specifically named in the World Heritage statement of significance as a vital aspect of its universal value, Portions of the roads are within the boundaries of Chaco Culture NHP, including sections of the North Road at Pierre's Site and Halfway House. Most of the North Road and other road alignments are outside the World Heritage boundaries but those roads contribute to the outstanding universal value of The World Heritage sites.

What was derived from Chaco was the ability to organize and manage highly dispersed resources and to control the cultural values of others. Chaco was not merely an influence over a span of time; it dominated and altered the traditional social, economic, and religious practices over a large area in a marginal environment.

3.4 Recreation

3.4.1 Chaco National Historical Park

Chaco Culture National Historical Park (NHP) was originally established as a national monument in 1907 for the purpose of reserving lands containing prehistoric remains of extraordinary interest due to their number, their great size, and their value. In 1980, Congress redefined Chaco Canyon National Monument as Chaco Culture NHP, recognized a more representative area that depicts the unique cultural remains of the prehistoric Chacoans, and

provided for continued preservation, protection, research, and interpretation of the Chacoan culture.

CCNHP covers approximately 34,000 acres and is comprised of the main canyon area and three detached units: Kin Bineola, Kin Ya'a, and Pueblo Pintado (USA 1987).

CCNHP receives approximately 40,000 visitors a year. Recreational activities within Chaco Culture NHP include viewing prehistoric ruins, visiting a museum, camping, hiking, and star gazing. The interpretive program of the NHP consists of ranger- and self-guided tours of some of the major ruins, a wayside exhibit, and daily availability of a park interpreter (USA 1987). Four backcountry hiking trails lead visitors to remote Chacoan sites, passing ancient roads, petroglyphs, stairways, and spectacular overlooks of the valley (NPS 2013b).

Of the approximately 4,000 archaeological sites identified within the CCNHP boundaries, 37 are open to visitors. These are located on the loop road and on some of the 19 miles of backcountry trails. Trails in the backcountry area and the mesa tops are rough and not easily discerned (de la Torre, et al., 2003).

CCNHP strives to provide visitors with a quality experience. The 1995 CCNHP Resource Management Plan and the 2002 draft Resource Management Plan identify a quality visitor experience as: sweeping, unimpaired views; an un-crowded park; appreciation of ancient sites with minimal distractions; clear air; no intrusions of man-made noise or light (at night); clean water and adequate facilities; access to a ranger for personal interpretation (de la Torre, 2002).

The University of Montana conducted a visitor survey for CCNHP in 2009. Important findings from that survey include: Ninety percent of visitors surveyed were from the U.S.; Seventy-five percent of visitors were day visitors with the average visit lasting five hours. The average length of stay for the 25% of visitors that stayed more than one day was 2.2 days. On average, park visitors stop at six sites, including the Visitor's Center, while in CCNHP. Nearly all visitors stopped at the Visitor's Center and Pueblo Bonito (97% and 98%, respectively). The next most popular sites were Chetro Ketl (695), Hungo Pavi (52%), Una Vida (42%), and Casa Rinconada (41%) (Freimund and Dalenberg, 2010).

The visitor survey identified a variety of reasons that people visited CCNHP.

A desire to learn and curiosity about the park were the most highly ranked reasons for visiting the park and were important to almost all visitors. A majority of visitors felt that "getting away", "being with family" and "get away from crowds" were of neutral importance but these reasons for visiting the park were extremely important to some visitors and not important to some visitors. Being alone, developing spirituality and experiencing night skies were important to a smaller group of visitors and unimportant to many (Freimund and Dalenberg, 2010).

Visitors also identified what they believed to be the purpose of CCNHP. "Results suggest that visitors view preserving the cultural and historic resources as the most important values of the park (Table 19). Values associated with escape from society, tourism, recreation and socialization were seen as least important in what makes Chaco National Historical Park a valuable place" (Freimund and Dalenberg, 2010).

Visitors identified aspects that added to or detracted from their experience at CCNHP. CCNHP's remoteness and ability to explore the features of the park added to their experience. Encountering large groups or disruptive visitor behavior, especially noise, and access restrictions detracted from the experience (Freimund and Dalenberg, 2010).

In 2011, CCNHP identified several key observation points (KOPs) from which visitors could overlook BLM-managed lands. Table 6 displays registered trail user counts from three of the backcountry trails that contained KOPs.

Table 6. Visitation at Key Observation Points in Chaco Culture NHP

Trail	KOP	2011	2012
Penasco Blanco	Penasco Blanco	2,497	2,822
Pueblo Alto	Pueblo Alto	8,315	7,989
South Mesa Trail	Tsin Kletsin	1,468	1,565
	Total	**12,280**	**12,376**

Source: Von Haden, 2013

3.4.2 Night Skies

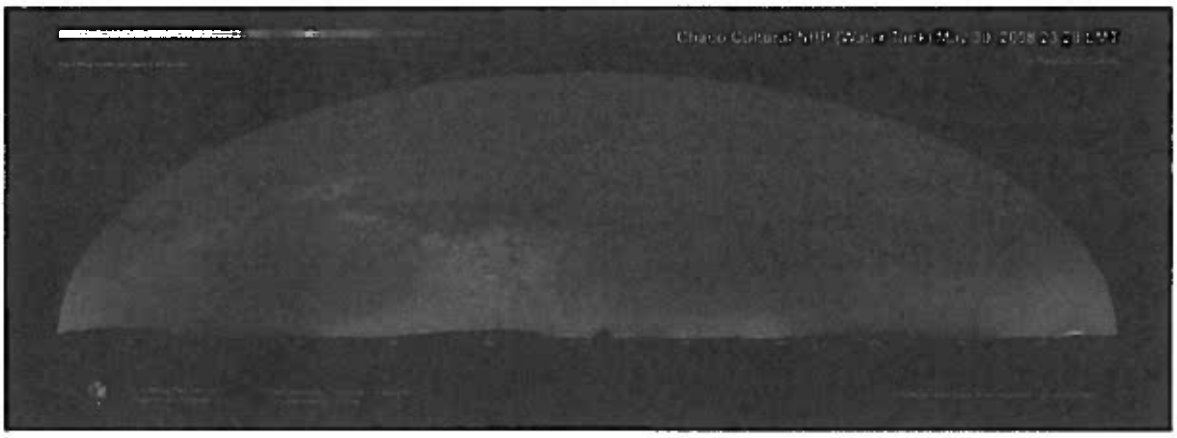
Chaco Culture NHP has a long history of stargazing, starting with the Ancestral Puebloan culture that inhabited the area. Chaco Culture NHP has been the focus of substantial research in cultural astronomy, and there are multiple examples in the park where manmade and natural features were used to mark the positions of the sun, moon, and other astronomical phenomena. For the past two decades, Chaco Culture NHP has partnered with the astronomy community. Amateur astronomers regularly host stargazing events under the guidance of a park ranger with a background in archeoastronomy. The park built a public observatory in 1998 to help accommodate the hundreds of thousands of visitors who have enjoyed the night sky at the park. The modern connection with the night sky is a substantial recreation interest and a way for the public to connect and better understand the ancient culture that once thrived in the canyon.

The park was one of the first units to receive an inventory of night sky quality in 2002. Subsequent data collection in 2008 provided higher resolution and accuracy than what was available in 2002, using the methods described by Duriscoe, Luginbuhl, and Moore 2007. Sky quality in the park is very good. Views from the canyon floor typically reach Class 2 on the nine-step Bortle Dark-Sky Scale. The lightscape from the canyon rim, representative of sites such as Pueblo Alto, is slightly altered from natural conditions, described as Bortle Class 3 (almost reaching Class 3). Conditions remain among the best in the NPS system. The NPS charge-coupled device (CCD) camera system is able to precisely measure the photic environment in a wavelength mimicking human vision. From these images, quantitative measurements of existing conditions are derived and expressed in absolute terms as well as ratios of the natural sky (the natural sky is comprised of the Milky Way, the Zodiacal light, airglow, and starlight). The 2008 data (Figure 2) shows that the amount of artificial light was 15% of natural amounts; in other words, the Anthropogenic Light Ratio was 0.153 . This indicates a very good condition. Though many discrete light sources are visible in the image, they are either distant cities, or small nearby towns.

Figure 2 shows the view from the canyon rim (36.0315 N, 107.9065W) looking southward. False color provides contrast. Visible in the image is the arch of the Milky Way and several small light sources dotting the horizon. This data from 2008 was taken under atmospheric conditions

commonly found at Chaco Culture NHP and is representative of clear air conditions roughly at the 75th percentile of air quality for this region. Under conditions of diminished air quality light sources within 19 miles would tend to be amplified, and light sources at distances greater than 19 miles would tend to be suppressed.

Figure 2. Artificial Light Visible from Chaco Culture NHP, 2008



Zenith brightness measures (22.15 magnitudes per square arc second) indicate that there is very little or no artificial light straight overhead. The brightest artificial light source in the image (19.91 magnitudes per square arc second) is slightly dimmer than the brightest part of the Milky Way. Therefore, the natural features of the night sky predominate a condition that is rarely found in the lower 48 states today. To isolate artificial light, the NPS Natural Sounds and Night Skies Division (NSNSD) removed natural light sources from the dataset. This analysis resulted in a maximum vertical illuminance of 0.08 milliLux. This indicates that direct glare from point sources and discrete light domes is below the threshold where human dark adaptation can begin to be impacted. The level measured at Chaco Culture NHP is also below illuminance levels generated by Venus at its brightest (0.10 milliLux); Venus is the brightest natural light in the moonless sky. This data also indicates that natural features predominate over artificial ones. As seen from
Figure 2, there are five prominent light domes along the horizon. Each is attributed to urban centers in New Mexico. The largest light dome, visible at 345^0 is Farmington City, about 84 km from Chaco Culture NHP. The next prominent dome is generated from Albuquerque and Rio Rancho City, visible as a single light dome at 130^0. Albuquerque is 153 km away from Chaco Culture NHP but still contributes a large portion of the visible light. Other smaller domes consist of Grants, 97 km away at 1760^o; Crownpoint CDP, 44 km away at 210^o;and Gallup, 94 km distant at 232^o.

3.5 Rangeland Resources

Livestock grazing is authorized by FLPMA, the Taylor Grazing Act of 1937 and the Public Rangelands Improvement Act of 1978. The principle objective of the rangeland program is to promote healthy, sustainable rangeland ecosystems; to accelerate restoration and improvement of

Lease Parcel #	Total Acres	Visible from Pierre's ACEC KOP	Total Acres Visible from Pierre's ACEC KOP	Percent of Parcel Visible
Foreground/Middleground (0-5 miles)				
NM-201401-168	640	Yes	126	20%
Background/Seldom Seen (greater than 5 miles)				
NM-201401-137	160	No	0	0
NM-201401-138	80	No	0	0
NM-201401-163	160	No	0	0
NM-201401-165	320	No	0	0
NM-201401-166	480	No	0	0
NM-201401-168	640	Yes	18	3%
NM-201401-171	320	No	0	0

Since only 34% of parcel NM-201401-168 is visible from the Pierre's Ruin KOP, there may be opportunities to obscure development from the view of visitors to that site by locating some or all facilities in areas of the parcel not otherwise seen from Pierre's Ruin, or by implementing mitigating measures such as but not limited to minimizing structures, orienting facilities to minimize contrast, and coloring facilities to be less noticeable.

4.2.4 Recreation

4.2.4.1 Chaco National Historical Park

Table 17 displays the visibility of each lease parcel from KOPs within Chaco Culture NHP under the proposed alternative. Only lease parcels NM-201401-163 and NM-201401-165 would be visible from at least one KOP. Parcels within the foreground/middleground are within 0 to 5 miles of the key observation points. The outer boundary of this distance zone is defined as the point where the texture and form of individual plants are no longer apparent in the landscape. Activities that occur within the foreground/middleground might be viewed in detail. Activities that occur in the background might be visible, but not in detail. Activities in the seldom seen areas are not likely to be visible even if the viewer has a line of sight.

Table 17. Lease Parcel Visibility from Chaco Culture NHP KOPs under the Proposed Alternative

Lease Parcel #	Total Acres	Visible from Chaco NHP KOPs	Total Acres Visible from Chaco NHP KOPs	Percent of Parcel Visible
Foreground/Middleground (0-5 miles)				
NM-201401-163	160	Yes	100	63%
NM-201401-165	320	Yes	75	23%
Background/Seldom Seen (greater than 5 miles)				
NM-201401-137	160	No	0	0
NM-201401-138	80	No	0	0
NM-201401-166	480	No	0	0
NM-201401-168	640	Yes	100	6%

NM-201401-171	320	No	0	0

Since 63% of parcel NM-201401-163 is visible from at least one KOP, it's likely that some aspect of development of that parcel would be visible. There may be opportunities to obscure development from the view of visitors by locating some or all facilities in areas of the parcel not otherwise seen from the KOPs, or by implementing mitigating measures such as but not limited to minimizing structures, orienting facilities to minimize contrast, and coloring facilities to be less noticeable.

Since 23% of parcel NM-201401-165 is visible from at least one KOP, there may be opportunities to obscure development from the view of visitors by locating some or all facilities in areas of the parcel not otherwise seen from the KOPs, or by implementing mitigating measures such as but not limited to minimizing structures, orienting facilities to minimize contrast, and coloring facilities to be less noticeable.

Even though 6% of parcel NM-201401-168 is visible from a KOP, the parcel is nearly 20 miles away from CCHNP, making it unlikely that structures or activities could be seen.

More information on impacts to visual resources can be found in the Visual Resources section.

These parcels would not be leased under the preferred alternative, so there would be no impacts to recreation in Chaco Culture NHP.

4.2.4.2 Night Skies

Light sources associated with drilling an oil and gas well include a light plant or generator, a light on the top of the rig, vehicle traffic, and flaring. The number of light sources and the duration of each source are identified in Table 18 for each lease parcel under the proposed alternative. Flaring could occur in locations where pipelines are not available to transport gas to sale; however, the necessity for flaring and the duration of flaring varies widely from well to well and is difficult to predict.

Table 18. Light Sources by Lease Parcel under the Proposed Alternative

Light Source			Duration	
Location	Type	Number[1]	Days (average)	Hours[2]
Foreground/Middleground (0-5 miles)				
NM-201401-163 (1 well)				
Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	12	3	24
Light Tower	Explosion Proof	4	3	24
Light Tower	Explosion Proof	2	30	24
Rig Floor	Explosion Proof	2	17	24
Sub	Explosion Proof	4	17	24
Mud Tank	Explosion Proof	9	17	24
Mud Pump	Explosion Proof	6	17	24
Catwalk	Explosion Proof	2	17	24
Tool Shed	4-foot Fluorescent	4	17	24
Housing Unit	12-Volt	10	17	12
NM-201401-165 (2 wells)				

Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	24	3	24
Light Tower	Explosion Proof	8	3	24
Light Tower	Explosion Proof	4	30	24
Rig Floor	Explosion Proof	4	17	24
Sub	Explosion Proof	8	17	24
Mud Tank	Explosion Proof	18	17	24
Mud Pump	Explosion Proof	12	17	24
Catwalk	Explosion Proof	4	17	24
Tool Shed	4-foot Fluorescent	8	17	24
Housing Unit	12-Volt	20	17	12
Background/Seldom Seen (greater than 5 miles)				
NM-201401-137 (1 well)				
Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	12	3	24
Light Tower	Explosion Proof	4	3	24
Light Tower	Explosion Proof	2	30	24
Rig Floor	Explosion Proof	2	17	24
Sub	Explosion Proof	4	17	24
Mud Tank	Explosion Proof	9	17	24
Mud Pump	Explosion Proof	6	17	24
Catwalk	Explosion Proof	2	17	24
Tool Shed	4-foot Fluorescent	4	17	24
Housing Unit	12-Volt	10	17	12
NM-201401-138 (1 well)				
Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	12	3	24
Light Tower	Explosion Proof	4	3	24
Light Tower	Explosion Proof	2	30	24
Rig Floor	Explosion Proof	2	17	24
Sub	Explosion Proof	4	17	24
Mud Tank	Explosion Proof	9	17	24
Mud Pump	Explosion Proof	6	17	24
Catwalk	Explosion Proof	2	17	24
Tool Shed	4-foot Fluorescent	4	17	24
Housing Unit	12-Volt	10	17	12
NM-201401-166 (3 wells)				
Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	36	3	24
Light Tower	Explosion Proof	12	3	24
Light Tower	Explosion Proof	6	30	24
Rig Floor	Explosion Proof	6	17	24
Sub	Explosion Proof	12	17	24
Mud Tank	Explosion Proof	27	17	24
Mud Pump	Explosion Proof	18	17	24
Catwalk	Explosion Proof	6	17	24
Tool Shed	4-foot Fluorescent	12	17	24
Housing Unit	12-Volt	30	17	12
NM-201401-168 (8 wells)				
Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	96	3	24
Light Tower	Explosion Proof	32	3	24
Light Tower	Explosion Proof	16	30	24
Rig Floor	Explosion Proof	16	17	24
Sub	Explosion Proof	32	17	24
Mud Tank	Explosion Proof	72	17	24
Mud Pump	Explosion Proof	48	17	24
Catwalk	Explosion Proof	16	17	24

Tool Shed	4-foot Fluorescent	32	17	24
Housing Unit	12-Volt	80	17	12
NM-201401-171 (4 wells)				
Rig Derrick	4-foot Fluorescent (1 Explosion Proof)	48	3	24
Light Tower	Explosion Proof	16	3	24
Light Tower	Explosion Proof	8	30	24
Rig Floor	Explosion Proof	8	17	24
Sub	Explosion Proof	16	17	24
Mud Tank	Explosion Proof	36	17	24
Mud Pump	Explosion Proof	24	17	24
Catwalk	Explosion Proof	8	17	24
Tool Shed	4-foot Fluorescent	16	17	24
Housing Unit	12-Volt	40	17	12

[1] The number reflects the total number of light sources that may be required to drill wells necessary to develop the parcel. The total number of light sources present at any given time is likely to be lower as is unlikely that all wells will be drilled at the same time.
[2] This number reflects the number of hours the light may be on during a 24-hour period. Because the number of night-time hours varies depending on the time of year the well is drilled, lighting will not impact night skies during all of the hours identified.

The table provides the total number of light sources required for the development of the parcel; however, for parcels requiring more than one well, it is unlikely that all of the wells would be drilled at one time. With the exception of a few yearly events, visitors are not allowed access to the canyon rim after sunset, minimizing the chance that visitors would see the direct light. While these lights could reduce the general darkness of the night sky as seen from the Chaco Cultural NHP campground, it is likely the impact would be imperceptible. These activities could result in minor, short-term impacts to night skies as well locations typically do not have lighting as a permanent feature upon completion.

The parcels near Chaco Culture NHP (i.e., NM-201401-163, NM-201401-165, NM-201401-166) would not be leased under the preferred alternative, so there would be no impacts to night skies.

4.2.5 Rangeland Resources

Oil and gas development could result in a loss of vegetation for livestock grazing (e.g., direct removal, introduction of unpalatable plant species, etc.), decrease the palatability of vegetation due to fugitive dust, disrupt livestock management practices, involve vehicle collisions, and decrease grazing capacity. These impacts could vary from short-term impacts to long-term impacts depending on the type of exploration or development, the success of reclamation, and the type of vegetation removed for the oil and gas activities.

Recent mineral development in the checkerboard area has revealed some impacts to grazing operations on public grazing allotments. Complaints from grazing operators include; poor planning of road construction and maintenance, increased vehicle collisions with livestock, poor maintenance of cattle guards, loss of integrity to allotment boundaries, and increased access by the public which contributes to vandalism of range improvements and livestock rustling.

Poor road planning has led to many "loop" type roads. Roads with loop type access, instead of in and out access, to wells allows for more public access and vandalism. Vandalism to water wells, drinking troughs, springs, storage tanks and fences have been reported. Loop type roads

Exhibit 4-b

construction. Production facilities such as produced water, condensate or oil storage tanks could provide a strong vertical and horizontal visual contrast in form and line to the characteristic landscape and vegetation. Processing plants can likewise have strong vertical and horizontal contrasts, and could be illuminated during the night resulting in diffuse nighttime color contrasts over the long-term and minor reduction in night sky visibility and naturalness. The magnitude of these contrasts would depend on several factors including time of day, season, density, and extent of leasable mineral production facilities.

Since oil and gas well, pipeline and road locations cannot be accurately determined at the leasing stage, it is not possible to accurately predict the visual impacts. In addition, the multitude of key viewing points across all parcels make detailed visual analysis of the entire project impractical. If an APD is submitted, a site specific analysis for proposed development would be conducted. The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. A visual contrast rating process is used for this analysis, which involves comparing the project features with the major features in the existing landscape using the basic design elements of form, line, color, and texture. This process is described in BLM Handbook H-8431-1, Visual Resource Contrast Rating. The analysis can then be used as a guide for resolving visual impacts. Once every attempt is made to reduce visual impacts, BLM managers can decide whether to accept or deny project proposals. Managers also have the option of attaching additional mitigation stipulations to bring the proposal into compliance.

In WRFO, parcels within VRM Class II within the Dinosaur Trail MLP area were stipulated with WR-CSU-26, to ensure development meets the VRM Class II standards. In KFO, where appropriate, parcels were stipulated with KFO-CSU-15, to ensure development met the designated VRM Class standards, KFO-CSU-16, to restrict development from view of backcounty, scenic, or historic byways, KFO-CSU-17 and KFO-CSU-18, to restrict development from view of state and US highways and ensure reclamation, KFO-CSU-21, to restrict development from view of socially and economically important river segments, and KFO-CSU-22, to restrict development from view of significant residential communities. These stipulations will decrease visual impacts in these visually sensitive areas, and could make oil and gas development more restricted or costly.

<u>Detailed environmental consequences analysis for Rocky Mountain National Park and Dinosaur National Monument:</u>

In their September 2016 scoping comments, Rocky Mountain National Park (RMNP) and Dinosaur National Monument (DNM) requested a detailed visual impact analysis of the lease sale and subsequent development on important park viewpoints. As described earlier in the EA, leasing of the proposed parcels in itself has no impact on visual resources. Subsequent development could affect landscape character, but without specific well, pipeline and road locations and design plans, visual impacts cannot be precisely determined. However, the analysis below helps determine the likely range of visual impacts.

BLM analyzes potential visual impacts through a contrast rating system. The contrast, or difference, between project features (form, line, color, and texture) and existing scenery features at critical viewpoints, also called key observation points (KOP), is recorded. The size of the contrast, and the number of visitors which see it, determine the extent of the visual impact.

RMNP has suggested Shadow Mountain Lookout Tower as RMNP KOP #1, and Medicine Bow Curve and Alpine Visitor Center as RMNP KOP #2. DNM did not identify specific KOPs to use in the visual analysis, so BLM chose the intersection of Hwy 40 and Harper's Corner Road as DNM KOP #1, and Martha's Peak as DNM KOP #2. In their December comments, DNM requested analysis of two additional KOPs, Plug Hat Butte (DNM KOP #3) and Escalante Overlook (DNM KOP#4).

To determine the likely range of visual impact of possible development on the lease parcels, BLM identified whether the KOPs were within line-of-sight of the lease parcels, and if so, calculated the maximum percent of an observer's field of view at that KOP which would be changed by an example well pad and road, assuming no mitigations are applied. A normal human field of view is 180 degrees from side-to-side, and 135 degrees vertically (Wikipedia). BLM calculated the percent of the field of view that would be taken up by an example well pad which is 400 feet long, with a visual height of 30 feet to account for cuts, fills, and production equipment. BLM also calculated the percent of the field of view that would be taken up by an example road which is 1 mile long, with a vertical depth of 20 feet to account for cuts and fills. The amount of visual space taken up by each example well pad and road is scaled by their distance from the KOPs. The visual impact from each KOP is summarized in Table 3-13, and detailed below.

Table 3-31: Key Observation Points - Visual Impacts

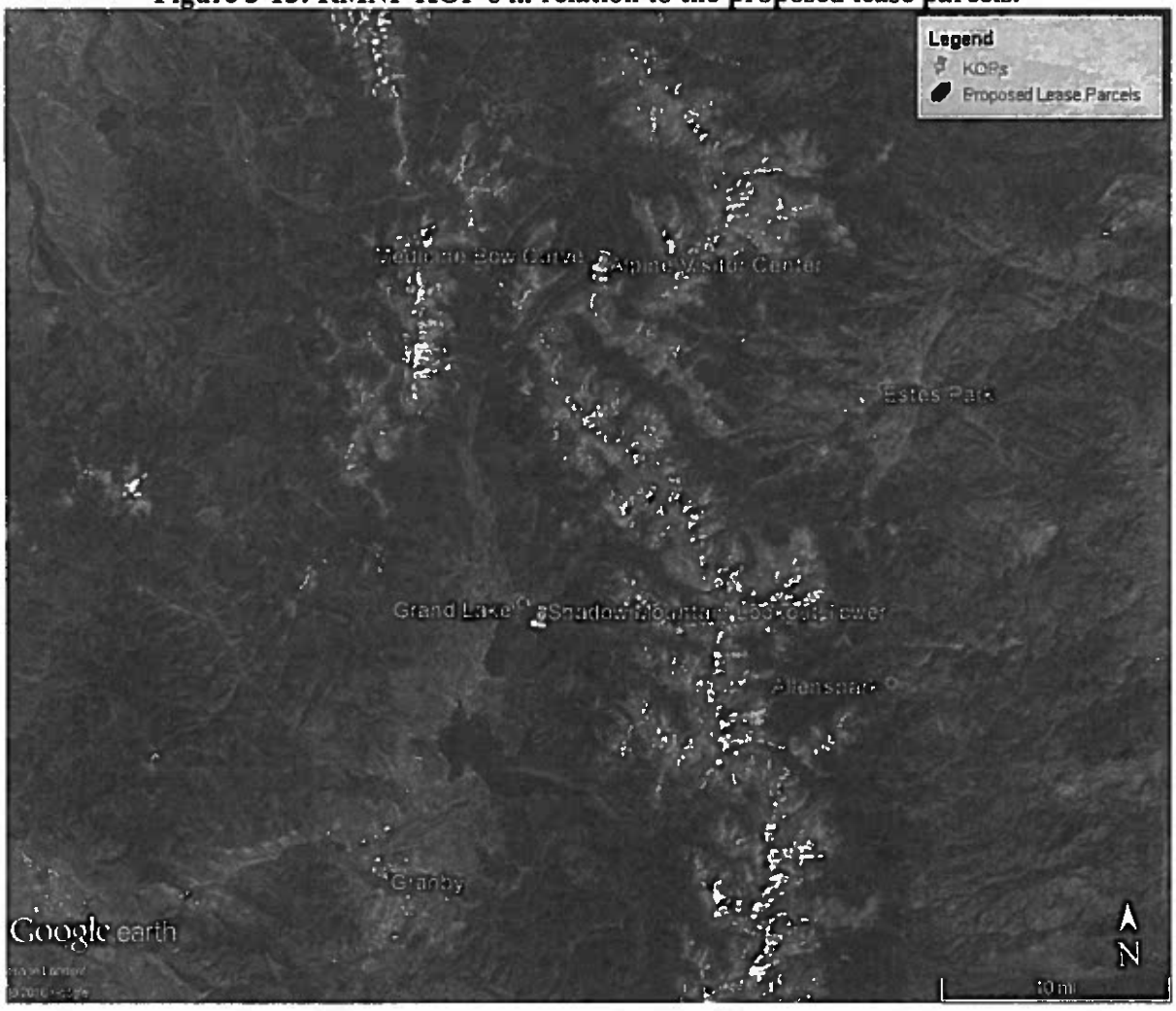
KOP	% of view taken by example well pad	% of view taken by example road
RMNP KOP #1	0.00009%	0.0008%
RMNP KOP #2	0	0
DNM KOP #1	0.0003%	0.003%
DNM KOP #2	0.00003%	0.0002%
DNM KOP #3	0.0002%	0.001%
DNM KOP #4	0.00005%	0.0004%

RMNP KOP #1

RMNP's Shadow Mountain Lookout Tower is a historical fire observation post and current hiking destination on the southwest corner of the Park. It has an elevation of 9923 feet, is within

line-of-sight of the Granby-area lease parcels to the southwest (Figures 3.4.3.7.5-7), and is only accessible to hikers. The closest lease parcel, Parcel 7857, is 8.0 miles away. At that distance, view of the lease parcel area is a muted blur of blues, greens and browns on the hillsides, with no distinct lines or textures. Line-of-sight to the other KFO lease parcels to the northwest are blocked by peaks such as Bowen Mountain (12,524 feet) and Cascade Mountain (12,303 feet).

Figure 3-13: RMNP KOP's in relation to the proposed lease parcels.



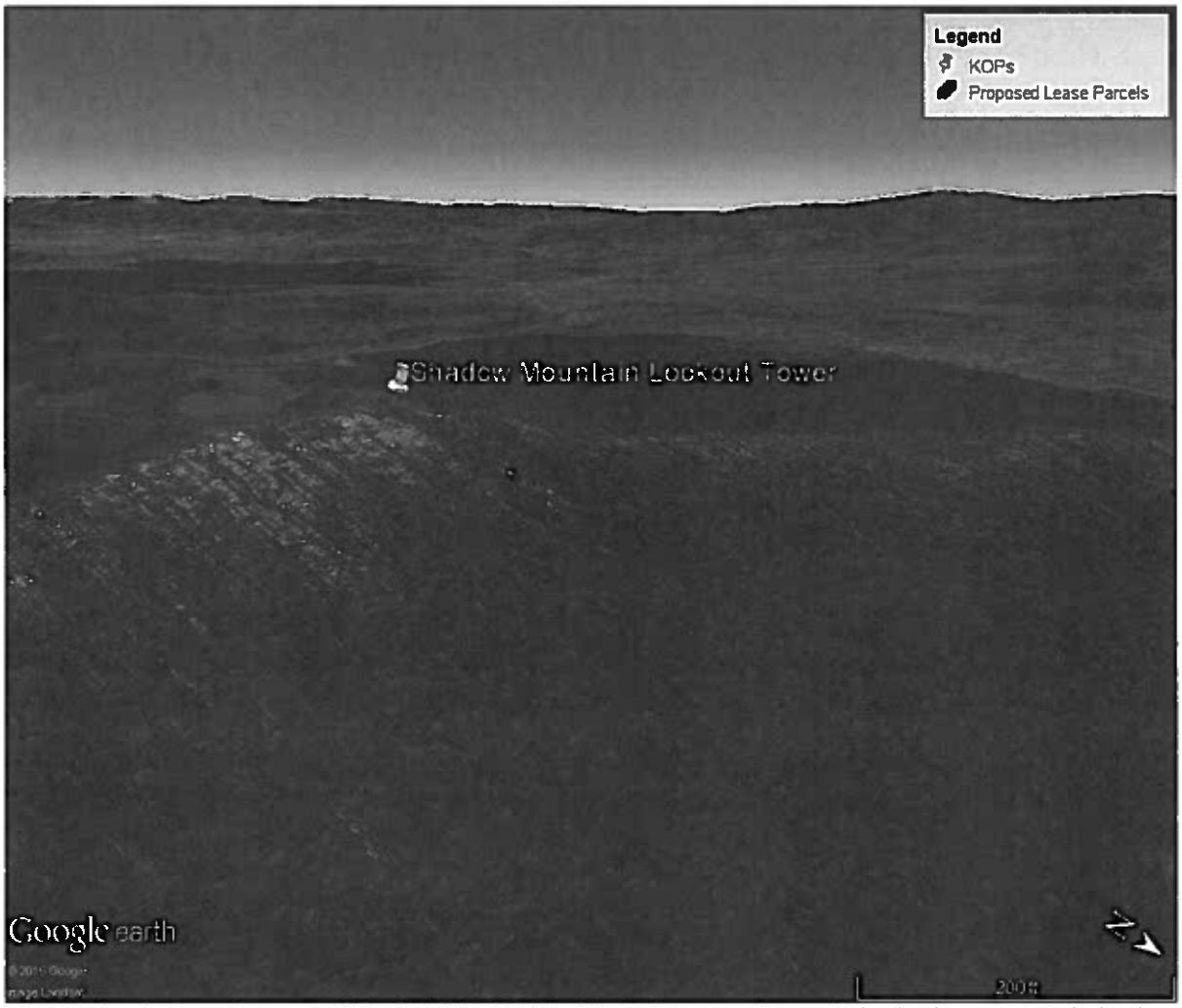


Figure 3-14: Landscape of the RMNP KOP #1, facing southwest. The lookout tower is in the foreground, Lake Granby is in the mid-ground, and the proposed June 2017 lease parcels are shaded red in the background.

Figure 3-15: Photo from Shadow Mountain Lookout Tower (photo courtesy www.firelookout.org).

The 2015 KFO RMP EIS analyzed visual impacts as a result of oil and gas leasing and development, and found visual impacts could occur. The National Park Service had no comments on the RMP EIS. Portions of some lease parcels within line-of-site of RMNP KOP #1 have stipulations KFO-CSU-15, KFO-CSU-16, KFO-CSU-17, KFO-CSU-18, KFO-CSU-21 and KFO-CSU-22, which all restrict visual impacts to some extent. Areas without these stipulations could still receive visual mitigations as Conditions of Approval to an APD.

The largest visual impact would be from a well pad and road located within line-of-sight and at the closest distance to the KOP, approximately 8 miles. An example well pad would take up about 0.54 degrees by 0.04 degrees, or 0.00009% of the field of view. Similarly, an example road would take up about 7 degrees by 0.03 degrees, or 0.0008% of the field of view. Any common visual mitigations such as screening the project with topography or vegetation, completing interim reclamation, and painting equipment to match the landscape, would decrease the visual impact even further.

RMNP KOP #2

RMNP's Alpine Visitor Center is located in the northwest end of the park, at 11,796 feet above sea level. Medicine Bow Curve is 0.4 miles northwest, on Trail Ridge Road (which has been designated an All-American Road by the US Dept. of Transportation) leading to the Visitor Center. These are 15 miles to the closest June 2017 lease parcel, Parcel 7868 (Figure 3.4.3.7.5). An estimated 4300 vehicles drive the Medicine Bow Curve each day in the summer months (CDOTa).

The Medicine Bow Curve and Alpine Visitor Center KOP has no line-of-sight with any of the lease parcels, and as such will have no direct visual impact from development on the lease parcels. The KOP's elevation is 11,796 feet, and it is surrounded by peaks over 12,000 feet to the south and west. Notable peaks blocking the view are Trail Ridge (12,273 feet), Mt. Richthofen (12,951 feet), Specimen Mountain (12,494 feet), and Lulu Mountain (12,228 feet). Figures 3.4.3.7.8 and 3.4.3.7.9 illustrate the view to the south and west of the KOP.

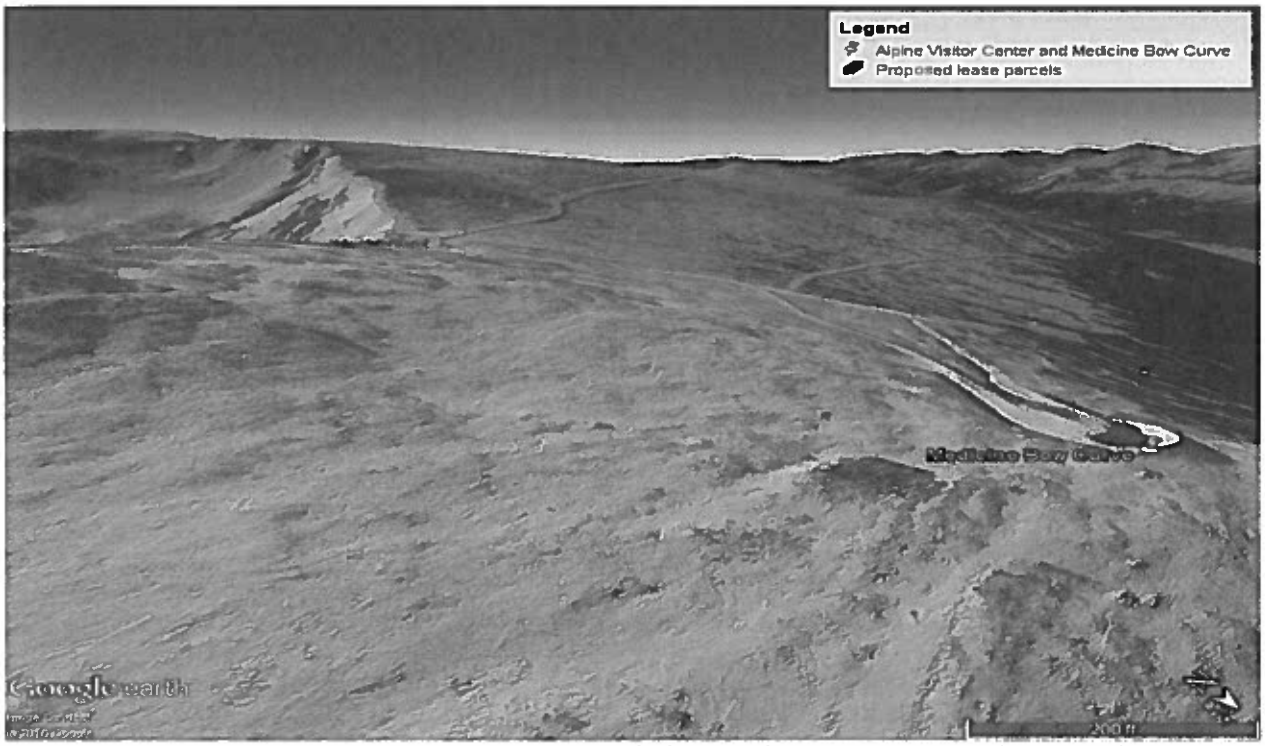


Figure 3-16: Landscape of the RMNP KOP #2, facing southwest. Lease parcels are on the other side of the mountains in the distance.

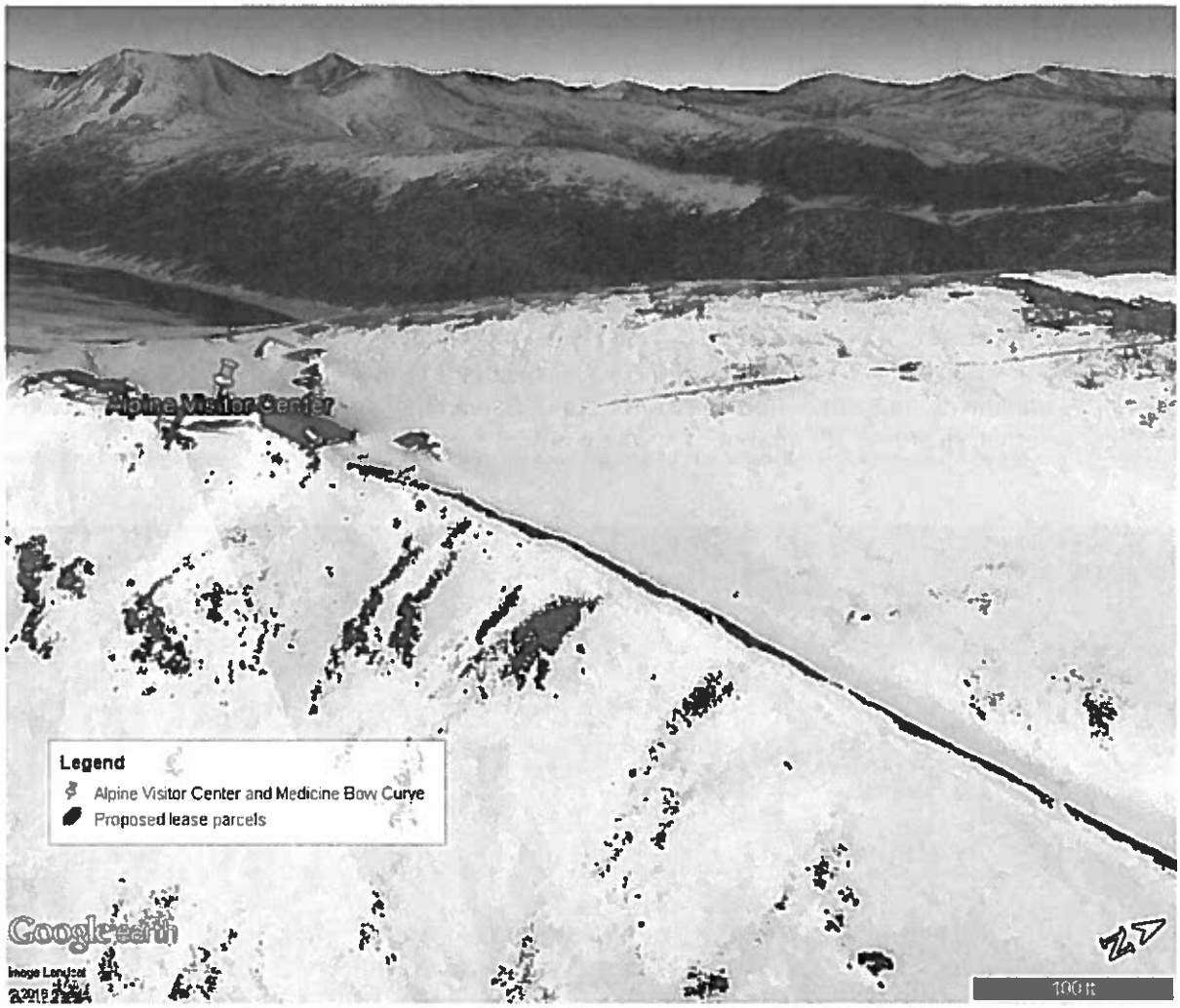


Figure 3-17: Landscape of the Alpine Visitor Center (RMNP KOP #2), facing west. Lease parcels are on the other side of the mountains in the distance. (Medicine Bow Curve is just off screen).

DNM KOP #1

DNM did not identify specific KOPs to use during visual analysis. The Dinosaur Quarry Visitor Center is at an elevation of 4803 feet, and higher ridges such as Raven Ridge North (6071 feet) block line-of-sight to the proposed lease parcels to the south. Harper's Corner viewpoint, at 7589 feet elevation and 22 miles from the closest lease parcel, is similarly blocked from line-of-sight by other ridges such as Buena Vista Peak (8580 feet).

BLM chose to analyze as DNM KOP #1 the view from the intersection of Hwy 40 and Harper's Corner Road, which is within 5 miles and line-of-sight to parcels 7890, 7893, and 7090, within the Dinosaur Trail MLP (Figure 3.4.3.7.10 and 11). Approximately 1100 vehicles travel through this intersection daily (CDOTb). Views of the lease parcels from this distance consist of blurred tans and greens, with no distinct line or texture. Travelers on Highway 40 are not in a secluded landscape, rather, the town of Dinosaur is just one mile west.

Figure 3-18: DNM KOP's in relation to proposed lease parcels.

Figure 3-19: Landscape of the intersection of DNM KOP #1, facing south. Lease parcels are red-shaded polygons near the horizon.

The WRFO RMPA EIS and Dinosaur Trail MLP analyzed visual impacts of oil and gas development to the south of DNM. Fourteen lease parcels within the Dinosaur Trail MLP are partially located on VRM Class II, and have stipulation WR-CS-26 requiring operators to submit a plan to reduce visual and sound impacts prior to development. Lease notice WR-LN- 14 was applied to inform lessees that additional resource protection measures may be required to reduce environmental impacts within the MLP area. All areas can receive visual mitigations as Conditions of Approval to an APD.

The largest visual impact would be from a well pad and road located within line-of-sight and at the closest distance to the KOP, approximately 4.4. Nighttime lighting with no mitigations could be visible to the KOP from this distance. For daytime views, an example well pad would take up about 0.98 degrees by 0.07 degrees, or 0.0003% of the field of view. Similarly, an example road would take up about 13 degrees by 0.05 degrees, or 0.003% of the field of view. Any common visual mitigations such as screening the project with topography or vegetation, completing interim reclamation, requiring downcast lighting, and painting equipment to match the landscape, would decrease the visual impact even further.

<u>DNM KOP #2</u>

Finally, DNM expressed concern about views from high elevation vistas on the southern border, so BLM also analyzed DNM KOP #2, Martha's Peak, 15 miles from the closest parcel, Parcel 7096 (Figure 3.4.3.7.10 and 12). There are no roads leading to Martha's Peak, so the only

observers would be occasional hikers. Views of the lease parcels from this distance consist of blurred tans and greens, with no distinct line or texture.

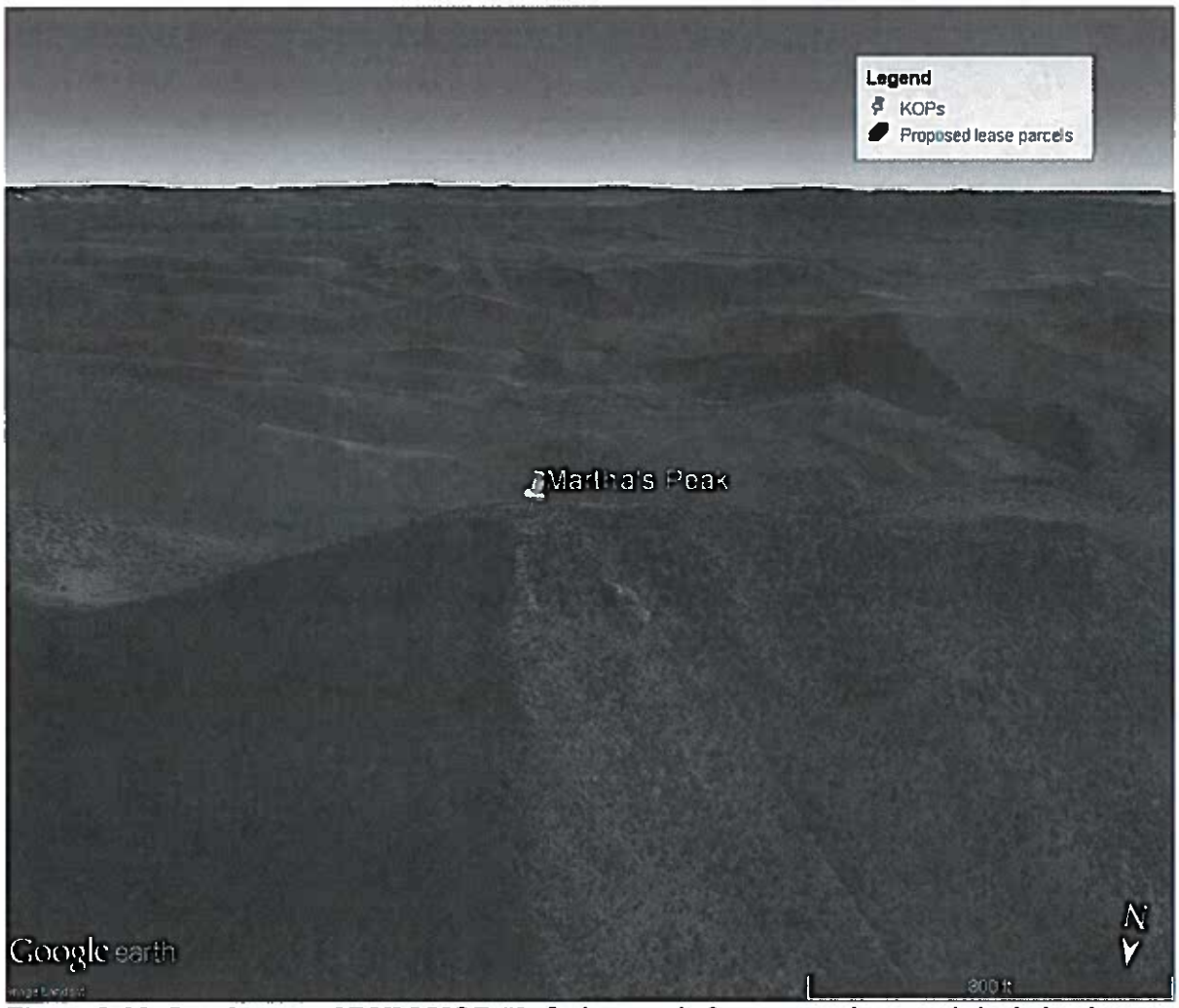


Figure 3-20: Landscape of DNM KOP #2, facing south. Lease parcels are red shaded polygons near the horizon.

The WRFO RMPA EIS and Dinosaur Trail MLP analyzed visual impacts of oil and gas development to the south of DNM. Fourteen lease parcels within the Dinosaur Trail MLP are partially located on VRM Class II, and have stipulation WR-CS-26 requiring operators to submit a plan to reduce visual and sound impacts prior to development. Lease notice WR-LN- 14 was applied to inform lessees that additional resource protection measures may be required to reduce environmental impacts within the MLP area. All areas can receive visual mitigations as Conditions of Approval to an APD.

The largest visual impact would be from a well pad and road located within line-of-sight and at the closest distance to the KOP, approximately 15 miles. Nighttime lighting with no mitigations could be visible to the KOP from this distance. For daytime views, an example well pad would

take up about 0.29 degrees by 0.02 degrees, or 0.00003% of the field of view. Similarly, an example road would take up about 3.8 degrees by 0.01 degrees, or 0.0002% of the field of view. Any common visual mitigations such as screening the project with topography or vegetation, completing interim reclamation, requiring downcast lighting, and painting equipment to match the landscape, would decrease the visual impact even further.

In their December 2016 comment letter, DNM requested visual analysis of two additional KOP's. DNM KOP #3 is Plug Hat Butte (Figure 3-21), approximately 4.5 miles up Harper's Corner Road from Hwy 40. This KOP is 6.15 miles from the nearest lease parcel. Nighttime lighting with no mitigations could be visible to the KOP from this distance. For daytime views, an example well pad would take up about 0.71 degrees by 0.05 degrees, or 0.0002% of the field of view. Similarly, an example road would take up about 9 degrees by 0.04 degrees, or 0.001% of the field of view. Any common visual mitigations such as screening the project with topography or vegetation, completing interim reclamation, requiring downcast lighting, and painting equipment to match the landscape, would decrease the visual impact even further.

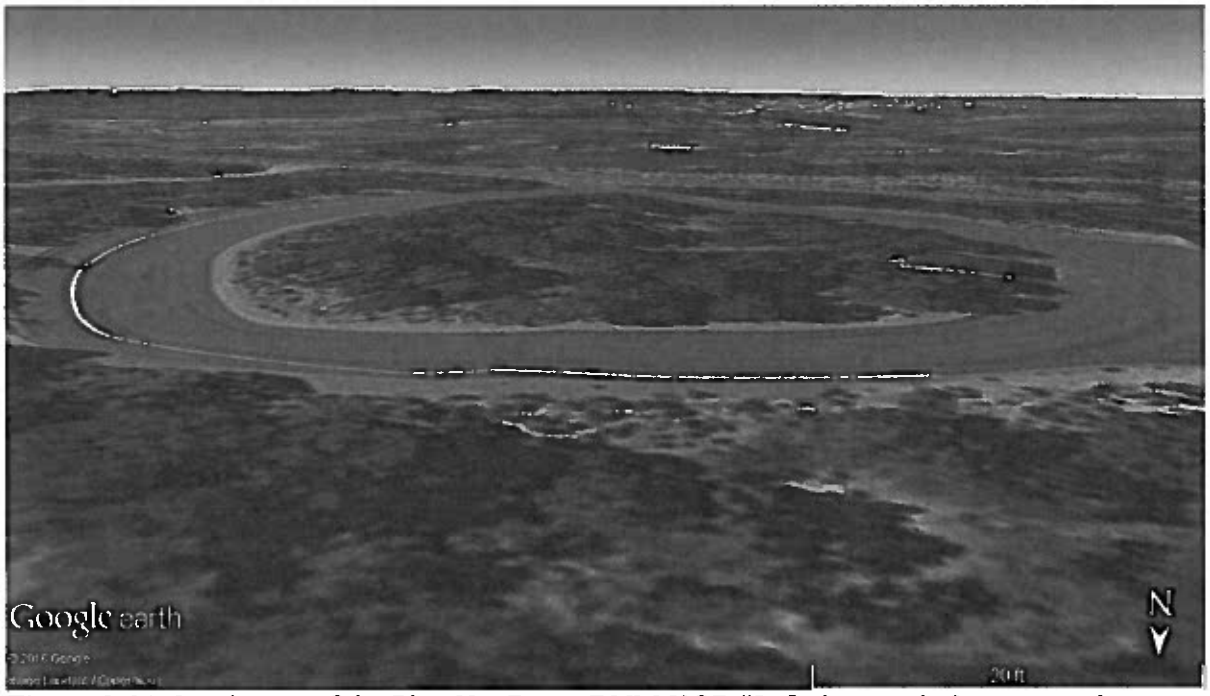


Figure 3-21: Landscape of the Plug Hat Butte, DNM KOP #3, facing south. Lease parcels are red-shaded polygons near the horizon.

DNM also requested visual analysis of DNM KOP #4, Escalante Overlook, approximately 7.5 miles up Harper's Corner Road from the intersection with Hwy 40 (Figure 3-22). The nearest parcel within line-of-sight to the KOP is about 10.5 miles away. Nighttime lighting with no mitigations could be visible to the KOP from this distance. For daytime views, an example well pad would take up about 0.41 degrees by 0.03 degrees, or 0.00005% of the field of view. Similarly, an example road would take up about 5 degrees by 0.02 degrees, or 0.0004% of the field of view. Any common visual mitigations such as screening the project with topography or

vegetation, completing interim reclamation, requiring downcast lighting, and painting equipment to match the landscape, would decrease the visual impact even further.

Figure 3-22: Landscape of the Escalante Overlook, DNM KOP #4, facing south. Lease parcels are red-shaded polygons near the horizon.

Environmental Consequences of Leasing and Development - Cumulative Impacts:
The CIAA for visual resources is the boundaries of WRFO, LSFO, and KFO. Impacts on visual resources would occur from private land improvements, mining, oil and gas development, motorized recreation, and commercial activities in the CIAA. Oil and gas exploration and development of the proposed lease parcels would incrementally increase the likelihood of impacts to visual resources.

No Surface Occupancy stipulations to protect other resources could move development off lease parcels and onto neighboring areas. While this would change the location of impacts, it is difficult at the leasing stage to determine how or if it could change the intensity of impacts.

Potential Future Mitigation:

Site-specific mitigation measures, including the requirement to use BLM approved BMPs to protect visual resources would be analyzed and added at the APD stage, as appropriate. Examples of mitigations on BLM parcels are: siting roads and facilities in less sensitive areas, screening them with vegetation, installation of directional lighting, shrouds, and/ or lights with wavelengths in the blue, red, or yellow spectrums rather than white, and modifying facility shape and color. On split-estate parcels, surface owners can negotiate with oil and gas operators for visual mitigations if they wish.

3.4.4 Resource Uses

EXHIBIT 5

BLM STATE OFFICE LEASE SALE FIGURES FOR THE PAST 3 YEARS (2015-2017)

Colorado

SALE	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Feb. 2015	39 / 28,079	21 / 15,281	$351,901
May 2015	86 / 36,195	73 / 32,962	32,079,577
Nov. 2015	121 / 89,534	106 / 83,257	4,880,054
May 2016	6 / 6,960	6 / 6,960	5,211,268
Dec. 2016	31 / 20,135	28 / 19,095	1,558,338
Mar. 2017	17 / 16,447	17 / 16,447	63,546
Total	**300 / 197,350**	**251 / 174,002 (88% of acres offered)**	**44,144,684 ($224/acre offered)**

Montana

SALE	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Jan. 2015	7/1,742	7/1,742	$4,252,600
May 2015	3/160	3/160	43,620
July 2015	7/1,595	6/1,075	36,805
May 2016	7/1,048	7/1,048	115,072
July 2016	3/720	3/720	26,320
Dec. 2016	88/18,956	33/7,179	53,058
Total	**115/24,221**	**59/11,924 (49% of acres offered)**	**$4,527,475 ($187/acre offered)**

Nevada

SALE	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Mar. 2015	24 / 25,882	13 / 15,244	$30,496
June 2015	124 / 256,875	0	0
Dec. 2015	3 / 3,641	0	0
Mar. 2016	39 / 50,416	0	0
June 2016	42 / 74,661	4	24,740
Mar. 2017	67 / 115,970	20 / 35,502	74,780
Total	**299 / 527,445**	**37 / 50,746 (10% of acres offered)**	**$130,016 ($0.24/acre offered)**

New Mexico

SALE	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
July 2015	69 / 24,782	69 / 24,782	$70,399,074
Oct. 2015	14 / 5,030	14 / 5,030	28,534,840

Apr. 2016	11 / 2,306	11 / 2,306	46,298
Jan. 2017	4 / 843	4 / 843	2,934,194
Total	**98 / 32,961**	**98 / 32,961 (100% of acres offered)**	**$101,914,406 ($3,092/acre offered)**

Utah

SALE	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Feb. 2015	17 / 12,834	17 / 12,834	$342,277
May 2015	14 / 15,265	11 / 13,344	256,249
Feb. 2016	46 / 45,581	21 / 22,771	276,728
May 2016	4 / 6,743	2 / 3,952	10,146
Dec. 2016	24 / 10,510	19 / 9,050	192,072
Mar. 2017	4 / 4,174	4 / 4,174	110,263
Total	**109 / 95,107**	**74 / 66,125 (69% of acres offered)**	**$1,187,735 ($12/acre offered)**

Wyoming

SALE	OFFERED (PARCELS/ACRES)	SOLD (PARCELS/ACRES)	BONUS BIDS
Feb. 2015	153 / 157,115	124 / 121,110	$8,350,559
May 2015	31 / 30,382	31 / 30,382	637,978
August 2015	71 / 69,710	56 / 50,009	1,922,506
Nov. 2015	39 / 61,354	38 / 59,000	1,098,463
May 2016	110 / 105,984	95 / 89,609	5,611,637
August 2016	85 / 86,581	69 / 77,688	3,500,185
Nov. 2016	21 / 32,422	21 / 32,422	9,401,203
Feb. 2017	285 / 184,793	278 / 183,155	128,978,446
Total	**795 / 728,341**	**712 / 643,375 (88% of acres offered)**	**$159,500,977 ($218/acre offered)**