The Wilderness Society

Phone: (303) 650-5935
Fax: (303) 395-0383

FAX

To:	17758616745	**From:**	Barbara Young
Re:		**Date:**	07/01/2019

Enclosed please find The Wilderness Society's protest of BLM Nevada's July 2019 oil and gas lease sale.

Juli Slivka
Assistant Director, BLM Action Center
The Wilderness Society
11050 Pioneer Trail, Suite 202
Truckee, CA 96161
(303) 650-1179
jslivka@tws.org

The Wilderness Society

July 1, 2019

Delivered by fax to (775) 861-6745

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

Re: Protest of BLM Nevada's July 2019 Oil and Gas Lease Sale

To Whom It May Concern:

Please accept and fully consider this timely protest of BLM Nevada's July 2019 lease sale. This protest challenges BLM's Environmental Assessments, DOI-BLM-NV-B000-2019-0006-EA and DOI-BLM-NV-E000-2019-0001-EA, and the agency's decision to proceed with the sale of new leases located in the Battle Mountain and Elko Districts. This protest is filed in accordance with 43 CFR 3120.1-3. We specifically protest the following parcels:

Interests of the Protesting Party

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 has expended significant resources field inventorying public lands in Nevada for wilderness characteristics. 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. Founded in 1935, our mission is to protect wilderness and inspire Americans to care for our wild places.

Authorization to File This Protest

Juli Slivka is authorized to file this protect on behalf of The Wilderness Society and its members and supporters as Assistant Director of The Wilderness Society's BLM Action Center.

Statement of Reasons

I. BLM has failed to consider a range of alternatives.

The National Environmental Policy Act (NEPA) generally requires the lead agency for a given project to conduct an alternatives analysis for "any proposal which involves unresolved conflicts

concerning alternative uses of available resources." 42 U.S.C. § 4332(2)(E). The regulations further specify that the agency must "rigorously explore and objectively evaluate all reasonable alternatives" including those "reasonable alternatives not within the jurisdiction of the lead agency," so as to "provid[e] a clear basis for choice among the options." 40 C.F.R. § 1502.14. 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 proposed parcel, 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. U.S. 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").

Furthermore, the underlying Tonopah (1997), Shoshone Eureka (1986) and Elko (1987) Resource Management Plans (RMPs) never considered alternatives relevant to this lease sale, such as offering some but not all of the parcels considered here. Nor did the RMPs consider the alternative of deferring all of these particular leases. The RMPs only considered alternatives generally opening or closing to leasing large areas measured in the millions of acres. For example, the Tonopah RMP left open 4.8 million acres to 5.4 million acres for leasing under standard terms and conditions across the range of alternatives. Tonopah Proposed RMP at S-6. Clearly BLM did not consider alternatives to implement meaningful closures to fluid minerals leasing in development of the RMP. None of the alternatives in the RMPs addressed closing some or all of the particular parcel areas here to leasing—much less a temporary deferral of leasing those parcels.

Even if lands at issue here are open for leasing under the governing RMPs, it would be entirely reasonable for BLM to consider deferring parcels that have important wilderness resources, sage-grouse habitat and/or other resources. Moreover, to the extent certain parcels have only low potential for development, the alternative of deferring them appears even more reasonable. *See Wilderness Workshop v. Bureau of Land Management*, No. 1:16-cv-01822-LTB, Memorandum Opinion and Order, (D. Colo., October 17, 2018), p. 38 (attached as Exhibit 1) (recognizing that development potential must inform the range of alternatives for decisions related to oil and gas leasing). These options have never been analyzed.

In our comments on the Battle Mountain EA, we proposed several alternatives which the agency should have evaluated in this lease sale, including:

- An alternative that defers leasing in inventoried lands with wilderness characteristics for which BLM has not yet made management decisions through a land use planning process. Of the 123 lease parcels proposed for this lease sale, 117 parcels overlap with

lands the agency has recently determined have wilderness characteristics but has never evaluated for protective management.

- An alternative that defers leasing in Priority and/or General Habitat Management Areas, consistent with BLM's obligation under the Federal Land Policy and Management Act (FLPMA) and the binding land use plan to "prioritize" oil and gas leasing outside of those habitats.

- An alternative that defers leasing the proposed parcels until BLM demonstrates that these are "lands…which are known or believed to contain oil or gas deposits…" pursuant to the Mineral Leasing Act. 30 U.S.C. § 226(a). As discussed later in these comments, BLM provides no evidence that the proposed parcels contain oil or gas deposits, as required by the Mineral Leasing Act (MLA). *Ibid.*; *see also Vessels Coal Gas, Inc.*, 175 IBLA 8, 25 (2008). Consistent with the MLA and BLM's multiple use mandate, BLM should not issue leases unless and until BLM has shown that the area is known to contain resources that have the potential to be developed.

- An alternative that defers leasing the proposed parcels until production in Nevada is on par with other western states. According to BLM data, at least 50% of federal oil and gas leases are in production in Colorado, New Mexico, Utah and Wyoming. Nevada, by contrast, has 6% of leases in production.[1] BLM should evaluate an alternative to not issue new leases until 50% of federal oil and gas leases are in production in the state to ensure "reasonable diligence" requirements are being met under the MLA. 30 U.S.C. § 187. This would also be a fiscally responsible alternative because leases in low potential areas generate minimal to no revenue but can carry significant cost in terms of resource use conflicts. Leases in low potential areas are most likely to be sold at or near the minimum bid of $2/acre, or non-competitively, and they are least likely to actually produce oil or gas and generate royalties.[2] This has proved to be true in Nevada, where federal oil and gas lease sales have generated just $0.31 per acre offered in bonus bids over the past 3 years, compared to other western states which generate hundreds or even thousands of dollars per acre offered.

Nevada Sale[3]	Acres Offered	Bonus Bids
Mar. 2015	25,882	$30,496
June 2015	256,875	0
Dec. 2015	3,641	0
Mar. 2016	50,416	0
June 2016	74,661	$24,740

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

[2] 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.").

[3] 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).

Mar. 2017	115,970	$74,780
June 2017	195,614	$29,440
Sept. 2017	3,680	$33,120
Dec. 2017	388,697	$66,978
Mar. 2018	69,692	$152,061.50
June 2018	313,715	$139,896
Sept. 2018	295,174	0
Dec. 2018	32,924	$7,866
Total	**1,826,941**	**$559,377.50 ($0.31/acre offered)**

Failing to consider alternatives that would protect other public lands resources from oil and gas development also violates FLPMA. Considering only one alternative in which BLM would offer all nominated oil and gas lease parcels for sale, regardless of other values present on these public lands that could be harmed by oil and gas development, would indicate a preference for oil and gas leasing and development over other multiple uses. Such an approach violates the agency's multiple use and sustained yield mandate. *See* 43 U.S.C. § 1732(a).

II. BLM has failed to consider the cumulative impacts of leasing.

BLM has failed to evaluate the cumulative impacts of BLM Nevada's July 2019 oil and gas lease sale in its entirety. BLM Nevada is analyzing approximately 340,000 acres across the state for the July lease sale. However, BLM analyzed these parcels in two separate NEPA documents, one for the Battle Mountain District and one for the Elko District. In addition to addressing direct, indirect and cumulative impacts of leasing the parcels in each district, BLM must analyze the cumulative impacts of leasing all of the parcels being considered for the July lease sale in Nevada. Further, the EAs fail to take a hard look at the reasonably foreseeable development on these leases.

In order to take the "hard look" required by NEPA, BLM is required to assess impacts and effects that include: "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, *whether direct, indirect, or cumulative*." 40 C.F.R. § 1508.8. (emphasis added). NEPA regulations define "cumulative impact" as:

> the 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. *Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*

40 C.F.R. § 1508.7 (emphasis added). To satisfy NEPA's hard look requirement, the cumulative impacts assessment must do two things. First, BLM must catalogue the past, present, and reasonably foreseeable projects in the area that might impact the environment. *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809–10 (9th Cir. 1999). Second, BLM must analyze these impacts in light of the proposed action. *Id.* If BLM determines that certain actions

are not relevant to the cumulative impacts analysis, it must "demonstrat[e] the scientific basis for this assertion." *Sierra Club v. Bosworth*, 199 F.Supp.2d 971, 983 (N.D. Ca. 2002).

Here, neither of BLM Nevada's NEPA documents for the July lease sale performs a cumulative impact analysis that takes into account the combined impact of the lease sale. A failure to include a cumulative impact analysis of additional leasing that is already planned in the region renders NEPA analysis insufficient. *See, e.g., Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 1078 (9th Cir. 2002) (holding that an EA for a timber sale must analyze the reasonably foreseeable future timber sales within the area). This analysis should have also included an analysis of the extent of past oil and gas leasing in the area, how this past leasing may have contributed to significant environmental impacts such as impacts to sage-grouse habitat, and whether additional leasing may have an "additive and significant relationship to those effects." Council on Environmental Quality, Guidance on the Consideration of Past Actions in Cumulative Effects Analysis at p. 1 (June 24, 2005); *Lands Council v. Powell*, 395 F.3d 1019, 1028 (9th Cir. 2005).

Additionally, the EAs fail to account for the hundreds of thousands of acres being offered at BLM oil and gas lease sales in Utah, Colorado, Wyoming, Montana, and other states. These lease sales across the western states contribute cumulatively to impacts on greater sage-grouse habitat and other resources.

Furthermore, because all of the parcels in BLM Nevada's July lease sale are now being consolidated in a single Notice of Competitive Lease Sale, and sold together in a single online auction, these lease parcel reviews are "connected" actions. BLM must describe connected actions in a single environmental review. 40 C.F.R. § 1508.25(a); *Klamath-Siskiyou Wildlands Ctr. v. U.S. Bureau of Land Mgmt.*, 387 F.3d 999 (9th Cir. 2004). The purpose of this requirement "is to prevent an agency from dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact." *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969 (9th Cir. 2006) (internal quotation marks omitted). Where the proposed actions are "similar," the agency also should assess them in the same document when doing so provides "the best way to assess adequately the combined impacts of similar actions." *Klamath-Siskiyou*, 387 F.3d at 999.

It is clear that an EIS needs to be prepared for this lease sale to consider past, present, and reasonably foreseeable future actions that will undoubtedly have significant impacts on the human environment.

III. The proposed lease sale violates FLPMA because it is inconsistent with the governing RMP regarding management of sage-grouse habitat.

BLM has not prioritized leasing outside of sage-grouse habitat, as required by both the 2015 and 2019 RODs and Nevada and Northeastern California ARMPA. Under the 2015 Great Basin ROD, BLM must:

> prioritize oil and gas leasing and development outside of identified PHMAs and GHMAs. This is to further limit future surface disturbance and 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 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 at 1-23.

The Nevada and Northeastern California ARMPA echoes this directive, including the following objective:

> Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside PHMA and GHMA. 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.

Nevada and Northeastern California ARMPA, p. 2-28 (emphasis added). The 2019 Nevada and Northeastern California Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment did not change this requirement. *See* Nevada and Northeastern California Proposed RMP Amendment and Final EIS at ES-7 (including "Prioritization of fluid mineral leases outside of PHMA and GHMA" in a list of issues that "do not require additional analysis in this RMPA/EIS"); Nevada and Northeastern California Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment at 1-7 ("The decisions in this Approved RMPA do not modify all of the existing decisions in the 2015 plans. Only those decisions pertaining to the issues identified in Section 1.3.1 are affected.".)

FLPMA requires that lease sale decisions comply with their governing land use plans. *See* FLPMA § 302(a), 43 U.S.C. § 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) (48 Fed. Reg. 20,368 (May 5, 1983)) ("All future resource management authorizations and actions…shall conform to the approved plan."). Commenting on these provisions, the Supreme Court said,

> The statutory directive that BLM manage "in accordance with" land use plans, and the regulatory requirement that authorizations and actions "conform to" those plans, prevent BLM from taking actions inconsistent with the provisions of a land use plan.

Norton v. Southern Utah Wilderness Alliance, 542 U.S. 55, 68 (2004). Thus, it is clear that BLM must abide by the ROD and ARMPA in this lease sale. BLM's leasing decisions, not just its development decisions, must comply with the ROD and ARMPA ("Priority will be given to leasing . . . of fluid mineral resources . . . outside of PHMA and GHMA."). Yet the EAs make no reference to the prioritization requirement.

Further, the U.S. Fish & Wildlife Service (FWS) specifically identified the prioritization requirement as one of the new "regulatory mechanisms" that allowed it to determine that sage-grouse did not warrant an ESA listing. *See* Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition To List Greater Sage-Grouse (Centrocercus urophasianus) as an Endangered or Threatened Species, 80 Fed. Reg. 59,858 59,981 (Oct. 2, 2015) ("The Federal Plans prioritize the future leasing and development of nonrenewable-energy resources outside of sage-grouse habitats."). By ignoring this requirement in the context of this and other oil and gas lease sales, BLM is undermining FWS's determination and moving sage-grouse closer to a listing.

Leasing constitutes an irreversible and irretrievable commitment of resources, and in addition a lease gives a lessee the right to develop oil and gas. Form 3100-11 and 43 C.F.R. § 3101.1-2. Thus, it is clear that leasing has tangible impacts that cannot be ignored if BLM is to meet the commitment to prioritize leasing outside of sage-grouse habitats. BLM clearly must apply the prioritization objective from the 2015 and 2019 ROD and ARMPA to this lease sale when parcels are proposed in or near PHMA and GHMA, and explain how its leasing decision complies with that mandate. BLM has failed to do so.

IV. The proposed lease sale violates FLPMA because it fails to prevent unnecessary or undue degradation of the PHMA and GHMA lands being offered for lease.

The Battle Mountain EA confirms that BLM will apply the 2019 Sage-grouse Plan to this lease sale, rather than the 2015 Plan, because the Record of Decision was signed prior to the July lease sale. EA, p. 7. One of the key requirements of the 2015 Sage-grouse Plans was that when BLM "authorize[s] third-party actions [that] result in habitat loss and degradation" of sage-grouse habitat, the agency must require "compensatory mitigation projects . . . to provide a net conservation gain to the species." Great Basin ROD at 1-25. The Plan expressly required such mitigation when oil and gas development is authorized in PHMA and GHMA. *Id.* at 1-36; Nevada and Northeastern California ARMPA at 2-6, 2-29 (Objective SSS 4 and MD MR 1); *see also id.* Exhibits F, I.

BLM, however, has eliminated the 2015 ARMPA's requirement to use compensatory mitigation in the 2019 ARMPA and ROD. *See* 2019 Nevada and Northeastern California Greater Sage-Grouse Record of Decision and Approved Resource Management Plan Amendment at 1-4 – 1-6 and 2-41 - 2-43. BLM states that: "These plans reflect the BLM's determination that the Federal Land Policy and Management Act of 1976 (FLPMA) does not explicitly mandate or authorize the BLM to require public land users to implement compensatory mitigation as a condition of obtaining authorization for the use of BLM-administered lands." *Id.* at 1-2.

First, we would note that there is a new Instruction Memorandum (IM) on Compensatory Mitigation, IM 2019-018, issued December 6, 2018; however, that IM concludes that BLM cannot require compensatory mitigation under FLPMA and relies on a Solicitor Memorandum M-37046, "Withdrawal of M-37039, "The Bureau of Land Management's Authority to Address Impacts of its Land Use Authorizations Through Mitigation." (June 30, 2017). Solicitor Memorandum M-37046 withdraws a previous Solicitor Opinion that confirmed BLM's authority

to address land use authorizations through mitigation but did not conclude BLM did not have the subject authority; rather, it "attempted to answer an abstract question." In actuality, the direction in both IM 2019-018 and the 2019 ROD are arbitrary and capricious, and in violation of law. Consequently, BLM must include requirements for compensatory mitigation in any leases issued in PHMA and GHMA.

FLPMA unquestionably provides BLM with ample support for requiring compensatory mitigation, including its direction to manage public lands in a manner to ensure the protection of ecological and environmental values, preservation and protection of certain public lands in their natural condition, and provision of food and habitat for wildlife;[4] and to "manage the public lands under principles of multiple use and sustained yield".[5] The principles of multiple use and sustained yield pervade and underpin each of BLM's authorities under FLPMA, including the policies governing the Act,[6] the development of land use plans,[7] the authorization of specific projects,[8] and the granting of rights of way.[9] While FLPMA does not elevate certain uses over others, it does delegate discretion to the BLM to determine whether and how to develop or conserve resources, including whether to require enhancement of resources and values through means such as compensatory mitigation.[10] In sum, these statutory policies encompass the protection of environmental and ecological values on the public lands and the provision of food and habitat for fish and wildlife and are furthered by the implementation of the mitigation hierarchy, including compensatory mitigation, to protect and preserve habitat for the sage grouse.

Additional authority also exists for the use of the mitigation hierarchy in issuing project-specific authorizations. For example, project-specific authorizations must be "in accordance with the land use plans,"[11] so if the land use plans adopt the mitigation hierarchy or other mitigation principles for the sage grouse under the various authorities described above, the project authorization must follow those principles. Moreover, in issuing project-specific authorizations, BLM may attach "such terms and conditions" as are consistent with FLPMA and other applicable law.[12] This general authority also confers broad discretion on BLM to impose mitigation requirements on project applicants, including compensatory mitigation in appropriate circumstances.[13]

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[4] 43 U.S.C. § 1701(a)(8). Among other things, public resources should be managed to "protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values" and "provide food and habitat for fish and wildlife".

[5] 43 U.S.C. § 1732(a).

[6] 43 U.S.C. § 1701(a)(7).

[7] 43 U.S.C. § 1712(c)(1).

[8] 43 U.S.C. § 1732(a).

[9] 43 U.S.C. § 1765(a)(i).

[10] P. L. 94-579 (Oct. 21, 1976) (stating an intent "[t]o establish public land policy; to establish guidelines for its administration; to provide for the management, protection, development, *and enhancement of the public lands;* and for other purposes." (emphasis added)).

[11] 43 U.S.C. 1732(a).

[12] 43 U.S.C. § 1732(b).

[13] BLM also has authority and/or obligations to ensure that all its operations protect natural resources and environmental quality, through statutes such as the Mineral Leasing Act of 1920, 30 U.S.C. 181 et seq.; *see also Independent Petroleum Assn. of America v. DeWitt*, 279 F.3d 1036 (D.C. Cir. 2002) (Act grants "rather sweeping authority" to BLM, or NEPA, 42 U.S.C. 4321; *see also* 40 C.F.R. § 1505.2(c), which requires consideration of mitigation alternatives where appropriate. In addition, BLM's authority under FLPMA is

Finally, as a distinct authority, BLM also has the obligation to ensure that project-specific authorizations do not result in "undue or unnecessary degradation". FLPMA states that BLM "shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."[14] A number of cases have found that BLM met its obligation to prevent unnecessary or undue degradation based, in part, on its imposition of compensatory mitigation. *See e.g., Theodore Roosevelt Conservation Partnership v. Salazar ("TRCP")*, 616 F.3d 497, 518 (D.C. Cir. 2010) (BLM decision to authorize up to 4,399 natural gas wells from 600 drilling pads did not result in "unnecessary or undue degradation" in light of substantial mitigation required from permittees, including prohibition of new development outside core area until comparable acreage in the core was restored to functional habitat, and a monitoring and mitigation fund of up to $36 million); *see also Gardner v. United States Bureau of Land Management*, 638 F.3d 1217, 1222 (9th Cir. 2011) (FLPMA provides BLM "with a great deal of discretion in deciding how to achieve the objectives" of preventing "unnecessary or undue degradation of public lands.")

BLM's implementation of a standard requiring compensatory mitigation was recently confirmed in *Western Exploration, LLC v. U.S. Department of the Interior*, 250 F.Supp.3d 718 (D.Nev. 2017).[15] In considering the argument that a net conservation gain standard for compensatory mitigation violated FLPMA, the court stated:

> The FEIS states that if actions by third parties result in habitat loss and degradation, even after applying avoidance and minimization measures, then compensatory mitigation projects will be used to provide a net conservation gain to the sage-grouse. The Agencies' goals to enhance, conserve, and restore sage-grouse habitat and to increase the abundance and distribution of the species, they argue, is best met by the net conservation gain strategy because it permits disturbances so long as habitat loss is both mitigated and counteracted through restorative projects. If anything, this strategy demonstrates that the Agencies allow some degradation to public land to occur for multiple use purposes, but that degradation caused to sage-grouse habitat on that land be counteracted. The Court fails to see how BLM's decision to implement this standard is arbitrary and capricious. Moreover, the Court cannot find that BLM did not consider all relevant factors in choosing this strategy…
>
> In sum, Plaintiffs fail to establish that BLM's challenged decisions under FLPMA are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.[16]

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broader than that exercised by purely land use or regulatory agencies such as EPA or zoning boards, because BLM [has authority] to act as both a regulatory and as a proprietor. Accordingly, BLM can take action using all the tools provided by FLPMA for managing the public lands, including issuing regulations, developing land use plans, implementing land use plans or in permitting decisions. 43 U.S.C. §§ 1712(a), 1732(a), 1732(b).

[14] 43 USC § 1732(b).

[15] BLM cited this the case in its determination to issue its Notice of Intent opening this rulemaking process. *See* Notice of Intent to Amend Land Use Plans Regarding Greater Sage-Grouse Conservation and Prepare Associated Environmental Impact Statements or Environmental Assessments. 82 Fed.Reg. 47248 (October 11, 2017). Docket No.: LLWO200000/LXSGPL000000/17x/L11100000.PH0000

[16] *Western Exploration, LLC v. U.S. Department of the Interior*, at 747.

BLM's conclusions in the 2019 Approved RMP Amendment and ROD, and in IM 2019-018, cannot be supported by applicable law, as reviewed in Solicitor's Opinion M-37039 (Dec. 21, 2016) (attached and incorporated by reference as Exhibit 2). As detailed in M-37039, FLPMA and other applicable laws allow BLM to require compensatory mitigation. Taking the opposite approach based on a misreading of the law is both arbitrary and capricious and contrary to law, and moreover may violate FLPMA's requirement to avoid unnecessary or undue degradation. Abandoning compensatory mitigation as a tool to prevent habitat degradation would violate this requirement. As noted above, the unnecessary and undue degradation standard prohibits degradation beyond that which is avoidable through appropriate mitigation and reasonably available techniques. *TRCP*, 661 F.3d at 76-77; *Colo. Env. Coal*, 165 IBLA at 229. Offsite compensatory mitigation is a well-established, reasonable and appropriate tool that has long been used to limit damage to public lands. Refusing to use that tool fails to meet FLPMA's requirement that BLM avoid unnecessary or undue degradation.

Because many of the proposed lease parcels in the July 2019 sale cover PHMA and GHMA, BLM must attach a stipulation to those leases imposing the net conservation gain/compensatory mitigation requirement that has been eliminated from the Nevada and Northeastern California ARMPA. Applying these requirements as terms of the leases is necessary to prevent unnecessary or undue degradation of the PHMA and GHMA lands being leased.

V. Facilitating speculative leasing is inconsistent with the MLA and FLPMA.

The MLA is structured to facilitate actual production of federal minerals, and thus its faithful application should focus on areas with known potential for development while discouraging speculative leasing of low potential lands. BLM's July 2019 lease sale would violate this core principle in three ways: (1) the sale continues a long-extant trend of leasing lands with little or no potential for productive mineral development; (2) as a result, the sale encourages speculative, noncompetitive leasing, which creates administrative waste, not oil; and (3) it would destroy important option value by hamstringing decisional flexibility in future management.

A. The July 2019 sale would violate the MLA's core purpose by offering land with low mineral potential.

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). The Interior Department has, through its internal administrative review body, recognized this mandate. *See 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.").

Here, however, BLM has provided no evidence that the proposed parcels contain oil or gas deposits, as the MLA requires. *See* 30 U.S.C. § 226(a). In fact, based on the pattern of lease sales in Nevada over the past three years, there is evidence to the contrary – that the lands encompassed by the parcels generally lack oil and gas resources.

The Reasonably Foreseeable Development Scenario (RFD) included in the Battle Mountain EA as Appendix G substantiates this point. It states that, "Compared to the actual amount of activity, the oil and gas RFD for the 1997 Tonopah RMP greatly overestimated the amount of exploration and production activity and associated surface disturbance." EA, p. 71. Only five wells have entered production in the Tonopah Field Office since 1997. Similarly in the Mt. Lewis Field Office, only four exploration wells have been authorized since 2003 and all four have been plugged. *Id.* p. 72.

Driving the point home, BLM Nevada spends an excessive amount of time and resources evaluating oil and gas leases that industry is either not bidding on or will likely never develop. Over the past 3 years, BLM has sold less than 10% of the acres it has offered for sale in Nevada, compared with other western states which are generally selling 70% or more.[17] Multiple lease sales have garnered zero competitive bids.

Sale	Parcels (sold / offered)	Acres (sold / offered)
Mar. 2015	13 / 24	15,244 / 25,882
June 2015	0/ 124	0 / 256,875
Dec. 2015	0 / 3	0 / 3,641
Mar. 2016	0 / 39	0 / 50,416
June 2016	4 / 42	3,765 / 74,661
Mar. 2017	20 / 67	35,502 / 115,970
June 2017	3 / 106	5,760 / /195,614
Sept. 2017	3 / 3	3,680 / 3,680
Dec. 2017	17 / 208	33,483 / 388,697
Mar. 2018	11 / 40	19,432 / 69,691
June 2018	22 / 166	38,579 / 313,715
Sept. 2018	0 / 144	0 / 295,174
Dec. 2018	2 / 17	3,392 / 32,924
Total	95 / 983 (9.7%)	158,838 / 1,826,941 (8.7%)

This pattern 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.

B. The July 2019 lease sale would encourage noncompetitive, speculative leasing.

Besides being wasteful and contrary to the MLA's purpose, the ongoing leasing of lands with little or no potential creates another related problem: it facilitates, and perhaps even encourages, below-market, speculative leasing by industry actors who don't actually intend to develop the

[17] 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).

public lands they lease. This problem creates more administrative waste, and also fails to uphold the MLA's core purpose.

Going back to the MLA's language, lease sales are intended 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, BLM Nevada's oil and gas leasing program does not accomplish this goal. Instead, it has facilitated a surge in noncompetitive lease sales – sales that do not enjoy the benefits of market forces, and which rarely result in productive development. In states like Nevada that lack competition during lease sales, speculators can easily abuse the noncompetitive process to scoop up federal leases for undervalued rates, as shown in a recent report from the New York Times. *See* Exhibit 3. The New York Times article affirms that, "In states like Nevada, noncompetitive sales frequently make up a majority of leases given out by the federal government." It provides examples of speculators, including in Nevada, intentionally using this process to nominate parcels for sale, then sit on the sidelines during the competitive lease sales and instead purchase the leases cheaper after the sale at noncompetitive sales. These speculators are then often unable to muster the financial resources to develop the lands they have leased so they sit idle: "Two Grand Junction, Colo., business partners, for example — a geologist and a former Gulf Oil landman — now control 276,653 acres of federal parcels in northeastern Nevada. But they are still looking for the money they need to drill on the land, or even to pay for three-dimensional seismic surveys to determine whether there is enough oil there to try." By failing to appropriately implement the MLA and ensure that parcels offered for sale have a "reasonable assurance" of containing mineral deposits, BLM is encouraging noncompetitive, speculative leasing, which deprives the public of bonus bids and royalties, and leaves taxpayers to foot the bill for industry speculation.

The speculative nature of noncompetitive leasing – and the administrative waste it creates – is evident from a common outcome in noncompetitive leasing: termination for non-payment of rent. A review of noncompetitive leases in Nevada shows that BLM frequently terminates these leases because the lessee stops paying rent.[18] The administrative waste this process creates is further exacerbated by the fact that there are no apparent consequences for companies engaging in this practice. Indeed, many of these companies continue to actively nominate and purchase oil and gas leases, despite the clear pattern of buying leases noncompetitively with little intent to develop, and reneging on their contractual obligations shortly thereafter. This process cannot be characterized as anything other than wasteful, counterproductive, and contrary to the MLA.

Again, the stated national policy underlying oil and gas leasing is "the orderly and economic development of domestic mineral resources, reserves, and reclamation of metals and minerals to help assure satisfaction of industrial, security and environmental needs." 30 U.S.C. § 21a.

[18] This research is documented in the Center for American Progress's recent report, *Backroom Deals: The Hidden World of Noncompetitive Oil and Gas Leasing*, along with other concerns regarding speculative leasing raised in these comments. Available at https://www.americanprogress.org/issues/green/reports/2019/05/23/470140/backroom-deals/.

Noncompetitive, speculative leasing on low-potential land does not further this policy goal, and instead occupies BLM resource specialists' time that would be better spent on other public lands management activities – all while taxpayers pick up the tab.

C. BLM must analyze the "option value" of offering parcels with low or non-existent development potential.

In addition to the concerns above, leasing lands with low potential for oil and gas development gives preference to oil and gas development at the expense of other uses while handcuffing BLM's ability to make other management decisions down the road. This is because the presence of oil and gas leases can limit BLM's willingness to manage for other resources in the future.

For example, in the Colorado River Valley RMP, BLM decided against managing lands for protection of wilderness characteristics in the Grand Hogback lands with wilderness characteristics 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, 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 future management decisions for other resources and uses such as wilderness, recreation and renewable energy development.

In this context, BLM can and should apply the principles of option value or informational values, which permit the agency to look at the benefits of delaying irreversible decisions. *See* Jayni Foley Hein, Harmonizing Preservation and Production 13 (June 2015) ("Option value derives from the ability to delay decisions until later, when more information is available. . . . In the leasing context, the value associated with the option to delay can be large, especially when there is a high degree of uncertainty about resource price, extraction costs, and/or the social and environmental costs of drilling.").[19] It is well-established that issuance of an oil and gas lease is an irreversible commitment of resources. As the U.S. Court of Appeals for the D.C. Circuit held in the context of considering the informational value of delaying leasing on the Outer Continental Shelf, "[t]here is therefore a tangible present economic benefit to delaying the decision to drill for fossil fuels to preserve the opportunity to see what new technologies develop and what new information comes to light." *Center for Sustainable Economy v. Jewell*, 779 F.3d 588, 610 (D.C. Cir. 2015)

Thus, in evaluating this lease sale, BLM should have evaluated "option value" – the economic benefits that could arise from delaying leasing and/or exploration and development based on improvements in technology, additional benefits that could come from managing these lands for other uses, and additional information on the impacts of climate change and ways to avoid or mitigate impacts on the environment. This is essential, in particular, for lands with low or non-existent development potential. BLM has the ability and obligation to undertake an analysis of the benefits of delaying leasing, which can be both qualitative and quantitative, considering both economic and environmental needs, as shown by a recent federal court decision. In *Wilderness Workshop v. Bureau of Land Management*, the plaintiffs proposed a land use planning alternative where low and medium potential lands would be closed for leasing. BLM declined to consider the alternative, claiming it had already considered and discarded a "no leasing" alternative. The court found: "This alternative would be 'significantly distinguishable' because it would allow BLM to consider other uses for that land." *Wilderness Workshop v. Bureau of Land Management*, No. 1:16-cv-01822-LTB, Memorandum Opinion and Order, (D. Colo., October 17, 2018), p. 38 (attached as Exhibit 1). Considering such an alternative would permit BLM to consider the option value of delaying leasing on low potential lands.

As applied here, this economic principle suggests that BLM Nevada would be well-served by deferring the July 2019 lease parcels and preparing a programmatic EIS that considers alternative approaches for managing the oil and gas program in Nevada. The point of deferring and planning would be to ensure that BLM does not commit to moving forward with oil and gas leasing when, based on Nevada's current leasing patterns described above, economic and other indicators suggest doing so right now does not best serve the public interest.

VI. Prioritizing oil and gas leasing is inconsistent with FLPMA's multiple-use mandate.

Under FLPMA, BLM is subject to a multiple-use and sustained yield 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. §

[19] *Available at* https://policyintegrity.org/files/publications/DOI_LeasingReport.pdf.

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).

DOI appears to be pursuing an approach to oil and gas management that prioritizes this use above others in violation of the multiple use mandate established in FLPMA. For example, a March 28, 2017 Executive Order and ensuing March 29, 2017 Interior Secretarial Order #3349 seek to eliminate regulations and policies that ensure energy development is balanced with other multiple uses. 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. 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 at 710; *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. BLM must therefore consider a reasonable range of alternatives for this lease sale that considers and balances the multiple uses of our public lands, consistent with NEPA and FLPMA.

VII. IM 2018-034 is invalid.

BLM is currently implementing its oil and gas leasing program under IM 2018-034, which directs BLM to expedite the oil and gas lease sale process and encourages the agency to minimize environmental review and public participation. Such an approach impedes informed decision-making, increases public controversy and prioritizes energy development above other resources and uses in violation of the multiple use mandate established in FLPMA.

In September 2018, the U.S. District Court for the District of Idaho issued a Memorandum Decision and Preliminary Injunction enjoining and restraining BLM from implementing certain provisions of IM 2018-034, for lease sales within the planning area of the greater sage-grouse conservation plans. The Preliminary Injunction requires that BLM offer meaningful opportunities for the public to participate in lease sales affecting sage-grouse habitat, in accordance with the agency's obligations under NEPA and FLPMA. The express requirements are that BLM must provide for a 30-day public comment period on the Environmental

Assessment and/or Determination of NEPA Adequacy for lease sales, as well as provide a 30-day public protest period. *Western Watersheds Project v. Zinke*, No. 1:18-cv-00187-REB at 55-56 (D. Idaho Sept. 21, 2018).

Beyond the specific public comment periods for lease parcels within the planning area of the greater sage-grouse plans required by the Preliminary Injunction, the court's decision is a broader indictment of BLM's attempts to cut the public out of oil and gas leasing decisions affecting our public lands. Stating that, "It is well-settled that public involvement in oil and gas leasing is required under FLPMA and NEPA," the court found that the plaintiffs are likely to succeed on the fundamental question of whether BLM's statutory obligations require a minimum level of public involvement in leasing decisions, and that the IM 2018-034 procedures fall short of those obligations. *Id.* at 36-37, 40-41.

The court further concluded that:

> The record contains significant evidence indicating that BLM made an intentional decision to limit the opportunity for (and even in some circumstances to preclude entirely) any contemporaneous public involvement in decisions concerning whether to grant oil and gas leases on federal lands. . . . Doing so certainly serves to meet the stated "purpose" of IM 2018-034 – that is, reducing or precluding public participation will "streamline the leasing process to alleviate unnecessary impediments and burdens, to expedite the offering of lands for lease . . . ." Yet, the route chosen by BLM to reach that destination is problematic because **the public involvement requirements of FLPMA and NEPA cannot be set aside in the name of expediting oil and gas lease sales. The benefits of public involvement and the mechanism by which public involvement is obtained are not 'unnecessary impediments and burdens.**"

Id. at 41 (emphasis added).

While BLM provided 30-day comment periods on the NEPA documents for the July 2019 lease sale in accordance with the Preliminary Injunction, and is now providing a 30-day protest period as well, other elements of IM 2018-034 which are being applied here are likewise unlawful. For example, IM 2018-034 creates a one-sided burden on requests that BLM defer lease parcels: it requires consultation with BLM's Washington, DC headquarters to defer parcels, but not to dismiss protests and proceed with a lease sale. IM 2018-034 also requires that BLM complete lease parcel reviews within a 6-month timeline, which severely restricts the agency's ability to conduct thorough NEPA reviews and solicit and respond to public input on lease parcels.

Additionally, BLM has not formally withdrawn IM 2018-034 or rescinded the portions pertaining to public participation that were enjoined in the Preliminary Injunction. Nor has BLM officially committed to providing 30-day comment and protest periods for lease parcels outside of sage-grouse habitat. By allowing BLM to drastically reduce or virtually eliminate the opportunity for public participation, and reducing the protest period to 10 days, IM 2018-034 effectively alters the substantive rights and interests of our organizations and the public, and thus represents a substantive rule subject to the notice-and-comment requirements of the Administrative Procedure Act (APA). The IM was issued in violation of the notice-and-comment

requirements of the APA and is thus invalid. Similarly, IM 2018-034 is inconsistent with FLPMA's public participation requirements for the reasons described in the *Western Watersheds Project v. Zinke* order.

Prior to issuance of IM 2018-034, BLM was required to undertake an inter-disciplinary review, to visit proposed parcels, and to provide for public participation in the leasing process, all of which provided the opportunity for BLM to understand the values at stake and to understand and address public concerns. After an opportunity for public comment, BLM also provided the public with 30 days to evaluate, and if necessary file, a protest. BLM had 60 days prior to a lease sale to resolve protests. That process, which was set forth in IM 2010-117, did not impair our rights or impose significant new burdens on our ability to engage in the leasing of public lands and minerals. By contrast, IM 2018-034 imposes significant burdens on our participation in the leasing process, as described above. BLM's abrupt issuance of new guidance did not provide a sufficient, reasoned explanation for the significant reversals in process and rights, which we and other stakeholders have relied upon since 2010. IM 2018-034 is therefore invalid and cannot be relied upon for this lease sale.

Conclusion

We hope to see BLM complete needed analysis and fully comply with applicable law and guidance prior to moving forward with this lease sale.

Sincerely,

Juli Slivka, Assistant Director, BLM Action Center
The Wilderness Society
11050 Pioneer Trail Ste. 202
Truckee, CA 96161
(303) 650-1179
jslivka@tws.org

List of Exhibits

1. *Wilderness Workshop v. Bureau of Land Management*, No. 1:16-cv-01822-LTB, Memorandum Opinion and Order.
2. Solicitor's Opinion M-37039.
3. "Energy Speculators Jump on Chance to Lease Public Land at Bargain Rates", The New York Times, Nov. 27, 2018.

EXHIBIT 1

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO
Lewis T. Babcock, Judge

Civil Action No. 1:16-cv-01822-LTB

WILDERNESS WORKSHOP,

WESTERN COLORADO CONGRESS,

NATURAL RESOURCES DEFENSE COUNCIL, and

SIERRA CLUB,

Plaintiffs,

v.

UNITED STATES BUREAU OF LAND MANAGEMENT, an agency of the U. S. Department of the Interior,

RYAN ZINKE, in his official capacity as Secretary of the U.S. Department of the Interior,

BRIAN STEED, in his official capacity as Deputy Director of the U.S. Bureau of Land Management,

GREG SHOOP, in his official capacity as Acting Colorado State Director of the U.S. Bureau of Land Management, and

GLORIA TIBBETTS, in her official capacity as Acting Field Manager of the Colorado River Valley Field Office of the U.S. Bureau of Land Management,

Defendants.

Memorandum Opinion and Order

Babcock, J.

This matter is before me on Plaintiffs' Petition for Review of Agency Action. Plaintiffs seek judicial review of defendant Bureau of Land Management's (referred

to as "Defendants" or "BLM") Resource Management Plan concerning land managed under BLM's Colorado River Valley Field Office (see Addendum for a list of acronyms used in this Opinion). The public officers named as defendants in this case have been updated pursuant to Fed. R. Civ. P. 25(d). The matter has been fully briefed (ECF Nos. 24, 27, 28). After carefully analyzing the briefs and the relevant portions of the record, I GRANT in part and DEFER final ruling pending further briefing on remedies in accordance with this Order.

I. BACKGROUND

A. Statutory and regulatory background

1. The National Environmental Policy Act ("NEPA")

NEPA is the "basic national charter for protection of the environment" and its "procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." 40 C.F.R. § 1500.1. Congress enacted NEPA to ensure that all federal agencies consider the environmental impacts of their actions to prevent or eliminate damage to the environment. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 371 (1989); *see* 42 U.S.C. § 4321.

Under NEPA, federal agencies must "include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on," in relevant part, the environmental impact of the proposed action and alternatives to the proposed action. 42 U.S.C. § 4332(C)(i), (iii). An

agency can choose to perform an Environmental Assessment, or may proceed directly to preparing an Environmental Impact Statement ("EIS"). *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683, 703 n.23 (10th Cir. 2009) ("*New Mexico*").

The requirement to complete an EIS aims to ensure "that the agency, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts" and guarantees "that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989).

2. The Administrative Procedure Act ("APA")

NEPA provides no private cause of action and thus Plaintiffs' claims arise under the APA. Pls.' Compl., ECF No. 1 at 14; *see New Mexico*, 565 F.3d at 704. Under the APA, a person who is suffering a "legal wrong because of agency action" is entitled to judicial review. 5 U.S.C. § 702.

An agency's NEPA compliance is reviewed to see whether it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *New Mexico*, 565 F.3d at 704 (quoting 5 U.S.C. § 706(2)(a)). The agency action is arbitrary and capricious if the agency

> (1) entirely failed to consider an important aspect of the problem, (2) offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise, (3) failed to base

> its decision on consideration of the relevant factors, or (4) made a clear error of judgment.

Id. (quoting *Utah Envtl. Cong. v. Troyer*, 479 F.3d 1269, 1280 (10th Cir. 2007)) (quotations omitted).

When reviewing factual determinations made by agencies under NEPA, short of a "clear error of judgment," an agency is required to take "hard look" at information relevant to a decision. *Id.* A court considers only the agency's reasoning at the time it made its decision, "excluding post-hoc rationalization concocted by counsel in briefs or argument." *Id.* (citing *Utahns for Better Transp. v. U.S. Dep't of Transp.*, 305 F.3d 1152, 1165 (10th Cir. 2002)); *see* 3 Charles H. Koch, Jr. and Richard Murphy, *Admin. L. & Prac.* § 9:26 (3d ed. 2018) ("Without engaging in review of the actual resolution of factual questions of this variety, courts by using the hard look standard assure that the agency did a careful job at fact gathering and otherwise supporting its position.").

"Deficiencies in an EIS that are mere 'flyspecks' and do not defeat NEPA's goals of informed decisionmaking and informed public comment will not lead to reversal." *Id.* (citing cases). As such, the agency action is presumed valid and the burden of proof rests upon those challenging the agency action. *Id.* (citing *Citizens' Comm. to Save Our Canyons v. Krueger*, 513 F.3d 1169, 1176 (10th Cir. 2008)). "So long as the record demonstrates that the agencies in question followed the NEPA procedures . . . the court will not second-guess the wisdom of the ultimate decision."

Utahns for Better Transp. v. U.S. Dep't of Transp., 305 F.3d at 1163 (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 350).

3. The Federal Land Policy and Management Act ("FLPMA")

In enacting the FLPMA, Congress aimed to empower the Secretary of the Interior to manage the United States' public lands. 43 U.S.C. § 1701. The Secretary, through BLM, "shall manage the public lands under principles of multiple use and sustained yield." 43 U.S.C. § 1732(a). "Multiple use" means "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values . . . ."43 U.S.C. § 1702(c).

In managing public lands, BLM must develop resource management plans ("RMPs"). *BioDiversity Conservation All. v. Bureau of Land Mgmt.*, 608 F.3d 709, 712 (10th Cir. 2010) (citing 43 U.S.C. § 1712; 43 C.F.R. § 1601.0–5(n)). An RMP is "designed to guide and control future management actions and the development of subsequent, more detailed and limited scope plans for resources and uses." 43 C.F.R. § 1601.0–2; *see Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 59 (2004) ("Generally, a land use plan describes, for a particular area, allowable uses, goals for future condition of the land, and specific next steps."). The approval of an RMP "is considered a major Federal action significantly affecting the quality of the human environment" and thus requires an EIS. 43 C.F.R. § 1601.0–6.

a. Oil and gas development under the FLPMA

On public lands, the FLPMA entrusts BLM with the "orderly and efficient exploration, development and production of oil and gas." 43 C.F.R. § 3160.0-4; 43 U.S.C. § 1732(b); *see* 43 C.F.R. § 3100.0-3. This is done by using a "three-phase decision-making process." *W. Energy All. v. Zinke*, 877 F.3d 1157, 1161 (10th Cir. 2017) (quoting *Pennaco Energy, Inc. v. U.S. Dep't of Interior*, 377 F.3d 1147, 1151 (10th Cir. 2004)).

In the first phase, BLM creates RMPs. *Id.* Part of an RMP indicates the lands open or closed to the development of oil and gas, and subsequent development must abide by the terms of the RMP. *Id.*

In the second phase, through state offices, BLM identifies parcels that it will offer for lease, responds to potential protests of the suggested parcels, and conducts "a competitive lease sale auction." *Id.* at 1162 (citing 43 C.F.R. Subpart 3120). During the identification of parcels available for leasing, a 2010 Department of Interior policy mandates additional review, including: (1) an interdisciplinary team reviewing the parcels proposed for leasing and conducting site visits; (2) identifying issues BLM must consider; and (3) obliging BLM to consult other stakeholders. *Id.*

In the final phase, after the sale of a lease, BLM "decides whether specific development projects will be permitted on the leased land." *Id.*; *see* 43 C.F.R. § 3162.3-1; 30 U.S.C. § 226. BLM must approve permits to drill after parcels of land are leased. 30 U.S.C. § 226(g).

B. Factual background

Within its administrative boundary, BLM's Colorado River Valley Field Office ("CRVFO") has over 2.9 million acres of public and private surface land. Administrative Record ("AR") 184599. At issue here is the administration of 505,200 acres of BLM-managed surface lands and 701,200 acres of BLM-managed federal mineral estate that lie beneath other federal, state, and private surface ownership, apart from National Forest lands. AR 184647–48. These lands within the purview of the CRVFO primarily extend across Eagle, Garfield, Mesa, Pitkin, and Routt counties. AR 184600. Additionally, the Roan Plateau, which is within the purview of the CRVFO, is exempted from the RMP in question because it is under the management of a separate RMP. AR 184600–02; *see Colorado Envtl. Coal. v. Salazar,* 875 F. Supp. 2d 1233, 1238 (D. Colo. 2012) (concerning challenges to the RMP of the Roan Plateau).

In 2007, BLM formally initiated a process to revise the 1984 Glenwood Springs Resource Area RMP. AR 184604, 184644. Pursuant to the FLPMA, BLM began the revision process: (1) "in response to new issues that have arisen since the original plan was prepared in 1984 and to higher levels of controversy around existing issues"; (2) "to allow for updated BLM management direction, guidance, and policy"; and (3) because "new resource assessments and scientific information have become available to help the CRVFO revise previous decisions and address increased uses and demands on BLM lands (such as oil and gas development and recreation), as well as the protection of natural and cultural resources." AR 184646.

The RMP analyzed environmental effects, thus the terms "RMP" and "EIS" are interchangeable in the context of this case. *See* AR 184644.

BLM noted a timeline of the revision process as promulgated in 43 C.F.R. Subpart 1610. AR 184650. This revision process includes: (1) identifying planning issues; (2) developing planning criteria; (3) collecting data and information analyzing the management situation; (4) formulating alternatives; (5) assessing and selecting a preferred alternative; (6) opening the RMP and EIS to public comment for review; and (7) signing the Record of Decision ("ROD"), marking the approval from BLM of the RMP. *Id.*

Of the considered alternatives, Alternative A was classified as the "no action alternative" meaning that "current management practices, based on existing RMPs and other management decision documents, would continue." AR 184606. This allowed for 672,500 acres of the Federal mineral estate to be open to fluid mineral leasing, leaving 28,700 acres closed. AR 184683.

Alternative B was the "mixed use" alternative which allocated "public land resources among competing human interests, land uses, and the conservation of natural and cultural resources." AR 184606. This allowed for 603,100 acres of the Federal mineral estate to be open to fluid mineral leasing, leaving 98,100 acres closed. AR 184683.

Alternative C was the conservation alternative, which emphasized "protecting resource values and enhancing or restoring the ecological integrity of habitats for all priority plant, wildlife, and fish species." AR 184608. This would

allow for 521,500 acres of the Federal mineral estate to be open to fluid mineral leasing, leaving 179,700 acres closed. AR 184683.

Alternative D was the resource use alternative, which emphasized "allowable uses that maximize resource production in an environmentally responsible manner." AR 184608. This would allow for 648,400 acres of the Federal mineral estate to be open to fluid mineral leasing, leaving 52,800 acres closed. AR 184683.

BLM selected Alternative B as its preferred alternative. AR 184606. BLM opened the proposed RMP to public comment and found that "[n]o modifications were necessary as a result of the protests, but some clarifications were made . . . ." AR 188126. On June 12, 2015, the ROD was signed, marking the approval from BLM of the RMP and EIS. AR 188163.

II. ANALYSIS

Plaintiffs are non-profit organizations who focus on environmental issues. ECF No. 1 at 7–10. The parties agree that this case is currently in the first stage of the three-stage oil and gas development process under the FLPMA. Pls.' Opening Br., ECF No. 24 at 7; Defs.' Resp., ECF No. 27 at 2. Plaintiffs challenge multiple aspects of the RMP, alleging generally that BLM "failed to take a hard look at the direct, indirect, and cumulative impacts to people and environment" and "failed to consider a reasonable range of alternatives." ECF No. 24 at 10, 36.

A. Hard look at the direct, indirect, and cumulative impacts to people and environment

In approving the RMP, Plaintiffs claim that BLM failed to take a hard look at the severity and impacts of: (1) greenhouse gas ("GHG") pollution and climate change; (2) methane emissions; and (3) oil and gas on human health.

In an EIS, BLM must consider the direct, indirect, and cumulative predicted impacts of a proposed action. *New Mexico*, 565 F.3d at 703 (citing 42 U.S.C. § 4332(2)(C); 40 C.F.R. pt. 1502 & §§ 1508.11, 1508.25(c)). "The significance of an impact is determined by the action's context and its intensity." *Hillsdale Envtl. Loss Prevention, Inc. v. U.S. Army Corps of Engineers*, 702 F.3d 1156, 1166 (10th Cir. 2012) (citing *Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1224 (10th Cir. 2002)). "Applicable regulations require agencies to consider ten factors when assessing intensity, including the proposed action's effects on public health, the unique characteristics of the geographic area, the uncertainty of potential effects, and the degree of controversy surrounding the effects on the human environment." *Id.* (citing 40 C.F.R. § 1508.27(b)).

1. GHG pollution and climate change

Plaintiffs contend that BLM: (1) failed to analyze the foreseeable indirect GHG emissions resulting from combustion or other end uses of the oil and gas extracted from the planning area; (2) failed to consider the cumulative impacts of GHG emissions associated with oil and gas production; and (3) failed to analyze the significance and severity of the volume of emissions.

a. Foreseeable indirect impacts of oil and gas

Plaintiffs argue that BLM failed to include in the RMP an analysis of the reasonably foreseeable indirect impacts of oil and gas. ECF No. 24 at 13. They contend that the "reasonably foreseeable effects of allowing fossil fuel extraction on public lands include the emissions resulting from eventual combustion of that fuel," and that BLM did not include the emissions analysis resulting from combustion. *Id.* at 13–14. Plaintiffs state that BLM recognized that decisions made under the RMP may have indirect effects resulting from activities that release GHG emissions, but BLM "failed to analyze the foreseeable emissions that will result from the processing, transmission, storage, distribution, and end use of these hydrocarbons." *Id.* at 14.

BLM responds that it provided sufficient information on the indirect effects "while candidly discussing the limitations in BLM's ability to assess such impacts based on the information available at the planning stage." ECF No. 27 at 18. It adds that even though it estimated the total number of wells that would be drilled over the life of the RMP, it additionally noted the speculative nature of forecasting oil and gas production and was thus justified to provide a qualitative analysis. *Id.* at 19. Further, BLM points to reasoning in the RMP that because natural gas produces fewer GHG emissions, if it were to displace coal and oil, it could in fact reduce GHG emissions. *Id.* BLM surmises that this potential outcome means that quantifying GHG emissions would be potentially misleading and thus it was not arbitrary or capricious in leaving it out. *Id.*

Plaintiffs reply that BLM agrees that it must consider the indirect effects of burning the natural gas under the RMP and states it does so by focusing on a qualitative analysis. Pls.' Reply, ECF No. 28 at 3. Plaintiffs continue that this is flawed because it is not sufficient for BLM to claim as its qualitative analysis that an effect is unforeseeable and merely speculate without supplying what information is missing and why it could not be obtained. *Id.* at 4.

"Indirect impacts are defined as being caused by the action and are later in time or farther removed in distance but still reasonably foreseeable." *Utahns for Better Transp. v. U.S. Dep't of Transp.*, 305 F.3d at 1177 (citing 40 C.F.R. § 1508.8(b)). An effect is considered reasonably foreseeable if it is "sufficiently likely to occur that a person of ordinary prudence would take it into account in reaching a decision." *Colorado Envtl. Coal. v. Salazar*, 875 F. Supp. 2d at 1251 (citing cases).

Courts have found that combustion emissions are an indirect effect of an agency's decision to extract those natural resources. *See San Juan Citizens All. v. U.S. Bureau of Land Mgmt.*, No. 16-CV-376-MCA-JHR, 2018 WL 2994406, at *10 (D.N.M. June 14, 2018) (collecting cases).

While *San Juan Citizens Alliance* concerned protests to oil and gas leasing, which occurs at a later stage of the oil and gas development process than what Plaintiffs are protesting here, another court has ruled that BLM needed to consider indirect effects of combustion of fossil fuels in an RMP. *W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt.*, No. CV 16-21-GF-BMM, 2018 WL 1475470, at *13 (D. Mont. Mar. 26, 2018), *appeal docketed*, No. 18-35849 (9th Cir. Oct. 12, 2018) ("In

light of the degree of foreseeability and specificity of information available to the agency while completing the EIS, NEPA requires BLM to consider in the EIS the environmental consequences of the downstream combustion of the coal, oil and gas resources potentially open to development under these RMPs.").

In *High Country Conservation Advocates v. United States Forest Service*, the defendant argued that it was too speculative to know how much coal would be mined from then-unbuilt mines and it could not provide analysis of the potential combustion. 52 F. Supp. 3d 1174, 1196 (D. Colo. 2014) ("*High Country*"). That argument failed though, as the court found that

> [t]he agency cannot—in the same [final] EIS—provide detailed estimates of the amount of coal to be mined [] and simultaneously claim that it would be too speculative to estimate emissions from "coal that may or may not be produced" from "mines that may or may not be developed." The two positions are nearly impossible to reconcile.

Id. at 1196–97.

It is arbitrary and capricious for a government agency to use estimates of energy output for one portion of an EIS, but then state that it is too speculative to forecast effects based on those very outputs. *Cf. WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 870 F.3d 1222, 1234 (10th Cir. 2017) (holding that BLM erred by relying on some portions of a government report, but not acknowledging other portions).

Even though in *High Country* the challenged analysis regarding GHG emissions was of only three mines and here BLM estimates over 4,000 new wells will be drilled, the reasoning remains analogous. 52 F. Supp. 3d at 1198; AR

185778. BLM had data projecting outputs of natural gas under each alternative. AR 185947. Additionally, BLM had data comparing resultant GHG emissions from the combustion of different fossil fuels, including natural gas. AR 185232. BLM had the ability to provide more specific estimations than it did and BLM's reasoning that it was merely too speculative to provide the estimations is belied by its own analysis in the RMP. *See Kern v. U.S. Bureau of Land Mgmt.*, 284 F.3d 1062, 1072 (9th Cir. 2002) ("An agency may not avoid an obligation to analyze in an EIS environmental consequences that foreseeably arise from an RMP merely by saying that the consequences are unclear or will be analyzed later when an [Environmental Assessment] is prepared for a site-specific program proposed pursuant to the RMP.").

Therefore, BLM acted in an arbitrary and capricious manner and violated NEPA by not taking a hard look at the indirect effects resulting from the combustion of oil and gas in the planning area under the RMP. BLM must quantify and reanalyze the indirect effects that emissions resulting from combustion of oil and gas in the plan area may have on GHG emissions.

b. Cumulative impacts of GHG and climate change

Plaintiffs argue that BLM failed to analyze the cumulative climate change impacts in its RMP at a regional, national, and global scale. ECF No. 24 at 14–15. Plaintiffs contend that BLM "should have included CRVFO GHG emissions increases, *added* to other past, present, and reasonably foreseeable BLM-managed fossil fuel extraction emissions on a regional and national scale." ECF No. 24 at 15

(emphasis in original). Plaintiffs continue that since BLM did not sufficiently consider the effects of GHG emissions on the CRVFO's lands, it violated NEPA, as a court cannot "defer to a void." *Id.* at 16 (quoting *High Country*, 52 F. Supp 3d at 1186).

In response, BLM argues that Plaintiffs merely disagree with BLM's methodology, and it is a court's task to simply decide whether BLM's actions had a rational basis and took into consideration the relevant factors. ECF No. 27 at 21. BLM points to parts of the RMP to show that it provided a qualitative assessment of cumulative climate change impacts and such an approach was reasonable under NEPA. *Id.* at 21–22 (citing AR 185240–42). It elaborated that this approach sufficiently provided information on all the relevant geographic scales. *Id.* at 22.

Plaintiffs reply that BLM is incorrect to characterize its analysis as qualitive because it merely provided data that climate impacts from resource use on the CRVFO's land were comparatively small compared to state, regional, and global totals. ECF No. 28 at 6–7.

The parties appear to agree that BLM contained its analysis in the RMP concerning cumulative impacts of climate change to AR 185240–42. ECF Nos. 24 at 15–16; 27 at 21–22. In the EIS, BLM wrote that

> Cumulative climate change impacts are caused by CRVFO GHG emissions and increases in regional, national, and global GHG emissions. GHG emissions increase with increased population growth, industrial activity, transportation use, energy production, and fossil fuel energy use. As mentioned earlier, CRVFO emissions may or may not increase state, national, or global GHG emissions due to regulatory and market forces.

AR 185240. BLM summarized potential impacts, stating that "[c]umulative GHG emissions may increase if project GHG emissions add to global GHG emissions" and that cumulative GHG emissions may not increase if oil and gas is produced in other basins or if natural gas is used. *Id.*

BLM explained that "[q]uantification of cumulative climate change impacts, such as changes in temperature, precipitation, and surface albedo, is beyond the scope of this analysis" and that potential increase in emissions and carbon sequestration could not be predicted with accuracy. *Id.* The remaining section of the cumulative climate change impact analysis read that climate change predictions for the region of western Colorado are "based on global GHG emission inventory projections and global climate change modeling." AR 185240–42.

"Cumulative impact is the 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 C.F.R. § 1508.7. "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.*

The impacts to consider include ecological, aesthetic, historic, cultural, economic, social, or health considerations. *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d 1209, 1251 (10th Cir. 2011) (explaining that the scope of an EIS includes cumulative impacts, and thus the considerations of direct and indirect effects apply similarly to cumulative effects); *see* 40 C.F.R. §§ 1508.7, 1508.8, 1508.25. However, agencies

must only discuss those impacts which are reasonably foreseeable. *Id.* (quoting *Utahns for Better Transp.*, 305 F.3d at 1176).

As such, "cumulative impacts that are too speculative or hypothetical to meaningfully contribute to NEPA's goals of public disclosure and informed decisionmaking need not be considered." *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d at 1253.

> [A] meaningful cumulative impact analysis must identify five things: (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions—past, present, and proposed, and reasonably foreseeable—that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate.

San Juan Citizens All. v. Stiles, 654 F.3d 1038, 1056 (10th Cir. 2011) (quoting *TOMAC, Taxpayers of Michigan Against Casinos v. Norton*, 433 F.3d 852, 864 (D.C. Cir. 2006)).

The Tenth Circuit has found a district court to err when the district court held that an agency was "woefully inadequate" in failing to discuss cumulative impacts when the agency action in the final EIS concerned an initial, "overarching framework." *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d 1253. The court in *Wyoming* dealt with an initial plan regarding three government actions that would then undergo their own NEPA evaluations. *Id.* It found for the agency because those "procedural planning rules would not have any concrete, measurable *cumulative impact* until the [agency] implemented them in response to specific proposals in the

future." *Id.* (alteration and emphasis added). The court found those impacts as too speculative and did not "meaningfully contribute to NEPA's goals of public disclosure and informed decisionmaking . . . ." *Id.*

Considering that there necessarily will be more specific regulations regarding the actual leasing and drilling approvals, the cumulative impacts are undoubtedly more foreseeable at that time. *See* 43 C.F.R. Subpart 3120; *Diné Citizens Against Ruining Our Env't v. Jewell*, 839 F.3d 1276, 1289 (10th Cir. 2016) (holding that an agency did not violate NEPA when it deferred cumulative impacts analysis to an Environmental Assessment); *cf. Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497, 504 (D.C. Cir. 2010) (holding that an RMP does not "include a decision whether to undertake or approve any specific action") (citing 43 C.F.R. § 1601.0–5 (n)).

Therefore, in the RMP, BLM took an appropriately hard look at the cumulative climate change impacts. *See Hillsdale Envtl. Loss Prevention, Inc. v. U.S. Army Corps of Engineers*, 702 F.3d at 1177–78 (explaining that courts are not in a position to decide the propriety of competing methodologies and must simply determine whether the agency had a rational basis for employing the challenged method, especially when the dispute involves a technical judgment within the agency's area of expertise) (citing cases).

c. Analysis of the significance and severity of the volume of emissions

Plaintiffs claim that BLM violated NEPA by not taking a sufficiently hard look at the economic downsides regarding GHG emissions contemplated in the RMP. ECF No. 24 at 17–21. Plaintiffs argue that BLM was wrong to state in the RMP that tools did not then exist to measure incremental climate impacts of GHG emissions associated with specific activities. *Id.* at 18. Plaintiffs reason that BLM was of aware, and arbitrarily disregarded, the social cost of carbon protocol (the "Protocol"), which contextualizes the costs associated with climate change. *Id.* at 18–19. Plaintiffs continue that "BLM was particularly obligated to address the economic impact of GHG emissions by estimating their social cost because the agency did provide monetized estimates of the benefits of oil and gas production." *Id.* at 19.

Plaintiffs concede that BLM is not required to conduct a cost-benefit analysis, but looks to *High Country* to support the proposition that BLM acted in an arbitrary and capricious manner by choosing to quantify the benefits of an action, but then incorrectly claimed that it could not analyze the related costs. *Id.* (quoting 52 F.Supp.3d at 1191). Specifically, Plaintiffs argue that BLM presented benefits concerning economic, revenue, and employment data across the studied alternatives, but then did not quantify the economic costs related to those benefits. *Id.* at 20.

BLM responds that its chosen method to analyze climate change impacts is entitled to deference and sufficiently complies with NEPA. ECF No. 27 at 23. BLM confirms that it need not perform a cost-benefit analysis and that the Protocol was

meant to be employed in agency rulemakings, which this RMP was not. *Id.* at 23–24. Further, BLM argues that the Protocol was issued a year after the air quality modeling and calculations in the RMP were completed and revised. *Id* at 24. Finally, BLM strongly disputes that its analysis of economic impacts constitutes a cost-benefit analysis. Thus, it argues that it does not fall within the reasoning of *High Country*, because benefits were never actually presented. *Id.* at 24–27 (citing 52 F. Supp. 3d 1174).

The Protocol is an estimate of the "monetized damages associated with an incremental increase in carbon emissions in a given year. It is intended to include (but is not limited to) changes in net agricultural productivity, human health, property damages from increased flood risk, and the value of ecosystem services due to climate change." AR 201225. The Protocol was "designed to quantify a project's contribution to costs associated with global climate change." *High Country*, 52 F. Supp. 3d at 1190.

As the parties agree, a cost-benefit analysis is not required in an EIS. The regulations concerning an EIS read that "the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations." 40 C.F.R. § 1502.23. However, if an agency chooses to conduct a cost-benefit analysis in an EIS, that analysis should not be misleading. *High Country*, 52 F. Supp. 3d at 1182 (citing cases).

In *High Country,* the court found the analysis misleading because the agencies "expressly relied on the anticipated economic benefits of [lease modifications] in justifying their approval," but the agencies then explained "that a similar analysis of the costs was impossible when such an analysis was in fact possible and was included in an earlier draft EIS." *Id.* at 1191.

I agree with two arguments by BLM that makes *High Country* not analogous this context: (1) the economic impact analysis was not necessarily the "benefit" side of a cost-benefit analysis; and (2) BLM did not expressly rely on anticipated economic benefits in its RMP. ECF No. 27 at 25–26.

The disputed economic projections concern average annual labor income and estimated payments to counties from mineral royalty distributions. AR 185950–51. The estimations of the proposed alternative were less than those of two other proposed alternatives. *Id.* BLM noted that "[w]hile the alternatives have the potential to affect local businesses and individuals, the relative contribution of BLM activities to the local economy. . . and the relative differences between the alternatives would not be large enough to have any measurable effect on economic diversity or dependency." AR 185949. BLM added that "[u]nder all the alternatives, all BLM-related contributions—jobs and labor income—would continue to support less than 1 percent of totals within the impact area economy, but could be more important for smaller communities within the planning area." *Id.*

An important aspect of *High Country* was the fact that the agencies had attempted to quantify contributions to the costs of global climate change in drafts of

their EIS, but then removed that portion "in part it seems, in response to an email from one of the BLM's economists that pointed out that the social cost of carbon protocol is 'controversial.'" 52 F.Supp. 3d at 1191. Plaintiffs do not posit that a similar action occurred here.

This does not speak to the potential effectiveness of the Protocol, nor when BLM may have been aware of its existence. Simply put, under 40 C.F.R. § 1502.23, BLM was not required to perform a cost-benefit analysis. It chose not to do so, provided sufficient support in the record to show this, and thus satisfied NEPA in this respect.

2. Methane emissions

Plaintiffs argue that BLM failed to take a hard look at methane emissions associated with the RMP. ECF No. 24 at 21. In particular, Plaintiffs maintain that: (1) BLM arbitrarily ignored generally accepted science regarding methane's potency; and (2) BLM relied on underestimated methane emissions data.

a. Science concerning methane's potency

Plaintiffs claim that BLM used both an improper timeframe and outdated science when it considered methane emissions. ECF No. 24 at 21–26.

As part of the RMP, BLM estimated GHG emissions in assessing climate change impacts related to the plan area across the studied alternatives. AR 184835, 184842–43. In doing so, BLM used data it collects to estimate those emissions. AR 223675, 223681. A "GHG's ability to contribute to global warming is based on its longevity in the atmosphere and its heat-trapping capacity." AR 184840. In order to

aggregate GHG emissions and assess their contribution to global warming, BLM uses a method from the Environmental Protection Agency ("EPA") to assign each GHG a global warming potential unit ("GWP"), which is the emission's equivalent output of carbon dioxide. *Id.* BLM assigned methane a GWP factor of 21 and considered its effects on a 100-year timeframe. *Id.* Plaintiffs dispute both aspects of this analysis.

First, Plaintiffs argue that the GWP should be analyzed using a 20-year timeframe. Plaintiffs point to the record to posit that methane's properties make it such that its effect on the climate is much greater in the short-term and that by using the 100-year timeframe, BLM significantly understates methane's impact on the climate. ECF No. 24 at 21–22. Plaintiffs highlight the data used by the Intergovernmental Panel on Climate Change. *Id.* at 22.

In response, BLM explains that it was reasonable to use a 100-year timeframe because this is what EPA used in rules and regulations that BLM explicitly relied upon in the RMP. ECF No. 27 at 31. BLM claims it adopted a 100-year timeframe to keep consistent with nationwide sectoral emissions, which allowed for a more complete look at past and future GHG emissions. *Id.* BLM acknowledges that methane has a greater GWP over a 20-year timeframe, but that it acted reasonably in using a timeframe consistent in addressing all GHG emissions. *Id.* at 32.

Concerning the second issue—whether BLM improperly assigned methane a GWP of 21—Plaintiffs argue that the source relied upon by BLM had been revised,

but BLM did not reflect this in the RMP. ECF No. 24 at 22. Plaintiffs continue that if the updated GWP was used, the assumptions BLM would use for methane emissions would substantially increase. *Id.* at 23.

BLM contends that the GWP factor it used "was accepted and supported at the time the analysis was prepared and the agency explained why it had selected that factor." ECF No. 27 at 28. BLM clarifies that it acknowledged the updated GWP factor, but reasonably explained why it kept with its original option. *Id.* at 29. It maintains that it should not be required to redo analyses each time updated information enters the scientific sphere, because it would lead to a potentially endless process of re-analyzing its data. *Id* at 28–30.

Accurate scientific analysis is essential to implementing NEPA. 40 C.F.R. § 1500.1. In an EIS, an agency must "insure the professional integrity, including scientific integrity, of the discussions and analyses . . . ." 40 C.F.R. § 1502.24. In reviewing this, as discussed *supra*, courts are not in the position to decide the propriety of competing methodologies, especially when the issue involves a technical judgment within an agency's expertise. *Hillsdale Envtl. Loss Prevention, Inc. v. U.S. Army Corps of Engineers*, 702 F.3d at 1177–78; *see Baltimore Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 103 (1983) (holding that when examining an agency's prediction, "within its area of special expertise, at the frontiers of science," a reviewing court must generally be at its most deferential).

Here, BLM pointed to two EPA decisions to explain its choice to use the GWP factor of 21 in a 100-year timeframe. AR 223677, 223853. In one of these decisions,

EPA used a GWP factor of 21 with a 100-year timeframe. Mandatory Reporting of Greenhouse Gases, 74 Fed. Reg. 56,260, 56,395 (Oct. 30, 2009). In a technical support document prepared for BLM, it was noted that the Intergovernmental Panel on Climate Change, "the international scientific body created by the United Nations to evaluate the risk of climate change, has published more recent GWPs in its Fourth Assessment Report." AR 223840. This report included a GWP factor for methane of 25. *Id.* However, BLM chose keeps its numbers consistent with those of EPA.

It explained that while the GWPs from the Intergovernmental Panel on Climate Change

> [A]re more universal and more recent than [EPA]-published GWPs, the [EPA]-published numbers are being used by companies that must report GHG emissions to [EPA], including certain sectors of the oil and gas industry. Because many U.S. companies are using [EPA]-published GWPs, and for consistency in sectoral comparisons, BLM Colorado has chosen to use [EPA] GWPs. In the event that [EPA] revises their published GWPs, BLM Colorado will follow suit.

Id.

BLM notes that EPA changed its methane GWP factor to 25 in 2014, while still using the 100-year timeframe. ECF No. 27 at 29, n.10 (citing 2013 Revisions to the Greenhouse Gas Reporting Rule and Final Confidentiality Determinations for New or Substantially Revised Data Elements, 78 Fed. Reg. 71,904, 71,909 (Nov. 29, 2013) ("Reporting Rule Revision")). However, BLM adds that this decision postdated the revised EIS analysis. *Id.* The pertinent analysis concerning air quality modeling

and calculations was published in May 2011 and was revised in August 2012. AR 223657.

Plaintiffs take issue with BLM's commitment that if EPA revised their published GWPs, BLM would follow suit. ECF No. 28 at 12. Plaintiffs claim that EPA did not update its GWP "prior to BLM's decision" which was in 2015. *Id.*; AR 188163. However, the Reporting Rule Revision noted that "the GWPs finalized in this rulemaking are only applied prospectively, and do not affect the applicability for reporters that was determined for prior years." 78 Fed. Reg 71,904, 71,938. Therefore, BLM need not reach back and re-calculate its prior analyses based on the new GWP. BLM took a sufficient hard look at methane's potency based on the applicable regulations in force at the time of its analysis and decision.

b. Estimations of methane emissions data

Plaintiffs argue that BLM made improper assumptions about the magnitude of methane emissions, which thereby undermined the validity of BLM's findings in the RMP. Plaintiffs claim that three incorrect assumptions were made when BLM estimated the planning area's methane emissions. ECF No. 24 at 24. First, Plaintiffs note that the modeling data came solely from survey responses of oil gas operators without being confirmed by BLM. *Id.* Second, Plaintiffs argue that the data was not based on current or historic emissions rates, but on forecast emissions in 2028. *Id.* Third, Plaintiffs claim BLM improperly adjusted these emissions rates on a faulty assumption about the implementation of control technologies on oil and gas emission sources. *Id.*

Plaintiffs request that the court follows their calculations of an assumed leakage rate. ECF No. 24 at 24–25. However, neither in their Opening Brief nor their Reply do Plaintiffs provide support by cites to the record from where they get certain numbers for their conversions. *See* ECF Nos. 24 at 25, n.19; 28 at 14, n.8. This leaves the court with no reliable way to sufficiently judge Plaintiffs' analysis on the issue. Further, Plaintiffs reference BLM rulemakings that occurred after the ROD was signed. ECF No. 24 at 25.

Plaintiffs do not persuasively explain how using industry assumptions necessarily leads to faulty data, nor do they fully develop an argument regarding the issue concerning adjusting emissions on a faulty assumption about control technologies on oil and gas emission sources in 2028. As such, I must afford the deference due to BLM on this issue and find against Plaintiffs.

3. Oil and gas effects on human health

Plaintiffs argue that BLM failed to provide a meaningful analysis of the potential health impacts related to the oil and gas development projected in the RMP. ECF No. 24 at 26. Plaintiffs allege that: (1) BLM improperly dismisses the harm to humans from oil and gas development in the planning area; (2) the RMP provides insufficient information to the public regarding potential health impacts; and (3) BLM's deference in the RMP to future adaptive management and compliance with legal requirements does not substitute for a proper analysis in the RMP itself. *Id.* at 26–36. Plaintiffs add that BLM's deferral to later stages was

inappropriate because Plaintiffs are faulting it for failing to disclose general health risks, not site-specific information. ECF No. 28 at 21.

a. BLM's discussion of site-specific human health effects of oil and gas development in the planning area

Plaintiffs provided a voluminous submission in the record of studies, reports, and firsthand accounts which they argue paint a significantly more severe picture of the environmental impacts of oil and gas than which BLM considered. *See generally* AR 203304–217808; ECF No. 24 at 27–34. Plaintiffs dispute BLM's assertion that "no studies have documented significant cancer-based or noncancer-based health risks from oil and gas operations using emissions rates and operational practices typical of current development in the CRVFO." ECF No. 24 at 28 (quoting AR 185943). Plaintiffs cite the United States Census to show that people live physically close to the wells. *Id.* They further point to studies showing that there were adverse health effects regarding proximity to oil and gas that was more severe than what was stated in the RMP. Id. at 28–29. They add that BLM failed to take a hard look at the firsthand reports of area residents. Id. at 29–30.

BLM states that its RMP complies with the scope of the analysis required by NEPA. As discussed *supra*, this RMP is the first of a three-stage process concerning oil and gas development on public land. BLM argues that "it appropriately deferred greater and more localized detail to the implementation stages, when substantially more will be known about the specifics of development." *Id.* at 36–37.

BLM stated in its response to comments in the RMP that "new oil and gas leases must undergo an Environmental Assessment under NEPA." AR 223553. BLM argues that it is following NEPA and related regulations by deferring more detailed analysis in a process named "tiering." ECF No. 27 at 36–37.

"Tiering refers to the coverage of general matters in broader environmental impact statements . . . with subsequent narrower statements or environmental analyses (such as regional or basinwide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared." 40 C.F.R. 1508.28.

Tiering allows for subsequent, more narrow assessments to follow broader EISs. *San Juan Citizens All. v. Stiles*, 654 F.3d at 1054 (quoting 40 C.F.R. § 1508.28). "Tiering can 'eliminate repetitive discussions of the same issues and allows the agency to focus on the actual issues ripe for decision at each level of environmental review,[] while excluding from consideration issues already decided or not yet ripe.'" *Id.* (quoting 40 C.F.R. §§ 1502.20, 1508.28(b)) (alterations omitted).

Site-specific impacts must be analyzed under NEPA "only when a 'critical decision' has been made to act on site development—i.e., when 'the agency proposes to make an irreversible and irretrievable commitment of the availability of resources to project at a particular site.'" *Friends of Yosemite Valley v. Norton*, 348 F.3d 789, 801 (9th Cir. 2003), *opinion clarified*, 366 F.3d 731 (9th Cir. 2004) (quoting *State of Cal. v. Block*, 690 F.2d 753, 761 (9th Cir. 1982)).

In the context of oil and gas leasing, the site-specific impacts occur in the later stages of leasing and development. *See Pennaco Energy, Inc. v. U.S. Dep't of Interior*, 377 F.3d at 1151–52 ("BLM is initially charged with determining whether the issuance of a particular oil and gas lease is consistent with the RMP. The lessee must obtain BLM approval of an Application for Permit to Drill (APD) before commencing any 'drilling operations' or 'surface disturbance preliminary thereto.'") (quoting 43 C.F.R. § 3162.3-1(c)).

NEPA requires agencies to consider context and intensity when considering if an action significantly affects the environment. 40 C.F.R. § 1508.27. When considering site-specific action, "significance would usually depend upon the effects in the locale rather than in the world as a whole." *Id.*

Therefore, it was appropriate for BLM to defer site-specific health analysis to later assessments or reports. BLM appropriately noted that it would provide more localized details when it knew more about the specifics of development. This is not to question the veracity or importance of the firsthand accounts and reports Plaintiffs note; this is merely the improper procedural stage to raise such issues.

b. BLM's discussion of general human health effects of oil and gas development in the planning area

Plaintiffs argue that BLM has not sufficiently informed the public of health impacts in the RMP. They claim that BLM only provides vague, unhelpful assessments concerning risks to health including air quality, water resources management, and chemicals associated with oil and gas production. Plaintiffs also

argue that BLM's plan in the RMP to provide for adaptive management or legal compliance that would occur after the RMP was too subjective and did not assure any health outcomes. ECF No. 24 at 34–36.

The RMP contained a sufficient discussion of how it describes air quality. AR 184826–34. This section contained substantive discussion of: the regulatory structure for air quality; the current conditions, including ambient air pollution concentrations, particulate matter, ozone, hazardous air pollutants, and visibility; and characterization of air quality. *Id.* The RMP contained an additional discussion on the impacts of air quality on physical, biological, and cultural resources. AR 185201–29. In part, this section discussed the environmental consequences of the impacts on air quality based on each alternative and cumulative air quality impacts. *Id.*

BLM provided a similar analysis concerning water quality. It discussed how the RMP would affect water resources. AR 184849–57. It discussed the impacts of fluid minerals, including oil and gas, on water resources. *See e.g.* AR 185276–78, 185280–82, 185764, 185769. It discussed the potential risks of hydraulic fracturing and included in that discussion "public concern about contamination of freshwater aquifers and water wells" and accordant studies. AR 185040–44.

Additionally, BLM instituted a Comprehensive Air Resources Protection Protocol, which "describes the process and strategies the BLM will use when authorizing activities that have the potential to adversely impact air quality within the state of Colorado." AR 188793. BLM responded to public comment to add that

the RMP will incorporate additional analyses and monitoring of water quality. AR 223500. In response to comments, BLM also updated the RMP "to include more comprehensive definitions and protections to municipal watersheds and public water supplies." AR 223501.

Plaintiffs argue in their Reply that BLM omitted from its analysis certain powerful pollutants that were routinely detected in air monitors in the plan area. ECF No. 28 at 18. However, as BLM noted, it is under no obligation to respond to each study cited by Plaintiffs in their brief "or to provide an encyclopedic discussion of potential health effects." ECF No. 27 at 41.

In accordance with the discussion concerning tiering, BLM's comments to provide greater context and analysis in site-specific situations in the future, and the deference I must give in situations of technical analysis, I find that BLM took a sufficiently hard look in the RMP of human health impacts of oil and gas.

B. Consideration of alternatives

Plaintiffs argue that BLM's range of alternatives violates NEPA by omitting any option that would meaningfully limit oil and gas leasing and development within the planning area. ECF No. 24 at 36. Plaintiffs note that "[o]f the 701,200-acre mineral estate to be managed through the RMP, no alternative closes more than 179,700 acres (or 25.7 percent) to future leasing—even though, in each alternative, a significant portion of the areas left open to development have a low potential for development." *Id.* at 38–39.

BLM explained its need to revise the then-enacted RMP by listing seven major issues contributing to the revision. AR 184603. These issues included managing recreation, protection of natural and cultural resources, managing vegetation, and managing surface water and groundwater. *Id.* Also included was "[m]anaging energy development, particularly regarding the designation of lands available for fluid minerals leasing and the application of lease stipulations, to protect cultural and natural resources and to minimize user conflicts." *Id.*

These lease stipulations included no surface occupancy ("NSO") and controlled surface use ("CSU"). The NSO stipulation prohibits surface-disturbing activities, thus "[a]ccess to fluid minerals resources would require horizontal and/or directional drilling from outside the boundaries of the area with the NSO stipulation." AR 188349. The CSU stipulation "is a category of moderate constraint stipulations that allows some use and occupancy of surface lands while protecting identified resources or values." AR 188350. A CSU stipulation allows "BLM to require special operational constraints, including special design or relocating the surface-disturbing activity . . . ." *Id.* In the RMP, the studied alternatives projected between 239,400 to 356,700 acres covered under NSO stipulations and between 423,300 to 616,800 acres covered under CSU stipulations. AR 184620.

These stipulations interplay with the way development land is categorized for its potential. BLM classified development areas as high, medium, low, and no known potential. AR 185778. Within the defined areas, BLM found 20 percent of the land rated as having high potential, 12 percent with medium potential, 46 percent

with low potential, and 22 percent with no known potential. *Id.* BLM estimated that 99 percent of future wells would be drilled within high potential areas—totaling 127,300 acres—with the remaining one percent of future wells on areas with medium or low potential. AR 185190, 185778. It added that "approximately 88 percent of the federal mineral estate in the planning area with high potential for oil and gas ha[d] been leased." AR 185762.

BLM noted that it did a cursory analysis of a no leasing alternative, but it reasonably rejected calls to further explore a no leasing alternative when it explained that because most of the high potential areas are already leased, "the majority of future leasing would take place in lands adjacent to existing leases." AR 223539. It added that, "[c]urrently there is no interest in leasing in areas outside high potential areas." *Id.* BLM stated that because "FLPMA mandates the BLM to manage its lands for multiple uses and sustained yield," BLM "eliminated such alternatives as closing all BLM lands to oil and gas leasing, or managing all lands for particular natural resource value to the exclusion of other resource use considerations." AR 184701.

Because of the low projected percentage of development on anything other than high potential lands, BLM argues that a no leasing alternative was not practically different than the studied alternatives, and thus BLM was not required to consider an alternative where low and medium potential lands were closed for leasing. ECF No. 27 at 14.

Plaintiffs dispute this reasoning, claiming that those areas with low and medium potential should be closed for leasing—especially if the potential for development is so low—because BLM could then use that land more productively in accordance with other values. ECF No. 24 at 39.

The NEPA framework concerning alternatives in a case such as this is well explained by the Tenth Circuit, who wrote that

> The "heart" of an EIS is its exploration of possible alternatives to the action an agency wishes to pursue. 40 C.F.R. § 1502.14. Every EIS must "[r]igorously explore and objectively evaluate all reasonable alternatives." 40 C.F.R. § 1502.14(a). Without substantive, comparative environmental impact information regarding other possible courses of action, the ability of an EIS to inform agency deliberation and facilitate public involvement would be greatly degraded. *See Baltimore Gas & Elec. Co.*, 462 U.S. at 97, 103 S.Ct. 2246. While NEPA "does not require agencies to analyze the environmental consequences of alternatives it has in good faith rejected as too remote, speculative, or impractical or ineffective," it does require the development of "information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned." [*Colo. Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir.1999)] (quotations and alteration omitted). It follows that an agency need not consider an alternative unless it is significantly distinguishable from the alternatives already considered. *Westlands Water Dist. v. U.S. Dep't of the Interior*, 376 F.3d 853, 868 (9th Cir.2004).
>
> We apply the "rule of reason" to determine whether an EIS analyzed sufficient alternatives to allow BLM to take a hard look at the available options. *Id.* The reasonableness of the alternatives considered is measured against two guideposts. First, when considering agency actions taken pursuant to a statute, an alternative is reasonable only if it falls within the agency's statutory mandate. *Westlands*, 376 F.3d at 866. Second, reasonableness is judged with reference to an agency's objectives for a particular project. 30 *See Dombeck*, 185 F.3d at 1174–75; *Simmons v. U.S. Army Corps of Eng'rs*, 120 F.3d 664, 668–69 (7th Cir.1997); *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1520 (9th Cir.1992).

New Mexico, 565 F.3d at 708–09.

In relevant part, the court in *New Mexico* found that the defendant should have analyzed a management alternative that closed more than 17% of a certain portion of the plan area to leasing. *Id.* at 709. The court found that the defendant's justification—that it reasonably had analyzed an alternative of no development in the plan area *as a whole*—was in fact different than analyzing an alternative of no development for the specific portion of land at issue. *Id.* ("While agencies are excused from analyzing alternatives that are not 'significantly distinguishable' from those already analyzed, [] the alternative of closing only the Mesa—which represents a small portion of the overall plan area—differs significantly from full closure.").

The court reasoned that having considered an option of no development in the planning area at whole did not relieve the defendant of the duty to consider any other alternative along the spectrum between complete closure and the studied alternative which provided for the greatest closure. *Id.* at 711, n.32. "Otherwise, an agency could exclude any alternative it wished by considering (and rejecting) an extreme." *Id.* (citing *Dombeck*, 185 F.3d at 1175 (agencies must "take responsibility for defining the objectives of an action and then provide legitimate consideration to alternatives that fall between the obvious extremes.")).

Here, the same issue is at play. BLM argues it reasonably considered a no development scenario, yet that scenario considers the plan area at whole and is succinctly discarded. AR 184701, 223539. However, Plaintiffs argue that BLM

should have considered "an alternative eliminating oil and gas leasing in areas determined to have only moderate or low potential for oil and gas development." ECF No. 24 at 37. This would be an alternative within the spectrum mentioned by the court in *New Mexico*. 565 F.3d at 711, n.33.

I disagree with BLM's argument that there is no substantive difference between an alternative that opens low and medium potential areas for leasing and one that does not. The basis of BLM's argument here is that it was not required to consider the latter option because such a low percentage of the low and medium potential areas were projected to be developed. ECF No. 27 at 14–15. But if those areas were open for leasing, even if there is a minimal chance for development, it would detract from BLM designating that land for other uses.

As such, "the principle of multiple use does not require BLM to prioritize development over other uses." *New Mexico*, 565 F.3d at 710. Since a "parcel of land cannot both be preserved in its natural character and mined" it seems a reasonable alternative would be to consider what else may be done with the low and medium potential lands if they are not held open for leasing. *Id.* (quoting *Rocky Mtn. Oil & Gas Ass'n v. Watt*, 696 F.2d 734, 738 n.4 (10th Cir. 1982)).

BLM points to its field guidance, which reads that it should "close lands to mineral development only when 'other land or resource values cannot be adequately protected with even the most restrictive lease stipulations.'" ECF No. 27 at 13–14. However, this does not excuse the fact that BLM did not closely study an alternative that closes low and medium potential lands when it admits there is an

exceedingly small chance of them being leased. This alternative would be "significantly distinguishable" because it would allow BLM to consider other uses for that land. *See New Mexico*, 565 F.3d at 708–09. Therefore, BLM's failure to consider reasonable alternatives violates NEPA.

III. CONCLUSION

I find the following regarding Plaintiffs' Petition for Review of Agency Action:

Cause of action one: BLM failed, in part, to take a hard look at the severity and impacts of GHG pollution. Namely, it failed to take a hard look at the reasonably foreseeable indirect impacts of oil and gas.

Cause of action two: BLM took a sufficiently hard look at methane emissions.

Cause of action three: BLM took a sufficiently hard look at the impacts of oil and gas on human health.

Cause of action four: BLM failed to consider reasonable alternatives to oil and gas leasing and development.

Pursuant to the Order Granting Joint Motion for Procedural Order on Parties' Merits Briefing, the parties shall address remedies accordant with the present Order in separate briefing. ECF No. 23.

It is ORDERED that counsel confer and attempt in good faith to reach agreement as to remedies. If an agreement is not reached, the parties may submit briefs. This briefing will consist of one brief from each party, not exceeding 4,000

words, including everything from the caption to the certificate of service. It shall be filed with the Court **on or before December 3, 2018**.

The Court DEFERS a final ruling on the remedies until further briefing is received.

Dated: October 17, 2018 in Denver, Colorado.

BY THE COURT:

s/Lewis T. Babcock
LEWIS T. BABCOCK, JUDGE

Addendum

APA	Administrative Procedure Act
BLM	Bureau of Land Management
CRVFO	Colorado River Valley Field Office
CSU	Controlled surface use
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FLPMA	Federal Land Policy and Management Act
GHG	Greenhouse gas
GWP	Global warming potential
NEPA	National Environmental Protection Act
NSO	No surface occupancy
RMP	Resource Management Plan
ROD	Record of Decision

EXHIBIT 2

United States Department of the Interior

OFFICE OF THE SOLICITOR
Washington, D.C. 20240

IN REPLY REFER TO:

DEC 2 1 2016

M-37039

Memorandum

To: Secretary
Assistant Secretary - Land and Minerals Management
Director, Bureau of Land Management

From: Solicitor

Subject: The Bureau of Land Management's Authority to Address Impacts of its Land Use Authorizations through Mitigation

I. Introduction

You have asked for confirmation of the Bureau of Land Management's (BLM's) authority under the Federal Land Policy and Management Act of 1976 (FLPMA),[1] to identify and require the implementation of appropriate mitigation[2] when authorizing uses of the public lands.[3]

Pursuant to Secretarial Order 3300, Improving Mitigation Policies and Practices of the Department of the Interior (SO 3300)[4] and recommendations in A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior,[5] the Department and the BLM have developed policies and guidance to enhance the identification and implementation of appropriate mitigation. As part of this effort, a new chapter has been added to the Departmental

[1] 43 U.S.C. §§ 1701–1787. This Opinion analyzes relevant FLPMA authority, and in section IV *infra* briefly discusses other relevant laws.

[2] The Council on Environmental Quality (CEQ), in regulations implementing the National Environmental Policy Act (NEPA), has defined "mitigation" to include *avoiding* the impact altogether by not taking a certain action or parts of an action; *minimizing* impacts by limiting the degree or magnitude of the action and its implementation; *rectifying* the impact by repairing, rehabilitating, or restoring the affected environment; *reducing or eliminating the impact over time* by preservation and maintenance operations during the life of the action; and *compensating* for the impact by replacing or providing substitute resources or environments. 40 C.F.R. § 1508.20. This Opinion generally condenses these five forms of mitigation into three categories: *avoidance*, *minimization*, and *compensation*, the latter of which is also referred to as "compensatory mitigation."

[3] FLPMA provides for the administration of the public lands by the Secretary through the BLM. 43 U.S.C. § 1702(e). Except in limited circumstances, the Secretary has delegated her authority to manage the public lands to the BLM. This Opinion refers to Secretarial and BLM authority interchangeably.

[4] Secretarial Order 3300, *Improving Mitigation Policies and Practices of the Department of the Interior* (Oct. 31, 2013); *see also Memorandum on Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment*, 2015 Daily Comp. Pres. Doc. 1 (Nov. 3, 2015).

[5] *A Strategy for Improving the Mitigation Policies and Practices of the Department of the Interior* (Apr. 2014).

Manual setting forth a landscape-scale mitigation policy ("Departmental Mitigation Policy"). The new chapter, 600 DM 6, identifies three general types of mitigation "that form a sequence: avoidance, minimization, and compensatory mitigation for remaining unavoidable (also known as residual) impacts."[6] It further directs Departmental bureaus and offices to, consistent with applicable law, "identify and plan for the extent, nature, and location of mitigation, including compensatory mitigation, and to require the implementation of effective mitigation."[7] Departmental bureaus and offices should identify, plan, and implement mitigation based on a "landscape-scale approach."[8] The Departmental Mitigation Policy also exhorts bureaus and offices to consider how to protect "resources and their values, services, and functions" that are considered "important, scarce, sensitive, or otherwise suitable to achieve established goals."[9] For these resources, the Departmental Mitigation Policy states that bureaus and offices, consistent with applicable law, should seek to obtain a no net loss outcome or, if required or appropriate, a net benefit outcome.[10]

Accordingly, the BLM has developed a Mitigation Manual and a Mitigation Handbook that provide Bureau-specific policy guidance implementing the Departmental Mitigation Policy.[11] The BLM has implemented, or is considering implementing, landscape-scale mitigation in a number of endeavors, including, but not limited to, the preparation of resource management plans, such as the Desert Renewable Energy Conservation Plan (DRECP) and Greater Sage-Grouse planning initiative, the development of regional mitigation strategies, and the authorization of renewable and conventional energy projects, transmission infrastructure, and other activities on BLM-managed lands.

The BLM's authority over activities carried out on the lands it manages derives from FLPMA and other legal authorities. This Opinion focuses specifically on the general authority FLPMA vests in the BLM to require mitigation when the agency exercises its authority to engage in land use planning, the approval of site-specific projects, and other management activities. This Opinion is intended to help the BLM improve consistency across decisions; streamline

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[6] *Department of the Interior Landscape-Scale Mitigation Policy*, 600 DM at 6.4(A); *see also* BLM Mitigation *Manual*, MS-1794 (Dec. 2016) at 1.6(A)(1)(a) (same). The Departmental Mitigation Policy describes how avoidance, minimization, and compensation compose a "mitigation hierarchy" that generally provides a sequenced approach to addressing foreseeable impacts, while recognizing that in limited situations, specific circumstances may warrant a departure from this sequence. 600 DM at 6.4(B).

[7] 600 DM 6 at 6.5.

[8] *Id.* at 6.4(E). The Department's mitigation policy defines "landscape" as:

> an area encompassing an interacting mosaic of ecosystems and human systems characterized by a set of common management concerns. The landscape is not defined by the size of the area, but rather by the interacting elements that are relevant and meaningful in a management context. The term "landscape" is not exclusive of areas described in terms of aquatic conditions, such as watersheds, which may represent the appropriate landscape-scale.

600 DM at 6.4(D); *see also* BLM Mitigation Manual, MS-1794, Glossary.

[9] 600 DM at 6.5.

[10] *Id.*

[11] BLM Mitigation Manual, MS-1794; BLM Mitigation Handbook, H-1794-1 (December 2016).

permitting processes; and protect important, scarce, and sensitive resources when evaluating, requiring, and implementing mitigation under this general authority.

For the reasons set forth below, I conclude that FLPMA provides the Secretary and the BLM with authority to identify and require appropriate mitigation. In certain circumstances, such mitigation may include mitigation that results in a net conservation benefit. Such mitigation may also consist of compensatory mitigation on either public lands or private lands having a connection to resources on public lands—regardless of their geographic proximity with public lands—so long as such mitigation on private lands occurs with the consent of the property owner.[12] Any specific decision to require or implement mitigation must comply with applicable legal requirements, including the requirement for non-arbitrary decision-making set forth in the Administrative Procedure Act (APA).[13]

II. Historical and Legal Background of FLPMA

Congress enacted FLPMA in 1976 in exercise of its plenary authority under the Property Clause of the Constitution[14] to establish standards and requirements for the use and management of the public lands. The enactment of FLPMA completed a paradigm change in the management of resources on public lands managed by the BLM. In an earlier era of public land management, starting roughly in the mid-19th century, Congress passed a series of laws encouraging the disposal of federal lands, such as grants to railroad and canal companies and homesteaders.[15] Congress also sought to promote specific types of resource development through public land disposal laws, such as the Mining Law of 1872,[16] Desert Land Act of 1877,[17] Timber and Stone Act of 1878,[18] and Free Timber Act of 1878.[19]

By the late 19th and early 20th century, the tide was turning away from disposal and toward retention, typically to allow for greater government control over public resources and to obtain greater public benefit from those resources. For example, Congress reserved coal deposits and other valuable minerals under the Coal Lands Acts of 1909 and 1910[20] and the Stock-Raising

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[12] For purposes of this Opinion, "compensation" and "compensatory mitigation" mean compensating for remaining impacts after all appropriate and practicable avoidance and minimization measures have been applied, by replacing or providing substitute resources or environments through the restoration, establishment, enhancement, or preservation of resources and their values, services and functions. *See* 600 DM at 6.4(C) (defining "compensatory mitigation"); BLM Mitigation Manual, MS-1764, Glossary (same); *see also supra* note 2 (citing the definition of "mitigation" in the CEQ regulations implementing NEPA). Compensatory mitigation may be implemented on or away from the area of impact.

[13] *See* 5 U.S.C. § 706(2)(A) (directing reviewing courts to hold unlawful and set aside agency actions, findings, and conclusions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law").

[14] U.S. CONST. art. IV, § 3, cl. 2.

[15] *See, e.g.*, Timber Culture Act, ch. 277, 17 Stat. 605 (1873); Homestead Act, ch. 75, 12 Stat. 392 (1862); General Right-of-way Act, ch. 80, 10 Stat. 28 (1852); General Preemption Act, ch. 16, 5 Stat. 453 (1841).

[16] Ch. 152, 17 Stat. 91 (1872) (codified as amended at 30 U.S.C. §§ 22–54).

[17] Ch. 107, 19 Stat. 377 (1877) (codified as amended at 43 U.S.C. §§ 321–339).

[18] Ch. 151, 20 Stat. 89 (1878) (codified as amended at 43 U.S.C. §§ 311–313 (repealed 1955)).

[19] Ch. 190, 20 Stat. 113 (1878).

[20] Coal Lands Act of 1910, ch. 318, 36 Stat. 583 (codified as amended at 30 U.S.C. §§ 83–85); Coal Lands Act of 1909, ch. 270, 35 Stat. 844 (codified as amended at 30 U.S.C. § 81).

Homestead Act of 1916.[21] Congress further modified management of certain valuable mineral resources in 1920 through the Mineral Leasing Act, which provided for a leasing process and imposed royalty payment requirements on developers to benefit the American people.[22] Congress also authorized the creation of forest reserves,[23] to improve and protect forest resources and "furnish a continuous supply of timber for the use and necessities of citizens of the United States,"[24] and established national parks to "conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."[25] In 1934, through the Taylor Grazing Act,[26] Congress promoted livestock grazing on the federal lands by authorizing the creation of grazing districts and providing for protection of rangeland resources through federally issued permits.[27]

Despite this evolution and the closure of most of the public lands to homesteading by Executive Order in 1934[28] and 1935,[29] Congress had not yet provided a comprehensive legal regime to guide either the disposition or management of the lands held by the United States. Instead, a hodgepodge of authorities—literally, hundreds of sometimes inconsistent public lands laws—governed these lands. By the 1970s, Congress recognized that many of these laws took an arcane and outdated approach to land management and continued to facilitate disposal of the lands.[30] In a letter to Senator Henry Jackson, Chairman of the Senate Committee on Energy and Natural Resources, regarding Senate Bill 507, the bill that became FLPMA, Assistant Secretary Jack Horton wrote:

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[21] Stock Raising Homestead Act of 1916, ch. 9, § 9, 39 Stat. 864 (codified as amended at 43 U.S.C. § 299)

[22] Mineral Leasing Act of 1920, 30 U.S.C. §§ 181–287.

[23] Organic Administration Act of 1897, ch. 2, 30 Stat. 34–36 (codified as amended at 16 U.S.C. §§ 472–482) (establishing National Forest System); General Revision Act of 1891, § 24, ch. 561, 26 Stat. 1095 (authorizing the reservation of forest lands).

[24] 16 U.S.C. § 472.

[25] *See* National Park Service Organic Act of 1916, 39 Stat. 535 (codified as amended at 54 U.S.C. § 100101(a)).

[26] 43 U.S.C. §§ 315–315r.

[27] The goals of the Taylor Grazing Act included to "stabilize the livestock industry," "stop injury to the public grazing lands by preventing overgrazing and soil deterioration," and "provide for th[e] orderly use, improvement, and development" of the public range. *Pub. Lands Council v. Babbitt*, 529 U.S. 728, 742 (2000) (quoting 48 Stat. 1269).

[28] Exec. Order No. 6910 (Nov. 26, 1934).

[29] Exec. Order No. 6964 (Feb. 5, 1935).

[30] *See* S. REP. NO. 94-583, at 24 (1975) (describing "3,000 public land laws," which "were written at a time when Federal ownership of the national resource lands was expected to be short lived and, consequently, the Federal Government was regarded as only a temporary custodian of those lands."); 122 CONG. REC. 1,231 (1975) (statement of Sen. Haskell) ("The only management tools available to the BLM remain some 3,000 public land laws which have accumulated over the last 170 years. A goodly proportion of these laws were written in the last century at a time when the disposal policy prevailed. Not unexpectedly, therefore, these laws are often conflicting, sometimes truly contradictory, and certainly incomplete and inadequate."); *id.* at 1,242 (statement of Sen. Jackson) (noting the "[t]he lack of a modern management mandate for the Bureau and its dependence on some 3,000 public land laws, many of which are clearly antiquated").

> The national resource lands were for many years used as a means of stimulating the growth and development of the West. Consequently, little attention was given to preserving the irreplaceable values of those lands. Many of the laws pertaining to the lands were designed primarily to facilitate disposal. Although there has been a growing awareness that these lands are an invaluable national asset and although our policy is now to preserve their values, to obtain authority to develop sound planning of their uses and generally to maintain them in Federal ownership, these lands have inherited an archaic and often conflicting conglomeration of laws which govern their use.[31]

By enacting FLPMA, Congress replaced the fragmented public land laws with a comprehensive regime under which the federal government generally would retain and manage the public lands.[32] FLPMA designated the Secretary of the Interior, acting through the BLM, as the steward of those lands, and set forth a broad set of principles and tools to guide and implement that stewardship. In FLPMA, Congress instituted a policy for the United States to retain the public lands in federal ownership, unless a disposal would promote the national interest,[33] and to manage the public lands "on the basis of multiple use and sustained yield unless otherwise specified by law."[34] Congress further declared it to be the policy of the United States that the BLM should manage the public lands

> in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archeological values; . . . preserve and protect certain public lands in their natural condition; . . . provide food and habitat for fish and wildlife; and . . . provide for outdoor recreation and human occupancy and use.[35]

FLPMA provides the Secretary and the BLM with several specific tools to achieve these goals. It directs the BLM to prepare land use plans to guide its management,[36] and to "regulate, through easements, permits, leases, licenses, published rules, or other instruments, the use, occupancy, and development of the public lands"[37] in accordance with the land use plans.[38] FLPMA also mandates that the Secretary, "[i]n managing the public lands . . . shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."[39]

III. Analysis

FLPMA vests authority in the Secretary and the BLM to manage the public lands, and the Secretary generally has delegated the authority vested in her to the BLM. As a result, this

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[31] S. REP. NO. 94-583, at 90 (quoting Letter from Jack Horton, Assistant Secretary for Land and Water Resources, Department of the Interior, to Senator Henry M. Jackson (Mar. 6, 1975)).

[32] "Public lands" are defined, with limited exceptions, as those lands owned by the United States and administered by the BLM. 43 U.S.C. § 1702(e).

[33] 43 U.S.C. § 1701(a).

[34] *Id.* §§ 1701(a)(7), 1732(a).

[35] *Id.* § 1701(a)(8).

[36] *Id.* § 1712(a).

[37] *Id.* § 1732(b).

[38] *Id.* § 1732(a).

[39] *Id.*

Opinion will discuss the authority vested in the Department generally as authority exercised by the BLM.

As discussed in detail below, FLPMA provides expansive authority to the BLM, both as a regulator and a manager of lands owned by the United States, to pursue Congress's goals of public land management based on principles of multiple use and sustained yield. That authority encompasses broad discretion to manage the use of public lands and to take action to conserve or enhance public land values to enable current and future generations to use public lands in pursuit of their diverse set of interests. Among the tools the BLM may use to conserve or enhance public land values is its authority to require project sponsors to undertake mitigation as a condition of the BLM authorizing use of the public lands. Such authority is not unlimited—under principles of administrative law, the BLM should not impose arbitrary or capricious mitigation measures. To that end, the BLM generally should identify the impacts to which mitigation relates and provide an explanation as to how the mitigation avoids, minimizes, or compensates for the identified impacts. Within that framework, and where otherwise consistent with law, FLPMA provides the BLM with ample authority to require public land users to take steps to minimize the negative effects of their use and, where appropriate, to leave the public lands in better condition than they found them.

A. FLPMA vests the BLM with authority to conserve or enhance environmental and other use values for the benefit of current and future generations

1. FLPMA establishes a policy of managing public lands based on principles of multiple use and sustained yield

Congress enacted FLPMA to reshape the management of public lands. In the public law enacting FLPMA, Congress explained its intent to provide for the "protection . . . and enhancement of the public lands."[40] Congress included environmental and stewardship objectives into FLPMA's declaration of policy,[41] which incorporates the principle that the public lands generally should be "retained in Federal ownership," rather than transferred into private hands.[42] FLPMA charges the

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[40] P. L. 94-579 (Oct. 21, 1976) (stating an intent "[t]o establish public land policy; to establish guidelines for its administration; to provide for the management, protection, development, *and enhancement of the public lands*; and for other purposes." (emphasis added)).

[41] 43 U.S.C. § 1701(a)(7), (8), (11). Subparagraph (b) of this section provides that "[t]he policies of this Act shall become effective only as specific statutory authority for their implementation is enacted by this Act or by subsequent legislation and shall then be construed as supplemental to and not in derogation of the purposes for which public lands are administered under other provisions of law." *Id.* § 1701(b). The Interior Board of Land Appeals has concluded that the language in section 102(b) of FLPMA means that the policy statements outlined in section 102(a) are not the operative sections of the statute and do not prevail over FLPMA's specific provisions. *Mallon Oil*, 104 IBLA 145 (1988). Nonetheless, it has been recognized that the policy statements provide guidance in the interpretation of specific provisions of FLPMA. *See Colorado Open Space Council*, 109 IBLA 274, 301 n.12 (1989) (Irwin, A.J., dissenting). In that regard, Congress has included specific operative sections in FLPMA to carry out the policy statements and that authorize the Secretary to identify and require appropriate mitigation when authorizing public land uses.

[42] *See* 43 U.S.C. § 1701(a)(1).

BLM with management and stewardship of the public lands for the use of current and future generations.

FLPMA implemented this fundamental change in congressional policy through the "principles of multiple use and sustained yield" that it set as the goals for BLM land management.[43] These principles also serve as the touchstone for three general delegations of authority: Section 202 of FLPMA vests the Department with land use planning authority and provides that such planning shall "use and observe the principles of multiple use and sustained yield set forth in this and other applicable laws." Section 302(a) of FLPMA directs the Secretary to "manage the public lands under principles of multiple use and sustained yield, in accordance with land use plans developed under section 202 of th[e] Act."[44] And section 303(a) of FLPMA directs the Secretary to promulgate any "regulations necessary to implement the provisions of this Act with respect to the management, use, and protection of the public lands." Section 310 similarly directs the Secretary to promulgate "rules and regulations to carry out the purposes of this Act."[45]

Land management based on principles of multiple use and sustained yield involves balancing competing interests in public lands between current and future generations—"interests as diverse as the lands themselves,"[46]—ranging from economic and industrial values, to recreational, aesthetic, and environmental values. FLPMA's definitions make clear the breadth of the Department's charge.

The detailed definition of the term "multiple use" provides:

> The term "multiple use" means 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; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the *long-term needs of future*

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[43] *Id.* §§ 1701(a)(7), 1732(a). FLPMA provides that only certain of its provisions, including the BLM's obligation to "take any action necessary to prevent unnecessary or undue degradation of the lands," "amend the Mining Law of 1872 or impair the rights of any locators or claims under that Act." *Id.* § 1732(b).

[44] *Id.* § 1732(a). Section 202 of FLPMA, in turn, requires the Secretary to "use and observe the principles of multiple use and sustained yield" in the development of land use plans. *Id.* § 1712(c)(1). Multiple use and sustained yield principles apply to the management of public lands "except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law." *Id.* § 1732(a). Therefore, where applicable legal authority so provides, some public land areas are managed under different management principles. For example, designated wilderness areas on BLM-administered lands are managed according to the Wilderness Act, 16 U.S.C. §§ 1131–1136. Other public land areas, such as national monuments designated under the Antiquities Act of 1906, 54 U.S.C. §§ 320301–320303, and areas governed by the Oregon and California Railroad and Coos Bay Wagon Road Grant Lands Act of 1937, 43 U.S.C. §§ 1181a–1181j, continue to be managed according to the principles of multiple use and sustained yield, as well as additional management principles or constraints.

[45] 43 U.S.C. §§ 1733(a), 1740.

[46] *Rocky Mountain Oil & Gas Ass'n v. Watt*, 696 F.2d 734, 738 (10th Cir. 1982).

> *generations for renewable and nonrenewable resources*, including, but not limited to, recreation, range, timber, minerals, *watershed, wildlife and fish, and natural scenic, scientific and historical values*; and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.[47]

The principle of "multiple use" therefore requires consideration of both the interests of current and future generations; the definition expressly mentions the future twice and prohibits permanent impairment to the productivity of the land and the quality of the environment. It also provides for consideration of development uses ("range, timber, minerals"), as well as recreational uses and conservation ("watershed, wildlife and fish, and natural scenic, scientific and historical values").[48] By creating such a bold, forward-looking stewardship mandate, Congress granted the BLM broad discretion to chart a course for public lands that accounts for development, conservation, and long-term management.[49]

The phrase "sustained yield" reinforces the broad stewardship mandate under which the BLM manage federal lands. Under FLPMA, "'sustained yield' means the achievement and maintenance *in perpetuity* of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use."[50] The term cautions against managing public lands for the short-term expediencies of the day, and, as the Supreme Court has explained, "requires the BLM to control depleting uses over time, so as to ensure a high level of valuable uses in the future."[51] Because the term "sustained yield" expressly incorporates principles of "multiple use," its reference to perpetually maintained "output" accounts for impacts to both developable resources, such as timber for harvest, and environmental resources, such as watersheds and wildlife. Principles of sustained yield, like principles of multiple use, do not elevate certain uses over others, but rather, delegate discretion

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[47] 43 U.S.C. § 1702(c) (emphasis added).

[48] *Id.*; *see, e.g.*, *Friends of the Bow Predator Project*, 139 IBLA 141, 143–44 (1997) (stating that the "thrust of the multiple-use mandate requires a choice of the appropriate balance to strike between competing resource uses, recognizing that not every possible use can take place fully on any given area of the public lands at any one time" and that "[m]ultiple use necessitates a trade-off between competing uses," but that multiple-use management "does not dictate the choice or require that any one resource, or corresponding use, take precedence").

[49] *See Strickland v. Morton*, 519 F.2d 467, 469 (9th Cir. 1975) (describing the multiple use standard under the Classification and Multiple Use Act of 1964 as "breath[ing] discretion at every pore"); *see also Theodore Roosevelt Conservation P'ship v. Salazar*, 616 F.3d 497, 518 (D.C. Cir. 2010) ("the Bureau has wide discretion to determine how those [FLPMA] principles [of multiple use and sustained yield] should be applied."); *Or. Nat. Desert Ass'n v. BLM*, 531 F.3d 1114, 1134 (9th Cir. 2008) (recognizing that the BLM's "wide authority to manage the public lands under principles of multiple use and sustained yield allows it ample discretion for management of lands with wilderness values") (internal citations and quotation marks omitted); *Moapa Band of Paiutes v. BLM*, 2011 U.S. Dist. LEXIS 116046, at *6 (D. Nev. 2011) (citing *Strickland*); *Or. Natural Desert Ass'n v. Shuford*, 2007 U.S. Dist. LEXIS 42614, at *28 (D. Or. 2007) (stating the BLM "has broad discretion in managing public lands for multiple use").

[50] 43 U.S.C. § 1702(h) (emphasis added).

[51] *Norton v. S. Utah Wilderness Alliance (SUWA)*, 542 U.S. 55, 58 (2004).

to the BLM to manage public lands in the best interests of the American people today, tomorrow, and into the future.

Congress's charge to the BLM to manage for "multiple use" and "sustained yield" requires a holistic, long-term approach to managing public lands. As the BLM carries out its land management responsibility to address and resolve competing resource values, maintain high levels of outputs of renewable resources, and ensure that public lands meet the needs of future generations, the agency necessarily exercises discretion over whether and how to develop or conserve resources. In some areas and at appropriate times, this may mean authorizing extractive uses of resources on the public lands, prioritizing conservation, or managing public lands to restore or enhance values for the use of future generations. Just as the BLM has the authority to replant forests—or, where appropriate, to require permit applicants to replant forests—to provide future generations with timber harvest use, so too can it build and enhance wildlife habitat—or, where appropriate, to require permit applicants to build and enhance wildlife habitat—to provide future generations with recreational and environmental use. Such enhancement may be particularly necessary for those public lands with a historical legacy of degradation, the result of past uses that have left enduring impacts that impair certain resource values. This legacy includes lands where past use occurred before current federal regulations came into force or where the land user may have adhered to the standards and practices that prevailed at the time, but which we now understand, with the benefit of greater experience and scientific insight, to have been destructive to one or more resource values.

2. BLM has expansive authority to pursue congressional goals established in FLPMA

FLPMA provides the BLM and the Department with expansive authority to manage public lands so that current and future generations may enjoy multiple uses and sustained yields. The broad authority conferred on the BLM arises from the special relationship of the United States to the lands it owns and manages for the benefit of the public and the plenary authority over those lands granted to Congress by the Property Clause.

The Supreme Court has long recognized that Congress exercises plenary power over the use of and activities on federal property. The capacious scope of this authority reflects the United States' dual role as both proprietor and regulator of federal lands. In *Camfield v. United States*, the Supreme Court recognized this dual source of authority, explaining that in addition to having "the power of legislating for the protection of public lands," the United States "has the same right to insist on its proprietorship . . . as an individual has to claim" control of private property.[52] Congress has repeatedly exercised this authority—and delegated it to federal agencies—to advance the public interest, sometimes authorizing appropriate consumptive uses of public lands, as it has done through statutes like the Mineral Leasing Act of 1920, and other times protecting environmental and natural uses, as it has done through statutes like the Wilderness Act of 1964

[52] 167 U.S. 518, 526 (1897). The dual nature of the federal government's role in managing public lands distinguishes the exercise of Property Clause authority from the exercise of authority under the enumerated powers in Article I, Section 8, of the Constitution, including the Commerce Clause.

and the provisions of the Omnibus Public Land Management Act of 2009, which created the National Landscape Conservation System.

The Supreme Court also has explained that Congress has delegated its "general managerial power" to the Secretary of the Interior.[53] Even prior to the enactment of FLPMA, the Court "repeatedly observed that 'the power over the public land . . . entrusted to Congress is without limitations.'"[54] This "complete power" to control and regulate federal property, is to be construed broadly and extends to the protection of wildlife on federal property, as well as to the regulation of activities on private lands that threaten federal property.[55]

The Court has further recognized that the Department's "general power of management over the public lands" continues to persist "unless such authority [is] withdrawn."[56] When Congress exercised its broad Property Clause power to pass FLPMA, it did not diminish, but expanded, the Department of the Interior's existing authority over public lands, enabling the Department to account for the expansive public interest of current and future generations.[57] Congress enacted the statute to replace a "myriad of public land laws serving a variety of competing and often conflicting interests" with a "comprehensive statement of congressional policies concerning the management of the public lands."[58] In consolidating the Department's authority, empowering the Department to engage in comprehensive land use planning, and establishing the goal of managing for multiple use and sustained yield, Congress buttressed, rather than restricted, the Department's authority over public lands. The Department can exercise that authority, which is both proprietary and regulatory in nature, in numerous ways, including by developing land use plans,[59] engaging in land management activities,[60] or promulgating regulations.[61] In other words, under FLPMA, the Department may use any tool at its disposal—absent a constraint imposed upon it by another source of law—to achieve the goals of multiple use and sustained yield.

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[53] *Boesche v. Udall*, 373 U.S. 472, 476 (1963).

[54] *Kleppe v. New Mexico*, 426 U.S. 529, 539 (1976) (quoting *United States v. San Francisco*, 310 U.S. 16, 29 (1940)).

[55] *Id.* at 540–41; *United States v. Alford*, 274 U.S. 264 (1927); *Camfield*, 167 U.S. at 526. *See generally* Peter A. Appel, *The Power of Congress "Without Limitation": The Property Clause and Federal Regulation of Private Property*, 86 MINN. L. REV. 1 (2001).

[56] *Boesche*, 373 U.S. at 476. In *Boesche* the Court rejected the argument that the Mineral Leasing Act had limited the Department's authority to administratively cancel a lease invalid at its inception. *Id.* Similarly, the D.C. Circuit has held that the Secretary has authority to terminate a public land sale after the bidder has made payment but before the Department has issued a patent for the land. *Silver State Land, LLC v. Schneider*, No. 16-5018, 2016 U.S. App. LEXIS 22343 (D.C. Cir. Dec. 16, 2016). The D.C. Circuit held the Secretary's "plenary authority over the administration of public lands" included the authority to terminate the land sale and refund monies to the bidder. *Id.* at *6 (quoting *Best v. Humboldt Placer Min. Co.*, 371 U.S. 334, 336 (1963)).

[57] The Supreme Court similarly viewed the Mineral Leasing Act as "intended to expand, not contract" the Department's authority. *Id.* at 481.

[58] *Rocky Mountain Oil & Gas Ass'n*, 696 F.2d at 737.

[59] *See* 43 U.S.C. § 1712(a)

[60] *Id.* § 1732(a),

[61] *See id.* §§ 1733(a), 1740.

The authority granted in FLPMA includes the power, which any land owner has, to prohibit uses where appropriate to conserve natural resources. "It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses."[62] This authority also allows the BLM to undertake activities on federal lands to conserve, protect, enhance, or develop natural resources. The BLM exercises that authority to benefit an array of uses: the BLM builds trails and other facilities to enhance recreational uses, restores habitat to enhance wildlife uses, rehabilitates wetlands to enhance environmental uses, and builds and maintains roads to enhance grazing, timbering, and mineral exploration and development. Similarly, as will be discussed below, in the absence of specific statutory limitations, requiring mitigation is an appropriate tool for the BLM to use to pursue legitimate purposes including carrying out Congress's goal of land management based on principles of multiple use and sustained yield.

B. BLM and the Department Have the Discretion to Require Appropriate Mitigation to Further FLPMA's Land Management Policies

1. Appropriate mitigation of various forms is an essential tool for the BLM to manage federal public lands for current and future generations

Before analyzing in detail the provisions of FLPMA, this section of my Opinion explains that the BLM's authority to require mitigation is consonant with the practice and authority of other land use and regulatory agencies. It also identifies some varieties of mitigation that the BLM may consider or require in appropriate situations under the provisions of FLPMA discussed later.

Regulatory and land management agencies commonly require mitigation. Just as the BLM may deny permission under FLPMA to use public lands in a manner that degrades other uses, such as environmental, wildlife, or aesthetic uses, it can condition the permission it grants to private parties on their agreement to use lands to conserve or enhance other uses for current or future generations. Requiring mitigation is a longstanding tool used by land use planning and management agencies at all levels of government. Private land owners similarly require mitigation—through such legal tools as restrictive covenants—when they sell or lease property to other parties.[63] Even where government regulates the use of private property, rather than public property, it has broad authority to require mitigation.[64] As the Supreme Court has explained, "[i]nsisting that landowners internalize the negative externalities of their conduct is a hallmark of responsible land-use policy, and we have long sustained such regulations against

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[62] *New Mexico v. BLM*, 565 F.3d 683, 710 (10th Cir. 2009).

[63] *See, e.g., Kirkley v. Seipelt*, 128 A.2d 430, 133 (Md. 1957) (upholding restrictive covenant prohibiting construction of buildings unless external designs and locations were approved by seller).

[64] In situations where federal agencies have authority to regulate private land use, the government's power to condition land use approvals on private land is not without limit. The Supreme Court has required an "essential nexus" and "rough proportionality" between the harm to the public interest associated with proposed development and conditions imposed by the government. *See Koontz v. St. Johns River Water Mgmt. Dist.*, 133 S. Ct. 2586 (2013); *Dolan v. City of Tigard*, 512 U.S. 374 (1994); *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825 (1987). That constitutional limit on government regulatory authority may apply were BLM to require mitigation in approving a project that directly impacts vested private property rights, but it is not otherwise applicable to BLM permitting decisions.

constitutional attack."[65] Mitigation requirements are also a prominent feature of other federal permitting regimes. For example, regulations implementing the Clean Water Act require permits authorizing fill of waters of the United States to include mitigation provisions.[66]

BLM exercises broader authority under FLPMA than that exercised by purely land use or regulatory agencies, such as the U.S. Environmental Protection Agency or local zoning boards. Because FLPMA vests authority in BLM to act both as a regulator and, on behalf of the United States, as a proprietor, the agency generally has the discretion not only to regulate the use of public lands and resources, but also to act as the sovereign's landlord with the authority to impose conduct or performance standards as a condition for entering onto the public lands. The BLM can appropriately incorporate mitigation into its regulations, land use plans, plan implementation decisions, or, on a case-by-case basis, into permitting decisions.[67] As 600 DM 6 specifies, mitigation consists of three general types "that form a sequence: avoidance, minimization, and compensatory mitigation,"[68] and, consistent with other legal authority, the BLM may incorporate all of these types of mitigation into its decisions.

In addressing activity on the public lands, this authority is broad enough to allow BLM to recognize financial investments and measures taken on private lands. For example, the BLM may allow a public land user to meet its mitigation obligations for activities on the public lands by engaging in mitigation partially or entirely on private lands, so long as those measures on private lands have a connection—regardless of their geographic proximity—to the impacts caused by the permitted use on the public lands. Public lands and the resources they contain exist within ecosystems and landscapes, not all of which are owned by the federal government. The interconnectedness between the natural resources on public lands and those on private lands means that mitigation on private lands may, in some circumstances, be the most efficacious means of conserving or enhancing natural resources on public lands and therefore fulfill mitigation obligations on the public lands. For example, in some circumstances, protecting or restoring habitat on private property may best address the harm that a project will cause to a sensitive species' habitat on public lands. Similarly, in some circumstances, the best way to conserve or enhance a valuable attribute of the public lands, such as wilderness characteristics, may be to allow the project applicant to purchase conservation easements over inholdings within

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[65] *Koontz*, 133 S. Ct. at 2595 (citing *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926)).

[66] *See* 33 U.S.C. § 1344(a); 40 C.F.R. § 230.10. Section 404 of the Clean Water Act does not specifically address mitigation, but rather, authorizes the Army Corps of Engineers to issue fill permits. *See, e.g., Sierra Club v. Van Antwerp*, 661 F.3d 1147, 1156 (D.C. Cir. 2011).

[67] These avenues through which BLM can address mitigation mirror the manner by which government's engaged land use planning for private lands may impose mitigation through legislation, zoning, or permitting. Federal courts have considered whether legislatively imposed mitigation should be treated differently from mitigation required on a case-by-case basis, but none have questioned the legality of either form of mitigation as a general matter. *See, e.g., McClung v. City of Sumner*, 548 F.3d 1219, 1225 (9th Cir. 2008); *Clajon Prod. Corp. v. Petera*, 70 F.3d 1566 (10th Cir. 1995).

[68] *Department of the Interior Landscape-Scale Mitigation Policy*, 600 DM at 6.4(A); *see also* BLM Mitigation Manual, MS-1794 at 1.6(A)(1)(a) (same). The Departmental Mitigation Policy describes how avoidance, minimization, and compensation compose a "mitigation hierarchy" that generally provides a sequenced approach to addressing foreseeable impacts, while recognizing that in limited situations, specific circumstances may warrant a departure from this sequence. 600 DM at 6.4(B).

public lands that possess a harmed feature or resource, rather than conducting less effective mitigation directly on the public lands.

Based on FLPMA's multiple use and sustained yield authority, compensatory mitigation may also involve a net conservation benefit, as appropriate. In other words, in appropriate circumstances, the BLM may authorize a project contingent on the applicant implementing mitigation that is predicted to improve resource conditions above the preexisting baseline conditions. Mitigation requiring a net conservation benefit is permissible because of the regulatory and proprietary authority FLPMA vests in the BLM to enhance natural resources on public lands. In the absence of other legal limitations,[69] requiring those seeking to use public lands to leave them in better condition for the benefit of future generations is a proper means of pursuing that legitimate purpose.[70] Moreover, mitigation inherently involves a degree of uncertainty. For example, one acre of habitat for a sensitive species may not be biologically equivalent to another acre, and as a result, mitigation that appears to result in no net loss of habitat may, in practice, result in net harm to the species.[71] Accounting for that uncertainty may be particularly important in circumstances involving the use of public lands in exchange for a commitment to restore other public lands, because while restoration can provide substantial benefits, it often does not result in ecological value equivalent to that provided by undisturbed lands.[72] Net conservation gain may also be justified because of a temporal lag between realization of the benefits of mitigation and the impacts of a project.[73]

2. BLM's authority to manage for multiple use and sustained yield authorizes mitigation

BLM's charge under FLPMA to manage public lands based on principles of multiple use and sustained yield supports use of mitigation. The authority to evaluate and impose mitigation arises out of the broad authority FLPMA vests in the BLM to pursue the congressional goals described above for public lands.

The BLM can evaluate and require mitigation through both the land use planning process and site-specific authorizations. In some cases, planning level decisions will provide specific standards or general guidelines to govern mitigation requirements within a planning area. Where

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[69] *See, e.g., infra* Part IV.

[70] *See supra* Part III.A.1 (describing BLM's authority to enhance the public lands).

[71] Regulations implementing the Clean Water Act's permitting program for fill of waters of the United States similarly requires consideration of "the likelihood of ecological success and sustainability" in developing compensatory mitigation measures. 33 C.F.R. § 332.3(a)(1); *see also Ohio Valley Envtl. Coal., Inc. v. U.S. Army Corps of Eng'rs*, 883 F. Supp. 2d, 627, 635 (S.D.W.V. 2012) (rejecting environmental group's challenge to a 2.23:1 mitigation ratio, which was based, in part, on "recognition . . . that stream functions are complex and that quantifying those functions involves a degree of uncertainty").

[72] *See, e.g.*, NATIONAL ACADEMY OF SCIENCES, EFFECTIVE MONITORING TO EVALUATE ECOLOGICAL RESTORATION IN THE GULF OF MEXICO 8 (2016) ("Because of the complexity of the environment that restoration aims to manipulate, all restoration efforts will face some level of uncertainty and associated risk of negative or undesirable project outcomes.").

[73] *See Sierra Club v. Van Antwerp*, 661 F.3d 1147, 1156 (D.C. Cir. 2011) (upholding mitigation measures required under section 404 of the Clean Water Act "which will bring about a *net gain* of wood stork foraging habitat" to offset "temporal lag" (emphasis in original)).

planning level documents include such mitigation standards or guidelines, section 302 of FLPMA requires the BLM to manage those site-specific authorizations "in accordance with" adopted land use plans.

Even where land use plans do not specify mitigation standards or guidelines, BLM may impose mitigation requirements at the project level when making discretionary decisions to authorize particular uses of land. Where consistent with land use plans and applicable law, the BLM may *deny* applications for proposed discretionary land uses where the associated impacts cannot or will not be adequately mitigated. As the Tenth Circuit recognized in *New Mexico ex rel. Richardson v. BLM*,[74] a case concerning proposed oil and gas development in the Otero Mesa in New Mexico, the environmental values component of the BLM's multiple use mission allows it to prohibit development activities altogether on any particular area of public land:

> It is past doubt that the principle of multiple use does not require BLM to prioritize development over other uses. . . . BLM's obligation to manage for multiple use does not mean that development *must* be allowed on the Otero Mesa. Development is a *possible* use, which BLM must weigh against other possible uses—including conservation to protect environmental values.[75]

The court noted that FLPMA does not require development or other uses to "be accommodated on every piece of land; rather, delicate balancing is required."[76] It follows that the BLM, when undertaking this "delicate balancing," may condition discretionary authorizations for use of the public lands upon mitigation measures that provide for conservation.[77] Through the exercise of such discretion, the BLM may require public land users to avoid, minimize, or compensate for impacts from development that warrant mitigation. Moreover, just as the BLM has authority to engage in activities that enhance resources on public lands,[78] in appropriate circumstances, the BLM may exercise its discretion, and in particular its discretion to consider and promote ecological and environmental values consistent with its multiple use and sustained yield mission, to require mitigation that results in no net loss or net benefit to particular resources. For example, if the resources that would be affected by a proposed discretionary public land use are important, scarce, or sensitive—whether because of the intrinsic qualities of the resources or a historical

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[74] 565 F.3d 683 (10th Cir. 2009).

[75] *Id.* at 710 (emphasis in original).

[76] *Id.* (citing *SUWA*, 542 U.S. at 58).

[77] Courts and the Interior Board of Land Appeals have explicitly recognized the BLM's broad discretion to protect environmental values by conditioning land use authorizations, including authorizations for livestock grazing, *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. . . . The overarching goal of the statute is to ensure that the Secretary's management of the lands is consistent with the principles of multiple use and sustained yield"); oil and gas development, *see, e.g.*, *Grynberg Petro.*, 152 IBLA 300, 306–07 (2000) (describing how administrative appellants challenging conditions of approval bear the burden of establishing that those conditions are "unreasonable or not supported by the data"); and rights-of-way, *see, e.g.*, *Lower Valley Power & Light*, 82 IBLA 216, 223 (1984) ("It is well established that BLM may use its discretionary authority to protect environmental and other land use values, including endangered and threatened species and the scenic quality of an area.").

[78] *See supra* Part III.A.1 (describing BLM's authority to enhance the public lands).

legacy of degradation—the BLM's authorization of that use in the context of its multiple use and sustained yield mission reasonably may lead it to conclude that it should authorize that use only if the use, after imposing mitigation measures, benefits, or at least does not further degrade, those resources.[79] These determinations are at their core the balancing of resource values with the long-term view that FLPMA mandates under its multiple use and sustained yield principles. FLPMA vests the Secretary and the BLM with the tools, when authorizing uses of the public lands, to decide where, when, and under what conditions to authorize such use.

3. FLPMA prescribes a land use planning process that contemplates the use of mitigation to protect resource values on the public lands

In section 202 of FLPMA, Congress directed the BLM to prepare land use plans to guide subsequent authorization decisions.[80] As the Supreme Court has recognized, "a land use plan describes, for a particular area, allowable uses, goals for future condition of the land, and specific next steps" for the BLM as it considers whether to approve on-the-ground actions.[81] All such authorizations, in turn, must be consistent with the terms, conditions, and decisions of the underlying land use plans.[82] Within this framework, the BLM uses land use planning to fulfill its statutory mission, set goals for the future and identify tools to achieve those goals, often at a broad geographic scale. Land use planning thus constitutes a "preliminary step in the overall process of managing public lands"[83] because while a plan provides a general framework for future land use authorizations, it "is not ordinarily the medium for affirmative decisions that

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[79] The BLM has long understood that its stewardship of the public lands under multiple use and sustained yield principles is consistent with efforts to improve and restore important, scarce, and sensitive resources. For example, the BLM's special status species policy provides guidance for the conservation of species listed or proposed for listing under the ESA, as well as for species that require special management consideration to promote their conservation and reduce the likelihood and need for future listing. BLM Special Status Species Management, MS-6840 at .01 (Dec. 12, 2008). For sensitive (non-listed) species, the objective of the policy is to "initiate proactive conservation measures" that reduce or eliminate threats and minimize the need for future listing. *Id.* at 0.2. The policy defines "conservation" of sensitive species to encompass the elimination or reduction of threats, as well as programs, plans, and practices to "*improve the condition* of the species' habitat on BLM-administered lands." *Id.* at Glossary, p. 2 (defining "conservation") (emphasis added). The BLM has been implementing its special status species policy continuously since 2008, before which the BLM implemented its predecessor, a 2001 policy with similar provisions. *See* BLM Special Status Species Management, MS-6840 at .01 (Jan. 17, 2001) ("Conservation of special status species means the use of all methods and procedures which are necessary *to improve the condition* of special status species and their habitats to a point where their special status recognition is no longer warranted.") (emphasis added); *see also id.* at .22 (stating that conservation of species other than under the ESA includes appropriate "conservation actions that improve the status of such species").

[80] 43 U.S.C. § 1712(a); *see also* 43 C.F.R. § 1601.0-2. On December 12, 2016, the BLM published a final rule to amend the regulations governing its land use planning process. Resource Management Planning, 81 Fed. Reg. 89,580-89,671. Under the final rule, which will become effective on January 11, 2017, the components of land use plans will remain substantially similar to those under the current regulations. The contents of the final rule do not materially change the analysis and conclusions in this Opinion.

[81] *SUWA*, 542 U.S. at 59.

[82] 43 C.F.R. §§ 1601.0-5(c), 1610.5-3.

[83] *SUWA*, 542 U.S. at 69.

implement" the goals and objectives of the plan.[84] Moreover, when the BLM makes such implementation decisions, such as whether to approve a particular project, it considers additional information specific to each such proposal, to help the agency consider additional project-specific terms and conditions.

Section 202 of FLPMA requires the BLM to integrate conservation into its development and revision of land use plans. It directs the BLM, when conducting land use planning, to "use and observe the principles of multiple use and sustained yield;"[85] "weigh long-term benefits to the public against short-term benefits;"[86] "provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans";[87] and "give priority to the designation and protection of areas of critical environmental concern" (ACECs) where appropriate.[88] Providing for conservation through planning, including by identifying opportunities for mitigation, is fully consistent with Congress's articulation of the BLM's role as a steward and manager who balances multiple values for the sustainable existence of the public lands. This approach to planning includes "consider[ing] the relative scarcity of the values involved and the availability of *alternative means* (including recycling) *and sites* for realization of those values."[89]

The BLM has exercised its broad statutory authority[90] by incorporating in its land use planning regulations,[91] Land Use Planning Handbook,[92] Mitigation Manual, and Mitigation Handbook[93] the congressional direction to protect the longevity and resiliency of public land resources and values, including, by extension, through instituting appropriate mitigation requirements. One feature of the planning process that is directly relevant to the implementation of mitigation is that the BLM must identify desired outcomes in the form of goals and objectives for resource

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[84] *Id.*; *see also* 43 U.S.C. § 1712(e) (authorizing the BLM to "issue management decisions to implement land use plans").

[85] 43 U.S.C. § 1712(c)(1).

[86] *Id.* § 1712(c)(7).

[87] *Id.* § 1712(c)(8).

[88] *Id.* § 1712(c)(3). ACECs are "areas within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." *Id.* § 1702(a); *see also* 43 C.F.R. § 1601.0-5(a). ACECs are a mechanism to protect areas of the public lands or otherwise provide for special management considerations to ensure "that the *most environmentally important and fragile lands* will be given special, early attention and protection." S. REP. NO. 94-583, at 43 (1975) (emphasis added). The ACEC mechanism is supplemental to BLM's more general land use planning authority set forth in section 202 of FLPMA. *See supra* notes 80–84; *infra* pp. 12–13.

[89] 43 U.S.C. § 1712(c)(6) (emphasis added).

[90] In addition to its general grant of authority to the BLM to manage the public lands for multiple use and sustained yield and the planning authority discussed above, FLPMA grants the Secretary broad power to promulgate and enforce regulations that carry out the purposes of the Act and other laws applicable to the public lands. *Id.* §§ 1733, 1740.

[91] 43 C.F.R. pt. 1600.

[92] BLM Land Use Planning Handbook, H-1601-1 (2005).

[93] BLM Mitigation Manual, MS-1794 (December 2016); BLM Mitigation Handbook, H-1794-1 (December 2016).

management.[94] As applied by the BLM in the context of planning, "goals" are broad statements of desired outcomes that are not usually quantifiable, such as goals to maintain ecosystem health and productivity, promote community stability, ensure sustainable development, or meet land health standards.[95] "Objectives" identify specific desired outcomes for resources, are usually quantifiable and measurable, and may have established timeframes for achievement.[96]

To achieve goals and objectives, consistent with its broad discretion under the multiple use and sustained yield mandate, the BLM incorporates mitigation standards into land use plans. The planning regulations require the BLM to establish the measures needed to achieve goals and objectives. These measures consist of "allowable uses," wherein the BLM identifies uses that are allowable, restricted, or prohibited on the public lands and mineral estate,[97] as well as "management actions."[98] Identifying "management actions" directly supports the adoption of mitigation standards, because "management actions" consist of:

> the actions anticipated to achieve desired outcomes, including actions to maintain, restore, or improve land health. These actions include proactive measures (e.g., measures that will be taken to enhance watershed function and condition), as well as measures or criteria that will be applied to guide day-to-day activities occurring on public land.[99]

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[94] 43 C.F.R. § 1601.0-5(n)(3).

[95] BLM Land Use Planning Handbook, H-1601-1 at 12. An example of a "goal" is: "Maintain healthy, productive plant and animal communities of native and other desirable species at viable population levels commensurate with the species and habitat's potential." *Id.*

[96] *Id.* An example of an "objective" is: "Manage vegetative communities on the upland portion of the Clear Creek Watershed to achieve, by 2020, an average 30 to 40 percent canopy cover of sagebrush to sustain sagebrush-obligate species." *Id.*

[97] 43 C.F.R. § 1601.0-5(n)(2); BLM Land Use Planning Handbook, H-1601-1 at 13. An example of an allocation decision is the designation of Solar Energy Zones (SEZs), variance areas, and exclusion areas for utility-scale solar energy development by the 2012 Western Solar Plan. *See Approved Resource Management Plan Amendments/Record of Decision for Solar Energy Development in Six Southwestern States* (Oct. 2012).

[98] *See* 43 C.F.R. § 1601.0-5(n)(2), (4), (6)-(8); BLM Land Use Planning Handbook, H-1601-1 at 11, 13.

[99] BLM Land Use Planning Handbook, H-1601-1 at 13. The Handbook describes how "management actions" can provide for protection and restoration of public land resources:

> While protection and restoration opportunities and priorities are often related to managing specific land uses (such as commodity extraction, recreation, or rights-of-way corridors), they can be independent of these types of uses as well. In certain instances, it is insufficient to simply remove or limit a certain use, because unsatisfactory resource conditions may have developed over long periods of time that will not correct themselves without management intervention. For example, where exotic invasive species are extensive, active restoration may be necessary to allow native plants to reestablish and prosper. In these cases, identifying restoration opportunities and setting restoration priorities are critical parts of the land use planning process.

Id. Examples of "management actions" include controlled surface use and no surface occupancy restrictions, identification and prioritization of vegetation and weed treatments, and the general requirement that mitigation provide a net conservation gain to the Greater Sage-Grouse when BLM authorizes third-party actions that result in habitat loss and degradation. *See Record of Decision and Approved Resource Management Plan Amendments for the Rocky Mountain Region, Including the Greater Sage-Grouse Sub-Regions of Lewistown, North Dakota, Northwest*

Congress's direction to prepare land use plans—through which the BLM is required by regulation to, among other things, identify goals, objectives, allowable uses, and management actions—authorizes the BLM to consider and adopt appropriate mitigation standards through the planning process.

4. The obligation to prevent unnecessary or undue degradation also supports evaluation and imposition of mitigation

In addition to its general charge that public lands be managed under principles of multiple use and sustained yield, FLPMA also requires the Secretary to "take any action necessary to prevent unnecessary or undue degradation of the lands."[100] This obligation to prevent unnecessary or undue degradation (UUD) provides an independent source of authority under FLPMA for the BLM to require mitigation to prevent this type of harm to public lands.

Courts have routinely held that this UUD provision "does not mandate specific BLM action,"[101] but instead affords the BLM "a great deal of discretion," including the discretion to deny a proposed public land use that the agency determines would cause UUD despite all available onsite mitigation measures or by exercising its "discretion to choose appropriate measures to address the environmental degradation."[102]

Mitigation is a valuable and necessary tool to prevent UUD. The court in *Mineral Policy Center v. Norton*[103] interpreted UUD as requiring the Department "to prevent, not only unnecessary degradation, but also degradation that, while necessary . . . , is undue or excessive."[104] The BLM must require public land users to mitigate impacts to the public lands that would otherwise constitute unnecessary or undue degradation of public lands, or must deny the proposed use. The BLM may conclude that by requiring mitigation—in other words, by modifying the proponent's proposal—a project will not result in undue degradation. The BLM may also reasonably assess whether the degradation of the values of the public lands that would occur, even after application of mitigation, is unnecessary.[105] This approach gives meaning to both words—"unnecessary" and "undue"—in the UUD standard.

Courts have recognized that the BLM has authority to incorporate mitigation measures into project authorizations to prevent UUD. For example, in a 2011 case, *Theodore Roosevelt*

Colorado, Wyoming and the Approved Resource Management Plans for Billings, Buffalo, Cody, HiLine, Miles City, Pompeys Pillar National Monument, South Dakota, and Worland (Sept. 2015).

[100] 43 U.S.C. § 1732(b).

[101] *See, e.g., W. Watersheds Project v. Abbey*, 719 F.3d 1035, 1044 (9th Cir. 2013).

[102] *Gardner v. U.S. Bureau of Land Mgmt.*, 638 F.3d 1217, 1222 (9th Cir. 2011).

[103] 292 F. Supp. 2d 30 (D.D.C. 2003).

[104] *Id.* at 38.

[105] In 2001, Solicitor's Opinion M-37007 interpreted the terms "unnecessary" and "undue" as "reasonably viewed as similar terms . . . or as equivalents." *Surface Management Provisions for Hardrock Mining*, M-37007 (Oct. 23, 2001). The Court in *Mineral Policy Center v. Norton* criticized and rejected the reasoning of that opinion. 292 F. Supp. 2d 30 (D.D.C. 2003). To the extent the interpretation provided by M-37007 conflicts with this Opinion's conclusion that mitigation measures may be imposed to prevent either unnecessary degradation or undue degradation, that interpretation is hereby revoked.

Conservation Partnership v. Salazar,[106] the plaintiff challenged the BLM's authorization of natural gas development in the Pinedale Anticline Project Area in Wyoming, contending, among other things, that the development would cause UUD. The U.S. Court of Appeals for the District of Columbia Circuit explained that the obligation to prevent UUD must be understood in the context of FLPMA's multiple use and sustained yield mandates, which clearly allow the BLM to authorize activities that result in some level of "degradation." The court cited with approval an Interior Board of Land Appeals (IBLA) decision holding that an environmental impact may rise to the level of "unnecessary or undue degradation" if it results in "something more than the usual effects anticipated from *appropriately mitigated* development."[107] Applying that standard, the D.C. Circuit upheld the BLM's determination that there would be no UUD where the BLM adopted mitigation measures that "comport with [Wyoming Game & Fish Department] recommendations and utilize reasonably available technology."[108] The court further held the BLM reasonably could have concluded that these mitigation measures will prevent UUD by "(1) reducing the footprint and duration of human presence, (2) providing funding for and oversight of monitoring and mitigation, and (3) specifying additional mitigation measures to be implemented if further declines in wildlife populations are observed."[109] The Court thus found that the BLM's obligation to prevent UUD authorized imposition of mitigation measures.

Similarly, in the hardrock mining context, the BLM has long recognized that the UUD requirement creates a "responsibility [for the BLM] to specify necessary mitigation measures" when approving mining plans of operations.[110] The BLM has included mitigation measures in its mining plans of operations since BLM promulgated the first surface management regulations following FLPMA's enactment.[111] The BLM regulations addressing surface management of hardrock mining operations on public lands[112] have consistently included mitigation as a requirement for preventing UUD, including as part of the general performance standards in the current regulations.[113] Among "these general performance standards" is the requirement to "take

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[106] 661 F.3d 66 (D.C. Cir. 2011).

[107] *Id.* at 76 (citing *Biodiversity Conservation Alliance*, 174 IBLA 1, 5–6 (March 3, 2008) (internal quotation marks omitted and emphasis added)).

[108] *Id.* at 78.

[109] *Id.*

[110] 66 Fed. Reg. 54,834, 54,840 (Oct. 30, 2001); *see also* 64 Fed. Reg. 6,422, 6,437 (Feb. 9, 1999); 45 Fed. Reg. 78,902 (Nov. 26, 1980). The first surface management regulations adopted after the passage of FLPMA recognized the important role of mitigation, including in the definition of "unnecessary or undue degradation" that "[f]ailure to initiate and complete reasonable mitigation measures, including reclamation of disturbed areas . . . may constitute unnecessary or undue degradation." 43 C.F.R. § 3809.0-5(k) (1980).

[111] 43 C.F.R. subpart 3809 (1980).

[112] *Id.*

[113] In proposing to expressly incorporate mitigation into the regulations, in part through the inclusion of the definition of "mitigation" found in CEQ's regulations implementing NEPA (40 C.F.R. § 1508.20), the BLM noted in the preamble to the 1999 proposed 3809 regulations that the proposed provision recognized then-current BLM practice. 64 Fed. Reg. at 6,437. The BLM stated, however, that it "does not intend any portion of this [mitigation] definition, including 'avoiding the impact altogether by not taking a certain action,' to preclude or prevent mining." *Id.* at 6,428. As the BLM also later explained in response to a comment in the final rulemaking: "The mining laws do not establish an unfettered right to develop mining claims free from environmental constraints." 65 Fed. Reg. 69,998, 70,052 (Nov. 21, 2000) (final rule, later amended in part by the 2001 3809 final rule); *see also id.* at 70,092

mitigation measures specified by BLM to protect public lands."[114] In discussing the definition of mitigation, the preamble to these regulations stated: "Mitigation measures fall squarely within the actions the Secretary can direct to prevent unnecessary or undue degradation of the public lands."[115]

Thus, it is well established that the UUD provision under FLPMA provides another basis for requiring mitigation in those circumstances where impacts in the absence of mitigation would be unnecessary or undue. Although mitigation may contribute in some instances to the avoidance of UUD, in other cases, the impacts to resources may be of a nature or magnitude such that they cannot be mitigated sufficiently to prevent UUD. For example, the destruction of unique habitat in a particular place might not be adequately compensated by post-use restoration or protection of lesser habitat elsewhere. In such a case, where mitigation cannot prevent UUD, the BLM has authority to reject the application for approval of the public land use based on the proponent's inability to prevent UUD. The obligation to avoid UUD is a complementary but distinct source of authority for requiring mitigation under FLPMA.[116]

5. Other provisions of FLPMA authorize or compel the BLM to require public land users to implement appropriate mitigation

In addition to the provisions of FLPMA regarding multiple use and sustained yield, land use planning, and UUD, there are other provisions of FLPMA that can, in specific circumstances, authorize or even compel the BLM to require appropriate mitigation when authorizing public land uses.[117] For example, under Title V of FLPMA, the BLM is authorized to issue rights-of-way for various purposes, including for energy production and transmission projects. Title V,

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("The mining laws create no right in any person to violate BLM's lawfully promulgated regulations, particularly those implementing the [UUD] standard of FLPMA section 302(b), which does amend the mining laws.").

[114] 43 C.F.R. § 3809.420(a)(4).

[115] 65 Fed. Reg. at 70,012; *see also id.* at 70,052. The preamble to the 2000 final rulemaking acknowledged that sections 302 and 303 of FLPMA and the mining laws "provide BLM the authority for requiring mitigation." *Id.* at 70,012. That rulemaking also provided that section 303 and the Mining Law at 30 U.S.C. § 22, taken together, "clearly authorize the regulation of environmental impacts of mining through measures such as mitigation." *Id.* at 70,052. The general performance standard requiring mitigation, 43 C.F.R § 3809.420(a)(4), as discussed in the 2000 rulemaking preamble, remained unchanged in an amended rulemaking completed the following year. 66 Fed. Reg. 54,834 (Oct. 30, 2001). The BLM explained its decision to retain the general performance standards in sections 3809.420(a)(1) through (a)(5) from the 2000 rule: "because they provide an overview of how an operator should conduct operations under an approved plan of operations and clarify certain basic responsibilities, including the operator's responsibility *to comply with applicable land use plans and BLM's responsibility to specify necessary mitigation measures*." *Id.* at 54,840 (emphasis supplied).

[116] Indeed, the responsible management of the public lands under a stewardship ethos can, in some instances, help to avoid approaching impacts that would constitute UUD, a goal that is consistent with the congressional declaration of policy that public lands be managed, among other things, to protect "the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values" and, where appropriate, "preserve and protect certain public lands in their natural condition." 43 U.S.C. § 1701(a)(8).

[117] This Opinion focuses on the Secretary's and the BLM's authority under FLPMA to require mitigation as a condition of public land use authorizations. Depending on the circumstances, other sources of law and their implementing regulations may enhance, otherwise be relevant to, or inform the exercise of that authority to identify and implement appropriate mitigation. *See infra* section IV.

however, further requires each right-of-way to contain terms and conditions in order to "carry out the purposes" of FLPMA and to "minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment."[118] It directs the Secretary to include such other terms and conditions in rights-of-way that she "deems necessary" to "protect Federal property and economic interests," "protect the interests of individuals living in the general area traversed by the right-of-way who rely on the fish, wildlife, and other biotic resources of the area for subsistence," and "otherwise protect the public interest in the lands traversed by the right-of-way or adjacent thereto."[119]

These FLPMA provisions require the BLM to determine what mitigation measures are necessary to protect the public interest and environment as a condition of issuance of a right-of-way. Indeed, in the process of analyzing the potential environmental impacts of granting such right-of-way applications in accordance with NEPA,[120] the BLM typically considers alternative locations for rights-of-way, consistent with its statutory discretion to select a location "that will cause least damage to the environment, taking into consideration feasibility and other relevant factors."[121] Locating a project to avoid environmental damage is a form of mitigation. In addition to considering site alternatives, the Secretary and the BLM have interpreted their statutory authority by adopting regulations requiring right-of-way holders to "[r]estore, revegetate, and curtail erosion or conduct any other rehabilitation measure BLM determines necessary" and control and prevent damage to "scenic, aesthetic, cultural, and environmental values, including fish and wildlife habitat."[122] These right-of-way terms and conditions have included the implementation of appropriate compensatory mitigation, such as in the case of solar energy authorizations in the Dry Lake Solar Energy Zone, which were conditioned on each grantee's payment of a per-acre mitigation fee to address certain residual impacts through the implementation of offsite compensatory mitigation.[123]

Similarly, Title III of FLPMA requires the Secretary, "[i]n managing the public lands," to "regulate . . . the use, occupancy, and development of the public lands" "through easements, permits, leases, licenses, published rules, or other instruments as the Secretary deems appropriate."[124] Congress envisioned that use, occupancy and development of the public lands would proceed only "under such terms and conditions as are consistent with" FLPMA and other law.[125] As with Title V rights-of-way, such terms and conditions for authorizations under Title III

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[118] 43 U.S.C. § 1765(a)(i), (ii) (emphasis added).

[119] *Id.* § 1765(b)(i), (iv), (vi).

[120] 42 U.S.C. §§ 4321–4370h; 40 C.F.R. §§ 1502.14(a), (f) (directing agencies to evaluate reasonable alternatives, including appropriate mitigation measures), 1508.20 (defining aspects of mitigation).

[121] 43 U.S.C. § 1765(b)(v); *see also e.g.*, BLM Instruction Memorandum No. 2011-061, *Solar and Wind Energy Applications – Pre-Application and Screening* (Feb. 7, 2011) (establishing pre-application requirements, including consideration of "potential alternative site locations," and identifying screening criteria to prioritize solar and wind right-of-way applications based on the potential for resource conflicts).

[122] 43 C.F.R. § 2805.12(i)(1), (3). Similar provisions can be found in the original post-FLPMA right-of-way regulations adopted in 1980. *See* 45 Fed. Reg. 44,518, 44,528–29 (July 1, 1980).

[123] *See* Decision Records for the Playa Solar Project, Harry Allen Solar Energy Center Project, and Dry Lake Solar Energy Center (June 27, 2015).

[124] 43 U.S.C. § 1732(b).

[125] *Id.*

may include measures designed to mitigate the impacts of the use, occupancy, or development on resource values of concern to the BLM. This interpretation is consistent with the regulations governing the BLM's authorization of leases, easements, and permits under Title III, which direct the BLM to include terms and conditions that appropriately "[m]inimize damage to scenic, cultural and aesthetic values, fish and wildlife habitat and otherwise protect the environment," "[r]equire compliance with air and water quality standards," "[p]rotect the interests of individuals living in the general area of the use who rely on the fish, wildlife and other biotic resources of the area for subsistence purposes," "[r]equire the use to be located in an area which shall cause least damage to the environment," and "[o]therwise protect the public interest."[126]

In sum, through various implementation tools, such as rights of way and permits, the BLM can require appropriate mitigation to fulfill its statutory role and responsibility to manage the public lands with a long-term view.

C. The legislative history of FLPMA reflects Congress's intent to provide BLM with broad authority to manage public lands for future use

1. Congress intended for BLM to address historic degradation of public lands and to safeguard public resources for future generations

The legislative history of FLPMA underscores Congress's intention that BLM act to ensure that current and future generations would enjoy the benefits of public lands. No longer would public land management focus on short-term considerations—e.g., "transfer[s] out of Federal ownership by means of grants to States and railroads, sales to private owners, homestead acts, and various other disposal methods."[127] It would instead be motivated by an ethic of enduring public stewardship.[128]

In enacting FLPMA, Congress was mindful of the long history of degradation of the public lands, and it acted, in part, out of a desire to protect, mend, and heal these areas. For example, when introducing Senate Bill 507, which became FLPMA, Senator Floyd Haskell stated:

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[126] 43 C.F.R. § 2920.7(b)(2)-(3), (c)(4)-(6). Similar provisions can be found in the predecessor regulations for subpart 2920. *See* 46 Fed. Reg. 5,772 (Jan. 19, 1981).

[127] 122 CONG. REC. 1,231 (1975) (statement of Sen. Haskell); *see also id.* at 1,242 (statement of Sen. Jackson) (describing the "vast number of outmoded public land laws which were enacted in earlier periods in American history when disposal and largely uncontrolled development of the public domain were the dominant themes.").

[128] *See* S. REP. NO. 94-583, at 35 (1975) ("Among the principal goals and objectives are retention of [public lands] in Federal ownership and management of these lands under principles of multiple use and sustained yield in a manner which will assure the quality of their environment for present and future generations."). This commitment is also reflected in Congress's decision to update the definition of "multiple use" then found in the 1960 Multiple-Use Sustained-Yield Act to direct the Secretary to consider and give weight to environmental quality when authorizing uses of the public lands:

> the words "quality of the environment" are added so as to require multiple use management decisions which will not result in permanent impairment of the quality of the natural environment. This would meet the recommendation (no. 16) of the Public Land Law Review Commission that "environmental quality should be recognized by law as an important objective of public land management."

Id.

> For over a century and a half this vast land mass [the public lands] was woefully neglected. The General Land Office [the BLM's predecessor]. . . defined its primary responsibilities to be the surveying and the conveying of the land. Over 1 billion acres were transferred out of Federal ownership. . . . The land which remained lacked any consistent management with the inevitable result that vast acreages suffered extensive damage from overgrazing of livestock and wasteful settlement and farming practices—and, even today much of that damaged land has yet to benefit from natural or man-aided restorative processes.[129]

Senator Haskell continued:

> In the vacuum created by the absence of [coherent land management] authority, the unnecessary waste and destruction of our country's most valuable resource—its land—is almost awesome in its dimensions. Vast areas are eroding from vehicular overuse and misuse[;] priceless petroglyphs and other archeological treasures are dug up or literally blasted off of rock walls and carted off for sale . . . ; BLM facilities are defaced, burned, or dynamited; . . . destruction of the land and its facilities by users occurs without any requirement that those users restore them or post a security sufficient to insure their restoration.[130]

Legislation was needed, Senator Haskell said, because "these and other examples of the degradation of our public domain land" are "due to the fact that the BLM lacks an adequate statutory base" to safeguard public land resource values for future generations.[131] The Nation needed a public land management regime—FLPMA—that embraced an ethic of enduring public stewardship.

2. The recommendations of the Public Land Law Review Commission also support interpreting FLPMA to provide BLM with authority to enhance the environmental values on public lands

In enacting FLPMA, Congress also considered the findings and recommendations of the bipartisan Public Land Law Review Commission (Commission), which it established in 1964 to evaluate public land laws and make recommendations to improve them.[132] The Commission was needed, Congress explained, "[b]ecause the public land laws of the United States have developed over a long period of years through a series of Acts of Congress which are not fully correlated with each other" and which divide land management responsibility "among several agencies of the Federal Government."[133] The Commission was directed to prepare "a comprehensive review"

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[129] 122 CONG. REC. at 1,231 (statement of Sen. Haskell).

[130] *Id.* at 1,232 (statement of Sen. Haskell).

[131] *Id.; see also id.* at 7,583 (1976) (statement of Rep. Skubitz) (expressing support for the House bill that became FLPMA, H.R. 13777, in order to strike "a satisfactory balance between the desire to develop publicly owned lands in the United States and the need to preserve their environmental integrity.").

[132] Act of Sept. 19, 1964, Pub. L. No. 88-606, § 2, 78 Stat. 982.

[133] *Id.*

of public land laws, make findings about their shortcomings, and identify ways that Congress could ameliorate those shortcomings.[134]

The Commission labored on this task for six years. In 1970, it completed its work and issued a report to Congress and the President. That report, *One Third of the Nation's Land* (Commission Report), addressed all facets of public land law: forestry, livestock grazing, mineral development, realty, fish and wildlife habitat, recreation, and issues pertaining to the outer continental shelf. The Commission Report recommended improvements to public land laws, most of which Congress carried forward in the legislation that would become FLPMA.[135]

The Commission Report devoted an entire chapter to the promotion of environmental quality on the public lands, urging Congress to endow land management agencies with broad discretion to preserve *and enhance* resource values for future generations.[136] Enhancing environmental quality, the Commission noted, meant more than merely avoiding "impairment of the productivity of the land" and giving some consideration to ecology.[137] While "these are necessary and important expressions of concern for some aspects of environmental quality,"[138] these expressions of concern did not go far enough. "[W]e also believe," the Commission asserted, that "that public land laws should require the consideration of all such aspects and that environmental quality on public lands be enhanced or maintained to the maximum feasible extent."[139] The Commission recognized that this authority was needed to address the degraded state of the public lands:

> Past activities on the public lands have resulted in lowered environmental quality in many places. As indicated above, there have been many causes for the degradation. It is impracticable, except where contract provisions have been violated, to try now to seek out those responsible and ask them to effect rehabilitation. *Nonetheless, it is essential that*

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[134] *Id.*

[135] 122 CONG. REC. 1,242 (1975) (statement of Sen. Jackson) ("The [Commission] report contains 137 numbered, and several hundred unnumbered, recommendations designed to improve the Federal Government's custodianship of the Federal lands. The legislation we introduce today is in accordance with over 100 of these recommendations"); S. REP. NO. 94-583, at 35 (1975) (same); *see Yount v. Salazar*, 933 F. Supp. 2d 1215, 1222 (D. Ariz. 2013) ("Congress enacted the FLPMA in response to the Commission's findings and recommendations."); *see also* John A. Carver, Jr., *Federal Land Policy and Management Act of 1976: Fruition or Frustration*, 54 DENV. L.J. 387, 397 (1977) (noting that "[t]he drafters of the Federal Land Policy and Management Act of 1976 must have attempted to articulate goals, objectives and guidelines which paralleled those stated by the Commission . . . [because] virtually all of the recommendations contained in the [Commission Report's] introductory summary are treated in the congressional declarations of policy").

[136] *See* PUB. LAND LAW REVIEW COMM'N, ONE THIRD OF THE NATION'S LAND 67 (1970) ("This Commission shares today's increasing national concern for the quality of our environment. The survival of human civilization, if not of man himself, may well depend on the measures the nations of the world are willing to take in order to preserve and enhance the quality of the environment."); *id.* at 68 ("The Federal policy structure for maintaining and enhancing environmental quality on the public lands is uneven and contains broad gaps.").

[137] *Id.* at 70.

[138] *Id.*

[139] *Id.*

> *damage to the environment be corrected, and we recommend that actions be taken to restore or rehabilitate such areas.*[140]

These findings and statements of principle culminated in a recommendation to amend public land laws so that the federal government would strive not only to maintain, but also to enhance environmental quality:

> [W]e propose that the enhancement and maintenance of the environment, with rehabilitation where necessary, be defined as objectives for all classes of public lands. This proposal goes beyond the existing statutes by giving environmental quality a status equivalent to those uses of the public lands which now have explicit recognition, and by indicating that through design and management, environmental quality can be improved as well as preserved.[141]

This recognition of the integral role of public land management in promoting environmental quality more broadly was repeated in Recommendation 23. In that recommendation the Commission called for public land agencies "to condition the granting of rights or privileges to the public lands or their resources on compliance with applicable environmental control measures governing operations off public lands which are closely related to the right or privilege granted."[142] "This recommendation is premised," the Commission Report explained, "on the conviction that the granting of public land rights and privileges can and should be used, under clear congressional guidelines, *as leverage to accomplish broader environmental goals off the public lands.*"[143] Congress considered these Commission recommendations relating to environmental quality and the long-term conservation of resources on the public lands and they shaped the interlocking provisions that Congress ultimately enacted.[144]

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[140] *Id.* at 86 (emphasis in original).

[141] *Id.* at 70 (emphasis in original). In formally articulating this recommendation (as Recommendation 16), the Commission emphasized that maintaining and enhancing environmental quality on public lands was an integral part of maintaining environmental quality generally: "Environmental quality should be recognized by law as an important objective of public land management, and public land policy should be designed to enhance and maintain a high quality environment both on and off the public lands." *Id.* at 68.

[142] *Id.* at 81.

[143] *Id.* (emphasis supplied). The Commission recognized that there should be a nexus between the public land use and the environmental objective: "We recommend that the activities against which such indirect leverages should be employed ought generally to be limited to those that bear a close relationship to the use of the public lands and that would have an adverse effect on the environment off the public lands." *Id.* at 82.

[144] For example, the Senate Committee on Interior and Insular Affairs' section-by-section analysis of S. 507 describes how, under principles of multiple use and sustained yield, public lands must be managed to, among other things, "assure the environmental quality of such lands for present and future generations," provide for "habitat for wildlife, fish and domestic animals," "include scientific, scenic, historical, archeological, natural, ecological, air and atmospheric, water resource, and other public values," "contain certain areas in their natural condition," and "balance various demands on those lands consistent with national goals." S. REP. NO. 94-583, at 39 (1975). "Virtually all of these policies," the section-by-section analysis explains, "are found in various recommendations of the Public Land Law Review Commission." *Id.* at 40.

IV. Mitigation under FLPMA and compliance with other laws

When exercising its authority under other applicable statutes, the BLM simultaneously may exercise its authority under FLPMA to require implementation of appropriate mitigation. For example, the BLM authorizes oil and gas and coal leasing and development on public domain lands under the Mineral Leasing Act of 1920 (MLA),[145] which "granted rather sweeping authority" to the BLM.[146] Through the MLA's delegation of "broad authority,"[147] Congress empowered the Secretary to impose "exacting restrictions and continuing supervision" over companies developing oil and gas, and to issue "rules and regulations governing in minute detail all facets of the working of the land."[148] Under the MLA, the Secretary oversees the development of natural resources on public lands to ensure the avoidance of waste[149] and compliance with safety protections.[150] As amended, the MLA requires oil and gas operators to comply with a surface use plan of operations approved for BLM-managed lands by the Secretary of the Interior or for national forest lands by the Secretary of Agriculture.[151] The regulations implementing the MLA authorize the BLM to ensure that all operations protect "other natural resources and the environmental quality."[152] The MLA also grants significant authority to the Secretary regarding the suspension or extension of leases "in the interest of conservation of natural resources."[153] Courts have held consistently that the conservation of natural resources referenced in the MLA includes the "prevention of environmental damage."[154]

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[145] 30 U.S.C. §§ 181–287.

[146] *Indep. Petroleum Ass'n of Am. v. DeWitt*, 279 F.3d 1036 (D.C. Cir. 2002).

[147] *NRDC v. Jamison*, 815 F. Supp. 454, 456 (D.D.C. 1982).

[148] *Boesche*, 373 U.S. at 477–78; *see also* 30 U.S.C. § 189 (stating the Secretary is authorized to "prescribe necessary and proper rules and regulations and to do any and all things necessary to carry out and accomplish the purposes of [the MLA]").

[149] 30 U.S.C. §§ 187 (requiring leases to include a provision "for the prevention of undue waste"), 225 (stating that a lessee must use "all reasonable precautions to prevent waste").

[150] *Id.* § 187 (requiring that leases executed under the MLA contain specific "rules for the safety and welfare of the miners . . . as may be prescribed by [the Secretary]").

[151] *Id.* § 226(g). The section also requires the appropriate Secretary to regulate all surface-disturbing activities and to determine reclamation "and other actions as required in the interest of conservation of surface resources." *Id.*

[152] 43 C.F.R. §§ 3161.2 (stating the BLM is authorized to "require that all operations be conducted in a manner which protects other natural resources and the environmental quality"), 3162.5-1(a) ("The operator shall conduct operations in a manner which protects the mineral resources, other natural resources, and environmental quality").

[153] 30 U.S.C. § 209.

[154] *Copper Valley Mach. Works, Inc. v. Andrus*, 653 F.2d 595, 600 (D.C. Cir. 1981); *accord Hoyl v. Babbitt*, 129 F.3d 1377 (10th Cir. 1997) (noting that courts have "construed the phrase 'in the interest of conservation of natural resources' to . . . prevent environmental harm"); *see also Getty Oil v. Clark*, 614 F. Supp. 904 (D. Wyo. 1985) (holding that the Secretary's authority under 30 U.S.C. § 209 includes "power to grant, deny or mandate a suspension of operations in the interest of conserving the environmental values of the leased property"); *Carbon Tech Fuels, Inc.*, 161 IBLA 147 (2004) (noting that the reference to conservation in 30 U.S.C. § 209 has been construed by the IBLA to include the prevention of damage to the environment); *Nevdak Oil & Expl.*, 104 IBLA 133, 138–39 (1988) (citing *Copper Valley* for the proposition that "the term 'conservation' in section 39 of the Mineral Leasing Act [30 U.S.C. § 209] is to be given its 'ordinary meaning' and includes 'prevention of environmental damage'").

In this regard, the MLA is compatible with FLPMA's multi-faceted balancing of resources and consideration of long-term protection and preservation of the public's resources. Thus, when the BLM authorizes activities on public lands under a particular statute, such as the MLA,[155] the BLM may also exercise its general authority under FLPMA to apply appropriate mitigation to avoid, minimize, or compensate for impacts.[156]

Similarly, BLM's consideration and application of appropriate mitigation under FLPMA may promote Congress's policy objectives under other laws, and in some instances, may

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[155] BLM has long identified and required appropriate mitigation, consistent with the MLA, when authorizing oil and gas development. For nearly 100 years, every version of the federal oil and gas regulations has required operators to avoid damaging surface and subsurface resources. 1920 I.D. Lexis 47, at *2-6 (§§ 1-13); 30 C.F.R. § 221.24 (1938); 30 C.F.R. § 221.32 (1982); 43 C.F.R. § 3162.5-1 to .5-2 (1983 & 2014); *see also* 30 C.F.R. §§ 221.5-221.6, 221.9, 221.14 (1938); 30 C.F.R. §§ 221.5, 221.8-221.9, 221.18, 221.21, 221.23 (1982); 43 C.F.R. §§ 3162.3-2, 3162.4-2 (1983 & 2014); Onshore Order 2, § III.B, 53 Fed. Reg. at 46,808–09. In 2004, the BLM issued a nationwide Instruction Memorandum providing guidance to "mitigate anticipated impacts to surface and subsurface resources" from onshore oil, gas, and geothermal operations. BLM Instruction Memorandum No. 2004-194, *Integration of Best Management Practices into Application for Permit to Drill Approvals and Associated Rights-of-Way* (June 22, 2004). The IM described how best management practices (BMPs) "are applied to management actions to aid in achieving desired outcomes for safe, environmentally sound resource development, by preventing, minimizing, or mitigating adverse impacts and reducing conflicts." *Id.* at 1. The IM provided further direction to field offices to incorporate appropriate BMPs into proposed Applications for Permits to Drill (APDs) by the oil and gas operator to help ensure an efficient and timely APD process. The IM also noted that BMPs not incorporated into the permit application by the operator "may be considered and evaluated through the NEPA process and incorporated into the permit as APD Conditions of Approval or right-of-way stipulations." *Id.* at 3. In 2005, the BLM issued an IM describing how the BLM "will approach compensatory mitigation on an 'as appropriate' basis where it can be performed onsite and on a voluntary basis where it is performed offsite." BLM IM No. 2005-069, Interim Offsite Compensatory Mitigation for Oil, Gas, Geothermal and Energy Rights-of-Way Authorizations (Feb. 1, 2005). In 2007, the Department issued an Onshore Oil and Gas Order that described how the BLM:

> may require reasonable mitigation measures to ensure that the proposed operations minimize adverse impacts to other resources, uses, and users, consistent with granted lease rights. The BLM will incorporate any mitigation requirements, including Best Management Practices, identified through the APD review and appropriate NEPA and related analyses, as Conditions of Approval to the APD.

Onshore Oil and Gas Order No. 1, 72 Fed. Reg. 10,329, 10,334 (March 7, 2007). *See also infra* note 157.

[156] Section 701(a) of FLPMA provides that nothing in the Act shall be construed as terminating any valid lease, permit, patent, right-of-way, or other land use right or authorization on the date of the approval of the Act. 43 U.S.C. § 1701 note (a). FLPMA also provides that "[a]ll actions by the [BLM] under this Act shall be subject to valid existing rights." *Id.* note (h). Identifying the scope of valid existing rights involves, among other things, evaluation of the terms of existing leases. BLM regulations in effect at the time of the issuance of the lease are relevant, but are not necessarily determinative because most of the BLM's oil and gas leases, for example, require compliance with all existing and future regulations. Land use manuals or plans that include terms related to environmental protection may also be instructive to the extent that they provide notice of best management practices or conditions of approval that the BLM will consider in reviewing permits to drill. Under existing regulations, for example, the BLM may require an oil and gas operator to move the proposed location of a drilling pad for reasons such as safety or effects on wildlife. *Yates Petroleum Corp.*, 176 IBLA 144 (2008) (upholding denials of APDs because of steep slopes, proximity to sage-grouse leks, and failure to provide for adequate reclamation).

simultaneously constitute an exercise of authority under those laws. In addition to the MLA,[157] those laws include: NEPA, which requires adequate evaluation and disclosure of the impacts of the proposed action, reasonable alternatives, and consideration of mitigation alternatives where appropriate;[158] the Endangered Species Act (ESA), which directs federal agencies to protect listed species and designated critical habitat;[159] the National Historic Preservation Act (NHPA), which directs federal agencies to consider and seek to minimize impacts to historic properties;[160] the Paleontological Resources Preservation Act (PRPA), which provides that federal agencies

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[157] When the BLM approves conventional energy projects on the public lands under FLPMA and the MLA, the MLA provides additional authority for the BLM to identify and require appropriate mitigation measures. For example, when authorizing pipeline rights-of-way under the MLA, the BLM can identify appropriate stipulations to promote "restoration, revegetation, and curtailment of erosion of the surface of the land," "protect the interests of individuals living in the general area of the right-of-way or permit who rely on the fish, wildlife, and biotic resources of the area for subsistence purposes," and control or prevent "damage to the environment (including damage to fish and wildlife habitat)." 30 U.S.C. § 185(h)(2)(A), (C), (D). Similarly, when the BLM issues oil and gas leases under the MLA, it can include stipulations to mitigate environmental impacts. *Id.* § 226(e); 43 C.F.R. § 3101.1-3. After the BLM issues a lease, when processing an Application for Permit to Drill (APD), the BLM can embed additional mitigation measures in its authorization. 30 U.S.C. § 226(f), (g); 43 C.F.R. § 3162.3-1(h)(1) (authorizing the BLM to "[a]pprove the application as submitted or with appropriate modifications or conditions").

[158] While NEPA does not constitute a source of authority for BLM to require mitigation, *see Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350–51 (1989), requiring mitigation under FLPMA advances NEPA's goals, which include the promotion of efforts that will prevent or eliminate damage to the environment. 42 U.S.C. § 4321. NEPA also requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." *Id.* § 4332(2)(E). The CEQ regulations implementing NEPA require the BLM and other federal agencies, when preparing an Environmental Impact Statement (EIS), to evaluate the impacts of proposed actions and consider appropriate mitigation measures. *See, e.g.*, 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1505.2(c), 1508.25(b)(3). An EIS's discussion of mitigation measures "must include such things as design alternatives that would decrease pollution emissions, construction impacts, esthetic intrusion, as well as relocation assistance, possible land use controls that could be enacted, and other possible efforts." *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Fed. Reg. 18,026, Question and Answer 19(a) (Mar. 23, 1981). NEPA documents should consider mitigation measures even "for impacts that by themselves would not be considered 'significant.'" *Id.* Question and Answer 39 (describing how agencies should consider mitigation measures in Environmental Assessments). When the BLM issues a Record of Decision, it must also "[s]tate whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not." 40 C.F.R. § 1505.2(c).

[159] Under section 7 of the ESA, the BLM must consult with the U.S. Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS) to ensure that proposed agency actions are not likely to jeopardize the continued existence of any listed species or cause the destruction or adverse modification of designated critical habitat. 16 U.S.C. § 1536(a)(2). Through the consultation process, FWS or NMFS might issue a biological opinion with an incidental take statement identifying reasonable and prudent measures to minimize the impacts of any anticipated take on a listed species.

[160] Under the NHPA, the BLM must consider the effects of proposed undertakings on historic properties, 54 U.S.C. § 306108, and consult with states, tribes, and other interested parties to identify and resolve any adverse impacts. *See* 36 C.F.R. § 800.2(c) (identifying consulting parties). *See generally id.* §§ 800.3 to 800.7 (describing the processes for the identification of historic properties, determination of adverse impacts, and consultation to try to resolve adverse impacts). The NHPA also requires that the BLM "to the maximum extent possible . . . minimize harm" to National Historic Landmarks. 54 U.S.C. § 306107; 36 C.F.R. § 800.10.

"shall manage and protect paleontological resources on Federal land using scientific principles and expertise,"[161] and the National Landscape Conservation System (NLCS) organic act, which directs the BLM to manage and protect qualifying resources on National Conservation Lands.[162] Because each of these statutes provides direction for the consideration and protection of resource values, the BLM can, in some instances, streamline its permitting processes and expedite approvals to use the public lands by identifying and requiring appropriate mitigation—particularly when implemented at a landscape scale.[163]

V. Conclusion

Based on the foregoing, the BLM generally has the authority and discretion to identify and require appropriate mitigation when authorizing uses of the public lands. This authority derives from FLPMA's overarching direction that the public lands be managed under principles of multiple use and sustained yield, which, as discussed above, includes ecological and environmental values. The statute itself, as well as FLPMA's overall structure and legislative history, demonstrate that Congress intended to provide for the long-term management and stewardship of the public lands, and that Congress sought to achieve this goal by granting the BLM broad discretion when managing the public lands. In addition, several specific sections of FLPMA, such as section 302(b), which requires the BLM to take any action necessary to prevent UUD, and Title V, which requires mitigation when the BLM grants rights-of-way across the public lands, also provide authority for BLM to require the implementation of appropriate mitigation. Consequently, the BLM can exercise that broad discretion by requiring public land users to implement appropriate mitigation, including requiring them to achieve a net conservation gain to resource conditions that the Secretary and the BLM have chosen to enhance in furtherance of the multiple use and sustained yield mission.

In all instances, BLM decisions should be mindful of the Administrative Procedure Act, which instructs federal courts to set aside agency actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[164] In general, an agency decision will be deemed to be arbitrary or capricious if the agency "has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency

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[161] 16 U.S.C. § 470aaa-1. In areas determined to have high or undetermined potential for significant paleontological resources, the agency must implement an appropriate program for mitigating the impact of development, including surveys, monitoring, collection, identification and reporting, and other activities required by law. *Id.*

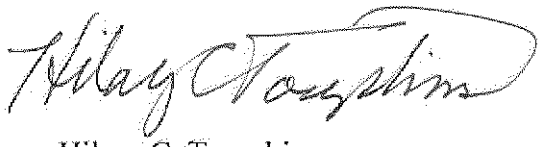
[162] Under the NLCS organic act, the BLM must manage lands within the NLCS "in a manner that protects the values for which the components of the system were designated." 16 U.S.C. § 7202(c)(2). Congress established the NLCS "to conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations." *Id.* § 7202(a).

[163] As discussed in a 1998 Solicitor's Opinion, the BLM also has discretion to consider the public interest when deciding whether to deny (or approve with protective stipulations) applications for mineral exploration activities on acquired federal lands where such exploration might lead to leasing and mining activities that could adversely affect areas of the National Park System. *See Options Regarding Applications for Hardrock Mineral Prospecting Permits on Acquired Lands Near a Unit of the National Park System*, M-36993 (Apr. 16, 1998).

[164] 5 U.S.C. § 706(2)(A).

expertise."[165] As with all agency decisions, the BLM should ensure that decisions that condition land use authorizations on the implementation of mitigation (avoidance, minimization, and compensation) meet that standard. When the BLM requires a public land user to implement mitigation it should identify the impact that requires mitigation and memorialize the reasons for requiring a particular mitigation measure to address that impact.

This Opinion supersedes all previous Solicitor's Office opinions[166] to the extent that they conflict with this Opinion.[167]



Hilary C. Tompkins

[165] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983).

[166] This includes the Solicitor's Opinion M-37007 that interpreted the terms "unnecessary" and "undue" as "equivalents." *See supra* note 105.

[167] This Opinion was prepared with the substantial assistance of Gregory Russell, Aaron Moody, and Laura Brown in the Division of Land Resources; and Deputy Solicitor for Land Resources Justin Pidot.

EXHIBIT 3

https://www.nytimes.com/2018/11/27/business/energy-speculators-public-land-leases.html

Energy Speculators Jump on Chance to Lease Public Land at Bargain Rates

The Trump administration's policy of encouraging more oil and gas drilling combined with a loophole in federal rules has been a boon for investors with a taste for gambling — and has drawn criticism that it is a bad deal for taxpayers.

By Eric Lipton and Hiroko Tabuchi

Nov. 27, 2018

MILES CITY, Mont. — Robert B. Price, the chief executive of a London-based oil and gas company, came up with a creative tactic to grab bargain drilling rights to a sprawling piece of federal land here in eastern Montana — each acre for less than the price of a cup of coffee.

He first asked the Interior Department to auction off rights to as much as 200,000 acres in Montana through a process that allows energy companies to identify the public land they would like to develop. But when the auction took place last December, Mr. Price sat on the sidelines and waited for the clock to run out — betting no one else would bid.

His gamble worked. With no other bidders showing interest, the government allowed him to secure drilling rights on nearly 67,000 acres east of Miles City in a special noncompetitive sale the very next day. His cost: just $1.50 an acre a year in rent, compared with the more than $100-an-acre average paid by bidders, on top of rent, in competitive auctions in Montana in the final four years of the Obama administration.

"We're still interested in much more," said Mr. Price, reached by phone before he was scheduled to fly to London to meet with his investors.

Robert B. Price's gamble that no one else would bid on the land he was eyeing in Montana paid off.

The maneuver is one of many loopholes that energy speculators like Mr. Price are using as the Trump administration undertakes a burst of lease sales on federal lands in the West.

Major oil and gas companies like Chevron and Chesapeake Energy are frequent buyers of the leases. But the Trump administration has put so much land up for lease that it has also created an opening for super-low-price buyers like Mr. Price.

The plots of land the speculators bid on typically sell for such dirt-cheap prices because there is little evidence that much oil or gas is easily accessible. The buyers are hoping that the land will increase in value nonetheless, because of higher energy prices, new technologies that could make exploration and drilling more economical or the emergence of markets for other resources hidden beneath the surface.

In some cases they hope to resell access to deep-pocketed oil companies at a premium. In others they are hoping to raise money to search for oil or gas on their own. Either way, they are the latest in a long line of speculators willing to take a shot — sometimes a very long shot — at a big payoff in America's oil fields.

The percentage of leases being given away through noncompetitive sales, like the one that Mr. Price engineered, surged in the first year of the Trump administration to the highest levels in over a decade, according to an analysis of federal leasing data by Taxpayers for Common Sense, a nonpartisan group that highlights what it considers wasteful actions by federal government agencies.

In states like Nevada, noncompetitive sales frequently make up a majority of leases given out by the federal government, the group's database shows.

The growth of the amount of land put up for lease combined with the sharp increase in noncompetitive leasing has resulted in major drops in the price companies pay per acre in certain states, like Montana, where the average bid has fallen by 80 percent compared with the final years of the Obama administration.

Two Grand Junction, Colo., business partners, for example — a geologist and a former Gulf Oil landman — now control 276,653 acres of federal parcels in northeastern Nevada. But they are still looking for the money they need to drill on the land, or even to pay for three-dimensional seismic surveys to determine whether there is enough oil there to try.

The percentage of leases being given away through noncompetitive sales — like in this part of eastern Montana —surged in the first year of the Trump administration.

In the case of Mr. Price, whose investors include Haliburton, the oil-services industry giant, he is convinced that there is an unusually high level of helium mixed in with natural gas that could be drilled in eastern Montana. Because helium sells at a much higher price than even oil, he is selling investors on the potential for lucrative returns. But the prospect of him delivering remains in doubt.

Rajan David Ahuja, vice president at R&R Royalty, a Texas-based company that has leases on land roughly equivalent to the size of Rhode Island, said that building landholdings like this was a crapshoot.

"We don't make money on 90 percent of the things we do," Mr. Ahuja said. "It is a really risky game."

The surge in noncompetitive transactions has intensified debate over how well the federal government handles the task of auctioning off access to taxpayer-owned lands. Taxpayers get 12.5 percent of revenues produced from any oil or gas extracted from leased public land — or nothing but trivial rent payments if speculators fail to develop the land successfully.

More than 11 million acres of land leased by the federal government lies idle — or about half of all the land out on lease — property that may or may not ever be drilled for oil and gas.

The speculation, critics say, allows companies to lock up millions of acres of federal land in leases, complicating efforts to set it aside for other uses, such as wildlife conservation areas or hunting and recreation zones.

"People come to Montana and stay in Montana not because of the best weather or highest wages or the best beaches," said John Todd, the conservation director at the Montana Wilderness Association. "They come here because we have access to ample public land, most of it that is in the same shape as it was when Lewis and Clark came here or before that."

Because the speculators can resell the leases, they could also reap the gains from any increase in the value of their landholdings, gains that otherwise would go to American taxpayers, said Ryan Alexander, president of Taxpayers for Common Sense.

"We should not be flooding the market so it is easy for companies to sit back and wait to get to leases at fire-sale prices," Ms. Alexander said. "The acceleration of leasing is doing just that. The industry is getting a great deal and taxpayers are not."

Ryan Zinke, the interior secretary, said this month that overall taxpayer revenue from energy production on federal lands jumped in 2018 as a result of rising production in states like Wyoming and New Mexico.

"President Trump's energy dominance strategy is paying off, and local communities across America are the beneficiaries," Mr. Zinke said in a statement.

The Speculators' Walmart

Inside the George R. Brown Convention Center in downtown Houston, thousands of energy industry executives converged in August for an event known as Summer NAPE, a giant gathering of hundreds of owners of potential oil and gas drilling sites. Most of them were there to raise money to turn their speculative gambles into real drilling plans.

"STRIKE WHILE THE DEALS ARE HOT," the banner at the entrance to the meeting hall said.

At Booth 2315, in front of a poster boasting about the more than 261,000 acres of federal leases they had secured in Nevada, stood Larry R. Moyer, a Colorado-based oil geologist, and his business partner, Stephen Smith, a former Gulf Oil landman, pitching their land to any prospective investor who walked up.

"You want to get in our deal — get your checkbook out," Mr. Smith said to one visitor.

Northern Nevada, Mr. Smith admits upfront, is a risky place to look for oil. Nevada has one of the highest percentages in the country of leased land that is sitting idle: Just 3 percent of the 715,441 acres of federal land in the state leased for oil and gas were actually producing energy as of late last year.

"There are a lot of people who have spent a lot of money drilling dry holes in the past," Mr. Smith said.

"We are working to overcome the conventional wisdom," Mr. Moyer added.

Mr. Moyer took to a small stage at the Houston conference for a "Shark Tank"-like presentation.

"What we are looking for — or we would ask someone — is about $10 million," Mr. Moyer said, money they would use for a seismic survey and to drill test wells.

"If you find a billion barrels, your finding cost is going to be a penny a barrel," he said before wrapping up his presentation by saying, "Think about taking a swing."

Waiting on the Sidelines

Outside Miles City, Mont. Buyers in Montana and elsewhere are able to lease land for as little as $1.50 per acre each year in the noncompetitive leasing program.

The bidding process typically begins when an oil and gas company asks the Interior Department to open up a new chunk of taxpayer-owned land to drilling.

Once the department agrees, it schedules an internet-based auction for registered bidders. Hot competition for the most sought-after land, where there are proven energy reserves, can drive these so-called bonus bids up close to $100,000 per acre, as happened in New Mexico in September. But to ensure that there is at least some upfront payment, the Interior Department requires a minimum per-acre bid of $2.

But there is a loophole. If no one bids, the land is then transferred into a program that allows anyone to approach the department within two years of the auction, without an upfront bid payment.

The only money that needs to be put down is the $1.50-per-acre annual lease payment for the first year of a 10-year lease, and a $75 filing fee. This is how Mr. Price managed to secure access to land in Custer

County, east of Miles City, part of the 116,000 acres of federal leases his company, Highlands Montana, says it holds.

"We're a small company. We didn't want to get in a bidding process," said Mr. Price, whose company has raised at least $6 million from investors since 2016.

Mr. Moyer and Mr. Smith also secured a large share of their holdings in Nevada through these noncompetitive purchases, after sitting and watching the auctions play out without bidding.

But Neil Kornze, the former head of the Bureau of Land Management, the branch of the Interior Department that runs the leasing process, said this was a flawed policy.

"Someone should have to bid in the auction to get the land," said Mr. Kornze, who served as director in the final three years of the Obama administration.

The Trump administration made three times as much land available to bid on in the last fiscal year as the average for the last four years of the Obama administration. But only about 11 percent of the land attracted any bidders in 2018 — a total of 1.35 million acres. The rest of that land is now available for noncompetitive leases.

Highlands Montana has drilled a few test wells on adjacent state land it has leased here. But for now, most of Mr. Price's leased land remains undeveloped.

Ms. Stevenson and her husband own a cattle ranch near the remote part of Montana where Mr. Price hopes to drill for natural gas and helium.

Large-scale development would be quite a shock in this part of Montana, where there is now very little oil and gas drilling.

From the back porch of the cattle ranch owned by Karen Aspevig Stevenson and her husband, the view stretches for miles, with ponderosa pines and juniper bushes swaying in a wind that blows so strong it sounds almost like ocean waves.

"This is our public lands. We all own this land," Ms. Stevenson said, as she walked through the rolling hills, her cattle-herding dog running ahead. "To come in here and just start drilling — that does not make sense."

Eric Lipton reported from Miles City and Houston, and Hiroko Tabuchi from New York. Rachel Shorey contributed research.

Eric Lipton is a Washington-based investigative reporter. A three-time winner of the Pulitzer Prize, he previously worked at The Washington Post and The Hartford Courant. @EricLiptonNYT

Hiroko Tabuchi is a climate reporter. She joined The Times in 2008, and was part of the team awarded the 2013 Pulitzer Prize for Explanatory Reporting. She previously wrote about Japanese economics, business and technology from Tokyo. @HirokoTabuchi • Facebook