Data Submitted (UTC 11): 1/17/2019 11:00:00 AM
First name: Clayton
Last name: Miller
Organization: NP Resources and NP Energy Services
Title: President
Comments: Dear Mr. O'Donnell:

NP Resources, LLC and NP Energy Services, LLC (together "NP") respectfully submit these comments to the United States Forest Service's ("USFS") Northern Great Plains Management Plans Revision Draft Supplemental Environmental Impact Statement for Oil and Gas Leasing Slope, Billings, Golden Valley and McKenzie Counties, North Dakota dated October 2018 (hereinafter "the Draft EIS") in support of Alternative #1. NP is encouraged the USFS has taken this important step. Following the public comment period, we strongly encourage the USFS to finalize the EIS under Alternative #1. We continue to believe that environmentally responsible future oil and gas development in the grasslands areas of North Dakota is possible and critical to all stakeholders, including private, state, and federal mineral owners and that finalizing this EIS is a critical step towards moving forward. As explained in more detail below, with one exception (paleontological), Alternative #1 is the most appropriate action for the USFS to take and, in fact, the only supportable choice on this record. NP opposes Alternatives 2 and 3 and does not believe further analysis would change this outcome.

Lease stipulations are an inflexible, blunt instrument for ensuring adequate and proportional mitigation for anticipated environmental and resource impacts. It is extremely difficult to amend or vary a codified lease stipulation. This can have the effect of delaying, curtailing, and even preventing future drilling operations. Among other things, overly burdensome lease stipulations can also incentivize capital to be mobilized elsewhere, potentially to other states. By not considering indirect effects of the proposed stipulations on Alternative #3 in combination with technological and operational advances as part of the impact assessment, the impact analyses are deficient. The net result could be selection of an alternative with higher adverse impacts. When these practices and effects are fully considered, NP Resources suggests USFS would find that Alternative #3 has more adverse impacts than Alternative #1. Estimated adverse impacts associated with oil and gas development projects, including potential air quality concerns, are often best addressed on a site- specific (rather than a programmatic) basis through the permit application (APD) processes and associated National Environmental Policy Act (NEPA) review. These APO/NEPA procedures already exist and would continue under Alternative #1. A "site-specific" mitigation approach also is consistent with other similar EIS's. NP cautions against adopting new or revised lease stipulations unless supported by substantial record evidence demonstrating a clear an unequivocal need and that such measures will be effective in meeting the desired outcome.

The revised or new lease stipulations being proposed in Alternative #3 are speculative, draconian, and not adequately supported by the record. Some may even increase adverse environmental impacts. For example, non-surface occupancy (also referred to as "NSO") and timing restrictions would force more development to be conducted in the winter months or in other crowded locations, which is likely to increase air emissions, including Greenhouse Gas ("GHG") emissions. The Draft EIS does not address the potential for many of these unintended consequences or even acknowledge they may exist.

Moreover, the Draft EIS does not demonstrate the purpose and need for changes to the current stipulations (i.e., Alternative #1) and the record does not support a conclusion that the current stipulations are not sufficiently protective of the environment and other affected resources. In fact, the record supports the opposition conclusion-that current conditions are working. Most notably, the Draft EIS does not account for recent technological and regulatory changes that have allowed and will continue to allow NP and other operators to increase production while decreasing environmental and resource impacts.

In short, while we appreciate the USFS moving forward with the EIS process, the Draft EIS does not establish why Alternative #3 is necessary or should be adopted. Instead, the record overwhelmingly shows that the current

lease stipulations are working and when combined with existing site-specific NEPA permitting procedures, Alternative #I will be fully protective of the affected environment and natural resources. For these reasons, and as explained more fully below, NP encourages the USFS to issue a final EIS adopting Alternative #I as the preferred alternative.

I. REQUEST FOR ADDITIONAL TIME

NP respectfully requests the opportunity to provide supplemental comments to this letter in the event the USFS grants an extension due to the government shutdown.

II. BACKGROUND AND INTERESTS OF NP

NP Resources is an operator of substantial oil and gas interests in the Little Missouri National Grassland Unit (LMNG). Its leased mineral rights and existing oil and gas production operations are in Billings, Golden Valley, and McKenzie Counties lying entirely within the area under review in the Draft EIS. Fully 48% of NP's leased mineral interests are federal while 75% of its undeveloped interests will require a federal action (APD) to develop. Of the non-federal mineral interests that NP holds, 52% of its assets, 63% of these are spaced with federal minerals that will subject them to a federal permitting action. It is these last two figures that are the source of NP's concern about Alternative #3 -three-quarters of NP's assets and two-thirds of its non-federal assets are affected by USFS policy. Contrary to the several references in the Draft EIS, it is not true that existing Federal mineral leases will not be affected by stipulations on newly leased minerals. As discussed later in the comments, it is NP's experience that any federal action for a development plan refers to the latest and most comprehensive stipulations in the spaced drilling unit- even in the case of split estates where the disturbance may be on a non-federal surface.

III. GENERAL COMMENTS ON THE DRAFT EIS

NP's comments are divided into two general sections: (1) general comments on the Draft EIS and reasons why Alternative #3 is not adequately supported or necessary and Alternative # 1 should be finalized (Section 111); and (2) comments dedicated to several specific parts of the Draft EIS.

a. The Current Lease Stipulations Combined with Technological, Operational, and Regulatory Advancements Support Alternative #1

Based on NP's recent drilling and permitting experience in the LMNG, the current lease stipulations combined with the permitting processes (both federal and state), existing regulatory framework, and NP's implementation of other best management practices, adequately ensure full protection of LMNG environment and natural resources.

NP Resources is actively and carefully operating and developing valuable mineral resources in the Draft EIS area. Stakeholders in the LMNG include state, county, and local owners of surface and mineral rights. As demonstrated in the Socioeconomic Considerations section of the Draft EIS (DEIS at 34, 35) the importance of oil and gas development to these interests should not be understated.

NP Resources believes that collaboration with all members of the local community, including regulatory agencies, is essential to preserving the nature of the LMNG and contributes to the prosperity of these stakeholders. It is also good for business. As an example, NP has developed two well pads on USFS lands in 2018, has recently permitted two well pads with the BLM, and is currently permitting three well pads on USFS administered lands. These three pads on USFS surface have been a model of earnest collaboration with local USFS specialists to minimize disturbance and impact of oil and gas development. To accommodate lease stipulations, lease notices and additional objectives and criteria of the USFS not codified in the lease, these projects have been three years in the making and not yet permitted. When finally permitted, these three well pads will enable the development of 13 wells covering 8 sections of land or 10,240 acres. All of this from a total disturbance of less than 20 acres. The

beneficiaries of these projects will be the US Government, the state of North Dakota, local counties and municipalities, private mineral owners, and local businesses and residents.

Much of the burden placed on NP by the USFS with these applications has been aimed at moving disturbance off USFS lands and onto adjacent landowners. NP Resources believes that cooperation and collaboration with all landowners is vital to preserving the greater LMNG area and has diligently considered every request to relocate development wherever possible. Current stipulations and NP Resources's demonstrated practice of working with all landowners provides flexibility to consider alternatives. Restrictive NSO and timing stipulations removes a mechanism of collaboration among multiple surface estates when designing multi-well pads. This will have the unintended consequence of splintering development to a more impactful model rather than enabling the new methods of oil and gas development taking place in the LMNG.

In addition to the many lease stipulations that are enumerated in Alternative #1, DEIS at Appendix A, and additional lease notices, there are numerous regulatory considerations imposed by agencies at the state of North Dakota that support the conservation objectives of the USFS while enabling its policy to facilitate oil and gas development on public lands (DEIS at 21, 22). The North Dakota Industrial Commission has promulgated "Area of Interest" policy specifically for the Little Missouri River, the Little Missouri River National Grasslands, Elkhorn Ranch, and the Theodore Roosevelt National Park; the North Dakota Department of Health regulates air and water quality matters in compliance with EPA regulations; and the North Dakota Industrial Commission further regulates operational, safety, and pollution control at oil and gas development sites. NP Resources maintains that existing multi-agency rules, regulations, lease notices, lease stipulations, conditions of approval, and myriad best management practices coupled with evolving and improving oil and gas operating practices are actually reducing the impact of oil and gas development on the LMNG.

Since the last EIS (2008) and the Reasonably Foreseeable Development Scenario (RFDS) of2013 (updated 2017); the patterns of nature of oil and gas development in the LMNG and the nature of their operations is actually reducing the anticipated impacts. Contrary to the Purpose and Need as stated in the DEIS. This is evidenced by the following operational realities:

[bull] Thanks to multi-well pad development which is described in the RFDS update, the average impact per well is 1.0 - 1.25 acres rather than 5 acres. The 5-year impact will be on the order of 310 -390 acres rather than 1,550 acres (DEIS at 53).

[bull] Because of multi-well pad development and directional drilling, it is possible to utilize existing well pads in many cases for development of on-lease and off-lease minerals. This is a major priority of advocacy groups such as the Badlands Advisory Group and provides an opportunity to further reduce impact and minimize disturbance from new access roads and pipelines, Unfortunately, this option is severely hindered by inflexible lease stipulations and administrative policies that seek to push development off existing well pads and onto adjacent landowners.

[bull] Multi-well pad development and use of existing well sites where possible has the added benefit of connecting "stranded" oil and gas wells that are not connected to gas gathering. New facility designs and operating standards have substantially reduced fugitive emissions. Capturing older wells and facilities with new development is a demonstrated benefit to the LMNG.

[bull] New operating practices in the LMNG seek to reduce truck traffic by use of in-field waste management and connection to existing gathering systems for oil, gas, and produced water. Lease stipulations and administrative policies that discourage or eliminate these options are contrary to the stated objectives of the USFS and many other stakeholders.

In sum, the indirect effects of stipulations proposed under Alternative #3 have not been considered as part of the

analysis. The patterns and nature of oil and gas development in the LMNG, as recognized and acknowledged on this record and borne out by NP' s substantial experience operating in this area fully support the adoption of Alternative #1. Moreover, for some of the reasons just observed, if the indirect effects of Alternative #3 would be considered, the environmental consequences of Alternative #3 would likely result in worse impacts to the environment and natural resources

a. The Draft EIS Does Not Support the Need to Revise or Change the Current Lease Stipulations as Proposed in Alternative #3

The Draft EIS does not clearly demonstrate a need for changing the current lease stipulations, in part because it ignores the benefits associated with recent technological and operational improvements. An agency is owed deference to the "purpose and need" for an EIS, see e.g., City of Alexandria v. Slater, 198 F.3d 862, 867 (D.C. Cir. 1999). However, agencies are required to take a hard look at "the factors relevant to the definition of the purpose," Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D. C. Cir. 1991), because the purpose and need statement "necessarily dictates the range of reasonable alternatives." Carmel-By-The-Sea v. U.S. Dep '/ of Transp., 123 F.3d 1142, 1155 (9th Cir. 1997).

The agency must also put forth sufficient data to justify the need for the proposed action. See Audobon Naturalist Society of the Central Atlantic States, Inc. v. U.S. Dep't of Transp., 524 F.Supp.2d 642, 665 (D. Md 2007) (DOT engaged in a broad interagency collaborative process, with over 100 representatives from local, State, and federal agencies resulting in several refinements to the purpose and need statement); see also Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 670 (7th Cir. 1997)

("The federal agency cannot ram through a project before first weighing the pros and cons of the alternatives."). As discussed next, Alternative #3 does not satisfy the "purpose and need" in the Draft EIS.

The stated purpose of the analysis is "to determine whether current oil and gas lease stipulations and lease notices are providing protection to resources on the [LMNGJ on those lands previously determined to be administratively available for leasing." DEIS at 5. The stated need is "because the pattern of development and type of operations have changed since the final environmental impact statement was written and since the most recent review in 2008." Id. Aside from a few passing statements in the Draft EIS, the record is devoid of meaningful discussion about how or why the purported change in "the pattern of development and type of operations" in the LMNG over the past decade has increased impacts or warrants further restrictions. In reality these technological changes and improvements have decreased impacts.

To support the purported "need," the Draft EIS relies on an updated reasonably foreseeable development scenario ("RFDS") (Hanna 2017). Neither the RFDS nor the Draft EIS, however, conclude that impacts to resources since 2008 have grown worse or otherwise necessitate a change from current conditions. In fact, the RFDS acknowledges that improvements in operational practices have actually decreased resource impacts.

For example, the RFDS states that new technology "eliminates the need to drill as many wells" and "allow[s] multiple wells to be grouped on a single pad" which "can reduce the overall number of pads, roads, pipelines and tank batteries needed to access multiple locations." RFDS at

8. The RFDS makes no other mention of the benefits these improvements have created, nor does the RFDS factor in the potential for decreased resource impacts due to these improvements, even in the face of increased future development. See generally, id; see also DEIS at 125 (acknowledging that multi-well pads are "more prevalent" and "expected to be part of the development of most wells" in the future). Instead, the record remains singularly focused on the volume or pace of future estimated development, which remains relatively limited and uncertain.

Moreover, several of the new or revised lease stipulations proposed under Alternative #3 are likely to increase environmental and resource impacts. Expanding areas of no-surface occupancy (see Table 4, first and sixth revised stipulations) will concentrate development in other areas, potentially resulting in increased development density and increased impacts off the LMNG. Similarly, revised timing restrictions that allow for development only in winter months will result in additional air emissions, including GHG emissions, and other adverse impacts due to the requirements of winter development (i.e., trucking instead of piping water). Restricting oil and gas development operations to winter months will have a definite and substantial aggravating effect on impacts. North Dakota is well known to have harsh winter conditions. The rugged topography of the LMNG makes logistics, safety, and operations much more difficult and expensive during winter months, requiring extra measures. For example, water supply for frack jobs must be trucked from remote sources rather than accessing local surface waters that are available during warmer months. In addition to several thousand truckloads of water per well, the fresh water must also be kept from freezing. One winter-time frack operation can bum 140,000 gallons of propane and diesel for heating operations alone. Operations during temperate times of the year presents an opportunity to consider fresh water sources that can be supplied through temporary pipelines, which are common in North Dakota, and eliminates the need for heating. These and other issues that exacerbate resource impacts during winter months are ignored in the Draft EIS.

In sum, the Draft EIS does not account for the indirect effects or the likely or potential adverse consequences associated with the new and revised lease stipulations in Alternative #3. As a result, the Draft EIS cannot conclude without assessment of the indirect effects that any anticipated benefit(s) from Alternative #3 outweigh potential adverse effects or that the proposed changes in Alternative #3 will improve conditions or meet their intended objectives. In short, the environmental consequences of the new/revised lease stipulations have not been fairly evaluated. See e.g. Robertson v. Methow Valley Citizens Council, 109 S. Ct. 1835, 1847 (1989) (holding that NEPA requires "mitigation be discussed in sufficient detail to ensure that environmental consequences have been fairly evaluated"); see also Neighbors a/Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, (9th Cir. 1998) ("General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided).

NP strongly urges the USFS to finalize the EIS choosing Alternative #I. As discussed throughout this letter, for the same reasons the record does not support Alternative #3, it does support the conclusion that current lease stipulations combined with site-specific permitting reviews, are more than adequate to mitigate potential impacts from future development.

a. Lease Stipulations are Inflexible and Should be Used Sparingly and Only Where Clearly Required

As a general matter, lease stipulations are an overly broad, inflexible, and often ineffective means by which to address known or potential environmental impacts. Restrictive lease stipulations should be used sparingly and only where the record evidence demonstrates new lease stipulations are necessary and will be effective in mitigating environmental impacts without unduly restricting oil and gas development. The Draft EIS acknowledges that standard lease terms already require operators to minimize adverse impacts to air, water, and land, visual, cultural, and biological resources, and to other land uses or users and "insure protection and legal compliance for previously unknown resources, such as threatened or endangered species or cultural resources." DEIS at 13.

In NP's experience, it is far more effective to address impacts at the individual permitting stage.

The Draft EIS acknowledges that individual permitting decisions and conditions provide "additional protections" during lease development and may be more carefully crafted to incorporate design features on a site-specific basis. See DEIS at 9. This same site-specific approach has been upheld, and in fact, encouraged by the courts. Most recently, in San Juan Citizens Alliance v. ELM, 326 F.Supp.3d 1227, 1245 (D.NM 2018), the court, citing a prior decision by the Tenth Circuit, noted "in order to work [an oil and gas lease], the lessee must submit site-

specific proposals to the Forest Service and BLM who can then modify those plans to address any number of environmental considerations. Each action is subject to continuing NEPA review." The court went on to note that "[w]hen an APD [] is submitted, BLM then has a concrete, site-specific proposal before it and a more useful environmental appraisal may be undertaken." Id. These site-specific review procedures will continue to provide the necessary protections in the LMNG. Thus, absent a showing that current conditions are insufficient and Alternative #3 is necessary, which simply is not present on this record, the USFS should move forward with Alternative #1.

II. AIR QUALITY

As the Draft EIS acknowledges, "overall air quality conditions are considered good by the NDDH." DEIS at 41. Indeed, none of the actual monitored criteria pollutants, including nitrogen dioxide (NO,), exceed the applicable state or federal air quality health-based standards under the most recently available data, and, in fact, are not anywhere close to exceeding the National Ambient Air Quality Standards (NAAQS). DEIS at 42. The criteria pollutants typically associated with oil and gas development, including ozone, are well below federal health standards.'(1 The DEIS also acknowledges that non-oil and gas-related mobile sources contribute to air pollutant levels, including mobile sources which, among others, are responsible for nitrogen dioxide emissions.) See DEIS at 42, Table 15 (e.g., the most recent three year one-hour nitrogen dioxide levels is 33 ppb compared to the 100 ppb standard; the maximum fourth highest ozone level was 59 ppb, well below the most recent 70 ppb standard). And as the Draft EIS states "overall near field modeling found no estimated exceedances of the NAAQS," and acknowledges that "oil and gas emissions in the Williston Basin should be declining on a per well basis due to new regulations and requirements by the [EPA] and the State of North Dakota." DEIS at 48.

Importantly, recent measurements of NO, concentrations measured throughout North Dakota show no indication of elevated concentrations and stand in stark contrast to the model-predicted impacts (discussed in further detail below). In fact, in the vicinity of LMNG, peak concentrations are one tenth of the 1-hour NO, standard.'(2 See Figure 5 ofNDDH "North Dakota Ambient Air Quality Monitoring Program Network Plan with Data Summary 2018" Available at: https://deq.nd.gov/DataPDFs/AQ/Monitoring/Monitoring_Annual_Reports/ARNP_18.pdf)) Furthermore, trends in measured I-hour NO, are flat at sites in the vicinity of LMNG.3 (3 See Figure 7 ofNDDH "North Dakota Ambient Air Quality Monitoring Program Network Plan with Data Summary 2018".)

The proposed new and revised lease stipulations, to the extent grounded in mitigating air quality impacts, must be placed in the context of these data and expected emissions decreases under the existing and new regulatory framework. The Draft EIS, while acknowledging these issues, fails to adequately explain how Alternative #3 would improve air quality or why it is necessary to fu1ther mitigate air quality impacts from expected development. In the face of the overwhelmingly strong air quality conditions in the LMNG, and no real demonstration that air quality conditions are likely to deteriorate, NP believes any potential air quality impacts associated with future oil and gas development would be best dealt with on an individual, site-specific basis at the permitting stage.

The remainder of the comments on air quality focus on issues of concern related to the Draft EIS's discussion of air quality issues. While we note these areas of concern for the record, NP's conclusion and recommendation remains the same-Alternative #3 is not supported or justified by the record and Alternative #1 should be finalized, as it has been demonstrated to be fully protective of adverse air quality impacts associated with oil and gas development in the LMNG.

a. General Concerns with the Air Quality Discussion

According to the DEIS, preferred Alternative 3 "prohibits surface use (including fracking) from occurring during the May I - December I timeframe for any recreation sites with a development scale of 3 through 5." DEIS at 50. The revised stipulation also purports to "limit surface use activities (such as fracking) that may impact air quality

to distances greater than 0.25 miles from those developed recreation sites considered likely to have concentrated public use, in order to limit public exposure to unhealthy air pollution.'(4 This second revision (limiting surface activities to distances greater than 0.25 miles from certain recreation areas) is not clearly reflected as a "new" or "revised" lease stipulation in either Table 3 of the Executive Summary or Table 4 of the DEIS. NP requests clarity on the exact scope and requirements of timing and distance revisions being proposed to mitigate potential air quality impacts.) DEIS at 50.

It is not clear from the Draft EIS what air quality problem these new and revised lease stipulations are intended to address (if any) or how they will be effective in doing so. The "Effects of Alternative 3" mentions an estimated "overall increase[] to criteria and hazardous air pollution and greenhouse gases and their affects to human health and the environment described in this report," DEIS at 50, but this statement contradicts others made in the record, including that oil and gas emissions are declining on a per well basis under increasing regulatory requirements. Critically, the Draft EIS contains no estimates of potential human health exposures or impacts that would tend to support the need for new or revised lease stipulations.

Similarly, the Draft EIS does not describe in any further detail how the timing and distance-based lease restrictions would mitigate any purported air quality impacts. For example, there is nothing in the record demonstrating either that the public is being exposed to unhealthy air pollution as the result of oil and gas operations across the relevant area or that a timing or distance-based lease stipulation is needed to limit such exposure (actual or anticipated). In fact, the record demonstrates precisely the reverse-the most recent data demonstrate there have been no exceedances of any health-based standards and monitored levels are not close to approaching the NAAQS. In addition, and as provided in these comments, there are several concerns with the near field modeling which is the only place in the record where very limited potential exceedances during hydraulic fracturing are predicted. This part of the Draft EIS includes the suggestion that a quarter-mile fenceline buffer may be necessary to mitigate potential public exposure to nitrogen dioxide during hydraulic fracturing operations. We discuss the scientific problems with the modeling used to support this statement below and conclude the even suggesting such a buffer distance would be necessary or protective is not supported by or appropriate in this document.

The Draft EIS also makes passing mention of potential visibility-reducing emissions via regional haze, but nowhere discusses how the proposed lease stipulations will mitigate any potential impact.

Although the visibility impacts of the cumulative oil and gas emissions scenarios exhibited exceedances in some locations (see DEIS at 47), both the cumulative nitrogen and sulfur deposition levels forecast from oil and gas activity were below critical load levels. DEIS at 47. And none of the forecast activities are estimated to cause any exceedances of prevention of significant deterioration increments. The Draft EIS does not further address the significance (or lack thereof) of these findings, nor does it connect the proposed new and revised lease stipulation restrictions to potential mitigation of "visibility" or "regional haze" impacts.

The Draft EIS's discussion of greenhouse gas (GHG) emissions is similarly lacking. The Draft EIS states that "GHG emissions per well are expected to decline as a result of ... declining methane flaring as a percentage of production," and acknowledges that "large fluctuations in flared gas volume create uncertainty in making greenhouse gas emissions estimates from oil production sources." See DEIS at 50-51. We agree that there have been positive downward trends across the oil and gas industry in terms of GHG emissions in recent years. GHG emissions will continue to be further reduced through existing regulatory frameworks and consent decree requirements in North Dakota, including methane reduction co-benefits from Leak Detection and Repair Programs (LOAR) (required or implemented as BMPs), use of low- or no-bleed pneumatics, applicable closed vent system requirements, and increased control requirement on storage vessels, among others. The Draft EIS is silent on these measures. In terms of GHGs, it is also critical that new or revised lease stipulations not discourage or disincentivize increased gathering and processing infrastructure. As discussed in these comments (see Section Ill.a), one unintended consequence of Alternative #3 is to make it more difficult to build

interconnected gathering infrastructure, potentially exacerbating flaring volumes. Thus, as with the remainder of the air quality comments, any concerns about GHG impacts are better addressed through site-specific, permitting processes and the continued lease stipulations under Alternative #1.

b. Specific Concerns with Anderson and Dzomba 2014 Near-Field Nitrogen Dioxide Modeling

NP has several significant concerns with the way in which the nitrogen dioxide modeling results are being used, in part, as rationale to support the lease stipulations in Alternative #3 and the suggestion that a quarter-mile fenceline buffer may be appropriate. The Draft EIS Air Quality modeling analysis is documented in the 2014 USFS report "Near-Field\Visibility Air Quality Impact Analysis for the Oil and Gas Development and Leasing Activities on the Little Missouri National Grassland", which is referred to hereafter as "Anderson and Dzomba, 2014."

Because of the issues identified below, the proper, best, and only scientifically-supportable course of action is to address the anticipated air quality concerns raised by this Draft EIS and the Anderson and Dzomba 2014 modeling at the permitting stage. This would be accomplished by finalizing Alternative #1. Accordingly, it is not necessary nor productive to conduct further modeling or update the analysis before finalizing the EIS and NP specifically requests that finalization of the EIS not be held up by such efforts. The remainder of this section discusses our specific modeling concerns informing this conclusion.

To begin, the I-hour N02 standard and specific modeling and characteristics of drilling operations have several conservative assumptions which must be considered before applying lease stipulations based on the results. These assumptions include:

[bull] Conservatively assumed peak emission rates and continuous operation at a single location for these sources;

[bull] Actual drilling operations (not including setup/removal time) are estimated to last approximately 19 days per well," In reality, fracking and completion operations are temporary and transient, with a typical duration of 8 to IO days at any given location and hourly emission rates that fluctuate below peak emissions;

[bull] Use of generic assumptions on equipment and operational data in lieu of site-specific information; [bull] Dated and non-representative meteorological and background data;

[bull] Use of dated versions of models and pre-processors;

[bull] Initial emissions estimates were based on a combination of Tier I - Tier III emission limits for drilling and fracking/completion stages;

[bull] Tier IV emission rates were used for drilling and fracking/completion sources, while Tier I-III emissions were used for production sources; and

[bull] A NO,-to-NOx in-stack ratio of 0.I7 for all modeled sources.

Since the modeled results at a given receptor are influenced by terrain, elevation and hourly meteorology relative to the location, the accuracy of the predicted impacts is both uncertain and biased towards higher impacts. Further, the predicted impacts from hydraulic fracturing only are 1.5% above the I-hour NO, standard. Given the conservative nature of the analysis, model uncertainty, and narrow margin of exceedance, it would not be appropriate to institute lease stipulations or suggest buffer distances based solely on modeling

In addition, the version of the near-field model selected for the analysis is dated. As stated on page 4 of

Anderson and Dzomba, 2014 regarding the version of the AERMOD air quality model selected for the near-field analysis: "[v]ersion I 3350 was used for this analysis". Four versions of AERMOD have been released by USEPA since. The current regulatorily approved version is 1808 I. Newer AERMOD versions include substantial revisions to the model that could materially affect the model results, particularly with respect to treatment of meteorological data and EPA approval of adjusted u-star options. Given other concerns expressed in these comments, the best way to address use of this dated model is to incorporate the most updated versions of AERMOD into site-specific permitting decisions, as necessary.

Similarly, the meteorological data selected for use are not current and potentially not adequately representative of the large area covered by the LMNG. As stated on page 4 of Anderson and Dzomba, 2014 regarding the selection of the meteorological inputs: "[f]ive years (2004-2008) of surface meteorological data were obtained from the NDDH ftp site (hereafter known as ftp site) for use in the AERMOD analysis". The period used for the meteorological data is over ten years old. Pre-processed surface data and concurrent background concentrations data (including ozone) is available from NDDH for the period 2009-2014.5 (5 Available at: https://deq.nd.gov/AQ/Modeling/) The selected meteorological data is also from some distance away from the northern and southern areas of the LMNG and other sites may be more representative. See Anderson and Dzomba, 2014 at 4. USFS also has not disclosed the inputs provided to AERSURFACE regarding selection of wet, dry, or average conditions. These inputs can affect the pollutant dispersion in the AERMOD results. These same general concerns extend to the application of background concentrations. See id. at 6 (background data, including I-hour NO2 design values, are older and potentially not representative of background in the LMNG). Application of temporally varying background is now a commonly accepted approach to estimate I-hour NO2 impacts whereby more current versions of the AERMOD model incorporate temporally varying background concentrations to calculate total impacts directly in the model. Again, the best way to address these deficiencies is to update and improve the meteorological and background data, as necessary, during the individual permitting process.

The Draft EIS's generalized assumptions and input data used to characterize oil and gas exploration, development and operation activities is generally overly conservative. Specifically, the use of an NO2-to-NOx in-stack ratio of 0.I 7 for all modeled sources. See id. at 6. Model-predicted impacts of nitrogen dioxide is highly sensitive to the use of in-stack NO2-to-NOx in-stack ratios (!SR) and the source mixture included in the modeling analysis typically has a wide range of values, as is shown in the references cited by Anderson and Dzomba (2014) on page 6. An !SR value of0.17 is very high for hydraulic fracturing and drilling engines, the sources that likely are contributing the most to the model[shy] predicted impacts. Engine manufacturer and field test data can often support values closer to 0.05.6 (6 See Tables 1-3 and I-4 of the "Draft Converse County EIS Air Quality Technical Support Document, Attachment D" Available at: https://eplarming.blm.gov/epl- front[shy] office/projects/nepa/66551/131874/160936/13_Converse_County_DEIS_Appendix_A_AQTSD_attachm ents.pdf)

In addition, NP's current exploration and development activities illustrate why broad lease stipulations should not be used to curb "hypothetical" site-specific air quality impacts. NP uses drill rigs that are powered with compressed natural gas (CNG) which have NOx emissions that are significantly lower than the diesel-fired engines of any tier rating used in the modeling analysis. NP's current drilling and hydraulic fracturing operations also are much less than a year, and therefore, generally inconsistent with the modeling method noted on page 12 of Anderson and Dzomba, 2014 whereby "5-year averagemodeled concentrations for a well are assumed to consist of one year of drilling/fracking/completion and 4 years of production.'" (7 This is also an area where NP specifically reserves its right to supplement these comments should an extension be granted to allow it sufficient time to provide further data.)

Taken together, the Draft ElS's generalized assumptions and input data used to model and characterize oil and gas development activities is generally overly conservative, does not adequately account for site-specific variables (which are many), and as a result, likely over-estimates potential impacts. Similarly, basing lease stipulations (or even suggested buffer distances) on the modeled estimates, as in NP's case, would likely mean

forcing costly and potentially prohibitive mitigation measures on activities that are creating no adverse air quality impacts. Accordingly, it is inappropriate to adopt the new and revised lease stipulations to mitigate estimated air quality impacts, as Alternative #3 currently does. The comments next discuss issues with the Draft EIS's discussion of potential setbacks.

c. Suggested Setback (Buffers) iu the Draft EIS are Inappropriate and Should be Removed

The Draft EIS makes several references to a quarter-mile fenceline setback or "buffer" being necessary or appropriate to mitigate air quality (specifically nitrogen dioxide) impacts. See DEIS at 45. These statements are not supported by the record, are undercut by the deficiencies in the modeling results discussed above and should be removed even as discussion points from the final EIS. As with much of NP's comments, we strongly feel that any necessary setback will be best addressed through site-specific permitting mechanisms and will be adequately resolved under Alternative #1. Moreover, it is not appropriate for the USFS, an agency without technical expertise in air quality matters, to be suggesting an appropriate setback distance in an EIS. Air quality experts across the country continue to vigorously debate this issue and the science is far from settled. As evidence, in the limited instances where regulators in Texas and Colorado have put in place setbacks, they have been extraordinarily careful to qualify the setbacks as politically necessary and not scientifically based.

For example, in 2013, a paper published in Energy Policy examined urban gas drilling and distance ordinates in the Texas Barnett shale and found that "there is no uniform setback distance, distances have increased over time, and, rather than technically-based, setbacks are political compromises."' (8 Available at https://ideas.repec.org/a/eee/enepol/v62y2013icp79-89.html)

Similarly, the Colorado Oil and Gas Conservation Commission, in its 2013 Statement of Basis concerning location requirements for Oil and Gas Facilities (e.g., "Setback Rules"), explicitly states that "these Setback Rules are not intended to address potential human health impacts associated with air emissions related to oil and gas development" on the basis that "there are numerous data gaps related to oil and gas development's potential effect on human health and that such data gaps warrant further study", after consulting with the Colorado Department of Health and Environment (CDPHE). 9 (9 Available at https://cogcc.state.co.us/documents/reg/Rules/2012/setback/Final_SetbackRules[shy] StatementOfBasisAndPurpose.pdf.) A more recent report released in 2017 by the CDPHE suggests the risk of harmful health effects is low for residents living at distances 500 feet or more from oil and gas operations and calls for more study, rather than immediate public health action.IO (10 Available at https://www.colorado.gov/pacific/cdphe/news/OG-health-study or https://drive.google.com/file/d/0B0tmPQ67k3NVVFcITFgI eDhMMjQ/view.) Notably, both Texas and Colorado were addressing oil and gas development in highly urbanized areas, which stands in stark contrast to the rural, sparsely populated LMNG.

It is also important to point out that the AERMOD model has not been validated for application to drilling and hydraulic fracturing operations. For these reasons, NP requests that any reference to an appropriate setback distance be removed from the final EIS document and that the final EIS continue to contain no setback or buffer requirements in its adopted lease stipulations.

d. Analogous Oil and Gas NEPA Reviews Have Addressed Potential Air Onality Impacts on a Site-Specific Basis

Other NEPA reviews (both oil and gas and non-oil and gas) have taken the type of flexible approach to air quality mitigation NP believes is most appropriate here. For example, in the final EIS for the Bull Mountain project in Colorado, BLM chose a flexible, site-specific permitting over a programmatic (i.e., lease stipulation) approach to mitigating air quality impacts, despite the potential for adverse impacts from HAP emissions.11 (11 See e.g., Bull Mountain Unit Master Development Plan, ROD, DOI-BLM-CO-S0S0-2013-0022-EIS (October 2017) (available

here https://eplanning.blm.gov/epl-front[shy]office/projects/nepa/66641/122210/149076/2017- 1004Bull Mountain EIS ROD web.pdt)) The BLM found that review of future development proposals for NEPA adequacy would allow for adequate analysis of potential air quality impacts on a site-specific basis. Id. at 6.1. BLM took this approach despite the fact there was some potential for near-field HAP impacts in certain locations. See id. To ensure NEPA compliance, BLM stated that it will "request that the operator provide [project-specific] information to facilitate the BLM's review of future applications for development approvals." Id. Importantly, BLM admitted that there were "several overestimating assumptions included in the near-field short- term nitrogen oxides analysis" and due to these overly conservative assumptions "additional analysis and mitigation requirements are unlike to be needed, if emissions from proposed operations are within the bounds described and analyzed in the Final EIS." See id. at 1-20 (response to comments).

In a recent Final EIS for oil and gas leasing in the White River National Forest in Colorado, the USFS declined to even conduct a near-field analysis "due to broad assumptions made regarding the siting or potential future oil and gas developrnent."12 (12 See White River National Forest Oil and Gas Leasing Final Environmental Impact Statement Section 3.2.7, available here https://www.fs.usda.gov/nfs/11558/www/nepa/61875 FSPLT3 2395824.pdf.)) The USFS noted that "future oil and gas developments will include an air quality analysis of project-specific impacts as they are proposed," which would include near-field analysis where appropriate. Id. Notably, the USFS "determined that the authority provided by the Standard Terms and Conditions of a lease (Least Form 3100-11), Federal Onshore Oil and Gas orders and regulations ... were sufficient to protect the [air] resource and a special stipulation was not needed to modify the terms of the lease." Id. at 3.2.7.1. Rather, "these authorities would be used during the submittal, review, and approval process of an [APDJ" and that "mitigation needed at the time of development such as avoidance, timing, special inventories, or other requirements needed to analyze and mitigate the effects would be implemented through the use of [COAs] without exceeding valid existing lease rights." Id.

In a 2016 Environmental Assessment for Spring Creek Mine in Big Horn County, Montana (Federal Coal Lease MTM-94378) the Department of Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE) found that even though air impacts would occur as the result of both coal and oil and gas development, the impacts would be "minor" with no "significant impacts to air resources" that would warrant programmatic mitigation measures. Considering this, the EA concluded that "any mitigation measure proposed by OSMRE imposing more stringent emission limits at generating stations and upon oil and gas operators is beyond OSMRE's authority and its implementation would be highly remote and speculative."

NP recommends that this same type of approach be utilized here through finalization of Alternative #1. Indeed, putting in place rigid lease stipulations to programmatically mitigate estimated air quality impacts as proposed in Alternative #3 would be a significant departure from recent precedent and one which is hardly called for on this record.

e. Existing Air Quality Regulations and Framework Provide Adequate and Ongoing Mitigation

The Federal Clean Air Act, 42 USC [sect] 7401 et seq., requires the U.S. Environmental Protection Agency (EPA) to establish and periodically review NAAQS for six criteria pollutants including nitrogen dioxides (NO,). These NAAQS represent maximum levels of ambient air pollution that are considered safe, with an adequate margin of safety, to protect both public health and welfare. All areas within North Dakota including the area in question have currently been classified as "attainment" at 40 CFR [sect] 81.332 for all criteria pollutants including NO,. The DEIS cites a North Dakota Department of Health report summarizing air quality monitoring data from 2016 and recognizes that none of the pollutants monitored, including NO,, exceed Federal standards. See DEIS on 42.

Under the Clean Air Act, states have primarily responsibility for regulating air emissions within their borders. Each state is required to prepare a state implementation plan (SIP) describing how it maintains the primary and secondary NAAQS levels and meets other federal goals and objectives under the Clean Air Act. North Dakota

has adopted a state SIP which was submitted by its Governor and approved by EPA. See 40 CFR [sect] 52.1822.

Furthermore, stationary and non-road sources in oil and gas operations are regulated under federal statutory requirements, including New Source Performance Standards (40 CFR [sect]60), Maximum Achievable Control Technology standards (40 CFR [sect]63), and Non-road engine standards (40 CFR [sect]1048). And in North Dakota, many of the operators are subject to consent decree requirements incorporating many of the requirements under these federal programs. Collectively these regulations establish control requirements and emission limits for criteria pollutants, hazardous air pollutants, and greenhouse gases for exploration and production sources including:

* Reductions in GHG and VOC from hydraulically fractured wells through reduced emission completions and completion combustion [40 CFR [sect]60, Subpart OOOOa];

* Reduction in GHG, VOC and organic HAP from production operations by implementation of low-bleed pneumatic devices, inspection and repair of equipment leaks, rod packing replacement on compressors, and closed vent system and combustion controls [40 CFR [sect]60, Subpart 0000 and 40 CFR [sect]63, Subpart HH];

* Emissions limits on NOX, CO, PM, and formaldehyde from stationary engines [40 CFR [sect]60, Subpart JJJJ, and 40 CFR [sect]63, Subpart ZZZZ];

* Implementation of top-tier emission limits after 2015 for non-road engines [40 CFR [sect]60.1048]

All oil and gas operations development operations on existing and future leases are subject to air quality permitting and regulation. Where an activity is not subject to another agency's ongoing regulatory and permitting requirements, it may be reasonable to impose "appropriate mitigation measures" or stipulations under 40 CFR [sect] 1502.l4(f). This is not the case where other agencies, such as NDDH and EPA, have full jurisdiction over the matter.

Furthermore, the air quality modeling is deliberately conservative and the concerns identified during modeling were limited to marginal exceedances isolated to temporary and transient hydraulic fracturing operations. It is clear that NDDH and USEPA have the regulatory framework to best monitor and regulate these sources to ensure that NAAQS are not exceeded. As a result, the proposed stipulation included in Alternative 3 (the Preferred Alternative) prohibiting surface use from May 1st through December 1st within a quarter mile of recreational sites is unnecessary.

f. Conclusions and Recommendations on Air Quality Provisions

For the reasons discussed in this section of the comments, there is no support on this record for Alternative #3 from an air quality impact mitigation perspective. All relevant, actual air quality data in the LMNG vicinity supports maintaining current conditions under Alternative #1. There simply is not a credible air quality concern from a public health or NAAQS perspective associated with future O&G development in the LMNG demonstrated on this record that would warrant the new or revised lease stipulations on an air-quality mitigation basis.

There also is no sound scientific supp01t for Alternative #3 from an air quality perspective, which includes significant concerns about basing any timing or distance stipulations on overly-conservative NO2 modeling. Similarly, it is inappropriate to suggest any setback or buffer distance is or would be appropriate. Experience in other parts of the country confirms that this issue is rapidly evolving, but currently without scientific consensus. Moreover, where setbacks have been put in place, they have been done so in highly urbanized areas out of political concerns (i.e., the City of Fort Worth and the Colorado Front Range). Finally, the multi-layered regulatory framework governing air quality permitting and air emissions more generally, including the State of North

Dakota's stationary source permitting program and ambient air monitoring network, will provide the necessary safeguards to protect air quality in the LMNG under Alternative #1. Reliance on this regulatory framework, combined with permitting-level NEPA review has been the preferred approach in other, larger oil and gas EIS's. And there is no reason to depart from this precedent. Adoption of Alternative #1 will still provide all necessary and available protections for future air quality concerns associated with development in the LMNG.

III. WILDLIFE

The proposed new and revised lease stipulations under Alternative #3 that are tied to potential wildlife impacts are similarly not warranted, not supp01ted by the record, have not been demonstrated to be needed nor effective, and are likely to severely limit future drilling without adequate assurance that that the resource impact mitigation measures will even be effective. Alternative #3 proposes three new lease stipulations to address wildlife and rare plant issues:

* A prohibition of surface use that creates noise at 20 dB above ambient measured at the perimeter of an active sage-grouse lek and restriction of road and trail maintenance within 2 miles from the perimeter of active leks from March I-April 30 from 6 p.m. to 9 a.m.;

* The ability to move wells and associated disturbances more than 1/4 mile in order to provide topographic screening for active leks;

* No surface occupancy allowed within 200 feet of mapped populations for Dakota buckwheat, nodding buckwheat, and sand lily.

As an initial matter, the USFS and the BLM currently are in the middle of revising the associated land management plan amendments to address greater sage grouse and its habitat on USFS and BLM administered land. While these amendments are being revised, it is critical to avoid putting in place inflexible lease stipulations that may conflict with or run counter to the final revised amendments.

Moreover, as the Draft EIS acknowledges, "a lease notice, applied to all leases insures that consultation under the [ESA] will occur and specific mitigations will be imposed for oil and gas development" and that "stipulations for other resources may directly or indirectly benefit listed species." DEIS at 67; see also id. at 76 (the Dakota Prairie Grasslands Plan would be followed for site-specific leasing decisions and may reduce effects for threatened and endangered species). Given the ongoing revisions and the mechanisms already in place to protect potential impacts to sage grouse and its habitat, the Draft EIS should remove from the Final EIS any new, inflexible lease stipulations ostensibly directed at mitigating sage grouse impacts.

Furthermore, the record does not suppo1t a finding that the new lease stipulations proposed under Alternative #3 are necessary or will effectively or proportionally mitigate potential impacts to sage grouse. In fact, the Draft EIS makes no distinction between impacts to sage grouse under Alternative #1 vs. Alternative #3. The Draft EIS determines that under Alternative #1, there may be impacts to individuals or habitat "but will not likely contribute to a trend toward Federal listing or a loss of viability to the population or species." DEIS at 82. The Draft EIS draws the exact same conclusion under Alternative #3; yet fails to provide any reasonable explanation either in the body of the report or the supporting reports as to why Alternative #3 should still be preferred. See DEIS at 85. This is a violation of the applicable NEPA regulations, which require the agency to provide a "clear basis for choice among the options." 40 C.F.R. [sect] 1502.14. The failure to provide a clear basis for preferred Alternative #3 on one hand, while consistently stating that Alternative #1 is effective on the other, is a problem in other areas of the Draft EIS.

The reality is, both alternatives are consistent with the applicable standards, including the desired condition with respect to wildlife stated in the Resource Management Plan-"wildlife and botanical resources would have a

diversity of habitat conditions. The grassland ecosystem would have a 'shifting mosaic' of disturbance processes over space and time to enhance these habitat conditions." See Wildlife Report and Biological Evaluation at 3.

The rationale for the new sage grouse-focused lease stipulations is deficient in other respects. For example, while sage grouse numbers have declined in North Dakota over the past decade, the supporting Wildlife Report acknowledges that this decline is not the result of oil and gas activity or development. See Wildlife Report and Biological Evaluation at 18 (listing the reasons for the decline, none of which relate to oil and gas development). Moreover, as acknowledged on this record, greater sage grouse were never widespread in North Dakota and are presently confined to the southwestern portion of the state. See DEIS at 81. Critically, there are "no leks on National Forest System lands [that] remain active" and it would only be after hypothetical reintroduction that it would even be theoretically possible for sage grouse to occur on the LMNG. See Wildlife Report at 31 ("If sage-grouse were to occur on the LMNG"); see also Weyerhaeuser Co v. US. Fish and Wildlife Service, 139 S.Ct. 361 (2018) (holding that an area is eligible for designation as a "critical habitat" under the ESA only if it is actually "habitat" for the species). Given these facts, it would be arbitrary and capricious to implement the new leasing restrictions being proposed under Alternative #3 to mitigate potential sage grouse impacts.

In addition, the Draft EIS selectively cites one study in passing reference and apparent justification for the lease stipulations directed at sage grouse mitigation. Specifically, the Draft EIS and the supporting Wildlife Report cite Manier et al (2014) and then briefly note that the "data suggest" that a buffer should be between 3.1 to 5 mile radius. DEIS at 81. The results of the Manier study, however, were called into question shortly after the study's release in a yet-unresolved Data Quality Act challenge to the Department of Interior over dissemination of information presented in the greater sage grouse Buffer Report. As described in that challenge, there is no evidence that this range of buffer distances will result in quantifiable population level benefits. These arbitrary distances also are based on erroneous assumptions regarding male lek attendance and ignore other factors driving population decline that are unrelated to human disturbance. The Draft EIS does not acknowledge the controversy with the Manier et. al study, nor explain why such drastic buffer distances are necessary in an area where there aren't even active leks.

Curiously, the Wildlife Report states that the current stipulations "are inconsistent with stipulations that have been identified for nearby land under different agency management" and that "there is a discrepancy between the current no surface occupancy and that suggested in scientific literature." Wildlife Report at 31. Yet, neither the Draft EIS nor the Wildlife Report explain these statements any further, cite to the scientific literature referenced, or identify the other stipulations for "nearby land." Cherry-picking one disputed scientific study without any further analysis or discussion does not constitute the "hard look" required by NEPA. See Consol. Delta Smelt Cases, 717 F. Supp. 2d 1021, 1061 (E.D. Cal. 2010), citation omitted (holding that an agency may not rely on "ambiguous studies as evidence" to support findings made under the ESA; see also, Rock Creek Alliance v. US. Fish & Wildlife Service, 390 F.Supp.2d 993 (D. Mont. 2005) (rejecting FWS's reliance on a disputed scientific report, which explicitly stated its analysis was not applicable to the small populations addressed in the challenged opinion). It should also be noted that within the draft document, none of the threatened, endangered, or sensitive species identified are experiencing adverse effects as the result of past oil and gas development.

In sum, the record does not support the new timing and NSO lease stipulations focused on sage[shy] grouse mitigation. It also does not explain why the current conditions are inadequate. The lack of active leks on the LMNG and the relatively sparse population in North Dakota writ large, support Alternative #1. Common sense also counsels against adopting new or revised lease stipulations while the USFS and BLM are finalizing the agencies' sage grouse amendments.

IV. RECREATION

Alternative #3 proposes two "revised" lease stipulations (NSO and timing restrictions) and one "new" lease stipulation (roadless) based on potential indirect recreational impacts. Although NEPA requires an EIS to

examine indirect environmental effects, it only requires examination of effects that are reasonably foreseeable and "there is no need to consider potential effects that are highly speculative or indefinite." See North Carolina Alliance for Trans'p Reform v. US. Dep't of Trans'p, 151 F. Supp 2d 661, 695-6 (M.D.N.C. 2001) citation omitted. The new and revised lease "recreation-based" stipulations are grounded entirely on an unsubstantiated, future, and unknown potential for adverse impacts. No amount of further analysis would fix this. And as discussed next, the adverse consequences from these new and revised recreation-based lease stipulations are many and significant.

The following maps, which are draw from publicly available information but are not in the record, depict the inventoried "Roadless Areas" in the Badlands (pink). The first is a higher-level look at the inventoried Roadless Areas in and amongst existing roads and oil and gas development. The second image shows the existing roads and well locations (blue diamonds) that are currently in inventoried Roadless Areas. The new NSO lease stipulation would shut down future development of these existing leaseholds, which as these maps depict, is a very significant area mass. The Draft EIS does explain why such draconian and severe measures are necessary, nor does it detail why the current framework is insufficient to mitigate the impacts in these inventoried areas.

IMAGES IN ATTACHMENT

The recreation-based new and revised lease stipulations are based solely on general, speculative, and uncertain potential future development with little or no explanation in the record concerning why they are necessary or where the future impacts might occur. For example, the Recreation and Related Resources Report acknowledges that the new and revised lease stipulations would only insure mitigation "if, in the future, additional developed recreation sites are built" and when discussing noise pollution, notes "that this [recreation] analysis covers many areas and the exact location of proposed operations is unknown." See Recreation Report at 29, 4; see also id. at 23 ("The level of protection depends on the level of development of existing and future leases."). In other places, the Recreation Report speaks broadly of future potential increases in recreational use of the LMNG but provides no specificity regarding where or how these increases may interrelate with existing or future oil and gas development.

While increased recreational use may be a consistent trend, and is certainly a value NP supports, the way it is framed in the Draft EIS is too speculative and uncertain to support the significant new and revised lease stipulations, which will result in nearly a 20% increase in NSO-designated areas, placing almost 60% of federal mineral ownership into NSO designation. See Recreation Report at Table 17.

Moreover, the Recreation Report and the Draft EIS admit that the current lease stipulations (i.e., Alternative #1) combined with other site-specific NEPA-review processes are adequate to mitigate recreational impacts. The Recreation Report acknowledges that for Alternative #1, "the undeveloped character of the land would be largely protected" and that "[m]ost of the[] indirect effects would be mitigated through the current stipulations, lease notices, and the conditions of approval." Recreation Report at 23. This same conclusion is repeated throughout the Recreation Report and is not contradicted by anything the Draft EIS. See e.g., Recreation Report at 24 ("Indirect effects would be minor due to the current stipulations, lease notices, and conditions of approval that would be developed at the time a plan of operations was submitted."); id ("There are current stipulations and laws in place to protect recommended [sic] for wilderness area, as well as other special places that can provide experiences in a natural setting away from sights, noise, and sounds."); id at 25 ("For sites that are not covered under a stipulation, at the time a proposal to drill is submitted, site-specific environmental analysis would be completed, therefore protection measures for these sites would be implemented or negotiated under the conditions of approval."); id at 26 ("All proposals to drill must go through site-specific documentation to analyze the effects to the resources near the leased parcel. These areas would be protected by several layers of law and best management practices."). In contrast, the record concludes Alternative #3 might provide less indirect effects, but only if future recreational areas are developed. See Recreation Report at 33. This is the type of highly speculative mitigation measure that the courts disfavor, and particularly so in this case where the record so

clearly shows that current lease stipulations and other measures are fully protective of the indirect resource impact.

The lack of clarity in the record regarding the scope of potential consequences of the new and revised recreation lease stipulations also prevents NP from assessing with any accuracy how impactful these restrictions will be to its future development plans. Specifically, both the timing and the NSO stipulations extend to future recreation sites with a Development Scale 3-5. But there is nothing in the record that allows for an assessment of where these future classifications might occur, how big they will be, or with what frequency they may come into existence. Instead, the Recreation Report provides two rudimentary maps (see pages 14, 15), a description of what each development scale number means (page 12), and a list of current recreation site scale scores (page 13). This prevents NP from gaining an accurate sense of the severity of these new and revised lease stipulations.

As with other aspects of Alternative #3, the recreation-based lease stipulations may harm more than help. NSO's have the demonstrated effect of concentrating and pushing development onto adjacent landowners (private and state) that are not subject to the restrictions. This reality is not acknowledged nor accounted for in the Draft EIS and it is not fair for those landowners or optimal for the LMNG as a whole, The Draft EIS claims that existing federal leases will not be affected by the new stipulations of Alternative #3. This is misleading in that it does not acknowledge the mechanism by which multiple leases are pooled together for horizontal well development and it also ignores the deleterious effect of federal stipulations on private and state minerals. NP Resources's experience with permitting development projects has been that every 1,280 acre drilling unit encompasses multiple lease tracts. These separate tracts are a combination of different mineral estates, many times being private and state in addition to federal. The BLM, when processing an application for development, will refer to the most current and comprehensive lease stipulations that are incumbent upon the development. Existing leases will be overridden by new stipulations. When the surface location of the proposed development is on non[shy] federal lands but includes federal minerals (a split estate as described in the Draft EIS), the BLM may still apply all stipulations on the federal mineral lease to the Conditions of Approval for the permit, thereby impeding the reasonable development of private property. The following illustration of two drilling units shows how minority tracts of currently unleased federal minerals are: a) preventing the development of both leased federal and leased private minerals, as well as b) when leased, will impinge upon the currently leased mineral estate with conditions of approval that are based on stipulations considered in the DEIS.

IMAGES IN ATTACHMENT

These examples demonstrate that the Draft EIS incorrectly concludes that the lease stipulations are limited only to administratively available leases with USFS surface_ They also reinforce NP's position that lease stipulations should be used sparingly as they are rigid and often carryemil unintended consequences,

I. CONCLUSION

NP appreciates the opportunity to submit these comments in support of Alternative _#1 The record as a whole supports finalization of the EIS under Alternative #1 and ove1whelmingly demonstrates that the current lease stipulations combined with site-specific NEPA permitting procedures are and will be adequately protective of the LMNG environment and natural resources under future oil and gas development scenarios_ Furthermore, the new and revised lease stipulations under Alternative #3 are not reasonable or warranted and would have potentially serious unintended consequences, including the serious curtailment if not prevention of future oil and gas development in the LMNG. This effect would have a disproportionately severe impact on NP. Ironica1ly, by forcing development off the LMNG in concentrated areas in the winter months, Alternative #3 is likely to exacerbate, not mitigate, environmental and resource impacts.

Finally, NP reiterates its recommendation to and hope that the USFS finalizes the EIS under Alternative #I soon. Many of the deficiencies in the Draft EIS noted in these comments would not be remedied with further analysis

(for example, forecasting future increases in recreational use will always be highly speculative and uncertain). Others are not central to the overall goal given existing regulatory and permitting frameworks (for example, federal and state air quality regulations adequately protect air quality impacts through permitting and enforcement). Thus, NP asserts that there is more than adequate support for Alternative #I on this record, which includes current lease stipulations combined with existing site-specific NEPA processes, which are flexible and designed to ensure full protection of the environment and natural resources.