APPENDIX G—PUBLIC COMMENTS AND BLM RESPONSES ON THE MLP/DEIS

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Table G-1. Comments and Responses by Resource

Organization	Comment	Response	Comment ID
Air Quality			
EPA, Director of NEPA Compliance and Review Program	The visibility analysis indicates the potential for many days of contribution and causation of visibility impairment at Arches and Canyonlands National Parks under the modeled "high scenario." Although impacts are projected to decrease under the "low" and "medium" scenario, Canyonlands is still projected to have 22 days of visibility impairment above 0.5 dv for the 2008 meteorological year under the low scenario. Nitrogen deposition impacts are also projected at both of the National Parks, with the greatest impacts projected at Canyonlands. The predicted nitrogen deposition impact exceeds the Deposition Analysis Threshold (DAT) for the high scenario in meteorological years 2006 and 2007 and for the high, medium and low scenarios in 2008. We recommend the BLM establish stipulations to assure that visibility is not compromised at these Class I areas as a result of future leasing decisions in the Moab Planning Area. We support the inclusion of stipulations requiring reductions in NOx emissions and establishing a requirement for Fugitive Dust Control Plans for future activity. We recommend that the BLM discuss, in the Final EIS, whether these stipulations are expected to be adequate to protect AQRVs in Arches and Canyonlands National Parks, and establish additional requirements if necessary.	The Best Management Practices outlined in Appendix B, the management actions, stipulations, and lease notices presented in Chapter 2 are deemed sufficient to ensure no adverse impacts to visibility and nitrogen deposition in nearby Class 1 areas. This is discussed in Chapter 4 under Results of Air Quality Modeling and Quantitative Analysis and in Section 4.3.3 Impacts Common to all Alternatives. In addition, BLM is implementing a post-ROD monitoring and research study in conjunction with the National Park Service and United States Geological Survey to monitor and track potential impacts associated with oil and gas development in the Planning Area, and to evaluate the effectiveness of mitigation and/or the need for additional controls.	29
EPA, Director of NEPA Compliance and Review Program	As stated in the Draft EIS, "none of the emissions scenarios represent likely future development." Based on our review of Appendix F, this appears to be particularly true with regard to location of future sources. The methodology used to allocate future oil and gas well drilling and operating emissions did not take into account the various No Leasing or NSO buffers proposed under the Preferred Alternative on lands adjacent to Arches and Canyonlands National Parks. The Draft EIS briefly discusses the relationship between the magnitude of visibility impact and the proximity of the source to park receptor locations, based on the results of the modeling analysis. This result indicates that proposed No Leasing or NSO areas surrounding the Class I areas could significantly reduce air quality and AQRV related impacts. If applying any of these stipulations to the modeling analysis would significantly change the location of modeled emissions, we recommend doing so prior to the issuance of the Final EIS, so that the impacts disclosed are relevant to any stipulations that would be imposed by an Alternative. This will better enable the BLM to determine whether additional mitigation measures are warranted.	The purpose of the modeling, as described in Section 4.3.2, was not to try to anticipate actual development scenarios, as not enough is known about future potential development to adequately analyze those. It was rather to identify likely pollutants of concern and the impacts of various emissions levels on identified Air Quality Related Values associated with these emissions. This was accomplished through the modeling presented, and resulted in attention on specific mitigation and control features as presented in the document. Additional scenario modeling is unlikely to significantly add to this. It is a reasonable assumption, based on both the modeling and commonly understood air quality principles, that removing development from Closed or NSO areas around the Class 1 areas would result in lower impacts. Additional modeling, which is expensive and time consuming, would be unlikely to substantially refine or change that conclusion.	30

Organization	Comment	Response	Comment ID
EPA, Director of NEPA Compliance and Review Program	According to the Draft EIS, "potash production emissions estimates were not estimated or modeled due to the extremely high level of uncertainty associated with emissions· estimates for this activity." We note that if the modeling were to include these additional emissions from potash processing, then the reported impacts may be greater. At a minimum, we recommend adding a qualitative discussion of the potash mining and processing (i.e., beneficiation process) and expected air pollutant emissions. One example of a source of information on the potash process that may be helpful is entitled, Potash Processing in Saskatchewan -A Review of Process Technologies, by Carlos F. Perucca, available online at: http: //technology.infomine.com/hydrometmine/papers/Potash%20Processing%20in%20SK%20-%20A%20Review%20of%20Process%20Technologies.pdf.	A qualitative discussion of potential (but unknown) potash emissions from any future potash production activities would not add any useful information to the discussion. Emissions are not impacts, and without an understating of the nature and location of these emissions it is not possible to draw conclusions related to any potential impacts associated with these emissions. Any potash production that may occur in the general Planning Area would be subject to Utah DEQ and Clean Air Act permitting rules and regulations, and as such can be presumed to not cause significant air quality impacts in the Planning Area or to the Class 1 areas. BLM does not, nor should it, engage in speculative modeling related to possible future permitted sources that will occur on non-Federal lands.	31
EPA, Director of NEPA Compliance and Review Program	We appreciate the BLM's efforts to disclose likely near-field air quality impacts from future MLP activities by discussing the results of previous near-field modeling conducted for projects in and near the Planning Area. We did not find the discussion of modeling performed for the Fidelity Cane Creek project to be useful to the goal stated in the Draft EIS of evaluating previous project-specific modeling "for relevance to management decisions and possible control considerations." The AERMOD, CALPUFF, and VISCREEN modeling described for the Cane Creek Project were all focused on potential impacts to the National Parks. This does not provide any additional information that can't be provided through the CALPUFF modeling performed for the Moab MLP and results in a confusing array of information.	The intent of providing results from project-specific modeling exercises that have been conducted for previous oil and gas projects was to disclose the type of information and analysis that is likely to be presented for future projects. In that sense the information provided is valuable for the reader to determine how BLM might approach future project-specific analysis for oil and gas development as envisioned under the MLP, and what types of impacts might be likely under this level of project-specific development. It is unlikely the Planning Area will be seeing specific projects much larger than the examples presented in the MLP, so this is useful and relevant information to be presented.	32
EPA, Director of NEPA Compliance and Review Program	We found the discussion of results of the near-field modeling analysis for the Monument Butte Project to be more helpful [than the Fidelity Cane Creek Project]. We recommend that the Final EIS explain the similarities and differences between the Monument Butte Project and anticipated oil and gas development in the Planning Area to clarify the relevance of the modeling results. For instance, this could be demonstrated by discussing operating conditions and control measures, background concentrations, meteorology, and terrain. It would also be helpful to summarize the assumptions and model versions used in the air quality analysis. We note that the Monument Butte Project does not include potash development, which may result in near-field impacts that are quite different from oil and gas development. We recommend that the BLM incorporate an existing air quality analysis to provide information on potential near-field impacts of potash development, if one exists. If such an analysis does not exist, we recommend that the BLM discuss in more detail the potash mining and beneficiation	The near-field modeling analysis for Cane Creek is much more likely to be the level of analysis in future NEPA in the Planning Area than the Greater Monument Buttes (GMB) modeling, due primarily to the scale of likely projects and existing air quality conditions in the respective project areas. GMB was presented to disclose the likely impacts to non-modeled parameters in the MLP, such as Hazardous Air Pollutants or criteria pollutants such as carbon monoxide. As such, it is informative for addressing possible impacts from these other parameters. As described in the Response to Comment 31, it is neither appropriate nor informative for BLM to be speculating on how potash processing may or may not occur in the Planning Area, and what impacts may or may not be associated with processing allowed under current State and Federal permitting regulations.	33

Organization	Comment	Response	Comment ID
	process and the likely similarities and differences in comparison to the oil and gas impacts disclosed.		
EPA, Director of NEPA Compliance and Review Program	While discussion of existing near-field modeling results is useful for disclosure of likely impacts at the planning stage, due to the project-specific nature of near-field air quality impacts we recommend that project-specific near-field impact analyses be conducted prior to any future proposed oil, gas or potash development in the Planning Area. We therefore support the BLM's inclusion of a lease notice informing lessees/operators that "prior to project-specific approval, additional air quality analyses may be required." If a future project instead relies on existing modeling results for disclosure of potential near-field impacts, we recommend following a similar approach to that described above to confirm the relevance of the modeling results. Where emission control measures incorporated into the modeling emissions inventory are critical to achieving compliance with the National Ambient Air Quality Standards (NAAQS), we recommend those measures be required for any subsequent projects utilizing those model results.	The procedure outlined in this comment is the likely procedure for future project-specific analysis under NEPA. Modeling decisions are made based on an evaluation of likely emissions, proximity to sensitive receptors, and best scientific practices. This is consistent with current guidance.	34
EPA, Director of NEPA Compliance and Review Program	The regional cumulative air quality analysis focuses on the results from the Western Regional Air Partnership (WRAP) WestJump Air Quality Modeling Study that uses a simulation year of 2008. While the WRAP study results presented in this section are helpful because the study performed source apportionment analyses, we also recommend discussing and presenting the results from the modeling work completed by the BLM as part of the Utah BLM Air Resources Management Strategy (ARMS). Cumulative modeling was conducted using this platform for criteria pollutants and AQRVs, including a base case and future-year projection as well as three future-year mitigation scenarios. Presenting this information will be helpful because the ARMS modeling was conducted using an updated emissions inventory and a more current modeling platform than that used for the WRAP study. If the results from the ARMS platform cannot be presented in this section, we recommend that the results of the WRAP study be utilized to present a more comprehensive depiction of impacts from an air shed perspective. For example, this could include spatial figures of the cumulative impacts for ozone and PM2.5 as wells as a discussion of visibility results for additional locations within and near the Planning Area.	The Utah BLM Air Resources Management Strategy (ARMS) was primarily developed to examine air quality impacts from oil and gas development in the Uinta Basin of Northeast Utah. While the modeling domain does cover the Planning Area, no specific impacts were determined for receptor locations in the Planning Area at this time, so the analysis is of limited utility for purposes of the MLP.	35
EPA, Director of NEPA Compliance and Review Program	We support the stipulations proposed to protect air quality in the Planning Area, as well as the Lease Notice which indicates that additional project-specific air quality mitigation measures may be identified in the future. It fs our understanding that the current analysis assumes wells would not need to be hydraulically fractured, based on historical development practices in the Planning	This is consistent with BLM practices.	36

Organization	Comment	Response	Comment ID
	Area. If hydraulic fracturing is conducted, emissions associated with traffic and the fracturing process would increase pollutant emissions and could affect potential impacts. Therefore, if hydraulic fracturing is proposed for a future project, we recommend that the BLM require project-specific air quality analysis and consider project-specific mitigation measures, including stipulations applicable to emissions from hydraulic fracturing pump engines.		
EPA, Director of NEPA Compliance and Review Program	The lack of air quality monitoring data in the Planning Area, and potential need for additional monitoring to establish a baseline and detect future impacts, has been discussed among the Air Quality Technical Workgroup for this EIS, but does not appear in the document. We support additional monitoring in the Moab Planning Area which could be used to inform future project-specific modeling efforts and mitigation decisions. We recommend the BLM use the MLP to establish a plan for the implementation of a monitoring program.	BLM is working with NPS and USGS to implement additional monitoring and air quality related studies in the Planning Area. This is to both validate and track the analysis conducted for the MLP and to further the understanding of existing air quality in the Planning Area.	37
EPA, Director of NEPA Compliance and Review Program	updated information is available for some of the background emission data provided for Utah, U.S. and Global C02 emissions (e.g., Figures 3-2 and 3-4), and we recommend that this updated information be used in the Final EIS.	The BLM utilized the best available information at the time of analysis.	38
EPA, Director of NEPA Compliance and Review Program	We also appreciate that estimated GHG emissions have been calculated for each of the alternatives analyzed in the Draft EIS. The estimated GHG emissions can serve as a reasonable proxy for climate change impacts when comparing the proposal and alternatives. According to the Draft EIS, "C02eq emissions from potash operations were not calculated as there is not enough development, operations, or emission factors information available to make that calculation." If a quantitative estimate is not possible, we recommend that the BLM qualitatively discuss in more detail the potash mining and beneficiation process and likely sources of GHG emissions. It may be possible to use information from current mining processes to give general information about the amount of energy needed to produce potash, and associated GHG emissions. Information from the Department of Energy on potash energy requirements is available at: http: //energy. gov/sites/prod/: files/20 l 3/l l/f4/potash soda borate.pdf.	As described in Response to Comment 31, it is neither appropriate nor informative for BLM to be speculating on how potash processing may or may not occur in the Planning Area, and what impacts may or may not be associated with processing allowed under current State and Federal permitting regulations. This is also true for any calculations of Greenhouse Gases, and would be highly speculative with no discernable impact possible to assign to any speculative emissions estimates. How this would inform the analysis or management decisions is unclear based on this comment.	39
EPA, Director of NEPA Compliance and Review Program	The discussion of potential climate change impacts associated with the planning area's anticipated GHG emissions is limited to a comparison to total U.S. emissions and total emissions for the State of Utah. Recognizing that climate impacts are not attributable to any single action, but are exacerbated by a series of smaller decisions, we do not recommend comparing GHG emissions from a proposed	The comparison of speculative GHG emissions from the alternatives compared to regional or global emissions estimates is exactly why no meaningful analysis can be conducted on this topic at the level of this NEPA analysis. BLM is not using this comparison as a reason to not analyze GHG's, but rather to demonstrate why no meaningful analysis is possible. This is	40

Organization	Comment	Response	Comment ID
	action to total U.S. emissions, as this approach does not provide meaningful information for a master leasing plan analysis. This rationale is similar to that noted by the CEQ revised draft guidance regarding comparison to global emissions. We recommend that the BLM provide a more meaningful frame of reference for discussion in the Final EIS. For example, the Final EIS could cite an applicable Federal, state, tribal or local goal for GHG emission reductions, and discuss whether the emissions levels are consistent with such goals, or compare emissions to a reference point that is easily visualized by the public, such as energy required to heat x number of homes annually (http: //www.epa.gov/cleanenergy/energyresources/calculator.html).	consistent with current draft CEQ guidance. There are no relevant Federal, State, or local goals or targets that BLM is aware of and that are applicable to an estimation of potential future GHG emission. Comparing speculative GHG emissions to how much energy is required to heat an average home adds nothing to this analysis, and is neither relevant nor informative when it comes to potential climate change impacts from GHG emissions.	
EPA, Director of NEPA Compliance and Review Program	The Draft EIS does not include a discussion of mitigation to minimize GHG emissions from the proposed action. We recommend that the Final EIS describe measures to reduce GHG emissions associated with the project, including reasonable alternatives or other practicable mitigation opportunities and disclose the estimated GHG reductions associated with such measures. For example, measures to reduce fugitive methane emissions from oil, gas and potash development or use of renewable energy sources to reduce reliance on combustion sources of C02 during development and operations for mineral extraction. The EPA further recommends that the Record of Decision commits to implementation of reasonable mitigation measures that would reduce future project-related GHG emissions.	As pointed out in the comment, VOC emissions control requirements also have the benefit of reducing associated Greenhouse Gases. ***Text has been added to Chapter 2 (Table 2-1, Air Quality, Management Actions Common to All Alternatives) providing a list of VOC controls that also control GHGs.***	41
Individual	The industry has clearly not had a negative impact on the local air quality, as even the MLP admits that the quality of the air is currently satisfactory. Particulate matter concentrations are well under the National Ambient Air Quality Standards, and even ozone, much of which drifts in from out of state, is measured as having levels below the national standards. The industry has Implemented several emission controls to help ensure that air quality will not be a problem. Similarly, standard industry practices protect groundwater so effectively that incidences of contamination are so exceedingly rare, as to defy probability. There is no reason for the MLP to exclude the industry for the sake of environmental protection.	Currently, there are no “existing elevated levels of background pollution in the Moab MLP area.” Air quality in the Moab MLP area is under increased scrutiny due to the proximity to the National Parks and their Class I airsheds. BLM’s proposed mitigation in the MLP is intended to sustain this excellent air quality. The established procedures for protecting groundwater have been incorporated into mineral lease stipulations and best management practices.	65
Individual	The results of air quality modeling speak to the unreasonableness of this MLP effort. The resultant air quality “constraints” identified in the MLP is extreme and is not supported by impact analysis. The NEPA process is meant to evaluate impacts from proposed activities and then provide reasonable mitigation. Here the air quality, visibility and HAP modeling analysis projects no impacts to NAAQS pollutants nor visibility from any of the alternatives, and no HAP production from continuation of the existing management	Currently, there are no “existing elevated levels of background pollution in the Moab MLP area.” Air quality in the Moab MLP area is under increased scrutiny due to the proximity to the National Parks and their Class I airsheds. BLM’s proposed mitigation in the MLP is intended to sustain this excellent air quality.	61, 170, 223, 396

Organization	Comment	Response	Comment ID
	under the existing 2008 RMP. In fact the analysis indicates the air quality and visibility in the region has actually been improving over the past 15 years. Yet, the MLP proposes significant mitigation constraints to handle a problem that won't exist. This is another example of the illegal use of the MLP process. Not only is it out of compliance with FLPMA, it's also out of compliance with NEPA.		
Individual	Table 2-1: Air Quality – CSU (pp 2-5 through 2-6) The discussion in Table 1 identifies new CSU requirements for equipment use to mitigate the impacts to air quality and greenhouse gas emissions. Comment The air quality information presented in Chapter 3 indicates air quality has been improving in the area for the past several years. This implies that current management in the area has been effective. Chapter 4 needs to quantify the level to which this requirement will improve air quality in light of the additional costs that these requirements will impose.	To adequately analyze the quantitative benefits of the Best Management Practices and other controls presented in Chapter 2 would require a detailed understanding of future developments pace and scope. This is not possible given the uncertainty associated with future production. The analysis in the MLP was conducted to identify likely pollutants of concern, and also identify those mitigations and controls that would be most effective in preventing air quality impacts associated with those pollutants. It is the intention of future management actions to maintain the current good air quality in the Planning Area and to ensure mitigation and controls are effective in doing this.	176
Individual	Existing Air Quality (p 3-5) "The NAAQS apply to six pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), ozone (O3), and particulates whose diameter are smaller than ten µm (PM10) or smaller than 2.5 µm (PM2.5). Table 3-7 provides the various emissions of the six pollutants by source sector. Currently, air quality is good within the Planning Area. Mobile sources (primarily motor vehicles) account for most of the CO, NOx, and a large amount of the PM in the Planning Area. Biogenics are the dominant source of Volatile Organic Compounds (VOC). Various minor area sources contribute the remainder of the emission. IMPROVE monitoring data indicates the most visibility-impaired days in Canyonlands National Park exhibit visual distances between 61 and 80 miles and show improvements over the decade of 1998 to 2008 of approximately 35 percent. The mid-range days have visual distances of 78 to 109 miles and show no significant change. The least-impaired days have visibility ranges from 107 to 144 and also demonstrate improvements over the decade of approximately 25 percent (EPA 2003c)… The visibility improvements seen over the past decade are the result of implementing State and Federal stationary and mobile source regulations." Comment This is an example of the unbalanced nature of the MLP process. The greatest sources of pollutant emissions in the area are visitation	The air quality analysis only concerned itself with identifying pollutants that may cause adverse impacts related to activities contemplated under the MLP. It is beyond the scope of this analysis to look at all other potential sources of air quality impacts that could affect the Planning Area. This is consistent with current NEPA practice.	192

Organization	Comment	Response	Comment ID
	and traffic affiliated with tourism, and the greatest source for VOC emissions are natural processes (biogenic). Yet since the MLP is designed to specifically develop "constraints" on the minerals industry, it adds significant operational costs related to mitigation that ultimately may not have a noticeable impact in improving air quality. It fails to address identified impacts resulting from other types of use in the area, and potential mitigation for those impacts. BLM may argue that NEPA can be used for any purpose, and the purpose identified for this NEPA action is to "consider a range of new constraints" for mineral development, and limiting "scope of the decisions in the Moab MLP …to oil and gas and potash leasing and development." This may meet legal requirements, but points to the obtuse use of NEPA by this MLP process to target a specific use. This is not how the NEPA and decision making processes should work. The MLP is simply an arbitrarily constructed version of NEPA, with a pre-determined specific intent and outcome.		
Individual	Results of Air Quality Modeling and Quantitative Analysis (p 4-16) "Under all alternatives, it is unlikely the NAAQS will be exceeded or violated due to BLM-approved development actions related to oil and gas and/or potash development. Based on previous modeling, there is a possibility of short-term exceedances of the 1-hour NO2 and 24-hour PM10 NAAQS from development activities. These exceedances would most likely be short-lived and spatially variable, and a violation would be unlikely. Deposition of nitrogen and sulfur in Class 1 Areas (National Parks) due to actions related to oil and gas and/or potash development, in all alternatives, are unlikely to result in concentrations exceeding Deposition Analysis Thresholds (DAT), although under the higher emissions scenarios modeled nitrogen exceeded the DATs. DATs are established by the National Park Service to protect ecological integrity in National Parks and wilderness areas. Deposition trends in nearby Class 1 Areas have been steady to improving in recent decades, although under higher emissions scenarios, this could be reversed. Comment The results of air quality modeling speak to the unreasonableness of this MLP effort. The resultant air quality "constraints" identified in the MLP is not supported by impacts. The NEPA process is meant to evaluate impacts from proposed activities. Here the air quality, visibility and HAP modeling analysis projects no impacts to NAAQS pollutants nor visibility from any of the alternatives, and no HAP production from continuation of the existing management under the existing 2008 RMP. Yet, the MLP proposes significant mitigation constraints to handle a problem that won't exist. This is another example of the illegal use of the MLP process. Not only is it out of	The air quality analysis only concerned itself with identifying pollutants that may cause adverse impacts related to activities contemplated under the MLP. It is beyond the scope of this analysis to look at all other potential sources of air quality impacts that could affect the Planning Area. This is consistent with current NEPA practice.	198

Organization	Comment	Response	Comment ID
	compliance with FLPMA, it's also out of compliance with NEPA. The MLP needs to provide the rationale being used to utilize this out of compliance MLP process.		
Utah Guides and Outfitters	Furthermore, we recognize the tangible impacts climate change will have on our industry and on the rivers that cut through this district. While there is some basic discussion of greenhouse gases and climate mitigation efforts in this draft MLP, at no point does the math add up to the kinds of reductions in greenhouse gas emissions that will need to take place if we expect to live in this desert for the foreseeable future.	The MLP analysis is not intended, nor would it be possible, to identify some level of Greenhouse Gas emissions reductions that would result in a defined climatic result. This is well outside the boundaries of analysis for a document such as this.	211
Holiday River Expeditions	Furthermore, we recognize the significant impacts climate change will have on our industry and on the rivers that cut through this district. While there is some basic discussion of greenhouse gases and climate mitigation efforts in this draft MLP, at no point does the math add up to the kinds of reductions in greenhouse gas emissions that will need to take place if we expect to live in this desert for the foreseeable future. Holiday sees this as a serious omission.	The MLP analysis is not intended, nor would it be possible, to identify some level of Greenhouse Gas emissions reductions that would result in a defined climatic result. This is well outside the boundaries of analysis for a document such as this.	328
Individual	Climate change -- You are correct that CEQ released draft guidance for climate change related analysis in Dec 2014. Page 9 states (italics are mine): CEQ recognizes that many agency NEPA analyses to date have concluded that GHG emissions from an individual agency action will have small, if any, potential climate change effects. Government action occurs incrementally, program-by-program and step-by-step, *and climate impacts are not* * attributable to any single action, but are exacerbated by a series of smaller decisions, including * *decisions made by the government*. Therefore, the statement that emissions from a government action or approval represent only a small fraction of global emissions is more a statement about the nature of the climate change challenge, *and is not an appropriate basis for deciding whether to consider* *climate impacts under NEPA. *Moreover, these comparisons *are not an appropriate method for* * characterizing the potential impacts associated with a proposed action and its alternatives and * *mitigations*. This approach does not reveal anything beyond the nature of the climate change challenge itself: the fact that diverse individual sources of emissions each make relatively small additions to global atmospheric GHG concentrations that collectively have huge impact (p.9). However, that is what the MLP climate change analysis does. The above is a key statement in the guidance and informs us that prior practices of dismissing effects due to small contributions on a large geographic scale is a meaningless analysis, but not necessarily a meaningless contribution to GHGs. In fact, given NEPA's purpose of disclosing	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	425

Organization	Comment	Response	Comment ID
	potential effects, the present MLP is virtually void of pertinent information on adverse GHG effects, in chapter 4.		
Individual	Looking at the web link to BLM processes for considering air quality also lacks useful information. Here is what is needed, at a minimum, in order to fulfill the requirement of NEPA to analyze and disclose effects of the proposed actions on the human environment. 1. Per CEQ's draft guidance, consider effects *of the project on *GHG emissions. This must include both direct and indirect effects and a conclusion of cumulative effects. Remember that though the contribution of your proposed action may yield a nonsignificant contribution itself, it may contribute in a meaningful way to cumulatively significant adverse effects. a. Current practices of federal agencies indicate that you should disclose/identify the potential direct effects. These should be apparent in reading the Plan. What are they? Flares? Construction of extraction sites for oil and gas? There are others as well. b. Indirect effects are very important in oil, gas, and some mineral extraction projects. These include *transportation of the product *and *eventual* *use/combustion of the extracted resources*. Although different than the present Plan, recognize that, as an example, fossil fuel pipeline projects also include eventual use of the fuel they transport. It is not clear what you included in the percentages of national and regional contributions to GHGs. It is not clear if you included all elements, including eventual USE of the extracted resources. The point is, if oil, gas, etc. were not extracted due to your proposed actions it would never be used and produce GHGs. This is a critical indirect effect, removed in location from the project area but analyzed in your project. c. I suggest you find a way to quantify all direct and indirect GHG related effects with meaningful bounding and portray a valid cumulative effects analysis. See below on a "worst case scenario."	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	426
Individual	Air quality and ozone concerns -- The analysis in chapter four does not clearly show a "worst case scenario" (usual use of the term, not CEQ's "old" use of the term for incomplete information) of maximum oil and gas leasing and extraction on air quality. When a proposal can result in a spectrum of effects, a worst case scenario should be discussed so that the maximum incremental contribution to a given adverse effect is clear. A projected contribution to local ozone levels should be shown relative to the maximum adverse effect from all other sources to demonstrate the extent of impact, with a clear statement of significance or not. Using CAA criteria applicable to CANY is essential since the park's ability to maintain air quality standards correlates to preservation of various park	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further	309, 427

Organization	Comment	Response	Comment ID
	resources, some of which, if compromised, would be irretrievable or irreversible resources. It would have been nice to see an estimate of how much carbon foot print all this resource extraction would contribute to our planet's climate issues. I'm aware it may not be much compared with the rest of the world but an acknowledgement that it would be a contributor should be there.	additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
National Parks Conservation Association	Under NEPA, the BLM has obligations to assess and report the near-field, far-field and cumulative impacts of expected emissions from the proposed project on the National Ambient Air Quality Standards (NAAQS), prevention of significant deterioration (PSD) increments, and air quality related values (AQRVs), and to identify alternatives or other mitigation measures sufficient to prevent expected violations of NAAQS, PSD increments and adverse impacts on AQRVs. (40 C.F.R. §§ 1502.14(a), (f), 40 C.F.R. § 1502.16(h) and 40 C.F.R. § 1508.27(b)(10)). The BLM must ensure its proposed actions adequately protect AQRVs and otherwise do not result in a violation of any Clean Air Act standard. Because the air impact assessment relied upon in the MLP DEIS fails to disclose potential violations or demonstrate that no Clean Air Act violations would flow from the proposed action, the BLM must (1) produce a more 11 comprehensive and robust air impact analysis inclusive of potential future increases in emissions and (2) develop a correspondingly rigorous mitigation and monitoring plan to ensure compliance with the Clean Air Act as well as the National Environmental Policy Act and the Federal Land Policy Management Act.	There is no proposed project. There are no potential violations. The analysis was not intended, nor would it be appropriate given the lack of site-specific information, to try to disclose actual impacts from unknown future projects. The analysis was intended to identify pollutants of concern so as to focus mitigation and stipulations on relevant issues.	452
National Parks Conservation Association	To remedy the deficiencies in the DEIS, we recommend the following be considered and implemented as necessary to meet the BLM's statutory and regulatory duties and protect the nation's Class I areas: --BLM must clearly disclose potential Clean Air Act violations.	There are no potential Clean Air Act violations.	453
National Parks Conservation Association	To remedy the deficiencies in the DEIS, we recommend the following be considered and implemented as necessary to meet the BLM's statutory and regulatory duties and protect the nation's Class I areas: • Reconcile VOC modeling deficiencies to generate models that accurately project future impacts and are predictive of total VOC emissions inclusive of fugitives.	Unknown to what this suggestion is referring to. NEPA does not require that new models be developed to do analysis, nor would that be very practical.	454
National Parks Conservation Association	To remedy the deficiencies in the DEIS, we recommend the following be considered and implemented as necessary to meet the BLM's statutory and regulatory duties and protect the nation's Class I areas: • Require mitigation measures to ensure that increased	There are no predicted violations of the ozone NAAQS due to VOC or NOx emissions from the Planning Area. As disclosed in the MLP/DEIS analysis, ozone is a regional issue of which Planning Area emissions comprise a minimal amount. The	455

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	NOx and VOC emissions projected for the range of Alternatives will not result in violations of ozone NAAQS generally, including at Canyonlands and Arches, given NAAQS concentrations in the area are already at or near current standards.	stipulations and controls proposed in the MLP/DEIS are intended to address the contribution of Planning Area emissions appropriately.	
National Parks Conservation Association	To remedy the deficiencies in the DEIS, we recommend the following be considered and implemented as necessary to meet the BLM's statutory and regulatory duties and protect the nation's Class I areas: • Establish monitoring requirements for PM to quantify impacts and develop adequate and enforceable control measures for PM to assure adequate protection of human health and welfare, including affects to Class I area visibility, flora and fauna, from oil and gas and potash development.	BLM is working with NPS and USGS to implement and maintain a dust-monitoring study in the Planning Area.	456
National Parks Conservation Association	To remedy the deficiencies in the DEIS, we recommend the following be considered and implemented as necessary to meet the BLM's statutory and regulatory duties and protect the nation's Class I areas: • Account for the cumulative impact of visibility impairing pollutants related to the proposed leasing plan alternatives in conjunction with existing and predicted emission increases in the region to accurately assess potential visibility impacts at all Class I areas potentially affected.	Potential visibility reducing emissions come from an extremely wide variety of sources spread out over a vast (west-wide) area. The CAA Regional Haze Rule is intended to address this issue.	457
National Parks Conservation Association	To remedy the deficiencies in the DEIS, we recommend the following be considered and implemented as necessary to meet the BLM's statutory and regulatory duties and protect the nation's Class I areas: • Ensure that increased emissions from leasing plan alternatives will not contribute to visibility impairment at any Class I area by issuing enforceable requirements that will effectively mitigate visibility impairing pollutants as necessary to assure compliance with CAA Section 169A.	The stipulations and mitigation proposed in the MLP/DEIS are intended to accomplish this.	458
National Parks Conservation Association	Critically, Williams (p.21-22) finds that "The failure of BLM to present a more accurate assessment of the potential air quality impacts from the proposed leasing plan alternatives—including potash production impacts, future ozone impacts, near-field NO2, PM and HAP impacts—and the failure of BLM to address modeled significant visibility and ecosystem impacts means BLM should commit to an adaptive management plan that begins with rigorous and enforceable mitigation measures and uses ongoing and periodic monitoring and additional assessment to manage the impacts of development that would be allowed to occur in the leasing plan area."	It is not a failure that BLM did not more accurately assess potash production, future ozone impacts, near-field NO2, PM and HAP impacts. Accurate information is not available to model for these parameters. The stipulations and mitigation proposed in the MLP/DEIS are intended to accomplish ongoing and periodic monitoring and additional assessment.	459
National Parks Conservation Association	As a starting point for addressing the shortcomings of the air quality analysis, under-predicted impacts and anticipated adverse environmental impacts including to Class I areas, it is fundamental that the lease stipulations require stringent, enforceable	Many of these recommendations are already in the proposed stipulations and/or mitigation. BLM will continue to analyze these issues at the project-specific stage. Through the use of adaptive management (exceptions, modification, waivers,	460

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	mechanisms for limiting emissions and thereby minimizing impacts to public health and ecosystems. At a minimum the following should be woven into applicable requirements: - Analysis of air quality impacts from potash processing - Maximize reductions of NOx emissions to reduce ozone concentration & associated visibility impacts - Reduce fugitive dust through field electrification, minimize traffic & traffic speed, require Tier 2 or better construction equipment - Implement an adaptive management program to improve and monitor mitigation measures based on periodic monitoring and modelling commitments - Require specific actions take place to prevent significant impacts - Establish more comprehensive monitoring - Implement a "self-certification" program to ensure compliance - Include mitigation measures to avoid or minimize greenhouse gas emissions - Assess mitigation measures for reducing impacts from methane emissions - Maximize reductions of methane emissions, which can also reduce VOCs and HAPs i.e. improves both impacts on climate change, ozone levels and air quality - Implement a Leak Detection and Repair program to address fugitive emissions from oil & gas operations	changes to Lease Notices, and changes to BMPs), the BLM could make adjustments to mitigation measures based on ongoing research, regulations, and review of development in the Planning Area.	
National Parks Conservation Association	As reflected in the Williams report, grave and unaddressed air quality concerns are pervasive in this DEIS. BLM has failed to satisfy its obligations under NEPA, FLPMA and the CAA that we fear may lead to demonstrable degradation at national parks and result in substantial CAA violations. We urge BLM to remedy the deficiencies identified above and consider alternatives and mitigation measures as detailed in the William's report.	The BLM disagrees with this characterization.	461
Individual	In chapter 2, Table 2.1 of the MLP considers imposing a requirement to file a fugitive dust control plan for disturbances of .25 acres or more. This is a very small threshold for disturbance. I do not know of any mineral activity that would require less than .25 acres. The BLM should just say that each and every time, you drive out to your oil lease you need to file a fugitive dust control plan. This stipulation needs to be removed from the MLP and a more reasonable threshold should be proposed.	The Utah Division of Air Quality requires a Fugitive Dust Control Plan on all disturbances greater than 0.25 acres. The BLM has incorporated this requirement into the alternatives for the MLP/DEIS. Trucks would be restricted to designated roads and permitted disturbances. If a proposed disturbance is greater than 0.25 acres, a Fugitive Dust Control Plan would be required.	498

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National Park Service, Southeast Utah Group	Predicted AQRV Impacts, Mitigation, and Stipulations 1) Visibility impacts: NPS is concerned that air modeling analysis conducted for the DEIS predicted significant impacts on visibility in both Canyonlands and Arches NPs. Specifically, for the high emissions scenario, the analysis predicted 254 and 119 days over the 0.5 deciview (dv) threshold and 105 and 15 days over the 1.0 dv threshold in Canyonlands and Arches NPs, respectively, over three modeled meteorological years. As noted in Chapter 4 of the DEIS, FLAG 2010 (which is predicated on the Environmental Protection Agency's Best Available Retrofit Technology guidance for defining visibility impacts) states that a "source whose 98th percentile value of the haze index is greater than 0.5 dv (approximately a 5 percent change in light extinction) is considered to contribute to regional haze visibility impairment. Similarly, a source that exceeds 1.0 dv (approximately a 10 percent change in light extinction) causes visibility impairment." By this definition, MLP associated oil and gas activities are predicted to "cause" visibility impairment in these parks. 2) Nitrogen deposition impacts: In the high emissions scenario, the modeling analysis also predicted that the NPS Deposition Analysis Threshold (DAT) of 0.005 kg/ha/yr for nitrogen (N) would be exceeded in all three modeled years in Canyonlands NP, and in the 2008 model year in Arches NP, indicating that the contribution to N deposition may be significant. This is despite the fact that the emissions inventory used in the modeling analysis may be missing significant sources of NOx emissions associated with MLP activities, including flaring of associated gas, pumpjack engines and compressor engines. 3) AQRV impacts from Ozone: As noted elsewhere in our comments, we also are concerned about potential ozone impacts to vegetation - an issue that was not addressed in the AQRV impact assessment in the DEIS. Sensitive vegetation can be harmed by ozone at levels lower than the current ozone standard, and in Canyon lands, measured ozone concentrations and cumulative doses at the park are high enough to induce foliar injury to sensitive vegetation under certain conditions. This also is an impact concern in nearby Arches National Park. For this reason, future increases in ozone precursor emissions are of concern, and we recommend that ozone impacts to AQRVs be discussed in the document. 4) Potential underestimate of modeled emissions and impacts: We believe that even the high emissions scenario modeled may underestimate potential emissions and resulting visibility and deposition impacts due to the omission of potash production and processing and potential oil and gas NOx sources from the emissions inventory. We elaborate on this issue in our detailed	1) BLM agrees with NPS that according to the modeling conducted for the MLP, visibility has the potential to be adversely impacted by emissions of particulate matter due to proposed development. While there appears to be no distinct indication that visibility is being impacted currently at the IMPROVE site in Canyonlands National Park, and also that it is unlikely at least in the near term that oil and gas development activities will increase from their current pace. The mitigation and post-MLP study activities are designed to address this, and will be used to define and implement appropriate control standards and mitigation for any future projects proposed and analyzed in the project area. 2) As NPS recognizes, modeled nitrogen deposition impacts exceed the NPS Deposition Analysis Threshold (DAT). As there already is development in the Planning Area, it would be informative to study actual, rather than modeled, nitrogen deposition in the Parks to determine how accurate the modeling is. BLM is interested in pursuing this field of inquiry, and welcomes suggestions from NPS on how that might be accomplished. 3) As disclosed in the analysis for the MLP, ozone impacts are primarily a function of regional ozone concentrations and emissions. The MLP/DEIS includes mitigation and stipulations to minimize contributions to this issue, but an ultimate solution is beyond the scope or ability of the MLP to address. 4) Future potash production and processing are likely to result in greater overall emissions of some pollutants in the Planning Area. Given the uncertainty and inability to know what these emissions would be, where they would occur, and when they would occur, it is not possible to analyze their modeled contribution to possible future emissions scenarios. If and when specific development plans are submitted to BLM, a comprehensive analysis will be done. 5) The current NOx RICE stipulation represents Best Available Control Technology (BACT) for this emission source, and is more restrictive than current Federal or State regulation. Given that NOx sources in the Planning Area do not contribute significantly to regional ozone, (in fact comprising a very small portion of overall emissions) it is not supportable or reasonable to require additional control restrictions on RICE NOx engines. As stated in Chapter 2 (Section 2.1), the stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical	531

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	comments concerning the adequacy of the emissions inventory. • Stipulations and mitigations: Ultimately, it is adequate resource protections that are of greatest importance to the NPS. Accordingly, we offer a number of recommendations to improve resource protections conferred by the air quality stipulations that are included in Alternatives B, C, and D and listed in Tables 2-1 and A-1 of the DEIS. Below, we refer to these as Air Quality Stipulations 1, 2, and 3 based on their ordering in Table A-1. 5) Air Quality Stipulation 1. This stipulation requires NOx emission limits for gas field internal combustion engines (ICE) of 2 grams of NOx per HP-hr for engines less than 300HP and 1 gram of NOx for engines greater than 300 HP. Due to our concerns about potential visibility impairment and N deposition, and consistent with input that we have provided previously, we ask that BLM strengthen this CSU stipulation by adopting more stringent NOx emissions standards for ICE that currently are being by implemented by the states of Texas and New Mexico. In addition, to the extent applicable, we recommend that the stipulation be revised to explicitly state that MLP NOx requirements also apply to engines used for solution mining potash production (e.g. pumping engines). Finally, based on our comments regarding the stringency of the stipulation, we ask that the modification criterion proposed for this stipulation in Table A-1 (p. A-3) be revised to address the potential need to make the NOx requirements even more stringent in the future based on subsequent analyses or monitored impacts, or to reflect future improvements in possible control measures. Our recommended changes are provided below in red text: 6) "Modification: The Authorized Officer may modify the stated requirements in accordance with updated specifications to comply with the Clean Air Act, or as deemed necessary to ensure that the stipulation is sufficient to maintain air quality and protect AQRVs." We suggest that this expanded modification criterion represents an adaptive-management approach to emission limitations that is consistent with adaptive-management principles outlined in BLM Instruction Memorandum No. 2010-117 (Oil and Gas Leasing Reform). It also reflects greater consistency with adaptive-management language specified in the general modification criterion: "The Authorized Officer may modify a stipulation as a result of new information if .... 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP ... " (Appendix A, p. A-2, emphasis added). Incorporating adaptive management into this modification	exploration. Therefore, the stipulations outlined in Table 2-1 (Air Quality) apply to potash and well as oil and gas operations. 6) BLM agrees that modification of the stipulations may be necessary under certain conditions, as specified in BLM Instruction Memorandum No. 2010-117 (Oil and Gas Leasing Reform), and will follow this guidance when considering any future modifications to stipulations required through the MLP. ***Text has been added to Appendix A (Table A-1) to the CSU stipulation for air quality and greenhouse gases to clarify that the general modification also applies as specified in Appendix A (Section A.1.2).*** ***7) Exceptions and waivers for air quality stipulation 2 in Appendix A (Table A-1) for drilling and production operations have been changed. No exceptions or waivers would be granted.*** ***8) The CSU stipulation requiring a Fugitive Dust Control Plan has been revised to include mineral activities involving truck traffic on unpaved or untreated surfaces. The text has been added to Chapter 2 (Table 2-1) and Appendix A (Table A-1).***	

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	criterion may address some of the NPS concerns regarding the potential underestimate of air quality impacts. 7) Air Quality Stipulation 2. This stipulation establishes a set of five minimum standards for control of NOx and VOC from various oil and gas emission sources. Since BLM explicitly identifies these as "minimum standards," we suggest that it is inappropriate to allow exceptions or waivers to the stipulation. We ask that the exception and waiver criteria for this stipulation be revised to read "none," consistent with Air Quality Stipulation I. We also ask that the modification criterion be revised following our previous recommendation for Air Quality Stipulation I to better reflect an adaptive management approach. 8) Air Quality Stipulation 3. This stipulation requires a Fugitive Dust Control Plan (FDCP) for all mineral activities that would disturb a surface area larger than 0.25 acre. Because modeling analysis and visibility results indicated that PM10 is the primary pollutant of concern for MLP-related activities, and because PM10 emissions primarily were attributable to road dust generated by truck traffic on unpaved roads, we recommend that this stipulation be revised to explicitly address dust generated by truck traffic on unpaved surfaces. Given the extent of existing unpaved roads in the planning area, activities that do not disturb more than 0.25 acre still have the potential to generate significant dust emissions if they result in greater traffic on existing unpaved road surfaces. We recommend the following revision – "Throughout the Planning Area, apply a CSU stipulation requiring a Fugitive Dust Control Plan for mineral activities that would disturb a surface area larger than 0.25 acre, or that would result in greater truck traffic on unpaved or untreated surfaces." We note that the emissions scenarios included in the DEIS air modeling analysis assumed varying levels of road paving, and that road paving has a very strong impact on dust emissions attributable to well-servicing traffic. To estimate road dust emissions, each scenario assumed 40 total miles driven per vehicle trip, but assumed that 20 miles per trip occurred on paved roads versus unpaved roads in the high emissions scenario, 30 miles occurred on paved roads versus unpaved roads in the medium emission scenario, and 35 miles occurred on paved roads versus unpaved roads in the low emissions scenario. (Each scenario also assumed varying effectiveness of dust-control efforts - 50%, 50%, and 70% for the high, medium and low scenarios respectively.) However, the dust mitigation stipulation that is proposed in the DEIS does not actually reflect the assumptions (i.e., road paving) included in the analysis.		

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	Considering the significance of PM10 and dust in the MLP planning area, we recommend that minimum requirements or specifications for FDCPs be identified in the MLP document, and note that it is inappropriate to allow exceptions or waivers to the stipulation. We ask that the exception and .waiver criteria for this stipulation be revised to read "none," consistent with Air Quality Stipulation 1 and our recommendations for Air Quality Stipulation 2. We also ask that the modification criterion be revised following our recommendation for Air Quality Stipulation 1 to explicitly reflect an adaptive management approach.		
National Park Service, Southeast Utah Group	Disclosure of NPS Views Regarding AQRV Impacts We recommend that the Final EIS include a discussion of NPS concerns regarding predicted AQRV impacts in Canyonlands and Arches NPs. Such a discussion would be consistent with Section V.E.6 (c) of the Interagency Memorandum of Understanding Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process (MOU). This section of the MOU is predicated on Council on Environmental Quality regulations that require disclosure of a cooperating agency's views on the impacts to lands they manage, and suggests that BLM should discuss NPS views regarding AQRV impacts and potential mitigation measures in the body of the NEPA document. Adequacy of the Emissions Inventory 1) Potash mining: We suggest that the bulleted lists of modeling analysis assumptions for each emissions scenario (high, medium, low) found on pages 4-5, 4-6 and F-2 of the DEIS be revised to indicate that emissions from potash drill rigs were the only potash-associated emissions included in the analysis, and that emissions from potash production and processing were not included in any of the modeling scenarios. Although this is stated in the first paragraph following the bullet list on page 4-6, as well as on page F-4, we suggest that clarity would be improved by explicitly noting in the bullet lists for the three emissions scenarios that emissions from potash production and processing were not included. Although we understand that emissions from potash production and processing were not included in the modeling due to the high degree of uncertainty involved, this omission has significant implications for the interpretation of modeling results and therefore warrants greater attention in the discussion of potential impacts on air quality and AQRVs. Based on information presented in the Reasonably Foreseeable Development Scenario for Potash (potash RFD, BLM 2014), potash mining operations may rival oil and gas operations in terms of surface acres disturbed due to well pad development, numbers of wells drilled, and solar evaporation ponds	1) As NPS notes, the analysis assumption that emissions from potash drill rigs were the only potash-associated emissions included in the analysis was disclosed in the first paragraph following the bullet listed in Chapter 4 (Section 4.3.2 Far-field Dispersion Modelling Analysis), as well as in Appendix F (Section F.2.2, Modelling Methodology). Additional reiteration of this would serve no purpose. 2) BLM agrees that PM10 emissions represent the most likely pollutant of concern for activities analyzed under the MLP/DEIS, and that the analysis is necessarily constrained by lack of accurate knowledge of future site-specific activities and emissions. The stipulations, mitigation, and adaptive management (exceptions, modifications, and waivers) contained and disclosed in the MLP/DEIS is intended to address this issue. 3) All of the uncertainties and exclusions pointed out by NPS are the result of having no actual site-specific devolvement plans to analyze. This is the reason the MLP/DEIS air analysis specifically and clearly emphasizes that the analysis was NOT a representation of actual site-specific development, and was not intended to represent such. It is simply not possible to accurately predict future development to the specificity NPS is indicating here, and to attempt to do so and present it as a reasoned analysis would be contrary to the purpose of this NEPA analysis. The analysis conducted was solely to try to identify what pollutants might be of most concern related to oil and gas development, and to address those concerns through appropriate mitigation. It cannot be overstated, but an attempt to try to specifically define all the parameters NPS rightly notes were missing in the analysis would result in a set of assumptions so speculative as to render any analysis meaningless when it comes to predicting actual impacts from actual future development. As projects are proposed in the Planning Area, and as future planning efforts are analyzed,	548

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	and processing plants; and is similar to oil and gas operations in terms of the types of equipment used, including drill rigs and pumping units for solution mining. For instance, the potash RFD assumes that a total of 3,985 surface acres could be disturbed for solar evaporation processing and 1,815 surface acres could be disturbed for crystallization processing, not including reclamation acres (Table 6, BLM 2014). In contrast, the oil and gas RFD (BLM 2012) assumes a total of 1,368 acres of total surface disturbance for oil and gas development activities (excluding reclamation) over the life of the MLP (Table 7, BLM 2012). 2) The analysis for oil and gas impacts demonstrated that particulate (PM10) emissions were responsible for a majority of the predicted visibility impacts. Based on the emissions inventory, the majority of these PM10 emissions was attributable to construction-related activities, including well pad construction, haul road traffic, and wind erosion (however the NPS continues to have concerns related to PM10 emissions from production activities including ongoing dust emissions from disturbed areas, truck traffic on unpaved roads, and well pad servicing traffic). Potash development would entail similar types of PM10-producing activities. If potash development were to occur at even half the level of what was predicted in the RFD, the impacts to visibility from PMIO could be significantly underestimated in the DEIS, as these emissions were not considered in the modeling analysis. This underscores the need for adequate stipulations and an effective and adaptive strategy for dust mitigation. 3) We note that all drill rigs included in the modeling analysis were assumed to produce the same quantity of emissions (e.g., same engine size and rating, and thus same emission factors). But it remains unclear whether potash rigs will be the same HP rating and engine class (tier) as oil rig engines, or whether potash rigs will be operated under the same load assumptions as oil rigs. We suggest that these additional uncertainties be discussed in the final EIS with respect to their implications for modeling results, potential impacts, and necessary mitigations. - Spatial configuration of emissions sources: BLM acknowledges (e.g., p. 4-5) that the air modeling analysis did not reflect an evaluation of the specific alternatives included in the DEIS. Thus the spatial configuration of modeled oil and gas emission sources and potash emission sources did not correspond with the spatial configuration of key leasing stipulations (e.g., closed to mineral leasing, open to mineral leasing with no surface occupancy, and open to mineral leasing with controlled surface use and timing limitations} that differ significantly among the four alternatives under consideration. We suggest that this be discussed in Chapter 4 with	more specific data and analysis will become practical and implemented at that time.	

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	respect to implications for modeling results and potential impacts on air quality and AQRVs in Arches and Canyonlands. - Compression and gas processing assumptions: In the modeling analysis, it appears that no additional field gas compression was assumed based on the pumps and compressors tab in the emission inventory excel spreadsheet. Further, compressors do not appear to be included in the point source group (input group 13) in the CALPUFF files. We question whether this is appropriate considering the amount of associated gas that is being produced from existing wells in the MLP area, evidenced by the recent construction of a gas processing plant and pipeline. In addition, it is unclear whether existing gas infrastructure was included in the modeling analysis. The 2011 National Emissions Inventory (NEI) published by EPA indicates that there are two gas plants in the vicinity of the MLP planning area - Grand Gas Gathering Plant near Cisco, and the Lisbon Gas Plant near La Sal. Neither of these are reflected in the emissions inventory associated with the modeling analysis, but we suggest that it would be appropriate to include them for purposes of a cumulative impact assessment. We note that the omission of these NOx emission sources may have resulted in underestimates for N deposition impacts in nearby Class I Arches and Canyon lands, as well as underestimates for NOx contributions to visibility impairment. Accordingly, we suggest that implications of these NOx omissions be explicitly addressed in Chapter 4 when interpreting modeling results and potential impacts on air quality and AQRVs. - Artificial lift engine assumptions: It does not appear that artificial lift engines are included in the emission inventory spreadsheets or the CALPUFF modeling (the summary tab reflects O emissions for compressors and well pumps). Given that existing oil and gas development in the MLP planning area includes this equipment, we question whether this omission is appropriate. We suggest that this issue be addressed in Chapter 4, in terms of its implications for NOx emissions and N deposition and visibility impacts in nearby Class I Arches and Canyon lands. - Other miscellaneous engine assumptions: We note that other miscellaneous engines were not included in the emissions inventory although they may be present at well sites and therefore appropriate to include as volume sources in the modeling analysis. We suggest that this issue also be addressed in Chapter 4 in terms of its implications for NOx emissions and N deposition and visibility impacts in nearby Class I Arches and Canyonlands. - Flaring: While completion flaring is included in the emission inventory spreadsheet (it appears it is reflected at drilling sites in the CALPUFF point source input group 13), gas flaring during production does not appear to have been included in the emission		

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	inventory or CALPUFF modeling analysis. Because DEIS alternatives do not prohibit flaring and only seek to minimize it, we question whether it is appropriate to omit this emission source. We suggest that this issue be addressed in Chapter 4 in terms of its implications for NOx emissions and N deposition and visibility impacts in nearby Arches and Canyon lands. - Hydrogen sulfide and flaring: The oil and gas RFD (BLM 2012, p. 10) notes that "The Mississippian age Leadville Limestone is known to contain naturally high concentrations of H2S. Fields producing from this formation in the MMLPA have potential to encounter H2S." However, flaring of H2S was not included in the emissions inventory and modeling analysis despite the fact that it has the potential to impact visibility. We suggest that this issue be addressed in Chapter 4 as well. - Load factor and rating assumptions for drill rigs: In the modeling analysis, drill rigs were assumed to have an average load factor of 42 percent and a 750 HP rating. We suggest that additional information and justification for these assumptions be provided in the technical support document for the modeling analysis (Appendix F). - Potential underestimate of the oil and gas RFD: We note that the DEIS (p. 3-37) acknowledges recent advances in application of oil-based hydraulic fracturing (HF) techniques to stimulate production of initially unsuccessful wells in the Big Flat area. Although HF was mentioned in the oil and gas RFD (BLM 2012, pp. 11, 14), it received relatively little emphasis as a factor affecting the future potential for oil and gas development in the MLP planning area. Assuming the price of oil eventually recovers from its current low during the planning life of the MLP, that continuing advances in HF techniques improve well success and production, and that recent estimates of undiscovered oil and gas resources in the planning area (Whidden 2012) represent an improvement relative to the 1995 National Assessment (Gautier et al. 1996), we suggest that future industry interest and development potential in the MLP area may exceed the levels that were originally anticipated in the oil and gas RFD. Assumed levels and rates of development can have a profound impact on the emissions assumptions, resulting predictions of air quality impacts, and conclusions about the types of stipulations and mitigations that are required to ensure adequate protections for air quality and AQRVs. These considerations provide further support for our recommendations to revise the air quality stipulations to include an adaptive management approach to air quality mitigations.		

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National Park Service, Southeast Utah Group	Miscellaneous Comments on Air Quality Sections of the DEIS Chapter 3, Affected Environment, Section 3.1, Air Quality 1) Section 3.2.2, Table 3-6 National Ambie11t Air Quality Standards: This table incorrectly lists the PM2 5 standard as 15 ug/m3 for the annual averaging period. The annual standard was revised to 12 ug/m3 in 2012. 2) The table also requires updating to reflect the new ozone standard established by EPA on 1 Oct 2015. - Section 3.2.2 - Ozone: This section (p. 3-6) states: "Currently, air quality is good within the Planning Area; however, because the EPA and Utah DEQ are continually reassessing air quality standards, compliance may be harder to achieve in the future, thereby making constant and effective planning and management for the control of specific project pollutant emissions more challenging." We recommend that this section be revised to indicate that current air quality conditions are just below the new 2015 NAAQS for ozone of 70 ppb. For this reason, future increases in precursor emissions are of concern. We also recommend noting that sensitive vegetation can be banned by ozone at levels lower than the current ozone standard, as this is an AQRV impact of concern both in Canyonlands and Arches. In Canyonlands, measured ozone concentrations and cumulative doses at the park are high enough to induce foliar injury to sensitive vegetation under certain conditions. Dry conditions in the park cause plant stomates to close, limiting ozone uptake. But in moist areas along streams and seeps, plants may keep stomates open more often, allowing ozone uptake and subsequent injury (Kohut et al. 2012). Ozone-sensitive plant species at the park include Salix gooddingii (Goodding's willow) and Pinus ponderosa (ponderosa pine) (Kohut 2004). Both long-term (1993-2013) and 10-year (2004-2013) trends in ozone at Canyonlands show no statistically significant trends in ozone levels in this park (ozone has remained relatively unchanged). But because ozone concentrations have been at or near the current ozone standard, increases in precursor emissions within the region are of concern. The NPS rates ozone as a significant concern for vegetation health in Canyonlands NP and a moderate concern for human health impacts. The NPS rates ozone as a moderate concern for vegetation health and human health impacts in Arches NP. We ask that this information be disclosed in this section of the EIS. 3) Tables 3-8, 3-9, 3-10, and 3-JJ: We recommend that values in these tables be updated to reflect the most recent status-and-trends report available from the NPS Air Resources Division (NPS 2013). We also recommend that the descriptions of current ozone	***1) The PM 2.5 standard in Chapter 3 (Table 3-6, National Ambient Air Quality Standards) has been changed from 15 to 12 ug/m3.*** 2) The statement in the MLP/DEIS is correct. The Planning Area is in compliance with the revised ozone NAAQS. Current regional ozone conditions are adequately explained in the MLP/DEIS. 3) The 2013 status-and-trends report from NPS only contains status and trends from 2000 to 2009. This is what is disclosed in the MLP/DEIS. BLM is not aware of any other publically available data set with more current numbers. ***4) Text has been added in Chapter 3 (Section 3.2.2, Visibility) as suggested by the NPS regarding visibility trends at Canyonlands National Park.*** 5) The sentence in question clearly states man-made sources of dust can also impact visibility. 6) There are uncertainties associated with every emissions inventory ever conducted. It is not necessary to make qualifying statements every time this sort of data is used. 7) The MLP is not intended to be a comprehensive treatise on all air quality related issues. The reader, if interested, can follow up on the science behind the analysis, but explaining in detail every aspect of the background to the science would make the document encyclopedic. ***The reference to Fox 1989 and the associated text has been removed.*** 8) This is background information that is not necessary to the analysis, but rather an encyclopedic discussion of ongoing research. 9) Chapter 3 of the MLP/DEIS acknowledges that oil and gas activity contributes to greenhouse gas emissions. Chapter 4 provides more detailed acknowledgment that leasing decision in the MLP/DEIS will have implication on greenhouse gas emissions. In Chapter 4 (Section 4.3.2,Greenhouse Gas Analysis) it is stated that "GHG emissions were derived for the projected development for each alternative using an emissions calculator developed for BLM specifically for oil and gas operations." Furthermore, Table 4-14 provides estimated greenhouse gas emissions by alternative. 10) This is background information that is not necessary to the analysis, but rather an encyclopedic discussion of ongoing research.	549

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	conditions immediately following Table 3-9 be revised to reflect the new ozone standard of 70 ppb. 4) Sectio11 3.2.2- Visibility: This section discusses visibility trends at Canyonlands NP. We recommend revising to cite the most recent NPS 10-year trend data, which demonstrate that visibility trends remain relatively unchanged (not a statistically significant trend) on the 20% best and 20% worst visibility days in Canyon lands from 2004 through 2013. We ask that the following information be incorporated in the text of this section: The NPS calculates 10 year trends using a non-parametric regression technique called the Theil method to determine statistically significant trends of ozone, wet deposition, and visibility. Trends are considered statistically significant if they have at least 90% probability of being correct (those with p-values ≤ 0.10). Statistically significant (p-value ≤ 0.10) trends with zero slope or sites with no statistically significant trend are considered to remain unchanged. While long term (1991-2013) trends at Canyonlands show statistically significant improvement (a slope of -0.12 dv per year improvement on the 20% best days and a slope of-0.08 dv per year improvement on the 20% worst days), the most recent 10 year period indicates that this improving trend has not been maintained. While both the long term and 10-year trends are of interest, the NPS uses the I 0-year trends for tracking air quality conditions in parks. In part, this is because recent changes are important when evaluating continued progress towards visibility goals, particularly for parks where changes in emissions, industry and/or development are occurring in the region, such as Canyonlands. - Visibility, p. 3-9: The following statement is found in the third paragraph of this section: "While some visibility impairments are the result of natural sources such as windblown dust and soot from wildfires, which cannot be controlled; manmade sources of pollution can also impair visibility." 5) We recommend revising this statement to avoid the implication that all sources of windblown dust are natural and uncontrollable, given extensive evidence for accelerated dust emissions attributable to various human land-use practices that could be managed to better control and reduce dust emissions and associated downwind impacts (e.g., Neff et al. 2008). This statement also tends to undermine conclusions reached elsewhere in the document that dust emissions associated with oil and gas development are the largest contributor to modeled visibility impacts in the nearby Class I areas, as well as the assumption that dust can be controlled through mitigation measures.	11) The details of the modeling analysis are presented in Appendix F of the DEIS, and contain sufficient detail to disclose how the modeling was conducted. 12) PSD increment analysis is intended to analyze impacts from actual projects. As already stated, the modeling analysis conducted for the MLP was not intended, nor would it be appropriate, to try to represent actual development impacts. Drawing conclusions related to PSD increment consumption would be wholly inappropriate for an analysis of this sort. 13) A summary of previous near-field modeling done for other projects in the Planning Area is more appropriate for purposes of condensing the analysis and making it more reader friendly (Chapter 4, Section 4.3.2, Near-Field Analysis). The intent of providing this analysis is to disclose the type of analysis that may be conducted for future projects, and what the associated impacts are likely to be. Near-field modeling and impacts tend to be consistent when specifications (e.g. release height, emission rates) are similar.	

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	6) Discussion of county-wide emissions inventory information, Table 3-7: Inventory information presented in this table indicate that area sources comprise the second largest contributor to NOx emissions and the largest contributor to PM10 emissions in Grand and San Juan Counties. These area sources presumably include oil and gas sources. In addition, state inventory data summarized for the purposes of National Emissions Inventory Reporting (NEI) likely underestimate oil and gas source emissions, as the NEI is known to underestimate/under report emissions from this source category. We recommend that this be noted in the document. 7) Sectio11 3.2.2-Atmospheric deposition: We recommend revisions to this section, as it does not discuss the potential effects of excess N deposition to terrestrial ecosystems (it only addresses acidity), or current cumulative N deposition in nearby Arches and Canyonlands specifically. Further, this section includes a map (Fig. 3-1) of critical load exceedances from the NPS critical loads website, 10 but the map lacks a key that would enable the reader to interpret the map colors, and the text does not explain what a critical load is, how it can be used as a tool for planning and air-resource management, or current levels of N deposition at Canyonlands and Arches NPs relative to estimated critical loads. Further, discussion on page 3-10 references outdated information from Fox et al. (1989) to address current conditions with regard to deposition in the region. We suggest that this reference be removed from the document. 8) The following summarizes NPS information and conclusions regarding the current status of deposition and ecosystem effects in Canyonlands and Arches. We recommend that the deposition sections in Chapter 3 be revised to incorporate this information: Nitrogen (N) and sulfur (S) compounds deposited from air pollution can harm vegetation, soils, and surface waters throughout Canyon lands and Arches NPs. Nitrogen acts as a fertilizer and can disrupt soil nutrient cycling, alter plant communities, and contribute to over enrichment and eutrophication. Arid ecosystems are particularly vulnerable to changes caused by N deposition. Ecosystem sensitivity to nutrient N enrichment at Canyonlands NP relative to other national parks is very high (Sullivan et al. 2011a,b). Research conducted near Canyon lands and Arches NPs found that experimental N additions resulted in unexpected large increases in the growth of invasive exotic Russian thistle, also known as tumbleweed (Schwinning et al. 2005). This finding is similar to results of research conducted in the arid Mojave Desert, where N deposition has been found to promote invasions by fast-growing exotic annual grasses such as red brome (Brooks 2003, Allen et al. 2009). Increased cover of exotic grasses can increase fire risk (Rao		

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	et al. 2010), with profound implications for biodiversity in non-fire adapted ecosystems. Nitrogen, together with S, also can acidify surface waters and soils. Given the abundance of base cations in underlying park soils and rocks, surface waters in Canyonlands NP are generally well-buffered from acidification. However, the park's pothole aquatic systems, given their small size, may be sensitive to acid inputs. Additionally, small streams with steep-sided canyon walls in the park have little ability to retain nutrients and water, offering the landscape little opportunity to buffer potentially acidic run-off (Sullivan et al. 2011c,d). Current N wet deposition is relatively low at Canyonlands and Arches NPs. Although the wet deposition of ammonium, an indicator of nearby agriculture, has increased in recent years, oxidized N from power plants, vehicles, oil and gas development, and fires still dominates the total N input (NPS 2013). Critical Loads Nitrogen (N) is a fertilizer and some N is necessary for plants to grow. However, in natural ecosystems, too much N disrupts nutrient cycles and plant community dynamics, allowing weedy plants to thrive. Studies are now underway to estimate the "critical load" of N for plant communities in the Canyon lands area. A critical load is the level of deposition below which harmful effects to an ecosystem are not expected. A critical load of3 kilograms N per hectare per year (kg N/ha/yr) has been suggested to protect herbaceous plants and shrubs in the North American Desert Ecoregion, which includes portions of Canyon lands and Arches NPs (Pardo et al. 2011). This study estimated that current N deposition in in these parks is approximately 2.0 kg/ha/yr, suggesting that increases in N emissions and deposition in the region could place native plant communities at greater risk for harmful effects. Levels ofN deposition that are at or just below a critical load value for a particular ecosystem are of significant concern to the NPS, and emissions that contribute to increases in regional N deposition should be mitigated to avoid harmful effects to these ecosystems. 9) Climate change: In the climate change section of Chapter 3, general types of MLP actions that contribute to greenhouse gas (GHG) emissions are listed, including fossil fuel combustion. Although this section (p. 3-13} does acknowledge that oil and gas production and transportation generate GHG (methane) emissions, there is no explicit acknowledgement that leasing decisions in the MLP will have implications for GHG emissions and that the alternatives identified in Chapter 2 may differ in resulting levels of GHG emissions. According to data collected under EPA's GHG		

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	reporting rule, the oil and gas production, transmission, and distribution industry is second only to power plants in terms of national GHG emissions, emitting 224.1 million metric tons of C02 equivalent in 2013 13. EPA estimates that the oil and gas industry is the leading source of methane emissions in the United States. We suggest that BLM consider identifying and addressing this issue in the EIS. 10) Windblown dust: Given the significance of dust in the air quality analysis in Chapter 4, we recommend that this section be revised to discuss dust as an air quality issue in greater detail. We suggest that the following information be incorporated into Chapter 3: High dust emissions can adversely affect air quality, visibility, and human health. Arid environments, including most of the Colorado Plateau region surrounding Canyon lands and Arches NPs, are particularly prone to dust emissions due to a combination of longterm aridity, sparse plant cover, and sensitive soil surfaces (Neff et al. 2013). While dust concentrations are exacerbated by various activities such as soil disturbances and severe wind episodes, these events vary greatly in both space and time (Flagg et al. 2014). Recent analyses of precipitation chemistry indicate a significant increasing trend in calcium deposition throughout the inter-mountain west during the period 1994-2009, including a 263 percent increase in calcium concentrations measured in precipitation at Canyon lands NP (Brahney et al. 2013). Researchers attribute this pattern to increasing emissions of calcium-rich dust from soil. In addition to effects on air quality, visibility, and human health, dust deposited on snow can cause the early onset of snowmelt, with effects on runoff (Painter et al. 2010). BLM and NPS currently are collaborating with the U.S. Geological Survey and academic researchers to monitor dust emissions and to conduct research that aims to better understand factors contributing to spatial and seasonal patterns of dust emissions in the region. Chapter 4. Environmental Consequences. Section 4.3.2. Air Quality 11) NAAQS results: We recommend that this section be revised to describe results of the modeling analysis in greater detail. For example, the text (p. 4-6) notes that modeling results predicted no exceedances of the NAAQS for any pollutant, and that reported values in Table 4-3 represent maximum modeled concentrations, but it does not appear that values in Table 4-3 include estimated background concentrations. Please note that the analysis should account for background concentrations for comparison to the NAAQS. 12) In addition, data presented in Table 4-3 do not evaluate concentrations in comparison to the increments and significant		

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	impact levels. Because the MLP area is adjacent to two Class I areas, the analysis should report the concentrations in nearby Arches and Canyonlands NPs in comparison to the applicable Class I significant impact levels and increments for each pollutant as a benchmark for impact evaluation. It is appropriate for the analysis to acknowledge that increment comparisons in NEPA documents do not represent regulatory increment analyses (nor are they required to do so). However, it is useful to include increment comparisons in the document because even though oil and gas operations are not considered PSD (Prevention of Significant Deterioration} sources, oil and gas emissions do consume increment. (Minor sources are increment consumers once the minor source baseline date has been triggered, as is the case in this part of Utah.) 13) Near-field analysis: We recommend that this section be revised to more clearly justify and establish the applicability of previous project-specific near-field modeling results to the MLP. For example, if previous modeling inputs (e.g., meteorology, terrain, emissions and control options) are assumed to be representative of typical operations and conditions that could occur throughout the MLP planning area, we suggest that this be stated explicitly. Rather than incorporating the entirety of the results generated by each of these analyses (Cane Creek and Gasco), it may be more helpful to summarize previous analyses, pertinent results, and how this information is relevant and applicable to MLP decisions.		
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Approximately 334,000 acres are proposed (under alternative D) as available to lease for oil and natural gas development, on top of the 228,000 acres that are currently “authorized or pending.” Within this area as many as 232 additional oil and gas wells could be drilled between 2015 and 2030, according to the DEIS. Although the DEIS fails entirely to disclose the potential total fossil fuel production and carbon emissions from those wells, analysis of its fiscal impact discussion reveals that BLM anticipates production of as much as 97,852,980 barrels of oil over 15 years.	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. The development scenarios included with the range of alternatives were analyzed for potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources.	571
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Every step of the lifecycle process for development of these resources results in significant carbon emissions, including but not limited to: • End-user oil and gas combustion emissions. The combustion of extracted oil and gas will add vast amounts of carbon dioxide to the atmosphere, further heating the climate and moving the Earth closer to catastrophic and irreversible climate change. Though much of the oil is used as gasoline to fuel the transportation sector, the produced oil may also be used in other types of products. The EIS should study all end-uses as contributors to climate change.	This level of analysis would not only be extremely difficult to study and accurately document, but it is also outside the scope of the plan. The MLP/DEIS and the impact analysis of the alternatives is focused on the Planning Area and resources adjacent to the Planning Area. The plan has defined a specific area where the decisions will apply and analysis will take place to maintain consistency of analysis and to prevent an overly-lengthy document. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and	572, 573, 574

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	• Combustion in the distribution of product. To the extent that distribution of raw and end-use products will rely on rail or trucks, the combustion of gasoline or diesel to transport these products will emit significant greenhouse gas emissions. • Emissions from Refineries and Production. Oil and gas must undergo intensive refinery and production processes before the product is ready for consumption. Refineries and their auxiliary activities constitute a significant source of emissions.	Wildlife Service, and U.S. Forest Service. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Every step of the lifecycle process for development of these resources results in significant carbon emissions, including but not limited to: • Vented emissions. Oil and gas wells and operations may vent gas that flows to the surface at times where the gas cannot otherwise be captured and sold. Vented gas is a significant source of greenhouse gas emissions and can also pose a safety hazard. • Combustion during construction and extraction operations. Operators rely on both mobile and stationary sources of power to construct and run their sites. The engines of drilling or excavation equipment, pumps, trucks, conveyors, and other types of equipment burn large amounts of fuel to operate. Carbon dioxide, methane, and nitrous oxide (another potent greenhouse gas) are emitted from oxidized fuel during the combustion process. Engines emit greenhouse gases during all stages of oil and gas recovery, including drilling rig mobilization, site preparation and demobilization, completion rig mobilization and demobilization, well drilling, well completion (including fracking and other unconventional extraction techniques), and well production. Transportation of equipment and chemicals to and from the site is an integral part of the production process and contributes to greenhouse gas emissions. Gas flaring is another important source of carbon dioxide emissions. • Fugitive emissions. Potent greenhouse gases can leak as fugitive emissions at many different points in the production process, especially in the production of gas wells. Recent studies suggest that previous estimates significantly underestimate leakage rates. New research shows methane leakage from some gas wells may be as high at 17.3 percent. Recent research from Pennsylvania shows that following abandonment, oil wells can serve as leakage pathways for methane to shallow groundwater aquifers and the atmosphere. Leakage can also occur during storage, processing, and distribution to customers.	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	575, 576, 577

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Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Methane emissions make a significant difference in part because the greenhouse gas warming potential of methane is 87 times that of carbon dioxide over a 20-year period. The oil and gas sector is a leading source of global methane emissions, accounting for approximately 30 percent of U.S. methane emissions, and is expected to be one of the most rapidly growing sources of anthropogenic methane emissions in the coming decades. A no-leasing-no-fracking alternative would curb all of the above sources of greenhouse gas emissions within the planning area, consistent with national policies to reduce climate-warming pollution. As stated in the President's Climate Action Plan: While no single step can reverse the effects of climate change, we have a moral obligation to future generations to leave them a planet that is not polluted and damaged. Through steady, responsible action to cut carbon pollution, we can protect our children's health and begin to slow the effects of climate change so that we leave behind a cleaner, more stable environment.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM's proposed mitigation is intended to sustain this excellent air quality.	578
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The Final EIS must weigh the no-leasing-no-fracking alternative's climate-change benefits against the impacts of allowing new leasing and fracking, and address the following: 1. Sources of Greenhouse Gases BLM should perform a full analysis of all gas emissions that contribute to climate change, including methane and carbon dioxide. The EIS should calculate the amount of greenhouse gas that will result on an annual basis from (1) each of the fossil fuels that can be developed within the planning area, (2) each of the well stimulation or other extraction methods that can be used, including, but not limited to, fracking, acidization, acid fracking, and gravel packing, and (3) cumulative greenhouse gas emissions expected over the long term (expressed in global warming potential of each greenhouse pollutant as well as CO2 equivalent), including emissions throughout the entire fossil fuel lifecycle discussed above.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS, "hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. This level of analysis would not only be extremely difficult to study and accurately document, but it is also outside the scope of the plan. The MLP/DEIS and the impact analysis of the alternatives is focused on the Planning Area and resources adjacent to the Planning Area. The plan has defined a specific area where the decisions will apply and analysis will take place to maintain consistency of analysis and to prevent an overly-lengthy document. Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM's proposed mitigation is intended to sustain this excellent air quality. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife	579

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		Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The DEIS discloses generally the fact of climate change in Chapter 3, but its analysis completely fails to describe or address the climate impact of combustion, as opposed to merely production, of oil and gas from the proposed action. This failure includes a total omission of any discussion of end-use combustion and life cycle impacts of oil and gas in the discussion cumulative greenhouse gas and climate effects. As best as we can ascertain from the minimal information provided, the DEIS's consideration of greenhouse gas emissions is restricted to fuel combustion by drill rigs, vehicles, and construction equipment and emissions of methane from the production process itself. Based on this incomplete analysis, the DEIS discounts greenhouse gas emissions excluding combustion (approximately 200,000 tons/year CO2e) as de minimis. This improperly ignores the fact that the sole and intended purpose of oil and gas extraction is, in fact, combustion. Release of greenhouse gases is not merely a reasonably foreseeable consequence of fossil fuel extraction, it's the necessary and intended consequence. CEQ and the courts have repeatedly cautioned federal agencies that they cannot ignore either climate change generally, or the combustion impacts of fossil fuel extraction in particular. As discussed below, although the DEIS does not disclose fossil fuel production totals, its economic assumptions reveal that BLM assumes production of up to 98 million barrels of crude oil. Without a full life cycle analysis, simply using EPA assumptions for carbon dioxide emissions per barrel of crude oil (5.80 mmbtu/barrel × 20.31 kg C/mmbtu × 44 kg CO2/12 kg C × 1 metric ton/1,000 kg = 0.43 metric tons CO2/barrel), this results in approximately 42 million metric tons of CO2, or (at a 1.39 CO2e/CO2 ratio)24, 58 million metric tons of CO2e.	This level of analysis would not only be extremely difficult to study and accurately document, but it is also outside the scope of the plan. The MLP/DEIS and the impact analysis of the alternatives is focused on the Planning Area and resources adjacent to the Planning Area. The plan has defined a specific area where the decisions will apply and analysis will take place to maintain consistency of analysis and to prevent an overly-lengthy document. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	580
Center for Biological Diversity, Living Rivers,	The Final EIS must weigh the no-leasing-no-fracking alternative's climate-change benefits against the impacts of allowing new leasing	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a	581

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Colorado Riverkeeper, and Holiday River Expeditions	and fracking, and address the following: 2. Effects of Climate Change As earlier noted, new fossil fuel development will intensify climate disruption and its ecological and social consequences, which must be studied in the EIS. Although cost-benefit analysis is problematic for assessing contributions to an adverse effect as enormous, uncertain, and potentially catastrophic as climate change, BLM does have tools available to provide one approximation of external costs and has previously performed a “social cost of carbon” analysis in prior environmental reviews. Its own internal memo identifies one available analytical tool: “For federal agencies the authoritative estimates of [social cost of carbon] are provided by the 2013 technical report of the Interagency Working Group on Social Cost of Carbon, which was convened by the Council of Economic Advisers and the Office of Management and Budget.” As explained in that report: The purpose of the “social cost of carbon” (SCC) estimates presented here is to allow agencies to incorporate the social benefits of reducing carbon dioxide (CO2) emissions into cost-benefit analyses of regulatory actions that impact cumulative global emissions. The SCC 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. While the Moab MLP and RMP Amendment’s emissions have not yet been quantified, its SCC is potentially in the billions of dollars. As discussed above, the DEIS’s financial assumptions appear to disclose production of up to 97,852,980 barrels of oil over 15 years. Applying the 2013 SCC estimates to the RMPA’s CO2e emissions (approximately 58 million metric tons), by 2030, depending on the discount rate used the Moab RMPA’s social cost of carbon would be somewhere between $696 million and $6.32 billion. Clearly, new leasing and development of unconventional wells in the planning area will exact extraordinary costs to communities and future generations, setting aside the immeasurable loss of irreplaceable, natural values that can never be recovered.	no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS "hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. This level of analysis would not only be extremely difficult to study and accurately document, but it is also outside the scope of the plan. The MLP/DEIS and the impact analysis of the alternatives is focused on the Planning Area and resources adjacent to the Planning Area. The plan has defined a specific area where the decisions will apply and analysis will take place to maintain consistency of analysis and to prevent an overly-lengthy document. Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM’s proposed mitigation is intended to sustain this excellent air quality. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper,	Unconventional well stimulation is a large contributor to local and regional air quality problems. Permitting fracking and other well stimulation techniques will greatly increase the release of harmful air emissions. On the other hand, a no-leasing-no-fracking alternative would prevent further degradation of local air quality,	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily	594

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and Holiday River Expeditions	along with respiratory illnesses, premature deaths, hospital visits, and missed school and work days.	restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS, "hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. This level of analysis would not only be extremely difficult to study and accurately document, but it is also outside the scope of the plan. The MLP/DEIS and the impact analysis of the alternatives is focused on the Planning Area and resources adjacent to the Planning Area. The plan has defined a specific area where the decisions will apply and analysis will take place to maintain consistency of analysis and to prevent an overly-lengthy document. Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM's proposed mitigation is intended to sustain this excellent air quality. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	As a result of drilling, well stimulation or completion, production of a well, open pits, truck traffic, flaring and venting, and fugitive emissions, the emission of several air pollutants will undoubtedly increase, further harming air quality and endangering the health of vulnerable populations.	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was	595

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		designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Unconventional oil and gas operations are likely to result in the emissions of air toxics. For example, reporting requirements recently implemented by the California South Coast Air Quality Management District (SCAQMD) have shown that at least 44 chemicals known to be air toxics have been used in fracking and other types of unconventional oil and gas recovery in California. Through the implementation of these new reporting requirements, it is now known that operators have been using several types of air toxics in California, including crystalline silica, methanol, hydrochloric acid, hydrofluoric acid, 2-butoxyethanol, ethyl glycol monobutyl ether, xylene, amorphous silica fume, aluminum oxide, acrylic polymer, acetophenone, and ethylbenzene. Many of these chemicals also appear on the U.S. EPA's list of hazardous air pollutants. The DEIS, however, assessed impacts of only three Hazardous Air Pollutants – acrolein, benzene, and formaldehyde. The Final EIS should study the potential for oil and gas operations sites in the planning area to emit such air toxics and any other pollutants that may pose a risk to human health, paying particular attention to the impacts of air pollution on environmental justice communities that already bear the burden of disproportionately high levels of air pollution.	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data. Chapter 4 (Section 4.12.7, Environmental Justice Impacts) states that there are no EJ populations within or in close proximity to the Planning Area. Thus, there is very little potential for environmental effects on any place-based EJ population.	596
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The Final EIS should incorporate a literature review of the harmful effects of each of these chemicals known to be used in oil-based fracking and other conventional and unconventional oil and gas extraction methods. Without knowing the effects of each chemical, the EIS cannot accurately project the true impact of unconventional oil and gas extraction.	As stated in Chapter 3 of the MLP/DEIS, "hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. Because of the limited use, consideration of HF above minimal levels would not be appropriate to this analysis. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how	597

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		variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	BLM should use air modeling to understand what areas and communities will most likely be affected by air pollution. It is crucial to gather independent data rather than relying on industry estimates, which may be inaccurate or biased. Wind and weather patterns, and atmospheric chemistry, determine the fate and transport air pollution over a region, over time. The EIS should be informed by air modeling to show where the air pollution will flow.	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	598
HECHO	Air Quality: This section of the document includes the climate change impacts on BLM resources. Equally or more important is the protection from bad air quality on citizens. We encourage the BLM to continue its efforts to collect data so that air quality models can be updated over time because air quality is not a static issue and the life span of this planning document is a 15-20 year horizon. While this section of the document focuses on the affected environment we recommend that mitigation measures such as data gathering stations be implemented in this planning unit to better collect data and information on air quality.	Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM's proposed mitigation is intended to sustain this excellent air quality. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	629
The Wilderness Society	The Moab MLP requires additional air quality analysis to sufficiently consider, analyze and disclose the various alternatives under consideration. This shortcoming also includes the Moab MLP's treatment of greenhouse gasses and climate change. The letter	The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife	675

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	from Ms. Williams (Letter from Megan Williams to Steve Bloch (Nov. 18, 2015) (attached as Exhibit 8)) also identifies shortcomings in BLM's quantitative analysis that under predict potential air pollution impacts. Ms. Williams offers various mitigation measures for the BLM's consideration to help address air quality problems. Finally, Ms. Williams offers an alternative plan for the BLM's consideration. Most importantly, Ms. Williams' comments demonstrate that the Moab MLP has not addressed the air quality impacts from any potential potash leasing and development. Given the existing elevated levels of background pollution in the Moab MLP area and BLM's obligation to observe federal and state air quality standards, there is simply no room for new pollutants that potash development and processing will generate. Indeed, under every alternative analyzed in the draft MLP contemplated oil and gas development will exacerbate background pollution levels. Given the Moab MLP's analysis inadequacies and significant air pollution problems, BLM should select Alternative C. Only Alternative C will prevent the growth of potash emissions and potentially comply with BLM's obligation to ensure its activities conform with federal and state air quality standards.	Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data. There are no "existing elevated levels of background pollution in the Moab MLP area." This was thoroughly disclosed in the Existing Environment section of the DEIS. Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM's proposed mitigation is intended to sustain this excellent air quality.	
Individual	As part of the analysis, I ask you to consider offsetting the greenhouse gas emissions with some sort of carbon sequestering counter-measure.	Existing air quality is considered excellent in the Planning Area, all monitoring that has been conducted to date in the Planning Area supports this, and BLM's proposed mitigation is intended to sustain this excellent air quality. The air quality analysis for the MLP was developed and approved through an inter-agency resource technical advisory group, which included staff from the National Park Service, Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Forest Service. In addition, the mitigation that has been recommended in the DEIS was also evaluated through this same advisory group. Additional analysis will be conducted at the project-specific stage as warranted, and will include more detailed analyses based on actual proposals that can be more fully analyzed, but which are not available for analysis in the MLP. The range of scenarios analyzed was designed to identify potential pollutants of concern, and how variable levels of emissions of these pollutants might impact air resources. This was accomplished in the analysis, and further additional scenarios are neither warranted nor necessary to further refine the analysis or provide additional data.	766

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Alternatives			
U.S. Fish and Wildlife Service	Page 2-15, All Alternatives, #8 - Please describe the types of compensatory mitigation that could be implemented, and provide your guiding policy and strategy relative to mitigation. We recommend you reference BLM's Instructional Memorandum for mitigation, and other pertinent mitigation guidance or policy, including the Department of Interior's Mitigation Strategy (Clement et al. 2014).	A CSU stipulation requiring compensatory mitigation outside the area of impact would be used when onsite mitigation alone may not be sufficient to adequately mitigate impacts. Additionally, Appendix B includes a compilation of best management practices (BMPs) including compensatory mitigation outside the area of impact. These BMPs would be utilized as conditions of approval on a site-specific basis. The BMPs include components of the mitigation implementation specified in the mitigation policy such as the priority for mitigating impacts, types of mitigation, long-term durability, and monitoring. The BMPs also identify Utah's Watershed Restoration Initiative (WRI) projects as locations for compensatory mitigation outside the area of impact. Utah's WRI is a partnership among State and Federal Agencies with a mission to conserve, restore, and manage ecosystems in priority areas across Utah. The MLP focuses on the mitigation implementation component of the mitigation policy and does not involve regional mitigation strategies and regional mitigation planning. The last two components are applicable to a broad based revision to a land use plan rather than a narrowly focused land use plan amendment pertaining solely to mineral leasing. However, the WRI approach provides elements of both regional mitigation strategies and regional mitigation planning.	70
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: --Page 2-14. Table 2–5. Minerals: Oil and Gas. Section on "Oil and Gas Stipulations." Comment: Because the Courthouse Wash Watershed provides an important recharge area for the unique ecological system within Arches NP and the Salt Wash Watershed is an important watershed which drains through Arches NP, the Courthouse Wash Watershed, the Salt Wash Watershed and Special Recreation Management Areas (SRMA) should be managed as NSO as indicated in Alternative C.	The commenter's desire for Alternative C regarding Courthouse Wash is noted. Alternative D was developed to provide for mineral leasing and development while protecting resources; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. Of the 51,790 acres of the Courthouse Wash watershed, 28,552 acres are managed as NSO and 10,796 acres are closed in order to protect other resource values in Alternative D. On the entire watershed the Baseline CSU stipulation would be applied that limits the amount of drilling within the groundwater recharge area. On the entire watershed a CSU stipulation would be applied that requires closed loop drilling, the use of tanks for produced water or backflow water, and a water monitoring plan. All drainages including perennial, intermittent, and ephemeral streams within the watershed are managed with a NSO stipulation (see Table 2-11). In addition,	123

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		BMPs to protect water resources would be applied to site-specific mineral proposals as appropriate. These BMPs are found in Appendix B. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Page 2-33. Table 2-9. Recreation. First section regarding "Moab…NSO stipulation." Comment: Alternative D's NSO stipulation is not nearly as protective as Alternative B's or C's provisions and potentially even less protective than the No Action Alternative (Alternative A) due to the "exception, modification, and waiver" possibilities included under Alternative D. It would be simpler and more effective protection if Alternative D's NSO stipulation were revised to be the same as Alternative B (1-mile NSO) or, preferably, C (2-mile NSO).	Alternative D was developed to provide for mineral leasing and development while protecting high use recreation resources; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. BLM's experience with drilling operations indicates that most potential mineral conflicts would be eliminated by applying a NSO stipulation within 0.5-miles of developed recreation sites. The exception provided in Alternative D allows for operational flexibility where it can be shown that a proposed operation would not result in long-term impairment of visual resources and there would be no auditory impacts to the facility. A modification to the stipulation would allow for expansion of the boundary of the recreation site. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	124
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Page 2-33. Table 2-9. Recreation. Section on "Visual and auditory protection along recreation routes and trails." Comment: Maps 2-20-B/D and 2-20-C identify numerous High Use (B/D) and High and Moderate Use Routes and Trails (C) located along or adjacent to the boundaries of Arches and Canyonlands National Parks. As a result, Alternative C's more protective NSO stipulation for mineral leasing within 1-mile of the centerline of listed high and moderate use routes (motorized) and trails (non-motorized) should be incorporated into the Preferred Alternative for all such routes and trails located within 2 miles of the respective national park boundaries.	The commenter's desire for Alternative C regarding protection of trail resources is noted, especially because some of them are adjacent to national parks. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	125
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the	The commenter's desire for Alternative C regarding protection of canyoneering and climbing areas is noted, especially because some of them are adjacent to national parks.	126

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	BLM's Preferred Alternative: Page 2-34. Table 2-9. Recreation. Section on "Visual and auditory protection of climbing and canyoneering areas." Comment: Map 2-21-C identifies high and moderate use climbing and canyoneering areas, including one that is located on the southeast boundary of Arches National Park (with portions located both north and south of Utah Rt. 128). As a result, Alternative C's more protective NSO stipulation for a 1-mile radius around high and moderate use climbing and canyoneering areas should be imposed with 2 miles of the national park boundary to provide visual and auditory protection to the immediate foreground. Note: We believe Map 2-21-C is incorrectly labeled "High Use Climbing and Canyoneering Areas." Shouldn't it be labeled "High and Moderate Use Climbing and Canyoneering Areas" to distinguish it from Map 2-21-B/D?	Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management. ***The title of Map 2-21-C is incorrect and will be relabeled "High and Moderate Use Climbing and Canyoneering Areas."***	
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Pages 2-36 and 2-37. Table 2-9. Recreation. Section on "Labyrinth Rims/Gemini Bridges SRMA." Comment: Map 2-26-C identifies significant portions of the SRMA are located along the western boundary of Arches NP and along the northern boundary of Canyonlands NP. As a result, an NSO stipulation should be applied to the SRMA locations within 2 miles of the respective national park boundaries.	Only the Focus Areas within the Labyrinth Rims/Gemini Bridges SRMA are managed as NSO in Alternative D. Two of these Focus Areas, Klondike Bluffs and Bar M, both border the western boundary of Arches National Park and are managed as NSO. However, because these two Focus Areas are within the western viewshed of Arches National Park which is managed as closed in Alternative D, the closed restriction overrides the NSO restriction for the Focus Area. In addition, the 12,158 acres that constitute the viewshed from the northern boundary of Canyonlands NP, as well as the 65,349 acres which constitute the viewshed from the eastern side of Arches National Park is managed as closed, which is more restrictive than the NSO requested by the commenter. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	127
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: --Page 2-42. Table 2-11. Soil and Water. Section on "Courthouse Wash Watershed." Comment: Consistent with our previous comment regarding page 2-14, Table 2-5, this watershed provides an important recharge area for the unique ecological system within Arches National Park. As a result, Alternative C's more protective NSO stipulation, along with the requirement for not penetrating the water source where horizontal and directional drilling is conducted	The commenter's desire for Alternative C regarding the Courthouse Wash watershed is noted. Of the 51,790 acres of the Courthouse Wash watershed, 28,552 acres are managed as NSO and 10,796 acres are closed in order to protect other resource values in Alternative D. On the entire watershed the Baseline CSU stipulation would be applied that limits the amount of drilling within the groundwater recharge area. On the entire watershed a CSU stipulation would be applied that requires closed loop drilling, the use of tanks for produced water or backflow water, and a water monitoring plan. All drainages including perennial, intermittent, and ephemeral streams within the watershed are managed with a NSO stipulation (see Table 2-11). In addition, BMPs to protect water resources would be applied to site-	128

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	from areas adjacent to the NSO, would be the most appropriate action.	specific mineral proposals as appropriate. These BMPs are found in Appendix B. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Page 2-42. Table 2-11. Soil and Water. Section on "Salt Wash Watershed." Comment: Consistent with our previous comment regarding page 2-14, Table 2-5, this is an important watershed which drains through Arches National Park. As a result, Alternative C's more protective NSO stipulation, along with the requirement for not penetrating the water source where horizontal and directional drilling is conducted from areas adjacent to the NSO, would be the most appropriate action.	The commenter's desire for Alternative C regarding the Salt Wash watershed is noted. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. Of the 61,925 acres of the Salt Wash watershed, 10,763 acres are managed as NSO and 33,485 acres are closed in order to protect other resource values. On the entire watershed the Baseline CSU stipulation would be applied that limits the amount of drilling within the watershed. All drainages including perennial, intermittent, and ephemeral streams within the watershed are managed with a NSO stipulation (see Table 2-11). In addition, BMPs to protect water resources would be applied to site-specific mineral proposals as appropriate. These BMPs are found in Appendix B. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	129
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Page 2-42. Table 2-11. Soil and Water. Section on "Salt Wash Watershed." Comment: Consistent with our previous comment regarding page 2-14, Table 2-5, this is an important watershed which drains through Arches National Park. As a result, Alternative C's more protective NSO stipulation, along with the requirement for not penetrating the water source where horizontal and directional drilling is conducted from areas adjacent to the NSO, would be the most appropriate action.	The commenter's desire for Alternative C regarding the Salt Wash watershed is noted. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. Of the 61,925 acres of the Salt Wash watershed, 10,763 acres are managed as NSO and 33,485 acres are closed in order to protect other resource values. On the entire watershed the Baseline CSU stipulation would be applied that limits the amount of drilling within the watershed. All drainages including perennial, intermittent, and ephemeral streams within the	130

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		watershed are managed with a NSO stipulation (see Table 2-11). In addition, BMPs to protect water resources would be applied to site-specific mineral proposals as appropriate. These BMPs are found in Appendix B. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Pages 2-51 and 2-52. Table 2–15. Section on "Public lands within the viewshed of Arches National Park." Comment: Alternative D should be modified to be the same as Alternative C, which includes an NSO stipulation to protect the viewshed on the northern side of Arches National Park that is outside the VRI Class II areas (34,243 acres).	Alternative D was developed to provide for mineral leasing and development while protecting visual resources, including those seen from the National Parks; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for visual resources than does Alternative D. ***Text has been added to Chapter 3 (Section 3.18.1, Visual Resources) to state: "A visual resource inventory was conducted in 2011 for the BLM Moab Field Office. This inventory included an assessment of viewsheds from Arches National Park. The area adjoining the Park on both the northern and eastern side of the Park was rated as VRI Class II based on scenic quality, the amount of use, and distance zones. The land beyond the VRI Class II area was rated low for scenery and sensitivity (amount of use and distance). The ratings were determined from key observation points within Arches National Park."*** Therefore, the 34,243 acres not rated as VRI Class II are not managed with a NSO stipulation in Alternative D. The immediate viewshed (VRM Class II and VRI Class II) from Arches National Park is shown on Map 2-60-D and the entire viewshed from the Park is shown on Map 2-60-C. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	131
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: --Page 2-52. Table 2–15. Section on "Viewshed of Canyonlands National Park." Comment: We fully support Alternative D as written (which is "Same as Alternative C").	Alternative D (which your comment supports) is the agency preferred alternative. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	132
Coalition to Protect	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in	The BLM would adhere to the rules in Notice to Lessee (NTL) 4A or successor regulations regarding waste prevention which act to minimize the flaring or venting of natural gas. Under	133

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America's National Parks	Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Page 2-53, Table 2–15. Section on "BMPs for visual resources, including night skies." Comment: The primary difference between Alternative D, which adopts Appendix B's Best Management Practices (BMP's), and Alternative C's listed CSU stipulations is the inclusion of "Minimize flaring of gas" in Alternative C. This measure, if implemented, would undoubtedly better protect night skies in the adjacent national parks. Management and reduction of flaring of gas is a fundamental concern for multiple reasons and absolutely should be addressed in the Preferred Alternative. As reported by the Government Accounting Office in GAO -11-34 (Oct 2010) http: //www.gao.gov/new.items/d1134.pdf: "[w]hile most of the natural gas produced on leased federal lands and waters is sold, some is lost during production for various reasons, including leaks and releases for ongoing operational or safety procedures. This natural gas is either released directly into the atmosphere (vented) or burned (flared). The venting and flaring of natural gas is the potential loss of a valuable resource and, on leased federal lands or waters, the loss of federal royalty payments. In addition, venting releases methane, and flaring emits carbon dioxide (CO2), both greenhouse gases that contribute to global climate change. Methane is a particular concern since it is a more potent greenhouse gas than is CO2." For these reasons, venting and flaring should be minimized across the project area. We therefore support the revision of the Preferred Alternative D to be "Same as Alternative C."	certain operational conditions the flaring of gas cannot be avoided; however, the BLM's goal is to minimize flaring and venting. BLM will follow these procedures regardless of whether they are specified as a lease stipulation for night skies in Alternative C or included as a best management practice.	
Coalition to Protect America's National Parks	To ensure the effective conservation of national park resources and values as directed under the NPS Organic Act, we strongly recommend that the following Alternative C measures listed in Chapter 2, Section 2.4, Alternatives Tables, be incorporated into the BLM's Preferred Alternative: Table 2–15. Auditory Management (Soundscapes). Second section "stipulations." Comment: NPS Management Policies 2006, Section 4.9 Soundscape Management, requires the NPS "to preserve, to the greatest extent possible, the natural soundscapes of parks." As a result, it would be most appropriate to adopt Alternative C's more protective NSO stipulation for areas located within 2.8 miles (based on noise modeling) of the respective national park boundaries.	The commenter's desire for Alternative C regarding protection of Park soundscapes is noted. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for Park soundscapes than does Alternative D. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	134
Fidelity Exploration and Production Company	Table 2-5 Minerals: Oil and Gas (pp 2-13)- "In areas where mineral activities would be incompatible with existing surface use, apply a no surface occupancy stipulation for mineral leasing." Why would BLM not consider similar incompatibilities for other uses near and within existing Federal Oil and Gas Units? The MLP is blatantly	As stated in Chapter 1 (Section 1.1, Introduction and Background), the planning effort does not entail a full RMP revision, but rather maintains a limited focus on the management decisions pertaining to oil and gas and potash leasing in the Planning Area. Due to the limited focus of this	144

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	focusing on non-industrial use by applying NSO stipulations across large portions of these federal units, most notably the Big Flat area; Fidelity's most important production area. This is a violation of FLPMA and is contradictory with the MLPs handling of other uses such as recreation and conservation.	planning effort, decisions that would normally be considered in a full RMP revision will not be addressed.	
Fidelity Exploration and Production Company	Table 2-5 Minerals: Oil and Gas (pp 2-14, 15)- The "Baseline CSU" stipulations presented under preferred Alternative D are for future leasing activities. Moab BLM is currently holding Fidelity hostage to these same unratified, stringent stipulations for ongoing Environmental Assessments in the Moab area. Again, these cannot be considered reasonable conditions attached to valid-existing lease rights.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	145
Fidelity Exploration and Production Company	Table 2-15 Visual Resource Management/Auditory Management (pp 2-51 to 54)- The stipulations presented under preferred Alternative D ignore multiple-use (pre-existing oil and gas use areas) and strongly support conservation, high use filming areas and recreation.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g.	146

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		permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	
Individual	Table 2–2: Cultural Resources - Auditory Constraints (p 2-7) "Apply an NSO stipulation for up to a 0.5 mile radius (immediate foreground) that is visible or audible from the following cultural sites or cultural concentration areas." Lists 13 specific sites at 22,328 acres Comment: This constraint is presented with no corresponding quantified or verified information presented in Chapter 4 that audible noise heard from a cultural site is an actual impact. "Visible or audible" restrictions within a ½ mile of select cultural sites is a completely new constraint. The whole concept of protecting cultural sites from visible and audible impact is without precedence.	The implementing Federal regulations at 36 CFR 800.5a(2)(v) for Section 106 of the National Historic Preservation Act explicitly state that introduced visual, atmospheric, or audible elements that diminish the integrity of the historic properties' significant features can lead to adverse effects. The cultural sites listed on page 2-8 and 2-9 of the MLP/DEIS are rock art sites and all are eligible as historic properties to the National Register of Historic Places. Setting is an important aspect of integrity for rock art and any visual, auditory, or atmospheric intrusions can diminish the rock art's integrity of setting, feeling, and association.	177
Individual	Table 2-2: Cultural Resources - Ethnographic Data Research (p 2-9) "Apply a Lease Notice to areas of high potential for cultural site occurrence, informing the lessee/operator that a higher likelihood of encountering cultural resource concerns (i.e., potential adverse effects) that may require archaeological monitoring, ethnographic data collection, data recovery and mitigation of historic properties may be required to exercise lease rights. This Lease Notice involves 136,245 acres and is shown on Map 2-2B/C/D. Comment It's well understood that development projects should conduct cultural surveys and avoid or mitigate damage to them, all at operator expense. This new concept requires the operator, at their	The implementing Federal regulations at 36 CFR 800.4a(4) for Section 106 of the National Historic Preservation Act explicitly state that Federal agencies should gather information from Indian tribes to identify properties of religious or cultural significance to the tribes that may be eligible to the National Register of Historic Places. An ethnographic study is one way for BLM to fulfill this regulatory requirement. Ethnographic research can be conducted in much the same way archaeological research is conducted to identify sites of archaeological value. Additionally, BLM has already requested and received ethnographic reports paid for by proponents to help fulfill compliance with Section 106 and the National Environmental Policy Act. As stated in the Notice,	178

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	expense, to consider and conduct ethnological research related to any sites inventoried. This is a job of the academic world, having little practical application for approving on the ground operations. And combined with its impractical need, it creates yet another added expense to operating in this area. The MLP needs to cite the justification for this requirement.	ethnographic data collection is an option to mitigate impacts to historic properties.	
Individual	Table 2–3: Lands and Realty- High Use Filming Areas (p 2-10) "Apply a CSU stipulation within 1-mile of the high use filming locations listed below. This stipulation would require a visual assessment to demonstrate that the proposed mineral operations within this area do not result in long-term impairment to the scenic quality from the filming location. This CSU stipulation involves 14 listed sites and 177,594 acres and is shown on Map 2-6-B/D". Comment This is a new requirement on 177,594 acres for protection of high use filming locations that could prove problematic, and analysis in Chapter 4 fails to indicate it has been a problem in the past, or will be a problem in the future. Filming operations often occur on short timeframes, typically days. What would occur if mineral operations have been approved in an area, but prior to initiation of on-the-ground activity a film application is applied that would shoot in an area where the approved mineral development were in the viewshed? This is an example of a constraint developed with no supporting information presented to indicate there has been or will be an issue that requires any need for mitigation.	The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. The imposition of a viewshed analysis is not an onerous requirement, but Chapter 4 acknowledges that CSU stipulations can result in "additional costs and delays to mineral operators" (page 4-41). The exact cost of this constraint could only be quantified on a site-specific basis. While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets. A viewshed analysis would be required only for the 14 high use filming locations listed in Chapter 2 (Table 2-3). Although conflicts in the past have been minimal and a solution has been found, the stipulation is intended to prevent conflicts in the future. A viewshed analysis would be completed prior to mineral operations being authorized in the vicinity of high use filming locations. Therefore, an approved mineral operation would not be impacted by filming activities.	179
Individual	Table 2–4 Lands with Wilderness Characteristics (p 2-12) "Apply the Baseline CSU stipulation (see Minerals section Alternative B) to the following lands identified by BLM as having wilderness characteristics in the 2008 RMP (192,220 acres, Map 2-7-B/D)" Comment The MLP needs to explain how lands with wilderness characteristics keep "growing" in this area. It is assumed that there have been no changes to the Wilderness Act since its inception in 1964. This Act defined what characteristics are needed to qualify for wilderness. The MLP should explain how the characteristics for wilderness protections have evolved to a point that where in 1979 there were	The Wilderness Act of 1964 provided little specific guidance on evaluating whether lands possessed wilderness character, beyond defining "roadless" areas as exceeding 5,000 acres. BLM, on the basis of FLPMA (1976), began its own inventory of BLM lands in Utah for wilderness character in 1979, using guidance provided by BLM's Wilderness Inventory Handbook (1978). That Handbook provided interpretation of roadless areas to include a definition of what constituted a "road." To constitute a "road," and therefore a wilderness boundary, the routes in question had to be constructed, maintained by mechanical means on an ongoing basis, and receive regular and continuous use. These criteria were drawn directly from the House subcommittee proceedings that were part of the	180

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	no lands identified in the MLP area with wilderness characteristics, yet in 2015 there are 192,220 acres of lands that require management to protect lands with wilderness characteristics. The MLP needs to describe the administrative changes that have occurred, and how this is possible in an area that has seen an explosion of recreational use and substantial mineral development over the same period of time	creation of FLPMA, and provide a means on interpreting the meaning of "roadless" from the Wilderness Act. Based on these criteria, BLM undertook an initial wilderness inventory in Utah in 1979. Areas inventoried were often very large, often exceeding 100,000 acres, with little attempt to resize the units to accommodate the 5,000 acre criteria from the Wilderness Act. The typical report was 2-4 pages long. Based on the initial inventory, certain areas were carried forward to an intensive inventory phase, which eventually led to the creation of Wilderness Study Areas. The 1979 process received criticism from the start, as it did not seem, at least to some critics, to follow the guidelines of the 1978 Wilderness Inventory Handbook. This criticism eventually led BLM to reevaluate its 1979 findings in what is now known as the 1999 Utah Wilderness Inventory. Unlike the 1979 process, the 1999 inventory required documentation of all routes found, rather than drawing a broad conclusion whether the entire area being inventoried was "roadless." This increased rigor and documentation led to areas identified as possessing wilderness character not identified as such in 1979. In terms of conditions on the ground having changed since 1979, let alone 1964, the forces of nature have resulted in many routes not satisfying the criteria of being a "road," for wilderness purposes. Despite the increase in recreation use cited by the commenter, many of these routes have all but disappeared from the landscape, and do not constitute a significant impact on apparent naturalness to the average visitor (Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands, March, 2012, page 6). BLM wilderness inventories undertaken from 1979 to the present have correctly utilized the interpretation of "roadless" derived from Congressional hearings leading to FLPMA, and subsequently incorporated in the Wilderness Inventory Handbooks of 1978 and 2012. This interpretation does not represent an "administrative change," but rather a necessary set of guidelines to operationalize the broad concepts of the Wilderness Act.	
Individual	Table 2–5 Minerals: Oil and Gas (p 2-13) "Within Potash Leasing Areas (PLA) (103,619 acres), no new oil and gas leases would be issued until potash leases and permits are relinquished, cancelled, expired, or potash production is not established within 10 years after the date of the Approved Moab MLP."	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an	181

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	Comment This has immediate and long-term consequences for additional exploration and development opportunities for oil and gas operators, and revenue generation for the County. By putting one resource, potash, on a 10 year timeframe, the possibility is eliminated for oil and gas leasing and development in the area. If the potash industry is unsuccessful in developing potash due to worldwide commodity pricing and access to equity markets for capital, then this area will have sat for an unnecessary 10 year period. This speaks again to the operational and financial impact to operators and counties of the "no split leasing" policy developed in this MLP. The MLP needs to do a better job of justifying this constraint, rather than simply citing perceived impacts and difficulty in potential overlapping infrastructure. Mineral operations in New Mexico on federal lands have been able to accomplish this, and a rationale argument could be made that both types of development in an area could use the same infrastructure for development, particularly roads and power, to actually minimize impacts from development.	opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial	

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		Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production.	
Individual	Table 2-6: Potash - Phased Leasing (p 2-19) "A mineral leasing decision involves an approach to lease issuance rather than a stipulation applied to a lease. Leasing decisions include management actions such as phased leasing, maximizing lease size to the extent possible, and closing areas to leasing. Phased leasing could be utilized in order to protect important resource values in areas where the feasibility of development has not been established." Comment This concept of phased leasing is ill-defined and unnecessary. All leasing provides key language to "protect important resource values." How is phased leasing identified in the MLP different from this? Potash regulations at 43 CFR 3500 already provide a "phased leasing" approach. They require issuance of a two year prospecting permit or exploration license, subject to a two year extension. If exploration activity shows the potash technically and economically feasible for development, then the BLM will consider issuing a Preference Right lease. Although there is some regulatory indication that issuance of the PRLA may be non-discretionary for BLM, they would nonetheless conduct a site specific environmental analysis, likely an EIS, and condition the preference right lease on that evaluation and analysis.	As stated in Chapter 2 (Section 2.2, Description of Alternatives), separating leasing of oil/gas and potash would minimize surface impacts by eliminating redundant infrastructure and ensuring orderly development by setting apart the competing objectives of the two commodities. Potash leasing would involve a phased approach and would initially only be issued within identified areas. A phased approach to potash leasing would provide the opportunity to lease a limited portion of the Planning Area in order to determine the feasibility of potash development and methods for reducing resource conflicts. The purpose of phased potash leasing is to minimize resource conflicts and to test the feasibility of solution mining for deep deposits of potash on public lands within the Planning Area. Phased potash leasing would provide an opportunity to issue prospecting permits and/or to lease within a specific portion of the Planning Area (identified as Potash Leasing Areas [PLAs]) in order to determine the area's production potential. Phased leasing provides an adaptive management approach so that if potash were successfully discovered and produced there would then be an opportunity to consider additional potash permitting and leasing. The noncompetitive potash leasing process provided by the Federal regulations at 43 CFR 3500 involving potash permits and preference right leases is not a phased leasing approach to potash.	182
Individual	Table 2-6: Potash – 10 Year Development Timeframe (p 2-21) "For areas currently under an existing preference right lease or competitive lease for potash, upon relinquishment or initiation of proceedings to cancel the lease, or upon expiration of ten years from the date of the MLP ROD is signed, whichever is latest." Comment This starts a 10 year clock on development of potash. This is an unexplained arbitrary number of years, and seems to imply the BLM, not industry and market prices, will determine the timeframe for potential development. This does not take worldwide commodity	In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008.	183

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	and price fluctuations into account. It's highly likely this BLM timeframe may not be synchronized with the potash industry, worldwide potash demand and supply, and equity markets. The end result would be no further development. Also, under what conditions does BLM anticipate "cancelling" one or all of the existing potash leases? The MLP does not identify these conditions, leaving it operators susceptible to arbitrary decision by BLM officials.	The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME	

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		Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year time frame provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty.	

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		The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30.	
Individual	Table 2-6: Potash – Outside of PLAs (p 2-21) "The priority outside a PLA would be to authorize oil and gas leasing and development. New potash exploration and development would be allowed only in PLAs. Consequently, until a new PLA is identified, the BLM will not approve any application for potash prospecting permits or exploration licenses, or engage in competitive leasing. For areas outside of an existing PLA that have been designated a KPLA, the BLM will not approve exploration licenses or conduct competitive leasing unless the area is identified as a new PLA through additional decision making consistent with the procedure and criteria provided here and all other applicable law and policy." Comment The MLP needs to identify and describe what "additional decision making" consists of. Isn't that what this MLP is designed to do??	Additional decision making pertaining to a new PLA could consist of further NEPA documentation or a land use plan amendment.	184
Individual	Table 2-6: Potash New PLAs (p 2-22) This section identifies a process for identifying and developing new PLAs Comment This means an entirely new public process and decision making exercise which will take months and years. This is not conducive to mineral developers being able to take advantage of market fluctuations in a timely manner.	Mineral developers would be able to take advantage of market fluctuations in a timely manner within PLAs established under an approved MLP. The consideration of additional PLAs would be subject to the criteria specified in Table 2-6.	185

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Individual	Table 2-6: Removing an Area from a PLA (p 2-23) "If, within a PLA, the production of commercial quantities of potash is not achieved within a 10 year time period from the date of the MLP Record of Decision is signed. The Authorized Officer may remove the area from the PLA after additional decision making." Comment Again this provides another long drawn out process, along with the process for creating new PLA's, which will have significant impact on the ability to explore and develop potash resources. These processes simply can't be effectively timed for the real-time fluctuations related to commodity supply and demand and subsequent	Additional decision making pertaining to a new PLA could consist of further NEPA documentation or a land use plan amendment. Mineral developers would be able to take advantage of market fluctuations in a timely manner within PLAs established under an approved MLP. The consideration of additional PLAs would be subject to the criteria specified in Table 2-6.	186
Individual	Table 2-6: Potash - Potash Leasing Stipulations (p 2-26 thru 2-27) "CSU stipulation for Potash Prospecting Permits, Preference Right Leases, and Competitive Leases: All new potash leases, as well as all potash leases subject to readjustment would be subject to the following diligent development requirements: The Authorized Officer would pursue lease cancellation if after ten years from the date of lease issuance, potassium or related products are not being produced in paying quantities from….." Comment BLM has applied regulations for different commodities to the management of potash. The "diligent development" requirement comes from the 43 CFR 3400 coal regulations, and the "paying quantities" language comes from the 43 CFR 3100 oil and gas regulations. Neither of these requirements appears in the 43 CFR 3400 regulations which guide potash development on public lands. By what authority does BLM pick regulations out of other parts of the 43 CFR and apply them to potash? Current potash regulations do not require the lessee to establish production in order to hold the lease; they simply pay a minimum royalty per acre to hold the lease. The leases are subject to 20 year readjustments by BLM where constraints from the MLP could be applied, along with adjusting royalty rates for future production. It seems unreasonable for BLM to choose to implement and apply some portions of the existing 43 CFR 3500 regulations relative to applying "unsuitability criteria," yet then chooses to ignore other sections of those regulations which clearly do not require a production diligence requirement to holding preference right leases beyond their primary term. What is the explanation and legal authority for such arbitrary decision-making?	The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change.	187
Individual	Table 2-6: Potash – Baseline CSU (p 2-27 thru 2-28)	An exception to the Baseline CSU stipulation is provided in Appendix A for Alternative D which states: "Within Potash	188

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	"Apply a "Baseline CSU" stipulation in areas with sensitive resources in order to minimize the amount of surface disturbance and related impacts resulting from mineral development. 2. Well pads would be placed no closer than 2-miles apart." Comment This will be a huge deterrent to the exploration and feasibility studies related to potash development. Wells will certainly have to be closer together when developing methodologies for underground cavern creation by solution mining techniques. Tests will need to be run on optimal well spacing and configurations, cavern length and volume development, etc. And it may be that after these techniques are developed, two mile spacing in well fields won't serve from a technical or financial analysis. Even though the MLP provides for waiver of this requirement, it needs to provide analysis and justification for making this the norm in light of the impractical technical application of this constraint.	Leasing Areas (PLA), an exception to the 2-mile placement could be granted if the proponent successfully demonstrates that a 2-mile placement is not technologically feasible for potash recovery. An exception to the 2-mile placement would still require the maximum technologically feasible placement of potash wells." The NEPA documentation involved with any site-specific drilling proposal would analyze the technical justification for closer well pad spacing and the environmental impacts associated with granting an exception to the Baseline CSU stipulation. The Authorized Officer may waive this stipulation only if it is determined that the factors leading to its inclusion in the lease no longer exist.	
Individual	Table 2-6: Potash - Potash Processing Facility Areas (p 2-29) This table includes a description of a CSU stipulation (Baseline) that is applied to multiple resources and a CSU stipulation that requires the processing of potash to be conducted within Potash Processing Facility Areas (PPFA). Comment It is unclear if this requirement would also apply to potential development on the existing Preference Right leases in the area where those lease rights currently allow construction of facilities required for development. The MLP needs to recognize or address what type of regulatory action BLM would take to provide a land use "authorization" for a lessee to operate on lands off lease. The MLP needs to address the financial difficulties this requirement will present in that financiers generally will not commit millions of dollars in loans for on-the-ground capital facilities with no guarantee of long term land tenure provided by a lease right underneath such facility.	The BLM could not impose the CSU stipulation from the MLP to existing potash leases requiring processing facilities to be located within potash processing facility areas (PPFAs). However, the operator may find benefits to locating the facilities within the PPFAs because of 1) environmental concerns raised during site-specific analysis for a proposed potash operation on the existing leases, 2) the PPFAs are identified as having minimal resource conflicts, and 3) the PPFAs are located closer to infrastructure such as roads, railroads, and transmission lines. Any land use authorizations necessary for a potash lessee to operate on lands off lease would be addressed at the site-specific proposal level.	189
Individual	Table 2–13 Special Status Species (p 2-46) Comment Some of these wildlife areas are NSO or no leasing. The rest of the area is subject to an array of restrictive, overlapping timeframes for rutting, lambing, nesting, and fledging periods for this entire array of species. It adds significant costs in delay time and uncertainty with the need for field survey's in almost every instance to see what is going on the ground with the wildlife life cycles, then trying to guess	The wildlife stipulations in the MLP are very similar to those in the 2008 Moab and Monticello RMPs; these stipulations are consistent throughout the BLM in Utah and are also similar to those found in most western states. Stipulations vary only slightly among all four alternatives in the MLP/DEIS. Changes between the MLP and the RMP are minor realignments of big game habitats for consistency with Utah Division of Wildlife Resources habitat delineations. Habitat for Desert bighorn	190

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	what they might be doing in 2-3 months when the financing is arranged, and crews and rigs are scheduled. These types of timing restrictions, when applied to so many species, creates great uncertainty for timing of all operational components of a project, putting severe constraints on resource development. The MLP needs to recognize these timing overlap constraints and prepare a table that shows all the potential timing overlaps and how many months a year an operator could be constrained form operation in a worst case scenario, where all potential wildlife species that could occur in an area in fact are found utilizing the area at their identified timeframes. The operational and financial impacts then need to be discussed and analyzed in Chapter 4.	sheep is increased by 5,759 acres (reflecting extensive GPS collar research by UDWR) in the action alternatives. The only identified NSO areas for terrestrial wildlife are found in Alternative A and C. These are limited to prime desert bighorn habitats, with Alternative A (101,900 acres) remaining as identified in the 2008 RMP and Alternative C (107,000 acres) realigned to match UDWR's current desert bighorn habitat delineation. In Alternatives B and D, desert bighorn lambing/rutting areas have CSU stipulations which preclude drilling operations and permanent facilities (on 107,000 acres) but provide for other temporary actions outside of the sensitive lambing and rutting periods, thus facilitating additional flexibility from the stipulations in the 2008 RMP. Prime desert bighorn habitats are in areas where extensive development would be typically problematic due to topography of these areas. Other big game species (deer and elk) have seasonal restrictions. These general areas and types of seasonal restrictions have been in place for many years. Most operators are aware of the need to incorporate these dates into their operational plans and, if appropriate, these dates can sometimes be adjusted. Within the Moab FO, the only overlap of winter range areas with spring fawning or lambing areas is 515 acres west of Highway 191 and just south of La Sal Junction. The remainder of the Moab MLP area would have either only one or no big game seasonal protective measures. The NSO stipulation for the Endangered Colorado River Fish (within the 100-year floodplain of the Colorado, Green, and Dolores Rivers) was developed with USFWS in the 2008 RMP. This stipulation does not change in the current effort. ESA species, including Bald and Golden Eagles, Raptors and Migratory Birds are all afforded some level of Federal protection. These protective measures are required by the USFWS under various laws. The seasonal and spatial restrictions found in the MLP/DEIS for these species have been developed by the USFWS and are consistent throughout the state of Utah. Adherence to these conditions is required to comply with the Endangered Species Act and various laws protecting eagles, raptors, and migratory birds. Currently, much of the known habitats and occupancy for several of ESA species is known, therefore reducing some of the need for surveys to evaluate habitats. ESA species are very rare and the Moab FO has had minimal need to adjust or project timing or locations to accommodate the presence of an individual ESA species.	

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		Additionally, surveys for ESA species, Bald and Golden Eagles and Raptors may be required no matter when the activity is planned. All permanent facilities or projects that create long-term habitat alteration would require nesting surveys for ESA species, Bald and Golden Eagles and Raptors, during the breeding season prior to project finalization. These surveys are incorporated into the site-specific project NEPA analysis and if needed, USFWS consultation. These requirements and needs are not new to the MLP and have been in place prior even to the 2008 RMP. The results of these surveys may influence project development. If there is no suitable nesting structure within the USFWS recommended spatial buffers of a project area, surveys may not be needed. Sensitive raptors species are afforded the same timing and spatial requirement as all other raptors, as recommended by the USFWS. For kit fox and prairie dogs, the stipulations are the same as the 2008 RMP. Their habitats typically do not overlap with big game winter range but may coincide with pronghorn fawning and bighorn lambing areas. The kit fox, a sensitive species, does have seasonal restrictions specific to occupied natal dens, which may be waived if surveys indicate kit fox with their pups are not present. Current modeling efforts are in place that can help to refine where the kit fox may occur, and often project on-sites can determine the need for surveys. Kit fox are fairly uncommon throughout the Moab FO and finding a natal den is very rare; therefore there has been minimal need to adjust project timing to accommodate the presence of a kit fox with their pups. For prairie dogs there is exception language that, if due to the size of the prairie dog town, there is no reasonable location to develop a lease and avoid colonies, the Authorized Officer would allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. In regards to the timing overlap question (assuming raptor surveys needs have been met), there would be no seasonal wildlife TL stipulations in areas outside of deer and elk winter ranges (29,700 acres) and bighorn lambing/rutting areas (107,000 acres). If a project were in kit fox habitat and/or fawning areas for pronghorn, no activity could be allowed from March 1- July 31 within 85,639 acres. If surveys were performed and indicated no natal kit fox dens were within 200 meters of the project, then the project would be limited only to activities outside of 4/1 to 7/31 to protect pronghorn fawning and migratory bird nesting. In this site-specific situation, 'worst case' would still allow a construction window of 7 months, from	

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		8/1 through 2/28. If raptors had been identified, project location or other mitigation measures would be applied, typically not timing restrictions unless the project or portions of the project created temporary disturbances within the spatial buffer of the raptor nest. In deer and elk winter range (29,700 acres), there is minimal kit fox habitat and/or fawning areas for pronghorn, so other wildlife timing limitations would not be expected. In deer and elk winter range 'worst case' would still allow a window of 7 months, 4/16 through 11/15. If raptors had been identified, project location or other mitigation measures would be applied, rather than timing restrictions unless the projects were temporary. If the project were temporary and raptors did occur in the area or raptor surreys were determined to be not necessary, the work window might then be limited to 9/1 to 11/15. If a temporary action had been started prior to the onset of the winter season, UDWR will usually allow for some short-term encroachment into the winter season. Activities in desert bighorn lambing/rutting habitat (107,000 acres) are limited to temporary actions through a CSU stipulation. In the "worst case," if raptors occurred in the area or surveys were not performed and the temporary action is determined to impact desert bighorn, work would be allowed from 12/15 to 3/1. Timing limitations for ESA species area are not required unless there is a known individual in the area or surveys are not current and therefore occupancy status is not known. The entire Moab MLP area has been evaluated for both Mexican Spotted Owl (MSO) and Southwestern Willow Flycatcher (SWFL). Within the MLP area, there are approximately 116,300 acres of suitable MSO habitats of which over 70,000 acres are typical surveyed by the BLM and would not need additional project specific surveys. Only 2,800 acres of suitable (but unoccupied) MSO habitats are found in deer winter range; therefore, additional timing limitation requirements would not be expected. These 2,800 acres are routinely surveyed by the BLM. SWFL and Yellow Billed Cuckoo (YBCU) timing stipulations coincide with other timing limitations outside of deer and elk winter range areas. There are only 92 acres of SWFL/YBCU habitats that overlap with winter ranges and these areas are not known to be occupied; therefore, additional SWFL & YBCU timing limitations would not be expected. It should be pointed	

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		out that both SWFL and YBCU occupy riparian habitat, which is managed with a NSO stipulation to protect riparian resources. Though these seasonal restrictions can seem cumbersome, upfront work between the BLM and applicants early in the development stage of these projects can simplify survey needs and ensure there is an ample window of time to complete projects or develop project plans, ensuring Federal Acts are not violated, and impacts to protected and state sensitive species and big game are minimized. Accurate surveys completed at the correct time will help to avoid delays, facilitate project planning, and allow accurate environmental analysis that is less likely to be litigated, thus allowing the project to move forward in a timely fashion. The Moab BLM does recognize that many of the timing limitation stipulations can overlap, possibly creating additional constraints. However, not all habitats that have these seasonal stipulations are located in the same place. As mentioned above, winter ranges for deer and elk overlap very little with pronghorn, deer, and elk spring fawning areas. ESA species such as the SWFL and YBCU are very specific to small, highly vegetated riparian areas that typically are located within areas with watershed stipulations that will coincide with ESA requirements. The MSO does have the largest potential habitat for an ESA species in the Planning Area and may need site-specific surveys, but habitat evaluation throughout the Planning Area has been completed and many areas are maintained under protocol survey, therefore reducing the scope of survey needs by outside parties. The MLP/DEIS acknowledges the impacts of wildlife and sensitive species restrictions on mineral development in Chapter 4. It should be noted that the wildlife and special status species restrictions vary only slightly among alternatives; no further analysis of overlapping restrictions is required when these restrictions are substantially the same for all the alternatives. ***Text has been added to Sections 4.8.1 and 4.8.2 concerning the impacts of overlapping timing limitations.***	
San Juan County Commission	Selection of Alternative D or other more restrictive Alternatives or parts of alternatives would be a radical departure from Alternative A. Such a radical change from current management defies logic and is not based on past or projected resource impacts. The current RMPs would have to be way "off the mark" to warrant such changes. This is not the case. Both RMPs were developed over several years with intensive involvement of State and Counties as	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public	216

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	well as the public. San Juan County cannot accept that the reasoned rationale used in making the 2008 RMP decisions for leasing were so erroneous as to warrant such radical changes.	controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions.	
Individual	In the event that you continue support for Alt D, please preserve watersheds, close all loopholes in agreements and put teeth in an enforcement body, and remove any areas with wilderness designation status	Alternative D presents measures to preserve watersheds. There are no WSAs within the Planning Area. The BLM assumes that “close all loopholes” means eliminate exceptions, modifications, and waivers. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: “The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	315
Individual	the MLP should recognize the historical and conservation significance of the Bears Ears Inter-Tribal Coalition proposal for a new national monument on a small portion of the MLP area. The BLM should amend Alternative C to defer leasing in that area until the president has had time to act.	The BLM does not manage public land based on pending legislation or Presidential proclamation. Most of Alternative C is managed with major constraints to mineral leasing and development.	488
Individual	In addition, the MLP should recognize the historical and conservation significance of the Bears Ears Inter-Tribal Coalition proposal for a new national monument on a small portion of the	The designation of the Bears Ears National Monument is outside the scope of the MLP. No decision on mineral leasing will be made within the Planning Area until after completion of the MLP.	493

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	MLP area. The BLM should amend Alternative C to defer leasing in that area until the president has had time to act.		
HECHO	-- Specific Cultural sites (pages 2-8 and 9 Draft EIS): We recommend that BLM adopt a 1-mile NSO stipulation around cultural sites and cultural concentration areas, consistent with Alternative C. "Apply an NSO stipulation for a 1-mile radius (immediate foreground)" to the 13 identified specific cultural sites.	The commenter's desire for Alternative C regarding protection of the setting of cultural sites is noted. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for the setting of cultural sites than does Alternative D.	623
HECHO	Mineral industry use of the Needles and Anticline Overlook roads (page 2-10 Draft EIS): We agree with applying the stipulation from alternative B; however, disagree with the "exception." The purpose of this stipulation is more than the road damage these large trucks would do, but the potential safety conflict with the recreation visitor experience to these two highly visited tourist overlooks.	The purpose of the stipulation is to protect the integrity and public enjoyment of the Needles and Anticline Overlook Roads. An exception is granted only if there is no alternative to the use of these roads. The exception ensures the road will be maintained for public enjoyment.	624
HECHO	Visual Resource Management (page 2-11 Draft EIS): We recommend applying alternative C stipulations rather than alternative B. While Control Surface Use (CSU) would apply in alternative B this would not prevent infrastructure development within these critical view sheds which are important for more than their filming quality. Therefore, we recommend applying an NSO stipulation.	The CSU and NSO stipulations pertaining to filming locations in Alternatives B and C, respectively are not intended to address the wider issue of general visual resource management. Visual resource management is addressed in Table 2-15. The commenter's desire for Alternative C regarding protection of filming locations is noted. Alternative D, which is identical to Alternative B, provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for filming locations than does Alternative D.	625
HECHO	Wells per pad and well pad placement (page 2-28 and 29, page A-12 Draft EIS): "1. Multiple wells per pad as appropriate." We recommend that the words "as appropriate" be struck. Given current and future technology multiple wells are a norm and can be done under all geologic features. We concur with your compensatory mitigation outside the area of impact; however, we suggest language be added that makes this compensatory mitigation outside the impact area "durable mitigation," consistent with the President's recent memorandum on mitigation, lasting beyond the life horizon of this planning decision. We do not want the mitigation to be undone by another proposed project the following year, as an example.	An operator may only require one well in a location and a requirement for multiple wells would not be appropriate. The CSU stipulation in Alternative D also includes a provision the well pads would be spaced no closer than 2-miles apart. Long-term durability is mitigation conducted outside the area of impact that would be effective as long as the land use authorization affects the resources and values. There is potential that offsite mitigation performed by one operator may be undone by another. However, the BLM would require the subsequent operator to restore the landscape.	626
HECHO	Soils (page 2-40 Draft EIS): "Slopes over 21 percent should be avoided wherever possible." This Draft EIS is focused on oil and gas and potash so the activities would be for these industries. The	When avoidance of slopes over 21 percent is not possible, the CSU stipulation would require an erosion control plan approved by the BLM prior to construction and maintenance. The plan	627

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	language "avoided wherever possible" leaves room for these industries to create infrastructure such as roads where cut banks would be made to hillsides thereby creating visual resource impacts. Therefore, we recommend the language be tightened to Slopes over 21 percent will be avoided.	would include the following: 1) an erosion control strategy and 2) a BLM-accepted survey and design. In addition, any projects must meet VRM objectives.	
HECHO	Old Spanish National Historic Trail (OSNHT) (page 2-45 and 2-73 Draft EIS): The OSNHT is an important asset to Latino people as we interpret our history and culture to our younger generation. Potential impacts from oil and gas and potash development leasing would reduce the historic and scenic settings of the OSNHT. Therefore, protection of this resource is important. Map 3-51 delineates the OSNHT as a single linear future with breaks in this map. However, the OSNHT was not one trail, but many trails that crossed in and around the Moab MLP polygon. Because of the importance of the OSNHT to Latino populations we recommend that the NSO stipulation as described in alternative C be incorporated in the preferred alternative.	Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high***	628

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		potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment. The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
Agapito Associates, Inc.	Alternative A does not address the fact that no PPAs have been acted on in 30 years and companies that spend great sums of money in the exploration for potash are not guaranteed tenure.	Any outstanding PPAs would be processed in accordance with the approved MLP.	650
Agapito Associates, Inc.	Alternative B1 invokes a knowing government hand by separating Oil & Gas and potash leases that would determine the who, what, when, and where of potash development by pitting the industries against each other and defining the methodology, location, and timing of operations. The assumption that the industries could not cooperate with efficient infrastructure and "orderly development" is a false one. A company looking to invest hundreds of millions, and even billions, of dollars must track thousands of cost data and be able to vet various strategies. The economics for mine development are far different from that of the Oil & Gas industry. In fact both PPPA applicants Potash Minerals Limited and American Potash Corp. have altered exploration and development strategies as a consequence of regulatory inertia with respect to tenure. Further burdensome and non-economic stipulations proposed include: § phased leasing dependent on proving feasibility of § experimental technology for directional drilling and multi-well pads as preferred by the BLM for exploration, production and plant as well as stipulations § for the ability to be "producing in paying quantities" within a 10 year window and § multiple and overlapping restrictions for NSO and CSU to protect the view- and soundscapes of the recreational and movie industries and habitat within the PLAs and KPLAs.	Alternative B1 is similar to Alternative D with regard to the separation of oil/gas and potash. The commenter's list of "burdensome stipulations" is noted. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators.	651

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		Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between oil/gas and potash have occurred in New Mexico. These conflicts began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production.	
Agapito Associates, Inc.	Alternative B2 "provides only for Oil & Gas leasing; no new potash leasing." The BLM has witnessed multiple economic cycles but in no way could predict whether one commodity has proven economy over another at any time now or in the future in the planning area. Defining Oil and gas as the "proven commodity in the Planning Area" seems to reject the existence of Intrepid's Moab Potash mine that has been in continuous operation for 50 years.	As stated in Chapter 2 (Section 2.2, Description of Alternatives), "Alternative B2 provides for only oil and gas leasing; no new potash leasing would occur. Oil and gas is a proven economic commodity in the Planning Area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Leasing for oil and gas alone would meet the objective of minimizing surface impacts by eliminating the potential for redundant infrastructure associated with co-development of oil/gas and potash and eliminating the potential for potash processing facilities. Alternative B2 would also	652

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		minimize surface impacts by limiting the density of oil and gas development in a manner that would not dominate the landscape." The Cane Creek Mine began as a conventional underground potash mine in 1963 and in 1970 potash from the old underground workings was extracted by solution mining methods. The Cane Creek mine is located on State and private land and was acquired by Intrepid in 2000. The Cane Creek Mine has been in production for over 50 years utilizing the existing infrastructure which includes rail, solar evaporation ponds, potash plant, highway, gas, power, as well as water rights from the adjacent Colorado River. Within the Planning Area, no potash production has occurred on public land even on potash leases that have been in place since 1984. The deep potash deposits (about 6,500 feet) on public land within the Planning Area could only be recovered by solution mining methods that have only recently been applied to some of the potash deposits below the existing mine workings at the Cane Creek Mine. Therefore, the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Whereas oil and gas production has occurred continuously on public lands within the Planning Area since the early 1900's.	
Agapito Associates, Inc.	Alternative C "emphasizes resource protection over mineral leasing and development," again provides for only Oil & Gas over mineral leasing. This is a false choice. Diversity of economy, whether by mineral, the Oil & Gas industry, recreational, agriculture, ranching, or conservation is key to community sustainability. The economic role of public lands would be to support multiple industries and a diversity of population and income levels. Policy's aim should not be to gentrify areas adjacent to public land and, by doing so, restrict access to a tailored elite.	As stated in Chapter 2 (Section 2.2, Description of Alternatives), "Alternative C emphasizes resource protection over mineral leasing and development. Alternative C provides for only oil and gas leasing; no potash leasing would occur. This alternative affords the greatest protection to areas with high scenic quality, recreational uses, and special designations, as well as BLM lands adjacent to Arches and Canyonlands National Parks and other sensitive resources. In areas open for oil and gas development, surface impacts would be minimized by limiting the density of oil and gas development in a manner that would not dominate the landscape."	653
Agapito Associates, Inc.	Alternative D (BLM's Preferred Option) seeks to reverse engineer the potash and Oil & Gas industries by separating the leasing areas for the two industries and designating where potash processing facilities can and should be located. By imposing these area restrictions after the fact on PPPAs already in process, BLM is effectively pre-selecting which properties can move forward and which cannot.	As stated in Chapter 2 (Table 2-6, Minerals: Potash): "Potash processing facilities can require a substantial commitment of public lands. Therefore, these facilities would be located in areas that have a minimal potential for resource conflicts." PPFAs were delineated based on minimizing resource conflict and not on pre-selecting any potash prospecting permit application. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least	654

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		amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production.	
The Wilderness Society	BLM should provide durable resource protections through lease stipulations that eliminate or limit the availability of waivers, exceptions and modifications. More specifically, the plan should not	Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to	669

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	provide for general waivers, exceptions, and modifications, but should only provide for lease stipulation exemptions where strict, resource-specific criteria have been identified, including consultation requirements with affected tribes and agencies, including NPS. Also, for stipulations designed to protect recreation areas, wilderness quality lands, and national park resources, BLM should make modification or waiver subject to public comment.	identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	
Individual	If BLM stays with Alternative D, please eliminate the allowance of waivers, modifications and exceptions. Also, BLM wilderness lands should be closed to leasing. Such lands must be protected. The same goes for the Red Wash potash leasing area.	Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances, it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review." As stated in Chapter 2 (Table 2-6), "Identified PLAs include blocks of public land in areas where potash leases (Upper Ten Mile) or potash permits (Red Wash and Hatch Point) have been issued. Within these areas, potash resources have been identified and the feasibility of potash production is being pursued." In Chapter 1 (Introduction) it states, "This planning effort does not entail a full RMP revision, but rather maintains a limited	690

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		focus on the management decisions pertaining to oil and gas and potash leasing in the Planning Area." Furthermore, Chapter 1 (Section 1.4.1) has been revised to clarify that this plan amendment would not make decisions regarding whether lands inventoried by the BLM as having wilderness characteristics should be managed to protect, preserve, and maintain these characteristics. Therefore, this plan amendment would not make decisions for managing new areas for their wilderness values. No Wilderness Study Areas or designated Wilderness are located within the Planning Area.	
University of Redlands	We are writing in support of the Moab Master Leasing Plan Alternative B, but instead of options of B1 or B2, we suggest that the leasing of outside lands of high scenic quality be only for the development of renewable energy sources.	The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources. The management alternatives do not include actions for renewable energy because that is outside the scope of the planning document. For information regarding renewable energy in the Moab and Monticello Field Offices, please see their respective Resource Management Plans.	699
Individual	Alt. D is preferable if the following changes are made: 1. No surface occupancy within 1 mile radius of filming locations, recreational trails, climbing/canyoneering areas, and viewsheds. 2. No surface occupancy within 2 miles of National Park boundaries, and no surface-disturbing activities within 2 miles of developed recreation site boundaries. 3. No surface occupancy within: Three Rivers, Canyon Rims SRMA, Labyrinth Rims/Gemini Bridges SRMA, or South Moab SRMA, Behind the Rocks ACEC, Indian Creek ACEC, Lavender Mesa ACEC, Shay Canyon ACEC, and Ten Mile Wash ACEC. 4. No surface occupancy within: identified spring areas, public water reserves, 100-year floodplains, within 660 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs, within 200 feet of ephemeral streams, within 1,000 feet of the Colorado River and Fisher Creek, within the Courthouse Wash and Salt Wash Watersheds. Where horizontal and directional drilling is conducted from areas adjacent to these watersheds, drilling operations will not penetrate the associated groundwater. 5. No surface occupancy on slopes greater than 30 percent. Apply an erosion control plan on slopes between 21 percent and 30 percent.	The changes referred to by the commenter are decisions included in Alternative C. The commenter's preference for Alternative C is noted. The buffers specified in Alternative D to protect water resources were provided by the Environmental Protection Agency (EPA). The recommendations provided by the EPA are as follows: 1) 100 foot buffer on ephemeral streams, 2) 750 foot buffer on impaired waters, and 3) 500 foot buffer on intermittent streams.	752

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	6. Apply Baseline CSU to Dead Horse Cliffs, Lockhart, Upper Indian Creek Trough Springs, and Dripping Spring. 7. Eliminate exceptions to the Baseline CSU, including 2-mile distance between well pads and 1 mile radius of protection for sensitive resources.		
Appendices			
U.S. Fish and Wildlife Service	Appendix A, Mineral Leasing Stipulations - We would like to coordinate with you to develop specific lease notices for Cisco milkvetch (*Astragalus sabulosus*) and Isely milkvetch (*Astragalus iselyi*). The Service found the petitioned listing of these two species may be warranted and will conduct 12-month status reviews to determine whether they are warranted for federal listing under the Endangered Species Act. We recommend the lease notices be finalized for the final EIS. In addition, we would like to coordinate on modifications to the lease notices for Jones cycladenia and for sensitive plants.	Isely milkvetch does not occur within the Planning Area. Cisco milkvetch is found within the Planning Area and is subject to a CSU stipulation requiring a survey in Cisco milkvetch habitat. ***This stipulation has been modified in Appendix A to include a 300 foot avoidance area as recommended by USFWS.*** If the plant is found, all mineral operations would be required to avoid the plant by 300 feet. Should the Cisco milkvetch become a Candidate species, the Lease Notice provided by USFWS would be promptly added to Appendix A. ***Lease Notice language for Jones cycladenia has been revised based on the specific language provided by the USFWS on January 20, 2016.***	73
U.S. Fish and Wildlife Service	Appendix A, Mineral Leasing Stipulations, p. A-28 and A-30 - We support an NSO stipulation within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs, as identified for Alternative D on page A-28. It is unclear why only a Controlled Surface Occupancy is stipulated for Spring Areas on page A-30; this appears to be inconsistent. We recommend an NSO with a 500 foot buffer for springs to provide protection for these important water sources which provide rare and unique habitats for fish, wildlife, and plants	Alternative D (Table 2-11 and Appendix A) imposes a NSO stipulation within 500 feet of springs. The CSU stipulation in Alternative D further requires that a hydrologic assessment be conducted for the spring areas identified on Map 2-39-B/D. These spring areas are larger than the identified springs. The CSU stipulation is intended to ensure that the springs are not impacted outside the 500 foot NSO buffer.	74
U.S. Fish and Wildlife Service	Appendix B, Best Management Practices - We recommend spill prevention and response measures be specified in a plan for all applicable actions, including oil and gas or potash leasing, as a condition of approval. We support the BMP requiring pipelines crossing drainages be buried below scour depth; we recommend that the area of scour analysis include the 100-year floodplain of the drainage and that a scour analysis be conducted for any pipeline permit where the depth is in question.	The spill prevention measures identified in Appendix B will become conditions of approval or applicant committed mitigation measures for site-specific actions. The text in Appendix B has been changed to state, "Where surface pipelines cross existing drainages or intersect points with large contributing drainage areas, the pipelines must 1) be buried below potential scour depth, based on a scour analysis that includes the identified 100-year floodplain, and stabilized with rock to minimize the potential for erosion, or 2) washes shall be spanned with supports located within and at the edge of the floodplain."	75

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Old Spanish Trail Association	Appendix C presents "Historic Properties Visual Assessment for Effect Determination" which appears to be the basis for a useful tool to establish integrity of trail corridor landscapes and settings. However application of the term "pristine" is misleading and ill-advised. "Pristine" cannot be operationalized among different observers. It would be better to use objective measures of intactness or integrity against what "historic users" might have observed. Thus an assessment of intactness (integrity?) should be made of: 1. Landmarks. Are trail navigation landmarks in the trail corridor viewshed visible and do they have an overall appearance similar to during the period of significance of the trail? 2. Landforms. Are landforms visible from observation points within the trail viewshed intact or have they been slightly, moderately or highly altered? 3. Vegetation. How is vegetation density and species distribution different from the period of significance of trail use? How similar are colors and textures of vegetation to the historic condition. What effect do pervasive invasive species (for example cheat grass) have on appearance? Are changes more notable at certain seasons when the trail was documented to be in use. 4. Water sources. Are intermittent and perennial water sources still in the same places (distribution), quantities and quality as in the historic condition? Has groundwater use altered surface water expression? This assessment should take account of season of the year and range of variation between high water and low water years which can be reconstructed from tree ring data by region (see the North American Drought Atlas (http: //iridl.ldeo.columbia.edu/SOURCES/.LDEO/.TRL/.NADA2004/.pdsi-atlas.html). 5. Buildings, structures and archeological sites. What human constructed or modified features are visible in the viewshed/trail corridor? Linear features such as fence lines may create vegetation contrasts and mineral extraction may be relatively dominant or disguised by cover. Archeological sites that are known or may be inferred (predicted) to be in the viewshed should be assessed from both physical and documentary evidence (for example "Rancherias" of American Indians documented by trail users in the period of significance should be considered). Human features in the corridor that may have been abandoned before the trail period of use or re-used by trail travelers (such as at Aztec Ruin National Monument and several other known rock art sites), features manufactured by use (such as the Dominguez-Escalante treadway or aboriginal footpaths and bridle paths) or constructed features noted to be used	Appendix C was not specified for use with visual assessments associated with the OSNHT. The process for conducting visual assessments in order to maintain the current setting of the OSNHT will be determined for site-specific proposals based on the Lease Notice and CSU stipulations in Alternative D. Neither a Comprehensive Administrative Strategy nor a Comprehensive Management Plan detailing specifics for managing the OSNHT within the Planning Area have been completed. The assessment of intactness is not a function of the MLP.	82

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	by the trail users (such as the Dominguez Escalante steps on the north side of El Vado de Los Padres in Glen Canyon National Recreation Area) should be included in the viewshed assessment.		
Coalition to Protect America's National Parks	Of concern is that Section A.1.2 provides that "[s]tipulations may be excepted, modified, or waived by the Authorized Officer." Section A.1.2 goes on to define exceptions, modifications, and waivers, which apparently could be requested by the developer for any site-specific mineral proposals (i.e., APDs, sundry notices). Unfortunately, this blanket policy of entertaining the possibility of variances to many of the stipulations that would otherwise provide effective protection of national park resources and values introduces tremendous uncertainty with regard to the predictability and reliability of BLM's proposed action. How can the public and industry alike know at this point what exactly BLM will do in terms of consistently requiring and implementing the prescribed stipulations when future site-specific projects are proposed? The collective federal land management experience of our many members suggests that such uncertainty regarding stipulation requirements will only invite numerous problems (lawsuits, appeals, etc.) once site-specific projects are proposed and evaluated. Again with our focus on the conservation of national park resources, we strongly urge BLM to tighten up, reduce, or eliminate the proposed exceptions, modifications, and waivers.	Alternative D provides for mineral leasing and development while protecting resources. As such, Alternative D provides operational flexibility for mineral leasing and development through the use of some specific exceptions under limited circumstances. Exceptions, modifications, and waivers are developed in Alternative D to provide operational flexibility. Requests for exceptions, modifications, and waivers to a lease stipulation would be considered in the document prepared for NEPA compliance for site-specific mineral proposals. All NEPA documents are prepared with public involvement. BLM Washington Office Instruction Memorandum 2008-032 states "nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease."	135
Coalition to Protect America's National Parks	In addition, for the reasons already discussed above regarding the Alternatives described in Chapter 2 of the MLP/Draft EIS, we offer the following comments about the stipulations listed in Table A-1: --Pages A-11 and A-12, Minerals, Wilderness Characteristics, Visual Resources, Wildlife Habitat. Comment: Adopt Alternative C. --Page A-18, Recreation, High and Moderate Use Recreation Sites. Comment: Adopt Alternative C for any of the listed sites within 2 miles of the respective national park boundaries. --Page A-20, Recreation, High and Moderate Use Climbing/Canyoneering Sites. Comment: Adopt Alternative C for any of the listed sites within 2 miles of the respective national park boundaries. --Page A-23, Recreation, Labyrinth Rims/Gemini Bridges SRMA. Comment: Adopt Alternative C for any SRMA locations within 2 miles of the respective national park boundaries. --Page A-30, Water, Courthouse Wash and Salt Wash Watersheds. Comment: Adopt Alternative C. --Page A-38, Visual Resources, Viewsheds of Arches National Park. Comment: Adopt Alternative C.	The commenter's preference for Alternative C is noted. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management. Alternative D provides for mineral leasing and development while protecting resources. As such, Alternative D provides operational flexibility for mineral leasing and development through the use of some specific exceptions under limited circumstances.	136

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	--Page A-40, Visual Resources – Night Skies. Comment: Adopt Alternative C. --Page A-41. Auditory Management – Soundscape. Comment: Adopt Alternative C.		
San Juan County Commission	Appendix A: Exception, modification and waiver language for various stipulations and lease categories, although positive in theory, in practice would cause uncertainty for prospective lessees, create another analysis step in the agency decision-making process and ultimately negatively affect future leasing interest. It would be better to re-categorize leasing with less restrictive categories that would allow leasing in appropriate areas so that this subjective analysis step would not be needed.	In most cases, exceptions, modifications, waivers provide operators with increased operational flexibility by providing a means to reduce, eliminate, or modify restrictions while still meeting the objectives of the land use plan amendment (BLM Washington Office Instruction Memorandum 2008-032). A more restrictive leasing stipulation, such as NSO, is intended to inform the operator regarding the difficulty of meeting resource objectives such as those intended to protect visual resources. A less restrictive leasing stipulation, such as CSU, could mislead the operator regarding the difficulty of achieving resource objectives.	220
Individual	"Appendix C presents “Historic Properties Visual Assessment for Effect Determination” which appears to be the basis for a useful tool to establish integrity of trail corridor landscapes and settings. However application of the term “pristine” is misleading and ill-advised. “Pristine” cannot be operationalized among different observers. It would be better to use objective measures of intactness or integrity against what “historic users” might have observed. Thus an assessment of intactness (integrity?) should be made of: 1. Landmarks. Are trail navigation landmarks in the trail corridor viewshed visible and do they have an overall appearance similar to during the period of significance of the trail? 2. Landforms. Are landforms visible from observation points within the trail viewshed intact or have they been slightly, moderately or highly altered? 3. Vegetation. How is vegetation density and species distribution different from the period of significance of trail use? How similar are colors and textures of vegetation to the historic condition. What effect do pervasive invasive species (for example cheat grass) have on appearance? Are changes more notable at certain seasons when the trail was documented to be in use. 4. Water sources. Are intermittent and perennial water sources still in the same places (distribution), quantities and quality as in the historic condition? Has groundwater use altered surface water expression? This assessment should take account of season of the year and range of variation between high water and low water years which can be reconstructed from tree ring data by region (see the North American Drought Atlas (http: //iridl.ldeo.columbia.edu/SOURCES/.LDEO/.TRL/.NADA2004/.pdsi-	Appendix C was not specified for use with visual assessments associated with the OSNHT. The process for conducting visual assessments in order to maintain the setting of the OSNHT will be determined for site-specific proposals based on the Lease Notice and CSU stipulations in Alternative D. Neither a Comprehensive Administrative Strategy nor a Comprehensive Management Plan detailing specifics for managing the OSNHT within the Planning Area have been completed. The assessment of intactness is not a function of the MLP.	413

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	atlas.html). 5. Buildings, structures and archeological sites. What human constructed or modified features are visible in the viewshed/trail corridor? Linear features such as fence lines may create vegetation contrasts and mineral extraction may be relatively dominant or disguised by cover. Archeological sites that are known or may be inferred (predicted) to be in the viewshed should be assessed from both physical and documentary evidence (for example "Rancherias" of American Indians documented by trail users in the period of significance should be considered). Human features in the corridor that may have been abandoned before the trail period of use or re-used by trail travelers (such as at Aztec Ruin National Monument and several other known rock art sites), features manufactured by use (such as the Dominguez-Escalante treadway or aboriginal footpaths and bridle paths) or constructed features noted to be used by the trail users (such as the Dominguez Escalante steps on the north side of El Vado de Los Padres in Glen Canyon National Recreation Area) should be included in the viewshed assessment."		
Consistency with Other Plans			
San Juan County Commission	Section 5.2.6 Consistency with Other Plans should also list H.B. 393, Energy Zones Amendments.	H.B. 393 has been addressed in Chapter 5 of the MLP/FEIS in Section 5.2.6 (Consistency with Other Plans).	219
Cultural Resources			
Utah Dine Bikeyah	We value the benefits of mineral extraction, but as an organization we would like to see the BLM ensure that public lands continue to provide the valuable human and ecological services they do today. We are especially concerned with the cultural and spiritual uses of public lands in southeastern Utah by Native American Tribes.	The BLM recognizes its responsibility to ensure meaningful consultation and coordination with other agencies and Tribes concerning the MLP. Chapter 5 of the Draft EIS, section 5.2.1, contains information on tribal coordination, and Table 5-1 contains a list of Tribes contacted for consultation. The implementing Federal regulations at 36 CFR 800.4a(4) for Section 106 of the National Historic Preservation Act explicitly state that Federal agencies should gather information from Indian tribes to identify properties of religious or cultural significance to the tribes that may be eligible to the National Register of Historic Places. An ethnographic study is one way for BLM to fulfill this regulatory requirement. Ethnographic research can be conducted in much the same way archaeological research is conducted to identify sites of archaeological value. Additionally, BLM has already requested and received ethnographic reports paid for by proponents to help fulfill compliance with Section 106 and the National Environmental Policy Act. As stated in the Notice, ethnographic data collection is an option to mitigate impacts to historic properties.	400

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Utah Dine Bikeyah	UDB requests that all future potash, oil and gas development impacts be kept out of the boundaries of the proposed Bears Ears National Monument.	The designation of the Bears Ears National Monument is outside the scope of the MLP.	401
Utah Dine Bikeyah	Outside of the Bears Ears Boundaries, UDB also requests that the BLM utilize currently available Native American cultural use data and historic knowledge to assess potential impacts within the study area. Maps showing the extent of these uses in San Juan County are attached below. This data was collected by UDB over the past six years, but has not yet been requested for inclusion in the Final EIS. It would be important for the BLM to understand the types of cultural uses occurring in each area so that these interests can be avoided when possible, or mitigated if necessary.	The maps referenced by the commenter show cultural use areas within a portion of the Planning Area. The cultural use areas include the proposed National Monument and additional lands outside of the proposed monument. The maps indicate that the cultural use areas are important for hunting, fishing, gathering, ceremonies, sacred sites, and historic sites. No site-specific information was included. The majority of the lands identified as cultural use areas are managed with major constraints (closed and no surface occupancy) for mineral leasing and development in Alternative C. Therefore, most of the concerns identified by the Utah Dine Bikeyah are protected in Alternative C. In addition, a large part of the cultural use areas are also protected with major constraints under the Proposed Plan (Alternative D) in the FEIS. Furthermore, in Alternative D, a Lease Notice would inform the lessee/operator that in areas of high potential for cultural site occurrence there is a higher likelihood of encountering cultural resource concerns (i.e., potential adverse effects) that may require archaeological monitoring, ethnographic data collection, data recovery, and mitigation of historic properties in order to exercise lease rights. This mitigation would be applied to site-specific mineral actions as appropriate. The BLM recognizes its responsibility to ensure meaningful consultation and coordination with other agencies and Tribes concerning the MLP. Chapter 5 of the Draft EIS, section 5.2.1, contains information on tribal coordination, and Table 5-1 contains a list of Tribes contacted for consultation. The implementing Federal regulations at 36 CFR 800.4a(4) for Section 106 of the National Historic Preservation Act explicitly state that Federal agencies should gather information from Indian tribes to identify properties of religious or cultural significance to the tribes that may be eligible to the National Register of Historic Places. An ethnographic study is one way for BLM to fulfill this regulatory requirement. Ethnographic research can be conducted in much the same way archaeological research is conducted to identify sites of archaeological value. Additionally, BLM has already requested and received ethnographic reports paid for by proponents to help fulfill compliance with Section 106 and the National Environmental Policy Act. As stated in the Lease Notice,	402

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		ethnographic data collection is an option to mitigate impacts to historic properties.	
Individual	Based on consultation with Native Americans, the BLM will consider sites, areas, issues, and objects important to their cultural and religious heritage. This opens up another avenue for disagreement over uses in a vast area. . . . only verifiable historical considerations should be made for direct physical impacts.	Federal laws require the BLM to consult with Native American Tribes, the State Historic Preservation Office (SHPO), the U.S. Fish and Wildlife Service (USFWS), and the Environmental Protection Agency (EPA) during the planning/NEPA decisionmaking process. Chapter 5 of the Draft EIS, section 5.2.1, contains information on tribal coordination, and Table 5-1 contains a list of Tribes contacted for consultation.	546
Individual	Friends of Cedar Mesa remains concerned about Upper Harts Draw, a remote area rich in cultural resources that was not afforded the same cultural resource protections as places like Newspaper Rock. Upper Harts draw has an abundance of rock art, and in all likelihood, some surface sites. It is likely to have the same archaeological densities as Upper Indian Creek, and as such should be offered more protection from oil and gas drilling. As the draft EIS reads, Upper Harts draw is protected as a riparian corridor but if Upper Harts Draw can be added to the list of 13 specific cultural areas listed in Alternatives B-D, it will be protected by a 0.5 mile NSO radius that expands to the mesa tops.	All cultural sites are protected by the National Historic Preservation Act. The 13 specific cultural sites listed in Table 2-2 are afforded specific protection for their viewsheds and soundscapes (setting). These 13 sites were selected as the most heavily visited sites in the Planning Area. The cultural sites located in Upper Hart's Draw are protected by law and their lack of visitation.	561
The Wilderness Society	13 cultural sites have been identified by BLM. Under the Preferred Alternative surface-disturbing activities are prohibited within 0.5 miles of these cultural sites. Given the topography of the area, 0.5 miles is not appropriate to preserve the visual and audible conditions associated with these sites. At a minimum we recommend expanding the NSO stipulation to within 1 mile of the 13 identified sites.	The majority of the sites listed are located in narrow canyons, alcoves, and rugged terrain where a 0.5-mile buffer provides sufficient protection to the visual and audible conditions due to the nature of the terrain.	672
FLPMA			
Individual	Goals and objectives be established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield unless otherwise specified by law, Chapter 1.2.1 etc. of the MLP says nothing about 'multiple use' in fact the plan and preferred Alternative D removes substantial land from mineral and oil/gas development. BLM's primary mission is multiple use and sustained yield - as codified in the Federal Land Policy and Management Act of 1976 (FLPMA). The MLP removes substantial land from mineral and oil/gas development and is in conflict with statute and policy identified in the Mining and Minerals Policy Act (Public Law 91–631, 30 U.S. Code § 21a) which states in part: TITLE I—MINING POLICY, SEC. 101. The Congress declares that it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in (1) the	The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning	63, 227, 231, 244, 252, 392

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	development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries,…" It should also be noted that these alternatives fly in the face of the BLM's mandate to allow multiple uses on the lands under their control, and to manage those lands in such a way as to provide the American taxpayer the most value. There is nothing in any of the action alternatives that suggests tolerance of multiple uses, other than those favored by the BLM, and certainly nothing to suggest that the nation will get the best value. The egregious Conditions of Approval placed on oil and gas leasing, and the restrictions on land use that are to apply even to leases that are already being held, are tantamount to forcing a particular use out of existence. Also, the MLP seems to rather blatantly promote certain industries over others; for example, the document gives priority in land use to the filming industry, at the expense of oil and gas, and the local workers the industry employs. Your office is supposed to comport with the multiple use principle, not pick which uses are deemed desirable and which ae not. To the extent that the mandate calls for prioritizing uses, the clear directive has always been to ensure that natural resources are responsibly and efficiently developed, to provide	Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses.	
Individual	Analysis Methods (p 4-1) "The BLM manages public lands for multiple uses in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA). The FLPMA requires the BLM to manage public lands and resources according to the principles of multiple use and sustained yield, including recognizing the nation's needs for domestic sources of minerals, food, timber, and fiber. To ensure that the BLM meets its mandate of multiple use in land management actions, the impacts of the alternatives on resources and resource uses are identified and assessed as part of the planning process." Comment Here we have a statement that implies this MLP process is out of compliance with FLPMA. No one reading this MLP could possibly come to the conclusion that these new constraints represent "multiple use" within the MLP area, nor do they recognize "…the nation's needs for domestic sources of minerals…" An argument could be made that the entire MLP process is illegal. The MLP needs to provide a record of the legal analysis that determined the MLP process is consistent with the overriding provisions of FLPMA.	The Moab MLP/DEIS was prepared in accordance with BLM Washington Office Instruction Memorandum 2010-117: Oil and Gas Leasing Reform - Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013).	195
Individual	FLPMA (Public Law 94-579, 43 U.S. Code § 1701) Title I, Section 102 (a) The Congress declares that it is the policy of the United States that - (4) the Congress exercise its constitutional authority to	A withdrawal is not required in order to close lands to fluid mineral leasing and other discretionary uses. A withdrawal is only required to close lands to location and entry under the	391

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	withdraw or otherwise designate Federal lands for specified purposes and that Congress delineate the extent to which the Executive may withdraw lands without legislative action Removing substantial tracts of land from mineral and oil/gas development, which the BLM preferred Alternative D does, is a withdrawal action, the Secretary of the Interior needs to bring this before Congress. What is the legal guidance on this? How is this MLP legal?	1872 Mining Law. The BLM is aware of their requirement to notify the US Congress of any decision for mineral withdrawal on an aggregate of 5,000 acres or more, or removing one or more of the principle uses on 100,000 acres or more, as required by Sections 202 and 204 of FLPMA. In the event that BLM makes decisions that trigger such notification and reporting requirements, it will notify the Congress as required by law.	
State of Utah School and Institutional Trust Lands Administration	Under FLPMA, the BLM must manage public lands and resources according to the principles of multiple use and sustained yield, "including recognizing the nation's needs for domestic sources of minerals, food, timber, and fiber." See id Chapter 4, Page 1, Line 20. Alternative A under the MLP, which manifests the current leasing plan under the 2008 RMPs, reflects such multiple use. In contrast, all other alternatives under the MLP impose sweeping limitations on oil and gas leasing. Indeed, the MLP specifically states that one of its purposes is to "consider a range of new constraints to leasing." See MLP Executive Summary, Page 2, Line 10. If the BLM is properly carrying out its multiple use mandate under FLPMA, which includes allowing for appropriate mineral leasing and development, there is no valid justification for the MLP as there has been no change in circumstances or new information regarding oil and gas development in the area since the preparation of the 2008 RMP. As part of the supporting documentation for the MLP, the BLM prepared a Reasonably Foreseeable Development Scenario for Oil and Gas in the Moab Master Leasing Plan Are, Canyon County District ("RFD"). The RFD specifically states that the conclusions of oil and gas occurrence and development potential are unchanged since 2005. This leads to the conclusion that the new constraints on oil and gas leasing contained in the MLP are based on a new policy that heavily emphasizes conservation and specifically disfavors mineral development. Such a policy is clearly inconsistent with FLPMA's multiple use mandate.	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states "The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development." ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP.*** Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process. The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	709

Organization	Comment	Response	Comment ID
		As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process.	
Impact Analysis			
Individual	Air Quality: Analysis Assumptions (p 4-4) "The quantitative analysis includes only emissions from oil and natural gas well development, and potash mining on BLM-administered public lands. Activities related to other resources and uses such as cultural resources, recreation, lands and realty actions, prescribed burning, vegetation management, transportation and access, visual resource management (VRM), and fish and wildlife management are assumed to be minor sources of air emissions and/or not well-defined concerning emissions factors and activity levels, and therefore were not quantified." Comment This is in direct contradiction to information presented in Chapter 3 (page 3-5) which states "Mobile sources (primarily motor vehicles) account for most of the CO, NOx, and a large amount of the PM in the Planning Area." The MLP needs to clarify this inconsistency.	The air quality analysis only concerned itself with identifying pollutants that may cause adverse impacts related to activities contemplated under the MLP. It is beyond the scope of this analysis to look at all other potential sources of air quality impacts that could affect the Planning Area. This is consistent with current NEPA practice.	197
Individual	Table 4-15. The Potential for the Occurrence of Cultural Sites by Alternative and Mineral Leasing Decision (in acres) (p 4-24) Comment: This table is illogical. It identifies acreage in the MLP for potential occurrence of high, medium and low cultural resources. Why would those numbers vary by alternative? The potential for occurrence is what it is across the MLP area. An alternative does not change if the potential for occurrence is there or not. Each alternative may have a different impact on these areas, but why would the acreages change? The MLP needs to clarify this confusion.	Table 4-24 displays the potential for the occurrence of cultural sites by Alternative and by mineral leasing decision. The table displays three variables: 1) cultural probability (high, medium, and low), 2) mineral leasing decision, and 3) alternative. The acreage of high, medium, and low potential for cultural resources varies by mineral leasing decision and not by alternative. The acreage of cultural site probability does not change across alternatives and is displayed in Table 3-12.	199

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Individual	Impacts from Alternative D (p 4-32) "Impacts from applying a CSU stipulation within 1.0 mile of the high use filming locations would be the same as those described in Alternative B." Comment Fundamentally, mineral related impacts to filming locations can be managed under Alternative A utilizing the VRM system, but the proposed alternative would arbitrarily add a 1 mile buffer (177,594 acres) requiring an operator to conduct a full visual assessment. Can it be assumed that this assessment would be required for temporary mineral exploration activity, without ever knowing if the filming site would even be used during the mineral operation? This is yet another example of the lack of impact that nonetheless results in constraints being imposed by the MLP process. The MLP needs to clarify if this constraint will be imposed on both exploratory operations and production operations, and it needs to provide justification rationale for constraining a resource use when existing VRM management is adequate.	Many of the filming locations listed in Chapter 2 do not have a viewshed that extends a full mile (such as those locations within canyons). All but two of these locations are in areas managed as VRM II, and thus managed with a NSO stipulation. This would also mean that the existing VRM management would be utilized for all but two of the locations. Also, see Response to Comment 193. The assessment would not be required for temporary mineral activity, as Chapter 2 states on page 2-11, "This stipulation would require a visual assessment to demonstrate that the proposed mineral operations within this area do not result in long-term impairment to the scenic quality from the filming location" (italics added).	200
Individual	Mineral Analysis (pp 4-39 thru 4-51) Comment This entire analysis section pretty much sums up the impacts from this MLP process to the mineral resource and industry in this area: higher costs, increased complexities, delays, fewer acres available, etc. When taken together, all of these constraints will ultimately result in an unfavorable environment for investment by mineral development companies. And none of this results in "certainty" for operators with the exception of those areas that are off limits. This will result in loss of economic opportunity for local residents, the state and the nation. Again, these restrictions are being applied with very little analysis showing impacts to the other resources in the area. This MLP process is not being done to "balance" use in the area, it is being done, by political design, to add maximum constraints to any type of mineral operation.	Chapter 4 in the MLP/DEIS details the potential impacts to non-mineral resources from the lease stipulations proposed by alternative in Chapter 2. The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions: – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be	201

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		necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions cited above. Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash.	

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		Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).	
Individual	Paleontological Resources (p 4-52) "The loss of any identifiable fossil that could yield information important to prehistory or embodies the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant impact." Comment This seems to be making a stretch to call such loss "significant," which has a very specific meaning under CEQ regulations for environmental impact analysis. Our failure to be able to understand the morphology or suggested environment from an organism that lived 100's of millions of years ago hardly seems to pose a "significant" impact to our human environment or condition at present.	***The text in Chapter 4 (4.9, Paleontological Resources) has been changed from "significant" impact to "adverse" impact.***	202
Individual	Recreation: Impacts from Alternative A (No Action) (p 4-60) "Managing 133,574 acres with an NSO stipulation would eliminate most mineral development impacts to recreation, with the possible exception of noise, traffic, and fugitive dust coming from adjacent areas where horizontal drilling might be possible. On 753 acres closed to mineral leasing, mineral development impacts to recreation would be eliminated. While the impacts described in the paragraph above could lead to displacement of recreation visitors, this is not a guarantee, as recreationists come to the Moab area for a variety of reasons and nearly all trails, roads, and other recreation opportunities would remain open for such use. Recent trends have shown that mineral development in the Dead Horse Point and Island in the Sky districts did not precipitate a decline in visitors to those two destinations (BLM Moab Field Office, November 2013)." (emphasis added). Comment This is a significant statement, pointing yet again to the lack of clarified need for this entire MLP process. Actual data show that recreation is increasing at dramatic rates in this area in spite of the on-going mineral development over the past 15 years. All the other identified recreation impacts cited in this section are guesses, couched under the term "could" happen, not "will" happen. The MLP needs to offer a full explanation of the actual NEPA justified need for recreational mitigation when statements like these are presented. And the answer is not to remove this statement, since it is based on factual, quantified data, which the rest of this section is not.	The commenter seems to feel that there is some mechanism, unknown to BLM, which would allow BLM to predict with certainty changes in recreation usage under the various MLP alternatives. There is no such mechanism; hence, the use of words such as "could," rather than "would." The reference to mineral development and the trend in recreation visitation in the Big Flat area applies only to site-specific impacts from a relatively low level of mineral related development in 2013. The paragraph preceding (p. 4-60) notes "oil and gas and potash leasing could both reduce the quality of recreation experiences in some parts of the Planning Area where roads, trails, dispersed camping, and other such types of recreation occur nearby. Wells and associated facilities, potash processing facilities, pipelines, increased road traffic, noise, dust and the visual impacts of facilities in otherwise natural areas could all reduce the quality of recreation experiences and possibly displace recreationists to other areas." One cannot conclude from the site-specific impacts referred to in the BLM 2013 reference, and provided as a qualifier, that larger scale mineral development (e.g., a potash production facility covering up to 1,000 acres) would have equally benign effects on recreation usage. The reason for using the phrase "could happen" for Alternative A is that BLM does not know at this stage where large scale minerals development would occur under the less restrictive focus of Alternative A. For example, construction of a large-scale potash production facility along either side of UT 313	203

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		could have a major negative impact on recreation visitation to this area, and one for which relocating visitors to other areas within the MLP area likely would not suffice. ***Text has been added to Chapter 4 Section 4.10.3 to clarify the relationship of the cited 2013 BLM reference and its lack of applicability to larger scale mineral development in areas of heavy recreation usage.*** During the planning process a large number of individuals, outfitters and guides, the City of Moab, and Grand County have expressed concerns that mineral development will harm individual recreation experiences as well as the recreation-based economy; this possibility cannot be dismissed. Alternative D allows for mineral development without putting the recreation economy at increased risk. There are examples of where large scale minerals activities have negatively affected the recreation economy. In Uintah County, for example, Dinosaur National Monument (a major recreation amenity) has seen a decline in visitation of over 40 percent from 1999-2014 (1999 being the year in which Uintah County reversed years of declining oil and gas production); oil production increased over 358 percent during the same time period. During that time period, natural gas production increased over 339 percent. This is not meant to suggest a causal explanation, as a multitude of factors can contribute to changes in any economic sector. In the Uintah Basin, however, the reported scarcity of accommodations caused in part by an influx of minerals employees, could explain part of the decline in visitation to Dinosaur National Monument. Within the Planning Area, it is certainly possible that the influx of a thousand or more potash facility construction workers could also have a negative impact on the recreation economy, due to the potential difficulty in finding lodging. Chapter 4 of the DEIS (pages 4-59 to 4-63, 4-101 to 4-103) discusses the risks to recreation visitation and experiences under Alternative A, and which would be less under the other alternatives. For example, Chapter 4, Section 4.10.3 contains the following statements, clearly depicting the increased risks to recreation under Alternative A: --Allowing mineral industry traffic on the Needles Overlook and Anticline Overlook Roads could lead to heavy truck traffic in areas of popular recreation use, which could create poor road conditions, industrial level traffic, and fugitive dust that could degrade recreation experiences and could conflict with recreational use within the Canyon Rims SRMA.	

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		--Not applying lease stipulations specifically for the mitigation of potential impacts to lands with wilderness characteristics (192,220 acres) could lead to degradation of the values associated with primitive forms of recreation, such as opportunities for primitive, unconfined recreation, and solitude. --Under Alternative A, oil and gas and potash leasing and development could occur concurrently within the same tract of land, which could result in a greater concentration of development and redundant infrastructure. Although drilling for oil and gas and potash is similar, the production of potash requires the use of potash processing facilities, which involve large tracts of land over a long period of time. Mineral development would result in soil and vegetation disturbance and the presence of permanent structures that facilities, including the presence of work crews, vehicles, and equipment, would degrade recreational opportunities. --Oil and gas and potash leasing could both reduce the quality of recreation experiences in some parts of the Planning Area where roads, trails, dispersed camping, and other such types of recreation occur nearby. Wells and associated facilities, potash processing facilities, pipelines increased road traffic, noise, dust, and the visual impact of facilities in otherwise natural areas could all reduce the quality of recreation experiences and possibly displace recreationists to other areas. Visual impacts of surface disturbance reduce the naturalness of back-country recreation and reduce opportunities for solitude. These impacts would occur primarily on 210,884 acres subject to standard terms and conditions and on 440,356 acres subject to CSU and TL stipulations. CSU and TL stipulations could reduce general overall impacts, such as TL stipulations that coincide with tourist seasons and CSU stipulations that mitigate impacts to visual resources. --Compared to oil and gas leasing, potash leasing, which would occur with the same leasing restrictions and in the same areas as oil and gas, could have more impacts to recreation experiences. Well spacing could be more concentrated and processing facilities would be bigger and more industrial. Together, oil and gas and potash leasing could occur on lands open to leasing with standard terms and conditions and with minor constraints (CSU and TL stipulations) on 83 percent of the Planning Area.	
Individual	Recreation: Impacts from Alternative A (No Action) (p 4-62)	The MLP can control only actions on BLM land; analysis of actions within the National Parks, on State Highways or on adjacent rail lines is beyond the scope of the MLP. The	204

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	"Not addressing auditory management near National Park boundaries could allow noise from mineral development to disrupt the solitude of the Planning Area and adjacent National Parks." Comment This analysis fails to recognize the auditory impact of 400-500,000 + vehicles per year that go into these national parks. The parks are literally crawling with motorized recreation uses and all the attendant noise and crowds. With the congestion in these parks on high use weekends and holidays, the noise associated with the nearness of highway 191 and Interstate 70, the rail lines and airport just outside the boundaries of the parks, the noise that could come from mineral activities would seem to pale in comparison. The MLP needs to provide some comparative analysis of these noises.	Preferred Alternative imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. For the most part, roads within Arches and Canyonlands National Parks are located in the interior of the parks and do not impact the backcountry of those parks. As stated on page 2-54 of the MLP/DEIS, the purpose of this NSO stipulation is to "reduce auditory impacts from mineral operations to backcountry portions of Arches and Canyonlands National Parks." Auditory management of minerals activities on BLM lands is analyzed in Chapter 4 and the cost associated with this NSO stipulation is acknowledged.	
Individual	Recreation: Summary of Economic Impacts (p 4-103) "Under all alternatives, it is likely that recreation visitor days to BLM lands within the Planning Area will continue to increase at the historical annual compound growth rate of approximately 3.1 percent. Recreation visitation in the Planning Area would generate $760.9 million (in present value and 2014 dollars) in total economic output over the 15-year life of the plan. This economic activity would include $446.6 million in labor earnings, and support an average of 1,086 jobs per year. To the extent that actual future visitation is greater or less, the corresponding economic impacts would be greater or less." Comment Statements and analysis like this need to be presented in the final Record of Decision for this MLP process. The decision maker and the public need to see a full disclosure of what this analysis for the MLP clearly shows, that there are in fact very little if any environmental gain that would be achieved by implementation of the MLP beyond those gained by current stipulations and constraints imposed by the 2008 RMP. In fact the MLP also needs to include a benefit/cost analysis. Such an analysis would very likely show that there is little benefit to economic output from other resources in the area, but constraining the mineral resources in this area will result in significant costs to doing so, with the potential loss of $1.87 billion dollars of economic output, the loss of 285 permanent jobs, 1,362 potash plant construction job, and the loss of $277 million of lost revenue to local, state and the federal government.	The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts described in Section 4.10.3 are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. ***Text has been added to clarify the potential impacts to recreation in the No Action Alternative in Sections 4.10.3 (Recreation) and 4.12.3 (Socioeconomic).*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions: – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013).	205

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		– Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. The commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist. Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).	
Individual	Soil Resources (p 4-124 thru 4-130) Comment The soil impact section correctly identifies there are impacts to soil erosion from surface disturbing activities. What the analysis fails to recognize and quantify are the natural events and the natural predisposition of eroding soils from this region. It fails to recognize that this entire region is a geologic regime of erosion and has been for the past several million years. It fails to quantity differences between natural erosion and that caused by surface disturbing activities? Do man made surface disturbances attributable to mineral development increase erosion and sedimentation by 5% above normal, 10% above normal, 50% above normal? Without this type of quantitative analysis we have no way of gauging the impact from temporary surface disturbing activities, relative to natural erosion rates. How is a decision maker to gauge this difference and subsequently make reasoned decisions? It provides virtually no quantitative assessment. It provides no analysis of soil erosion characteristics relative to the many varieties	The best available data was used in the preparation of the Moab MLP/DEIS. However, certain information is unavailable or requires site-specific information to analyze. Due to a lack of quantitative data, some impacts can be discussed only in qualitative terms. Subsequent project-level NEPA documents will provide the opportunity to collect site-specific data and analyze these data in quantitative terms.	206

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	of soils present in the area. It provides no analysis of resilience and abilities of different soil types for reclamation. It provides no comparative analysis of differing types of sedimentation from differing types of disturbances. It fails to address differing rates of sedimentation from prescribed reclamation methodologies. This type of analysis is typical of the entire impact section, which fails to take a "hard look" at impacts to resources from mineral development, or the impact of developed resource constraints to mineral development.		
Individual	Water Resources (p 4-131 thru 4-142) Comment While the impact assessment for water resources is somewhat more quantitative than for soil, it still fails in taking a hard look at the tangible impacts. Are there any culinary water supplies within the MLP area that would be impacted if casing/cementing of wells were to fail? How large an area do these supply areas cover? What types of water volumes could be expected to be impacted? And how long would such impact potentially last?	The best available data was used in the preparation of the Moab MLP/DEIS. However, certain information is unavailable or requires site-specific information to analyze. Due to a lack of quantitative data, some impacts can be discussed only in qualitative terms. Subsequent project-level NEPA documents will provide the opportunity to collect site-specific data and analyze these data in quantitative terms.	207
Individual	Areas of Critical Environmental Concern (p 4-143) Comment The MLP identifies 26,187 acres of ACES's within the MLP area that were designated during the 2008 RMP. According Title 1, Section 103 of the Federal Land Policy and Management Act: "(a) The term "areas of critical environmental concern" means 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 of processes, or to protect life and safety from natural hazards." The implication of this language is that if BLM is to bring special management to an area it must be on areas determined to be an "area of critical environmental concern." The MLP is a Secretarial Oder construct, and of the 785,000 acres analyzed in the MLP, only 26, 187 acres are actually designated as ACEC's, and should have been the only areas analyzed for "special management" via the MLP as prescribed in FLPMA. The MLP needs to provide an explanation for how it circumvents this legal FLPMA requirement.	FLPMA does not preclude the BLM from applying mineral leasing stipulations to areas other than ACECs. The application of mineral leasing stipulations for resource protection through a land use planning process does not constitute special management.	208

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Individual	Wildlife and Fisheries (p 4-203 thru 4-224) Comment The MLP needs to provide an analysis of impacts to mineral development from the dizzying array of overlapping wildlife seasonal constraints. This analysis needs to list all timing restrictions, by species, and present some analysis of the difficulty this presents to conducting work in light of the uncertainty of the timing restriction which are dependent on the limited timeframes available to conduct surveys for said species.	The BLM defers to the Utah Division of Wildlife Resources, the agency with jurisdictional expertise, in developing seasonal constraints. Timing limitations for wildlife are identical across all four alternatives; however, the extent of habitat to which the TL applies may vary by alternative. The document acknowledges the impacts of the timing restrictions imposed on the operator. The analysis in Chapter 4 (Oil and Gas/Potash) states that timing limitation stipulations may result in additional costs and delays to mineral operators by limiting the siting of operations and requiring specialized equipment, design considerations, and erosion control plans. The analysis further explains that TL stipulations would result in additional costs and delays by requiring surveys, avoidance of occupied areas, rerouting of roads and pipelines, and re-siting of production and processing facilities, or extra operational time if the surface disturbance window does not accommodate an individual project schedule and timeline, and project activities need to be postponed. All timing restrictions for wildlife are specified in both Chapter 2 and in Appendix A.	209
Individual	The MLP should make more explicit disclosures in some instances, mostly in the form of easy to understand transparent discussions. This is necessary so that the public truly understands the ramifications of the proposed action. When discussions, especially analyses in chapter four, draw conclusions, they need to explicitly delineate the data used, give at least a brief overview of the type of calculations used, and give clear temporal and geographic bounds for the conclusions. These are often lacking in the MLP.	The commenter has provided no specific examples of the information that is lacking.	423
Western Energy Alliance/American Petroleum Institute	The DEIS includes as an "assumption" the statement that "Directional and/or horizontal drilling could be used to access hydrocarbon resources under areas constrained by surface use restrictions (e.g., NSO restrictions)." DEIS at 4-39. Alternatives B, C, and D contain extensive NSO areas that will not be accessible, even from a wellpad placed on the border of the NSO area. The assumption contained in the DEIS causes BLM to understate the impact the alternatives will have on oil and natural gas development.	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO	507

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		stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. Horizontal drilling within the Planning Area has reached well over 1-mile.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The DEIS fails to address significant climate, air, water, health, and wildlife effects of oil and gas development.	The commenter does not provide any specific information regarding the alleged deficiency of the analysis. The level of analysis in the MLP is appropriate for a land-use planning effort. Impacts for the resources listed have been disclosed in the Air Quality (Section 4.3), Water Resources (Section 4.13.2), and Wildlife (Section 4.20) in Chapter 4. Health was not raised as an issued to be addressed in the planning process.	565
Lands and Realty			
Individual	Lands and Realty: Filming (p 3-28) "The Moab Field Office is very active in the issuance of film permits, and is one of the busiest in the State of Utah. Many feature length films, as well as commercials and television productions, are filmed within the Planning Area. Filming locations within the Planning Area are identified on Map 3-7. The film industry on BLM lands contributes 98.5 jobs, $1.2 million in labor income, $4.3 million in total economic output, and $143,000 in State and local tax revenues." Comment The MLP will constrain the minerals industry with viewshed analysis required in these high use filming areas, for a resource that contributes $4.3 million in total economic output to the area. The MLP provides no comparative analysis in Chapter 4 on the subsequent economic impact to the mineral development from this questionable constraint, nor any substantive analysis identifying any long term impact from past mineral operations on the filming industry. In fact it could be argued that mineral development has had a positive impact on filming opportunities by providing roads for access and abandoned drill pads for staging operations.	The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. The imposition of a viewshed analysis is not an onerous requirement, but Chapter 4 acknowledges that CSU stipulations can result in "additional costs and delays to mineral operators" (page 4-41). The exact cost of this constraint could only be quantified on a site-specific basis. While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets.	193
Lands with Wilderness Characteristics			
Individual	All BLM-identified land with wilderness character should be closed to leasing or, at a minimum, open to leasing only with no-surface occupancy stipulations. These lands contain intact soils, vegetation and ecosystems that once damaged, may take decades or even centuries to heal.	The purpose of the MLP, as a targeted Plan Amendment in the context of Manual 6320, is not intended to "ensure that those wilderness qualities are preserved for future generations." The commenter, in effect, is asking the BLM to manage LWC in the same manner as Natural Areas throughout the MLP Planning	3

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		Area, which is outside the scope of the current planning effort. This is clearly stated in Chapter 1 of the DEIS.	
Individual	In 1979 there were 0 acres with wilderness characteristics within the MLP area. In 1999 it was found to contain 143,639 acres with wilderness characteristics. And in 2008 it was found to contain 203,846 acres. Now for the MLP there are 220,460 acres of land that have wilderness characteristics and will be managed like WSA's. What is occurring here? How did 200,000+ acres of land with wilderness characteristics suddenly appear over 30 years? How were those lands missed in 1979? Have survey techniques for inventory under the 1964 Wilderness Act requirements of "solitude" and "untrammeled by man" changed? Or have these changes been brought about from deviation of the original intent of the Wilderness Act. How has then been possible in an area that has seen 40-50 wells drilled in it since 1979, and an explosion of off road recreationist and visitors from hundreds per year to hundreds of thousands per year? This defies logic. The MLP needs to explain and justify how wilderness keeps appearing in this area.	The Wilderness Act of 1964 provided little specific guidance on evaluating whether lands possessed wilderness character, beyond defining "roadless" areas as exceeding 5,000 acres. BLM, on the basis of FLPMA (1976), began its own inventory of BLM lands in Utah for wilderness character in 1979, using guidance provided by BLM's Wilderness Inventory Handbook (1978). That Handbook provided interpretation of roadless areas to include a definition of what constituted a "road." To constitute a "road," and therefore a wilderness boundary, the routes in question had to be constructed, maintained by mechanical means on an ongoing basis, and receive regular and continuous use. These criteria were drawn directly from the House subcommittee proceedings that were part of the creation of FLPMA, and provide a means on interpreting the meaning of "roadless" from the Wilderness Act. Based on these criteria, BLM undertook an initial wilderness inventory in Utah in 1979. Areas inventoried were often very large, often exceeding 100,000 acres, with little attempt to resize the units to accommodate the 5,000 acre criteria from the Wilderness Act. The typical report was 2-4 pages long. Based on the initial inventory, certain areas were carried forward to an intensive inventory phase, which eventually led to the creation of Wilderness Study Areas. The 1979 process received criticism from the start, as it did not seem, at least to some critics, to follow the guidelines of the 1978 Wilderness Inventory Handbook. This criticism eventually led BLM to reevaluate its 1979 findings in what is now known as the 1999 Utah Wilderness Inventory. Unlike the 1979 process, the 1999 inventory required documentation of all routes found, rather than drawing a broad conclusion whether the entire area being inventoried was "roadless." This increased rigor and documentation led to areas identified as possessing wilderness character not identified as such in 1979. In terms of conditions on the ground having changed since 1979, let alone 1964, the forces of nature have resulted in many routes not satisfying the criteria of being a "road," for wilderness purposes. Despite the increase in recreation use cited by the commenter, many of these routes have all but disappeared from the landscape, and do not constitute a significant impact on apparent naturalness to the average visitor (Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands, March, 2012, page 6).	169

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		BLM wilderness inventories undertaken from 1979 to the present have correctly utilized the interpretation of “roadless” derived from Congressional hearings leading to FLPMA, and subsequently incorporated in the Wilderness Inventory Handbooks of 1978 and 2012. This interpretation does not represent an “administrative change,” but rather a necessary set of guidelines to operationalize the broad concepts of the Wilderness Act.	
Individual	Lands with Wilderness Characteristics (p 3-30) “The 1979 inventory found no lands within the Planning Area as possessing wilderness characteristics. The 1999 inventory reexamined 245,728 acres within the Planning Area (41.2 % of the Planning Area), of which 143,639 acres were determined to possess wilderness characteristics. The BLM again reviewed and updated its inventory for an additional 203,846 acres for the 2008 plans, representing an additional 28.4 per cent of the Planning Area. This review found 48,581 acres to have wilderness characteristics. The above review assured that BLM’s inventory of lands possessing wilderness characteristics within the Planning Area is current and complete. Based on this review, there are a total of 220,460 acres identified by the BLM as possessing wilderness characteristics within the Planning Area. There are 192,220 acres identified in the 2008 RMPs within the Planning Area that the BLM determined to have the wilderness characteristics of size, naturalness, and outstanding opportunities for solitude or primitive recreation (Map 3-8).” Comment Trying to follow these numbers is very confusing. In 1979 there were 0 acres with wilderness characteristics within the MLP area. In 1999 it was found to contain 143,639 acres with wilderness characteristics. And in 2008 it was found to contain 203,846 acres! Now for the MLP there are 220,460 acres of land that have wilderness characteristics and will be managed like WSA’s. What is occurring here? How did 200,000+ acres of land with wilderness characteristics suddenly appear over 30 years? How were those lands missed in 1979? Have survey techniques for inventory under the 1964 Wilderness Act requirements of “solitude” and “untrammeled by man” changed? Or have these changes been brought about from deviation of the original intent of the Wilderness Act. How has then been possible in an area that has seen 30-40 wells drilled in it since 1979, and an explosion of off road recreationist and visitors from hundreds per year to hundreds of thousands per year? This defies logic.	The Wilderness Act of 1964 provided little specific guidance on evaluating whether lands possessed wilderness character, beyond defining "roadless" areas as exceeding 5,000 acres. BLM, on the basis of FLPMA (1976), began its own inventory of BLM lands in Utah for wilderness character in 1979, using guidance provided by BLM’s Wilderness Inventory Handbook (1978). That Handbook provided interpretation of roadless areas to include a definition of what constituted a “road.” To constitute a “road,” and therefore a wilderness boundary, the routes in question had to be constructed, maintained by mechanical means on an ongoing basis, and receive regular and continuous use. These criteria were drawn directly from the House subcommittee proceedings that were part of the creation of FLPMA, and provide a means on interpreting the meaning of “roadless” from the Wilderness Act. Based on these criteria, BLM undertook an initial wilderness inventory in Utah in 1979. Areas inventoried were often very large, often exceeding 100,000 acres, with little attempt to resize the units to accommodate the 5,000 acre criteria from the Wilderness Act. The typical report was 2-4 pages long. Based on the initial inventory, certain areas were carried forward to an intensive inventory phase, which eventually led to the creation of Wilderness Study Areas. The 1979 process received criticism from the start, as it did not seem, at least to some critics, to follow the guidelines of the 1978 Wilderness Inventory Handbook. This criticism eventually led BLM to reevaluate its 1979 findings in what is now known as the 1999 Utah Wilderness Inventory. Unlike the 1979 process, the 1999 inventory required documentation of all routes found, rather than drawing a broad conclusion whether the entire area being inventoried was “roadless.” This increased rigor and documentation led to areas identified as possessing wilderness character not identified as such in 1979. In terms of conditions on the ground having changed since 1979, let alone 1964, the forces of nature have resulted in many routes not satisfying the criteria of being a “road,” for	194

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	The effect of this implausible deviation from the intent of the Wilderness Act over the past 30 years is now the loss of access to 200,000+ acres of land in the MLP for potential mineral development.	wilderness purposes. Despite the increase in recreation use cited by the commenter, many of these routes have all but disappeared from the landscape, and do not constitute a significant impact on apparent naturalness to the average visitor (Manual 6310, Conducting Wilderness Characteristics Inventory on BLM Lands, March, 2012, page 6). BLM wilderness inventories undertaken from 1979 to the present have correctly utilized the interpretation of “roadless” derived from Congressional hearings leading to FLPMA, and subsequently incorporated in the Wilderness Inventory Handbooks of 1978 and 2012. This interpretation does not represent an “administrative change,” but rather a necessary set of guidelines to operationalize the broad concepts of the Wilderness Act.	
Individual	Finally, the justification for doing so is shaky at best. The air quality in the region is good; there have been no known or recorded instances of water contamination; no Traditional Cultural Places have been identified in the area; and while there is acreage within that is classified as having "Wilderness Characteristics,” this came only after Wilderness designation authority was stripped from the BLM and after the original 1979 inventory did not identify any acreage with such characteristics.	This plan amendment would not make decisions regarding whether or not lands inventoried by the BLM as having wilderness characteristics should be managed to protect, preserve, and maintain these characteristics. Therefore, this plan amendment would not make decisions for managing new areas for their wilderness values.	249
Individual	While the MLP and Alternatives B thru D in the EIS advocate for shutting down the oil and gas and potash industries on the lands in question, it seems to bend over backwards to try and preserve Wilderness Study Area (WSA) classification for the few areas that magically received this designation in the last few years, saying: "Lands managed as open or with only minor restrictions on Lands with Wilderness Characteristics means they could lose their minimum size criteria (5000 acres) to be considered as land containing wilderness characteristics." That should not be a consideration. If it is appropriate to manage certain lands with fewer restrictions based on the facts on the ground, then it should not matter if doing so will spoil the LWC designation. Lands and their use need to be evaluated based on the science and facts, not the bureaucratic name the acreage has been given.	One of the criterion for lands with wilderness characteristics is a size of at least 5,000 acres (in most cases). If development were to occur on these lands, the amount of land that possesses wilderness characteristics could be reduced and this criterion may not be met. The disclosure of this possible impact from the management under Alternative A is accurate and appropriate analysis in Chapter 4 of the DEIS. Lands with wilderness characteristics were identified and described in the 2008 RMPs, and management was applied to 47,761 acres of these lands. BLM is authorized through FLPMA and the Land Use Planning Handbook to apply management to lands with wilderness characteristics during land use planning efforts and has chosen to apply the Baseline CSU stipulation to the lands which were not included in the management under the RMP; however, no new lands with wilderness characteristics are being proposed for management of these resource values.	238, 265, 274, 288
Grand County Council	Watershed and East Arches Area 1. Wilderness • Designate wilderness as indicated on attached map 2. "Castle Valley National Conservation Area" designation	An MLP maintains a limited focus on the management decisions pertaining only to oil and gas and potash leasing in the Planning Area. Furthermore, the requests for designating wilderness, National Conservation Areas, and Park expansion are not within the BLM’s authority. A withdrawal for locatable	300

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	• No new mineral claims or leasing 3. Expand Arches National Park as per attached map	minerals is necessary in order to preclude new mining claims. Withdrawals are not addressed in the MLP.	
Southern Utah Wilderness Alliance	My family visits southern Utah annually and would like to minimize development in wilderness quality areas.	The Baseline CSU stipulation in Alternatives B, C, and D specifies that the amount of surface disturbance is minimized in areas with sensitive resources and related impacts resulting from mineral development. Lands with wilderness characteristics are included under this stipulation. Management for other resources such as water, soils, and wildlife also protect lands with wilderness characteristics in addition to the existing management in the 2008 RMPs.	354
Western Energy Alliance/American Petroleum Institute	Congress has explicitly denied funding for the implementation of Secretarial Order 3310 concerning the designation of "Wild Lands." Lands with Wilderness Characteristics (LWCs) are "wild lands" in all but name. It is therefore a violation of law to designate LWCs through the MLP and RMPA process. BLM designation of LWCs violates FLMPA's multiple-use directive, and as such these designations should be removed from the MLP.	***The text in Chapter 1 (Section 1.4.1) has been clarified as follows: "This plan amendment would not make decisions regarding whether or not lands inventoried by the BLM as having wilderness characteristics should be managed to protect, preserve, and maintain these characteristics. Therefore, this plan amendment would not make decisions for managing new areas for their wilderness values. The BLM is required under Manual 6310 to keep current its inventory of wilderness characteristics."*** In Section 1.4.2 (Issues Considered but Not Further Analyzed, Issues Beyond the Scope of the Plan) it clearly states that the MLP would not establish new areas that are managed for their wilderness characteristics. In Section 1.4.2 (Issues Considered but Not Further Analyzed, Issues Addressed Through Policy or Administrative Action) it states, "Congress has prohibited funding for implementation of Secretarial Order 3310 pertaining to protecting wilderness characteristics on public lands. However, BLM Manual 6310 provides guidance for inventorying wilderness characteristics on public lands."	510
Individual	In this MLP lands with wilderness characteristics will be managed under guidelines for WSA's. The lands to be affected here should be definitively limited to WSA's only.	Planning criteria listed on page 1-13 of the DEIS does discuss management of WSAs; however, this management applies only to WSAs. There are no WSAs within the Planning Area and WSA management does not apply to lands identified as having wilderness characteristics by the BLM. The single management action for lands with wilderness characteristics in Table 2-4, applies the Baseline CSU to selected lands with wilderness characteristics. On page 3-30 of the DEIS, current management for lands with wilderness characteristics, it states "Management identified in those (Moab and Monticello) 2008 RMPs does not manage these lands for their wilderness characteristics."	544

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The Wilderness Society	BLM should more strongly manage to protect wilderness characteristics on all 220,460 acres by applying an NSO stipulation. The Baseline CSU goes a long way in mitigating the impacts of oil and gas development. However, it will not ensure that those wilderness qualities are preserved for future generations. BLM's own analysis states, "Development of oil and gas and potash could introduce sights, noises, and infrastructure in or adjacent to lands with wilderness characteristics, which could impair the feeling of solitude and degrade naturalness." (Section 4.21.3).	The purpose of the MLP, as a targeted Plan Amendment in the context of Manual 6320, is not intended to "ensure that those wilderness qualities are preserved for future generations." The commenter, in effect, is asking the BLM to manage LWC in the same manner as Natural Areas throughout the MLP Planning Area, which is outside the scope of the current planning effort. This is clearly stated in Chapter 1 of the DEIS.	673
The Wilderness Society	The MLP inappropriately distinguishes between lands with wilderness characteristics ("LWCs") that were identified by BLM during the planning and development of the 2008 Moab and Monticello RMPs and LWCs identified afterward, such as the Dead Horse Cliffs, Dripping Spring, Lockhart, Trough Springs, and Upper Indian Creek. See Draft MLP 2-12 to -13 (BLM will apply a "Baseline CSU stipulation" – which is set forth in the MLP – only to oil and gas leases in LWCs identified in the 2008 RMPs). No explanation is provided in the MLP for why LWCs identified after completion of the 2008 RMPs will not receive the same level of protection as those identified in the RMPs. See, e.g., id. at 3-30 to -31; id. at 4-33 to -37. If BLM is to accomplish its stated goal of "implement[ing] authorizations . . . in a manner that minimizes impacts to [LWCs]," the agency must treat all LWCs in similar fashion. Id. at 4-33. Furthermore, BLM should, at a minimum, explain its rationale for protecting only the LWCs identified in the 2008 RMPs. The proposed unequal treatment of LWCs is arbitrary because, among other things, it ignores the fact that the MLP was initiated as a result of leasing conflicts in sensitive areas, including LWCs. See, e.g., BLM, Instruction Memorandum No. 2010-117, Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews *1 (May 17, 2010) ("The leasing process established in this [Instruction Memorandum] will create more certainty and predictability, protect multiple-use values when [BLM] makes leasing decisions, and provide for consideration of natural and cultural resources.") (attached); see also id. at *4 (an MLP should identify and evaluate resource conflicts including "[t]he effect of oil and gas leasing on lands that the BLM may identify as having wilderness characteristics"). Finally, the arbitrary treatment of LWCs identified post-2008 RMPs does not comply with BLM's obligation to "consider a full range of alternatives for [LWCs] when conducting land use planning" that analyze "the effects of (1) plan alternatives on [LWCs] and (2) management of [LWC] on other resources and resource uses." BLM, Manual 6320 – Considering Lands with Wilderness	There is a fundamental difference between the two categories of lands with wilderness characteristics (LWC) discussed by the commenter. The LWC identified by BLM during the RMP planning process provided input to a Land Use Planning decision as to management of these areas, and was subject to public comment and review. The majority of LWC lands identified as part of the 2008 RMP process resulted from the 1999 Utah Wilderness Inventory. That inventory was also subject to several years of public review and comment, which led to the 2003 revision document. The 2003 document made numerous changes to LWC boundaries based on the public input received. The post-2008 reviews, however, represent an internal BLM inventory, and have not been subject to public review or comment. As pointed out in Manual 6310, pg., the primary function of an inventory is to determine the presence or absence of wilderness characteristics. Manual 6310 contains no requirement as to making decisions on future management of lands identified as possessing LWC. The MLP does identify the impacts of alternatives on all affected resources within the Planning Area, including lands with wilderness characteristics. Section 4.6 of the DEIS is devoted to analyzing impacts on lands with wilderness characteristics. The reference to Manual 6320 is irrelevant in the context of the current MLP process. Manual 6320, pp. 2-3, states: "In some circumstances, consideration of management alternatives for lands with wilderness characteristics may be outside the scope of a particular planning process (as dictated by the statement of purpose and need for the planning effort). For example, a targeted amendment to address a specific project or proposal may not in all circumstances require consideration of an alternative that would protect wilderness characteristics. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics." The MLP is a targeted plan amendment of the type described in Manual 6320. This	679

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	Characteristics in the BLM Land Use Planning Process (Public) § 6320.06 (March 15, 2012). But see Draft MLP at 4-33 to -37 (only providing a comparison between considered alternatives). All BLM-identified LWCs should be treated equally and BLM should expressly reserve the right to attach a "Baseline CSU stipulation" to future LWCs identified by the agency, including those under currently under consideration. See, e.g., Draft MLP at 3-30 (BLM has inventoried only five of nine citizen proposed wilderness submissions).	planning effort does not entail a full RMP revision, but rather maintains a limited focus on the management decisions pertaining to oil and gas and potash leasing in the Planning Area. The first page of the DEIS makes this clear, stating, "Due to the limited focus of this planning effort, decisions that would normally be considered in a full RMP revision will not be addressed." Further on in Chapter 1 the DEIS states: "In some circumstances, such as this targeted plan amendment, consideration of management alternatives for lands with wilderness characteristics is outside the scope of the planning process. In these situations, the NEPA document associated with the plan amendment must still analyze effects of the alternatives on lands with wilderness characteristics." Thus, BLM has made it clear from the outset of the planning process that decisions on management of LWC are outside the scope of the MLP. Five of the nine citizen proposed wilderness submissions are addressed in the DEIS in Alternative C (Table 2-4). BLM has completed on the ground inventories of all citizens proposals submitted to BLM prior to the end of the comment period for the DEIS. ***The acreage determined by BLM to possess LWC from the remaining four citizen proposed wilderness submissions has been added to the acreage in Alternative C for the MLP/FEIS. Corresponding acreage changes have been made in Chapters 3 and 4.*** According to the Land Use Planning Handbook (H-1601-1), land use plan decisions and supporting components can be maintained to reflect minor changes in data. Maintenance is limited to further refining, documenting, or clarifying a previously approved decision incorporated in the plan. Maintenance must not expand the scope of resource uses or restrictions or change the terms, conditions, and decisions of the approved plan.	
Individual	I don't know how to have leases without surface occupancy; therefore I would say no leasing in WSAs or proposed WSAs. "Contract" here must refer to boundary realignment which would be needed to satisfy the request that wilderness character lands be reserved.	Leases may be developed without surface occupancy by using directional or horizontal drilling methods from areas which are open or limited by CSU/TL stipulations. The technology is not applicable for all geologic or mineral environments, but it may be a viable option to access leases within lands that are managed with NSO stipulations.	755
Maps			
U.S. Fish and Wildlife Service	Maps-We recommend that you combine maps 2_34_B_D and 2_15_D in order to clearly represent where No Surface Occupancy	Due to the scale of the maps, it is difficult to discern that riparian resources are managed as NSO. However, the data is	72

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	(NSO) areas are located. Currently map 2_15_D shows several areas as open to leasing and deferred leasing; however according to the text several of those areas are No Surface Occupancy due to riparian resources.	included in the shapefiles used in producing the map. Also, refer to the decisions in Chapter 2 regarding riparian and water resources (Table 2-10, Riparian Resources and Table 2-11, Soil and Water).	
Minerals: Oil and Gas			
Individual	The BLM should eliminate the opportunity for waivers, modification, and exceptions to its lease stipulations. Without this change, many important commitments may never come to fruition as industry is permitted to side-step these provisions.	Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances, it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	2
Individual	Closure of the Three Rivers Withdrawal to mineral leasing, modified to include side canyons along the Green River	The commenter's preference for elements of Alternative C is noted. The side canyons of the Green River are managed with a NSO stipulation in Alternatives C and D.	6
Individual	No Surface Occupancy status for the lands depicted in Map 2-7-C.	***The text in Chapter 1 (Section 1.4.1) has been clarified as follows: "This plan amendment would not make decisions regarding whether or not lands inventoried by the BLM as having wilderness characteristics should be managed to protect, preserve, and maintain these characteristics. Therefore, this plan amendment would not make decisions for managing new areas for their wilderness values. The BLM is required under Manual 6310 to keep current its inventory of wilderness characteristics."*** In Section 1.4.2 (Issues Considered but Not Further Analyzed, Issues Beyond the Scope of the Plan) it clearly states that the MLP would not establish new areas that are managed for their wilderness characteristics. In Section 1.4.2 (Issues Considered but Not Further Analyzed, Issues Addressed Through Policy or Administrative Action) it states, "Congress has prohibited funding for implementation of	7

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		Secretarial Order 3310 pertaining to protecting wilderness characteristics on public lands. However, BLM Manual 6310 provides guidance for inventorying wilderness characteristics on public lands." The purpose of the MLP, as a targeted Plan Amendment in the context of Manual 6320, is not intended to "ensure that those wilderness qualities are preserved for future generations." The commenter, in effect, is asking the BLM to manage LWC in the same manner as Natural Areas throughout the MLP Planning Area, which is outside the scope of the current planning effort. This is clearly stated in Chapter 1 of the DEIS.	
Basic Drilling LLC	The stipulations outlined in each action alternative would shut down the local oil and gas industry, and leave many families without incomes, and drastically reduce the revenue for local governments.	The social and economic analysis in Chapter 4 (pages 4-84 to 4-122 in the MLP/DEIS) presents the impacts from the management alternatives in Chapter 2. While some alternatives do reduce jobs and income in the mineral development industry, others, including Alternative D, continue to show jobs and income being generated from that industry.	14
Individual	Areas closed to leasing should be permanently closed to leasing--hard release from leasing.	Areas closed to oil and gas leasing are not available for new oil and gas leasing for the life of the land use plan. Existing leases are allowed to operate in the area. Once existing leases expire, terminate, or are relinquished, no new leases would be issued in closed areas for the life of the plan.	43
Individual	In regards to the above referenced EIS, I support only the No Action Alternative. There are several reasons for this, but my primary concern is that the other alternatives in the EIS impose unjustifiable restrictions on existing leases. Specifically, the additional Conditions of Approval and similar stipulations listed in each alternative for the Master Leasing Plan (MLP) are inappropriate and should not be applied to existing leases, which have already undergone extensive NEPA analysis.	The commenter's preference for Alternative A is noted. When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot	58

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		render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	
	Furthermore, the insistence in the MLP that oil and gas leasing should be separated from potash leasing makes no sense. Combining the two leases actually results in less surface disturbance than separating the operations and requiring 2 separate leases.	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan, it is not possible to predict for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and do not directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity, they could be competing geologically. The actions of one could affect what is going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals.	59

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	In terms of surface disturbance, the MLP, in arriving at its conclusions for the action alternatives, speaks often about the surface disruption potentially caused by certain activities, such as oil and gas drilling, or potash mining- but makes very little reference to, or acknowledgment of, the extensive reclamation efforts that are undertaken by the operating companies to return much of the land to its original form. The industries that have worked in this area for years are very adept at reclaiming the vegetation, soil, and other terrain features, as well as employing techniques to prevent erosion. These efforts, and their great record of success in the region, should have been considered and factored in to the decision making process, which would have resulted in one or more alternatives that were more accommodating to economic development. As it stands, this was evidently not considered, as the action alternatives all subscribe to the superstition which permeates the document, that oil and gas and other extractive industries do permanent and widespread damage to the land. This heavily slanted and unscientific presumption, coupled with the oversight of the many practices employed by the industry to mitigate impacts, is unacceptable.	Any surface disturbing activity, including oil and gas development, results in a loss of the natural character of the land. The degree of the disturbance and the length of time needed for reclamation determine how long the natural character is lost. In Chapter 4 of the DEIS, assumptions are presented for many of the analyses, which include the reestablishment of vegetation for site stabilization.	60
Individual	Each of the other alternatives listed in the Environmental Impact Statement for the MLP are unreasonable in how they address oil and gas development in the planning area, which is a major economic contributor for our region. They would classify enormous amounts of land as "no surface-occupancy," lands which include not only potentially resource-rich future development locations, but existing leases. This classifications will deny oil and gas companies and contractors access to their leases and the minerals underneath them, effectively shutting down that industry.	Leases may be developed without surface occupancy by using directional or horizontal drilling methods from areas which are open or limited by CSU/TL stipulations. The technology is not applicable for all geologic or mineral environments, but it may be a viable option to access leases within lands that are managed with NSO stipulations. Horizontal drilling within the Planning Area has reached up to 2-miles. Chapter 4 (4.8.1, Minerals) acknowledges that a NSO stipulation would require the use of more costly directional and horizontal drilling to access the underlying Federal oil and gas resources. Alternative D provides some flexibility for mineral development by allowing an exception to the NSO stipulation if proposed mineral operations (including geophysical) would not result in long-term visual impairment from key observation points. In addition, scattered State lands in the area may provide additional access for mineral operations. A NSO stipulation resulting from the MLP would not be applied to an existing lease.	64
Individual	Additionally, placing all of this land off limits to oil and gas activity, through No-Surface Occupancy stipulations, means that the resources will go untapped. This will be a loss not only for our region, but for the nation. Those oil and natural gas resources are public resources, owned by the people of the United States, and intended for the nation's benefit. Part of the BLM's mandate is to	Leases may be developed without surface occupancy by using directional or horizontal drilling methods from areas which are open or limited by CSU/TL stipulations. The technology is not applicable for all geologic or mineral environments, but it may be a viable option to access leases within lands that are	67

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	manage public lands in such a way that those publicly owned resources are properly and responsibly harvested. Simply not allowing them to be accessed goes against that mandate, and deprives the American people of the revenues generated from development of them, and could impinge on our ability to continue to be energy self-sufficient.	managed with NSO stipulations. Horizontal drilling within the Planning Area has reached well over 1-mile. Chapter 4 (4.8.1, Minerals) acknowledges that a NSO stipulation would require the use of more costly directional and horizontal drilling to access the underlying Federal oil and gas resources. Alternative D provides some flexibility for mineral development by allowing an exception to the NSO stipulation if proposed mineral operations (including geophysical) would not result in long-term visual impairment from key observation points. In addition, scattered State lands in the area may provide additional access for mineral operations. The varying revenues associated with the projected oil and gas development for the alternatives are addressed in Chapter 4 (Section 4.12, Social and Economic).	
Individual	The remaining alternatives offered in the Environmental Impact Statement would impose additional conditions of approval, even on leases that have been owned and developed for years. It places large swaths of land - again including leases where development is currently happening - under the banner of No Surface Occupancy, which eliminates a leaseholder's right to access their minerals. They all leave no option available for oil and gas companies to continue to operate in the area.	Leases may be developed without surface occupancy by using directional or horizontal drilling methods from areas which are open or limited by CSU/TL stipulations. The technology is not applicable for all geologic or mineral environments, but it may be a viable option to access leases within lands that are managed with NSO stipulations. Horizontal drilling within the Planning Area has reached up to 2-miles. Chapter 4 (4.8.1, Minerals) acknowledges that a NSO stipulation would require the use of more costly directional and horizontal drilling to access the underlying Federal oil and gas resources. Alternative D provides some flexibility for mineral development by allowing an exception to the NSO stipulation if proposed mineral operations (including geophysical) would not result in long-term visual impairment from key observation points. In addition, scattered State lands in the area may provide additional access for mineral operations. A NSO stipulation resulting from the MLP would not be applied to an existing lease.	69
Fidelity Exploration and Production Company	The U.S. Bureau of Land Management, Moab Field Office (BLM) is tasked to allow multiple uses of all public resources on Federal lands for the maximum benefit of the public. Preferred Alternative "D" is strongly slanted towards conservation at the expense of economic development. The MLP neglects to consider or respect existing oil and gas development areas (even those established as Federal Oil and Gas Units) and the preferred alternative would strongly restrict any continuing development within these focus areas. In fact, the action alternatives in the MLP classify many of these existing development areas No Surface Occupancy (NSO) effectively shutting down these areas for future leasing and	Alternative D was prepared to strike a balance between resource uses, such as oil/gas and potash development and resource conservation. While Alternative D does not propose the degree of mineral development as Alternative A, it also does not propose as much resource protection as Alternative C. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the	138

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	development and would significantly affect development of valid-existing lease rights.	quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process. When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease.	
Fidelity Exploration and Production Company	Fidelity is currently engaged with BLM on several project proposals and their associated NEPA analyses within the proposed MLP area. The Moab Field Office has regularly asked for heightened natural resource data requests and mitigation measures beyond the scope and requirements of the 2008 RMP and beyond lease right conditions; this has significantly impeded and extended activities beyond reasonable NEPA timelines for these projects. Fidelity believes these activities are intended to hold valid existing lease rights to proposed MLP stipulations, even though the MLP has not	When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At	139

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	been ratified and the 2008 RMP is still the governing document for federal actions. Further, Fidelity believes BLM is already abusing the intent of the MLP's Chapter 1 qualifying statement (paragraph 3, pp 1-1): "While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable conditions, as necessary, through the application of COAs at the time of permitting." It is Fidelity's perception and experience that BLM is front-loading current projects (proposed under valid lease rights) with unreasonable, Draft MLP-based expectations and stipulations.	a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible.	
Fidelity Exploration and Production Company	BLMs implementation of this MLP would effectively eliminate any future leasing activities within Fidelity's 125,000+ acres of current lease-position. The broad-brush application of NSO restrictions across Fidelity-owned leases and established Federal Oil and Gas Units would eliminate future leasing potential and significantly restrict Fidelity's existing lease rights, thus violating BLMs multiple-use mandate under the Federal Land Policy and Management Act (FLPMA).	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." A NSO stipulation resulting from the MLP would not be applied to an existing lease. Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations Alternative D was prepared to strike a balance between resource uses, such as oil/gas and potash development and resource conservation. While Alternative D does not propose the degree of mineral development as Alternative A, it also does not propose as much resource protection as Alternative C. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental,	140

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		air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process. When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible.	
Fidelity Exploration and Production Company	BLM's reluctance to recognize the substance and quality of stakeholder cooperative work done by the Moab MLP Stakeholder Workshop Group, the Big Flat Working Group (organized by Grand County), and Representative Bishop's Public Lands Initiative activities, is concerning. Fidelity was an active participant in all of these groups and major strides were made between stakeholders to identify and agree on focus areas for each interest. On a whole, Federal Oil and Gas Units were designated by most groups to be acceptable for responsible energy development under appropriate mitigation measures. We find it disturbing that BLM was unable to make the same intuitive conclusion, made no effort to incorporate any of the work done by these groups, and by pre-decision decided to eliminate future mineral development within oil and gas, and potash focus areas. Again, a violation of the FLPMA directive.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease	141

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		rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process.	
Fidelity Exploration and Production Company	The MLP does not recognize that oil & gas and potash development are legitimate uses of public lands, and there is no credible reason to separate potash leasing from oil & gas leasing. The MLP states that under a no action alternative "oil & gas and potash development could occur concurrently on the same tract of land, resulting in an increased concentration of development and redundant infrastructure." This does not reflect Fidelity's cooperative experience with the potash industry. BLM should provide data and evidence supporting this broad statement.	The BLM is aware of only one instance on Hatch Point where cooperation between the potash industry and Fidelity was being discussed. However, this cooperation was never reflected in a proposal. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the	142

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		needs of the second industry. Without an overall plan, it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases.	

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		The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production. Joint exploration for potash and oil and gas near Hatch Point, as referred to by the commenter, was neither formally proposed to the BLM nor ever took place. In addition, the BLM is unaware of any such joint venture that has taken place on State lands in the Hatch Point area.	
Fidelity Exploration and Production Company	Further, BLM should address the concurrent development of oil & gas and other mineral resources (e.g., potash and other mining). The legal issues and regulatory procedures for jointly developing different minerals in the same area should be thoroughly addressed in the MLP. Co-development of different mineral resources in the same geographic area is feasible. Arbitrary restrictions without evidence, as suggested in the MLP, should not be imposed.	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan, it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to	143

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		accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production. Joint exploration for potash and oil and gas near Hatch Point, as referred to by the commenter, was neither formally proposed to the BLM nor ever took place. In addition, the BLM is unaware of any such joint venture that has taken place on State lands in the Hatch Point area.	
Fidelity Exploration and Production Company	NSO stipulations (covering 57% of the planning area) are applied to all VRM Class II areas effectively closing out any future development opportunities within Fidelity's Cane Creek Unit and Hatch Point Unit. BLMs MLP guidance suggests that mineral leasing would be available, but that the NSO stipulation would require horizontal drilling techniques to access the leases. Horizontal drilling economics and technical effectiveness are justified for short distances (typically < 1 mile for the complex Paradox Geology). The NSO application across pre-existing oil and gas use areas would eliminate any future development.	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period."	147

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		Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	
Fidelity Exploration and Production Company	It is concerning to see the level of effort protecting "High Use Filming Locations" while existing oil and gas use areas have been completely ignored in the MLP process. BLM should be aware and fully explain that the new MLP/RMP and any associated Conditions of Approval (COA) may significantly affect the rights of operators and mineral lease holders. BLM should document valid existing mineral lease rights, as protected by statute and regulation, and explain how and when new stipulations can be legitimately applied to existing leases without exceeding the terms and conditions of existing leases.	When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	149
Fidelity Exploration and Production Company	The Draft MLP will constrain and impede the mineral industry which provides significant revenue to County, State and Federal agencies. Prior to implementing oil and gas stipulations, BLM should conduct a complete cost/benefit analysis of individual stipulations (i.e. NSO application across 57% of the planning area), conduct a thorough data review on the proposed stipulations, and adopt a monitoring program to track the effectiveness of and continuing need for the stipulations.	In Chapter 4 of the MLP/DEIS (Section 4.8.1, Minerals: Oil and Gas), the economic costs of the stipulations by alternative are described. The effect of the stipulations on oil and gas development are also addressed in terms of the projected number of wells by alternative which is then equated to economic output in the Social and Economic Analysis (Section 4.12). Monitoring of land use plan decisions is an ongoing process. Those decisions that warrant adjustment would be subject to a land use plan amendment.	150
Fidelity Exploration and	BLM should clearly identify potential technical/environmental areas of concern related to oil and gas development and the basis for	Best management practices (BMPs) area described in Appendix B of the MLP/DEIS as follows: "A Best Management	151

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Production Company	those concerns in the MLP/RMP. BLM should discuss the need for monitoring and mitigation of these areas of concern. The ROD should allow operators the flexibility to propose monitoring and mitigation methods and/or approaches appropriate for each specific oil and gas project. The BLM should evaluate each proposal on its own merits. Regional and area-wide requirements and stipulations should be kept to a minimum, and be clearly applicable to the individual project.	Practice (BMP) is a state-of-the-art mitigation measure applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. 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. For each proposed action, a number of BMPs may be applied as necessary to mitigate expected impacts. BMPs can be applied by incorporating them into individual project proposals as design features or incorporating them into the Bureau of Land Management's (BLM) authorization of the project as conditions of approval. The list of BMPs is not comprehensive and may be modified over time as conditions change and new practices are identified. Periodically, the BMPs may be updated to stay current with the latest technology and with the latest Department of Interior and BLM direction." BMPs should be selected to meet the site-specific requirements of the project and local environment. No one management practice is best suited to every site or situation. BMPs must be adaptive and monitored regularly to evaluate effectiveness. BMPs by their very nature are dynamic innovations and must be flexible enough to respond to new data, field research, technological advances, and market conditions. The BLM continues to improve the way it manages mineral development of the Public Lands. Part of that improvement includes the use of BMPs to lessen the effects of mineral development on the environment. The mineral industry and the BLM are constantly developing and improving BMPs. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances, it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions,	

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		waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	
Fidelity Exploration and Production Company	MLP Alternatives B, C and D violate BLM's multiple-use mandate, consider mineral extraction as a detrimental activity, cater to conservation at the expense of responsible economic development, and suggests a bias entirely inappropriate for a federal government agency engaged in public lands management decisions.	FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights.	152
Individual	MLP constraints that would be added specifically to development of the potash resource include circumventing the regulatory process that oversees potash operations on public lands. The MLP would impose a "diligence" clause in the lease, ostensibly modeled after regulations governing coal leases, and a "paying quantities" lease requirement, a regulatory construct for oil and gas leases. Neither of these requirements appears in current potash regulations. Regulatory requirements to hold potash leases indefinitely simply require paying a minimum royalty, and agreeing to a modification of lease terms and conditions every twenty years. Such significant changes to legally developed regulatory procedures and requirements developed for potash should not be undertaken in the decision making process for a NEPA action such as this MLP. The MLP fails to identify the legal authority for making such a change.	The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change.	153
Individual	Ambiguity in the MLP in regard to application of constraints to valid existing rights will result in added legal review to settle questions of how far new constraints can be applied to operations on pre-existing, or valid existing rights, and how far legal operating rights granted with leases can be modified or constrained. The provisions outlined in every one of the action alternatives in the EIS for the Plan not only greatly inhibit or preclude future leasing, but	When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to,	154, 261, 263

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	inappropriately establish conditions of approval and other stipulations in existing leases. Some of these stipulations include no surface occupancy designations. These should not be applied to leases that are already purchased, and in some cases which already have development work happening on. Those leases were purchased under an existing set of rules, and those rules need to remain in place for those leases. Retroactively telling a company that they can no longer access their legally acquired leases after they have already expended capital for them and made long range plans around the certainty that they would be able to develop their holdings is wrong and is beneath the dignity and professionalism of an agency like yours.	modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease.	
Individual	Many of the constraints being imposed are codifying, through a land use plan and stipulation additions to lease documents, some of the same mitigation requirements currently being applied to lease development in the area. But there are also "new" restraints being applied here, which are costly and add great uncertainty to operational plans, and will likely set precedent for MLP's elsewhere. Viewshed management from cultural sites and filming locations is new, auditory buffers and modeling around parks and cultural sites are new, all lands within viewshed of national parks closed to leasing is new, requirement for multiple new surveys, assessments and models, new concepts of compensatory mitigation are being required, paying for ethnographic research and reports is being required. These restrictions are all new and the environmental analysis in the MLP does not cite or identify credible impacts that these new restrictions would rectify.	Through the scoping process conducted in March 2012, the BLM identified the issues to be addressed in the MLP. These included protecting the viewshed from cultural sites and filming locations, auditory buffers around National Parks, and National Park viewsheds. Leasing stipulations were developed to mitigate impacts to these resources from projected future mineral operations.	155
Individual	A rigid decision making process prescribed by the MLP will not allow overlapping oil and gas leases. This "split leasing" process will result in significant developmental and economic impact, where the plan creates significant timing issues for mineral project operations which are typically tied to market and capital availability conditions. The effect of this policy will potentially result in the loss of millions of dollars of economic output and revenue in the region over the next 15 years from lost mineral development opportunity.	The MLP does allow for overlapping oil and gas leasing; however, in Alternative B1 and Alternative D, a phased lease approach for potash would be applied and overlapping with oil and gas leases would not be permitted with Potash Leasing Areas. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production.	157

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		Chapter 4 of the DEIS (Section 4.12.3, Social and Economic) details the economic impacts to mineral production by alternative.	
Individual	MLP constraints illegally applied to private surface. The MLP indicates it will apply the newly developed constraints for exploration, development and leasing on 14,880 acres of private surface underlain by federal mineral estate. This would be done irrespective of the wishes of the surface owner. The MLP fails to cite legal regulatory authority for this requirement.	According to the Land Use Planning Handbook 1601-1, the decision area in a land use plan includes the lands within a Planning Area for which the BLM has authority to make land use and management decisions. The BLM has jurisdiction over all BLM-administered lands (surface and subsurface) and over the subsurface minerals only in areas of split estate (areas where the BLM administers Federal subsurface minerals, but the surface is owned by a non-Federal entity, such as State Trust Land or private land).	158
Individual	Excessive and unjustified new constraints. The MLP would basically remove 57% of the area from mineral development altogether, and 71% over the next 10 years when lands within the identified Potash Leasing Areas are included. New requirements applied to exploration, developments and leasing in the remaining areas would apply constraints for offsite compensatory mitigation for not only wildlife, but for recreation, visual, vegetation, and saline soil resources. It would require visual assessment for high value filming locations and from certain cultural resource sites. It would require auditory modelling and monitoring for operations within 6.1 miles of national parks. In addition it would require multiple overlapping seasonal timeframes and uncertainty for multiple wildlife species and soils. These multiple overlapping "constraints" will create unfavorable conditions for exploration or development on the 43% of the MLP area left open for exploration and development.	The commenter's preference for Alternative A is noted.	159
Individual	Application of new constraints to existing leases operations. Plan states it will implement new stipulations and constraints to existing mineral leases by applying operational permit "Conditions of Approval" to applications to conduct work The plan indicates these constraints would be "subject to existing rights," but fails to provide guidelines or procedures that would be utilized to determine when or at what levels it would be determined that technical requirements and new constraints would place economic hardships onto operations that could be considered an infringement of those valid existing rights. This policy and the lack of guidelines for evaluation and implementation will lead to unnecessary and costly legal and judicial interpretation. Overall, the plan provides a bewildering array of lease exceptions, modifications and waivers, and a confusing and drawn out process to apply for one, which will again result in costly legal and judicial delays in trying to conduct business on those areas left available for exploration or developments.	When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation	161

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		under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. The BLM's FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	

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Individual	Onerous application of new viewshed modeling, offsite compensatory mitigation, and survey reports and requirement will result in delay, confusion and increased costs associated with conducting mineral exploration and development on public lands within the MLP area. The impacts identified to the mineral resource assessment indicate that every new requirement and restriction identified in the MLP could or would result in increased costs and delays to oil and gas development. And this is the assessment common to all alternatives. And, as the impact section for each issue/resource reveals, there are often no impacts beyond those identified in management prescribed in the 2008 RMP. Excessive mitigatory constraints without identified impacts is not in accordance with CEQ regulation implementing the NEPA Act, or BLM direction identified in 43 CFR 1600 handbooks and manuals.	Through the scoping process conducted in March 2012, the BLM identified the issues to be addressed in the MLP. Stipulations were developed to protect the resources identified in these issues from projected future mineral operations. In Chapter 4 impacts to resources from projected mineral development are compared across alternatives.	164
Individual	The MLP fails to identify any significant impacts to wildlife resources from management under the existing 2008 RMP. Yet many of the wildlife habitat areas are proposed for NSO or no leasing. The rest of the area is subject to an array of restrictive, overlapping timeframes for rutting, lambing, nesting, and fledging periods for an entire array of species. It adds significant costs in delay time and uncertainty with the need for field survey's in almost every instance to see what is going on the ground with the wildlife life cycles, then trying to guess what they might be doing in 2-3 months when the financing is arranged, and crews and rigs are scheduled. These types of timing restrictions, when applied to so many species, creates great uncertainty for timing of all operational components of a project, putting severe constraints on resource development. The MLP needs to recognize these timing overlap constraints and prepare a table that shows all the potential timing overlaps and how many months a year an operator could be constrained form operation in a worst case scenario, where all potential wildlife species that could occur in an area in fact are found utilizing the area at their identified timeframes. The operational and financial impacts then need to be discussed and analyzed in Chapter 4.	The wildlife stipulations in the MLP are very similar to those in the 2008 Moab and Monticello RMPs; these stipulations are consistent throughout the BLM in Utah and are also similar to those found in most western states. Stipulations vary only slightly among all four alternatives in the MLP/DEIS. Changes between the MLP and the RMP are minor realignments of big game habitats for consistency with Utah Division of Wildlife Resources habitat delineations. Habitat for Desert bighorn sheep is increased by 5,759 acres (reflecting extensive GPS collar research by UDWR) in the action alternatives. The only identified NSO areas for terrestrial wildlife are found in Alternative A and C. These are limited to prime desert bighorn habitats, with Alternative A (101,900 acres) remaining as identified in the 2008 RMP and Alternative C (107,000 acres) realigned to match UDWR's current desert bighorn habitat delineation. In Alternatives B and D, desert bighorn lambing/rutting areas have CSU stipulations which preclude drilling operations and permanent facilities (on 107,000 acres) but provide for other temporary actions outside of the sensitive lambing and rutting periods, thus facilitating additional flexibility from the stipulations in the 2008 RMP. Prime desert bighorn habitats are in areas where extensive development would be typically problematic due to topography of these areas. Other big game species (deer and elk) have seasonal restrictions. These general areas and types of seasonal restrictions have been in place for many years. Most operators are aware of the need to incorporate these dates into their operational plans and, if appropriate, these dates can sometimes be adjusted. Within the Moab FO, the only overlap of winter range areas with spring fawning or lambing areas is 515 acres west of Highway 191 and just south of La Sal	165

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		Junction. The remainder of the Moab MLP area would have either only one or no big game seasonal protective measures. The NSO stipulation for the Endangered Colorado River Fish (within the 100-year floodplain of the Colorado, Green, and Dolores Rivers) was developed with USFWS in the 2008 RMP. This stipulation does not change in the current effort. ESA species, including Bald and Golden Eagles, Raptors and Migratory Birds are all afforded some level of Federal protection. These protective measures are required by the USFWS under various laws. The seasonal and spatial restrictions found in the MLP/DEIS for these species have been developed by the USFWS and are consistent throughout the state of Utah. Adherence to these conditions is required to comply with the Endangered Species Act and various laws protecting eagles, raptors, and migratory birds. Currently, much of the known habitats and occupancy for several of ESA species are known, therefore reducing some of the need for surveys to evaluate habitats. ESA species are very rare and the Moab FO has had minimal need to adjust or project timing or locations to accommodate the presence of an individual ESA species. Additionally, surveys for ESA species, Bald and Golden Eagles and Raptors may be required no matter when the activity is planned. All permanent facilities or projects that create long-term habitat alteration would require nesting surveys for ESA species, Bald and Golden Eagles and Raptors during the breeding season prior to project finalization. These surveys are incorporated into the site-specific project NEPA analysis and if needed, USFWS consultation. These requirements and needs are not new to the MLP and have been in place prior even to the 2008 RMP. The results of these surveys may influence project development. If there is no suitable nesting structure within the USFWS recommended spatial buffers of a project area, surveys may not be needed. Sensitive raptors species are afforded the same timing and spatial requirement as all other raptors, as recommended by the USFWS. For kit fox and prairie dogs, the stipulations are the same as the 2008 RMP. Their habitats typically do not overlap with big game winter range but may coincide with pronghorn fawning and bighorn lambing areas. The kit fox, a sensitive species, does have seasonal restrictions specific to occupied natal dens, which may be waived if surveys indicate kit fox with their pups are not present. Current modeling efforts are in place that can help to refine where the	

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		kit fox may occur and often project on-sites can determine the need for surveys. Kit fox are fairly uncommon throughout the Moab FO and finding a natal den is very rare; therefore there has been minimal need to adjust project timing to accommodate the presence of a kit fox with their pups. For prairie dogs there is exception language that, if due to the size of the prairie dog town, there is no reasonable location to develop a lease and avoid colonies, the Authorized Officer would allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. In regards to the timing overlap question (assuming raptor surveys needs have been met), there would be no seasonal wildlife TL stipulations in areas outside of deer and elk winter ranges (29,700 acres) and bighorn lambing/rutting areas (107,000 acres). If a project were in kit fox habitat and/or fawning areas for pronghorn, no activity could be allowed from March 1- July 31 within 85,639 acres. If surveys were performed and indicated no natal kit fox dens were within 200 meters of the project, then the project would be limited only to activities outside of 4/1 to 7/31 to protect pronghorn fawning and migratory bird nesting. In this site-specific situation, 'worst case' would still allow a construction window of 7 months, from 8/1 through 2/28. If raptors had been identified, project location or other mitigation measures would be applied, typically not timing restrictions unless the project or portions of the project created temporary disturbances within the spatial buffer of the raptor nest. In deer and elk winter range (29,700 acres), there is minimal kit fox habitat and/or fawning areas for pronghorn, so other wildlife timing limitations would not be expected. In deer and elk winter range 'worst case' would still allow a window of 7 months, 4/16 through 11/15. If raptors had been identified, project location or other mitigation measures would be applied, rather than timing restrictions unless the projects were temporary. If the project were temporary and raptors did occur in the area or raptor surreys were determined to be not necessary, the work window might then be limited to 9/1 to 11/15. If a temporary action had been started prior to the onset of the winter season, UDWR will usually allow for some short-term encroachment into the winter season. Activities in desert bighorn lambing/rutting habitat (107,000 acres) are limited to temporary actions through a CSU stipulation. In the "worst case," if raptors occurred in the area or surveys were not performed and the temporary action is	

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		determined to impact desert bighorn, work would be allowed from 12/15 to 3/1. Timing limitations for ESA species area are not required unless there is a known individual in the area or surveys are not current and therefore occupancy status is not known. The entire Moab MLP area has been evaluated for both Mexican Spotted Owl (MSO) and Southwestern Willow Flycatcher (SWFL). Within the MLP area, there are approximately 116,300 acres of suitable MSO habitats of which over 70,000 acres are typical surveyed by the BLM and would not need additional project specific surveys. Only 2,800 acres of suitable (but unoccupied) MSO habitats are found in deer winter range; therefore, additional timing limitation requirements would not be expected. These 2,800 acres are routinely surveyed by the BLM. SWFL and Yellow Billed Cuckoo (YBCU) timing stipulations coincide with other timing limitations outside of deer and elk winter range areas. There are only 92 acres of SWFL/YBCU habitats that overlap with winter ranges and these areas are not known to be occupied; therefore, additional SWFL & YBCU timing limitations would not be expected. It should be pointed out that both SWFL and YBCU occupy riparian habitat, which is managed with a NSO stipulation to protect riparian resources. Though these seasonal restrictions can seem cumbersome, upfront work between the BLM and applicants early in the development stage of these projects can simplify survey needs and ensure there is an ample window of time to complete projects or develop project plans, ensuring Federal Acts are not violated, and impacts to protected and state sensitive species and big game are minimized. Accurate surveys completed at the correct time will help to avoid delays, facilitate project planning, and allow accurate environmental analysis that is less likely to be litigated, thus allowing the project to move forward in a timely fashion. The Moab BLM does recognize that many of the timing limitation stipulations can overlap, possibly creating additional constraints. However, not all habitats that have these seasonal stipulations are located in the same place. As mentioned above, winter ranges for deer and elk overlap very little with pronghorn, deer, and elk spring fawning areas. ESA species such as the SWFL and YBCU are very specific to small, highly vegetated riparian areas that typically are located within areas with watershed stipulations that will coincide with ESA requirements. The MSO does have the largest potential habitat for an ESA species in the Planning Area and may need site-	

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		specific surveys but habitat evaluation throughout the Planning Area has been completed and many areas are maintained under protocol survey, therefore reducing the scope of survey needs by outside parties. The MLP/DEIS acknowledges the impacts of wildlife and sensitive species restrictions on mineral development in Chapter 4. It should be noted that the wildlife and special status species restrictions vary only slightly among alternatives; no further analysis of overlapping restrictions is required when these restrictions are substantially the same for all the alternatives. ***Text has been added to Sections 4.8.1 and 4.8.2 concerning the impacts of overlapping timing limitations.***	
Individual	Chapter 1 - Application of newly developed MLP constraints to existing leases (p 1-1) In Chapter 1, and in several other areas of the draft, it states that: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable conditions, as necessary, through the application of Conditions of Approval at the time of permitting." Analysis Assumptions (p 4-3) "These existing leases would be subject to the specific lease stipulations that were applied under previous land use plans. However, the resource protection measures identified in the Moab MLP/Draft EIS will also apply to the areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease or a potash lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject development of existing leases to reasonable conditions, as necessary, through the application of Conditions of Approval at the time of permitting." Comment The plan fails to identify how "conflicts" regarding lease rights will be resolved when applying new MLP stipulations to existing leases. How will this be evaluated? Will it be left to BLM to determine if new COAs/stipulations developed from the new MLP constraints, are a "reasonable" economic hardship to operations on existing leases? Can a COA be taken to a point of economic loss to the operator? How does this fit in with other rights granted with the leases? Which	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	173, 196, 234, 236, 248

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	prevails? The MLP will result in increased litigation costs and time for both the operators and BLM. The MLP needs to clearly identify the process that will be used, the parameters that will be considered, and the point at which it would determine that application of MLP derived stipulations will infringe upon the rights of the lessee.		
Individual	Chapter 1 - Application of new MLP constraints to private surface on split estate lands (p 1-13) In Chapter 1, under Planning Criteria it states that: "All decisions made in the planning process will apply only to public lands and, where appropriate, split-estate lands where the subsurface mineral estate is managed by the BLM." Comment This implies the surface management constraints developed for federal lands will be applied to private land where the subsurface is owned by the government. What if a private landowner is in disagreement? The MLP needs to identify the legal authority BLM has to dictate use on private surface.	According to the Land Use Planning Handbook 1601-1, the decision area in a land use plan includes the lands within a Planning Area for which the BLM has authority to make land use and management decisions. The BLM has jurisdiction over all BLM-administered lands (surface and subsurface) and over the subsurface minerals only in areas of split estate (areas where the BLM administers Federal subsurface minerals, but the surface is owned by a non-Federal entity, such as State Trust Land or private land).	174
San Juan County Commission	The proposed additional areas to be closed to mineral leasing or designated as No Surface Occupancy (NSO) are not conducive to economic development of mineral resources, one of the highest revenue generators for the County, nor are they consistent with a multiple use management concept. These proposed leasing categories would effectively eliminate and/or discourage mineral development in areas with some of the highest potential for mineral development in the County. Designation of such leasing categories of 3 to 6+ miles in width along the eastern boundary of Canyonlands National Park constitutes "buffer zone" management and effectively extends the boundary of the Park which San Juan County does not support (p. 42 of 93 in the Master Plan). Canyonlands' boundaries were established to contain the primary landform features to be protected and subsequent buffer zones were not intended by Congress when establishing the Park nor are they now appropriate or needed.	As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. The protection provided for this viewshed does not equate to an expansion of the park in terms of management of other uses such as livestock grazing and motorized recreation. Alternative D also manages additional acreage in this area with a NSO stipulation to protect viewsheds from the Canyon Rims SRMA.	213

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		Alternative D provides some flexibility for mineral development by allowing an exception to the NSO stipulation if proposed mineral operations would not result in long-term visual impairment from key observation points. In addition, scattered State lands in the area may provide additional access for mineral operations.	
San Juan County Commission	In addition, these proposed NSO areas are within the San Juan County Energy Zone (H.B. 393) which includes areas of high potential for development of oil, gas and potash where exploration and development of minerals and energy sources are to be promoted and expedited. NSO management with its associated costlier and more time-consuming processes and techniques for exploration and development certainly does not promote, expedite or encourage mineral exploration or development.	Chapter 4 (4.8.1, Minerals) acknowledges that a NSO stipulation would require the use of more costly directional and horizontal drilling to access the underlying Federal oil and gas resources. The San Juan County Energy Zone that is within the Planning Area includes the Hatch Point area. The Hatch Point area contains the Canyon Rims SRMA which includes two campgrounds, four developed overlooks, and constructed and maintained hiking trails. The overlooks along the rims of Hatch Point provide world class views of Lockhart Basin and Canyonlands National Park. The SRMA is accessed by two State Scenic Backways (Needles Overlook and Anticline Roads). Alternative D manages 46,290 acres of the 101,520 acre SRMA with a NSO stipulation. This NSO stipulation contains an exception which would allow proposed mineral operations provided they would not result in long-term visual impairment from key observation points. Alternative D provides for mineral development within the San Juan County Energy Zone while protecting high quality visual resources and recreation opportunities. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process.	214
San Juan County Commission	some of the NSO areas are so expansive as to preclude or effectively close parts of these areas to extraction of minerals. Widths of 3 to 5 miles or more in NSO areas adjoined by closed	Alternative D provides some flexibility for mineral development by allowing an exception to the NSO stipulation if proposed mineral operations (including geophysical) would not result in	217

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	areas on one side of the NSO area means the far side of the NSO area cannot be reached even by horizontal or slant drilling from offsite. Current technology for such drilling is limited to 1 to 1.5 miles. These expansive widths of NSO areas are not practical or acceptable.	long-term visual impairment from key observation points. In addition, scattered State lands in the area may provide additional access for mineral operations. Horizontal drilling within the Planning Area has reached well over 1 mile.	
Individual	The MLP imposes unreasonably rigid and restrictive Conditions of Approval on energy development leases, and blankets much of the area under the banner of "No Surface Occupancy." Incredibly, these restrictions even apply to existing leases. It is bad enough that these provisions are in the MLP, which will have the inevitable effect of driving the productive, safe, and lucrative oil and gas industry from our region, but the fact is that there was no reason to put these restrictions in place.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease. The commenter's preference for Alternative A is noted.	224
Individual	Protection of sensitive resources is a valid and legitimate concept, but this· MLP takes a very extreme approach, which is not backed up by any facts on the ground. Too many productive areas are classified as No--Surface-Occupancy, which leaves vast quantities of nationally-owned resources undeveloped. These are energy resources that are meant to be harvested and utilized for the good	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude	225

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	of the nation, and rendering them inaccessible does a major disservice to the country as a whole.	the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	
Individual	Many, if not all, of the justifications attempted to be made in the EIS for the extreme management approach that is being proposed would better be addressed through site specific NEPA analyses. There is simply no need for the provisions written into this MLP.	The Moab MLP/DEIS was prepared in accordance with BLM Washington Office Instruction Memorandum 2010-117: Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013). The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need).	226
Individual	The MLP will leave enormous amounts of nationally owned energy resources untapped, which is not only unwise, but a direct violation of the BLM's mandate - spelled out in several federal laws - to manage our nation's public lands and public resources in the most efficient and economical manner.	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	230
Individual	Throughout the MLP, it is strongly suggested that oil and gas development interferes with tourism and even filming, and presents	While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming	239

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	massive environmental damages, but the facts are not there to back those claims up.	operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets. During the planning process, a large number of individuals, outfitters and guides, the City of Moab, and Grand County have expressed concerns that mineral development will harm individual recreation experiences as well as the recreation-based economy; this possibility cannot be dismissed. There are examples of where large scale minerals activities have negatively affected the recreation economy. In Uintah County, for example, Dinosaur National Monument (a major recreation amenity) has seen a decline in visitation of over 40 percent from 1999-2014 (1999 being the year in which Uintah County reversed years of declining oil and gas production); oil production increased over 358 percent during the same time period. During that time period, natural gas production increased over 339 percent. This is not meant to suggest a causal explanation, as a multitude of factors can contribute to changes in any economic sector. In the Uintah Basin, however, the reported scarcity of accommodations caused in part by an influx of minerals employees, could explain part of the decline in visitation to Dinosaur National Monument. Within the Planning Area, it is certainly possible that the influx of a thousand or more potash facility construction workers could also have a negative impact on the recreation economy, due to the potential difficulty in finding lodging.	
Individual	However, under this MLP, the vast majority of the land on which they operate is being reclassified as No Surface Occupancy, meaning that they are now being shut out of the region, including from leases where they are currently operating. This goes entirely against the long-held principle of supporting multiple uses on public land. The additional stipulations, NSO-designations, and other restrictions are completely unnecessary; every lease is subject to a site specific NEPA process that is purposely designed to identify environmental risks, and issues concerning interference with other resources. These problems, if they exist, are then able to be fully addressed, without the need for blanket bans and restrictions.	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands	240

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		and existing Federal leases in the area provide additional access for mineral operations. When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process.	

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Individual	The MLP makes an issue out of potential interference with the filming industry. In the first place, I do not think it is appropriate for the BLM to select which industries they prefer to see operating in the region; but that aside, the fact is that the most visible impacts of oil and gas development are temporary in nature - drilling rigs, for instance, are only present for a few weeks for each well. Permanent surface equipment is often low profile, and even painted to help blend in with the background.	While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets. During the planning process a large number of individuals, outfitters and guides, the City of Moab, and Grand County have expressed concerns that mineral development will harm individual recreation experiences as well as the recreation-based economy; this possibility cannot be dismissed.	241
Individual	There are a number of unconscionably restrictive conditions of approval in the MLP that all but exclude the oil and gas industry from operating in the region. Not only do these conditions preclude any further leasing, but they are to be applied to existing leases, leases which the operating companies had purchased in good faith, expecting that the BLM would follow through on their promises. As unacceptable as it is that the BLM should blindly preclude the industry from acquiring any future leases, it is outrageous that it should ban operations on leases that have already been procured, and in some cases are active.	A NSO stipulation resulting from the MLP would not be applied to an existing lease. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. When making a decision regarding surface-disturbing oil and gas development activities following site-specific environmental review, the BLM has the authority to impose reasonable measures to minimize adverse impacts on other resource values, including restricting the siting or timing of lease activities. To the extent consistent with lease rights granted, such reasonable measures may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of	242

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		proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process.	
Individual	It is absolutely not the job of the BLM to decide for yourselves who should and shouldn't have access to public lands. These lands are meant to be managed for multiple use, and those uses include resource development. In fact, denying resource development also violates another BLM mandate, that being to ensure the responsible harvesting of publically owned minerals for the overall good of the nation. It is beyond question that domestic energy production benefits the nation as a whole. If energy independence and the corollary economic and national security advantages are not in the national interest, then what is?	FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply	243

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		varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights.	
Individual	This MLP violates that mandate by focusing instead on one or two very narrow uses, to the detriment of others. Specifically, all of the alternatives, including the BLM's preferred alternative, quite clearly favor tourism and the filming industry in place of oil and gas development and potash mining. The document ascribes all sorts of environmental harm to oil and gas development, without acknowledging the well-established and effective mitigation measures utilized by the industry, or recognizing the impacts that tourism has on the same resources. Certainly, the alternatives were drafted without serious consideration of the economic impacts of shutting out oil and gas development from the planning area. It is entirely inappropriate for the BLM, especially within the framework of a document outlining a major management direction, to give priority to one industry over another. Throughout this MLP, oil and gas development is demonized while the tourism and filming industries are touted and supported. This is a classic case of "picking winners and losers," and it is wrong and unfair for the BLM to be doing so. Tourism and energy production can exist together in Moab, as they have for several years. The MLP should have recognized this, and at the very least have offered an alternative that would permit oil and gas development to continue to take place, respect existing lease rights, and allow for reasonable future leasing.	FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights. While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets. During the planning process a large number of individuals, outfitters and guides, the City of Moab, and Grand County have expressed concerns that mineral development will harm individual recreation experiences as well as the recreation-based economy; this possibility cannot be dismissed. There are examples of where large scale minerals activities have negatively affected the recreation economy. In Uintah County, for example, Dinosaur National Monument (a major recreation amenity) has seen a decline in visitation of over 40 percent from 1999-2014 (1999 being the year in which Uintah County reversed years of declining oil and gas production); oil production increased over 358 percent during the same time period. During that time period, natural gas production increased over 339 percent. This is not meant to suggest a causal explanation, as a multitude of factors can contribute to changes in any economic sector. In the Uintah Basin, however, the reported scarcity of accommodations caused in part by an influx of minerals employees, could explain part of the decline in visitation to Dinosaur National Monument. Within the	245

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		Planning Area, it is certainly possible that the influx of a thousand or more potash facility construction workers could also have a negative impact on the recreation economy, due to the potential difficulty in finding lodging.	
Individual	The MLP was very unclear as to the reason for separating potash from oil and gas leasing. Joint leasing has worked very well in the area for many years, and has resulted in minimizing overall surface disturbance. The MLP states that under the no action alternative "oil & gas and potash development could occur concurrently on same tract of land, resulting in increased concentration of development and redundant infrastructure"; concentrating development on suitable locations means that less development need occur on other land in the area which may be more valuable for its visual effects or habitat. I also question the claim about “redundant infrastructure”- naturally, there will be some equipment and facilities unique to each industry, but major infrastructure such as access roads will be common to each.	The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan, it is not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don’t directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity, they could be competing geologically. The actions of one could affect what is going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals.	247
Individual	These are not inconsistent or incompatible positions. The MLP ignored or disregarded a number of important facts about oil and gas development in the region:	1) The BLM recognizes that mineral development is a legitimate activity on public lands. 2) The emission control measures included in the action alternatives (Alternatives B, C, and D) would continue to	250

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	1) Resource development is a legitimate and necessary activity on public lands, and has been occurring in this planning area for many years with no adverse consequences; 2) The oil and gas industry is a leader in emission control, and the local industry employs a variety of controls to reduce emissions; 3) The industry has long established procedures for effectively protecting ground water, centered on well construction and cement bond evaluation, procedures which have been 100% effective; 4) The industry in our area has developed extensive methods to minimize visual impact, from computer model-aided siting of pads, to the painting of permanent surface equipment to blend in with the background; 5) The industry limits surface disturbance by using existing infrastructure where possible, and employing pad drilling, which concentrates activity so that fewer surface locations are required; and 6) The industry provides substantial employment for the region, pays far better than other local industries, and provides greater revenues than those other industries.	maintain the high air quality in the region based on the projected future mineral development. 3) The established procedures for protecting groundwater have been incorporated into mineral lease stipulations and best management practices. 4) Minimizing impacts to visual resources is a key component of the leasing decisions and best management practices in the Preferred Alternative (Alternative D). 5) The leasing stipulations in the Preferred Alternative specify the use of multiple wells per pad, interim reclamation, and colocation of facilities. 6) Chapter 4 (Section 4.12, Social and Economic) recognizes the employment, income, and revenues associated with the projected mineral development scenarios.	
Individual	The entire document seems very slanted and biased against the oil and gas industry without providing any context as to why. For example, the EIS seems to rely far too much on a biased report from Headwater Economic, an organization that is known to be an environmentally-slanted group, and part of the wider environmental lobby. There did not seem to be any balancing or objective data used as background or reference, and that is disappointing.	The socioeconomic analysis in the MLP does not rely on the Headwaters report. The Headwaters report and Chapter 4 both rely on the same underlying study done by the BLM. This study was a one year comprehensive survey (National Visitation Use Monitoring) consisting of about 2,000 interviews and including data on visitor spending. The visitor spending profiles were then input into IMPLAN models which were used by both Headwaters and BLM professional staff.	251
Individual	This MLP considers oil and gas as nothing but a detriment to the region. IT entirely ignored the benefits of energy development, including the environmental benefits of developing natural gas as a feedstock for electrical generation, as well as the socioeconomic impacts that it would have on the local region if it were to go into effect. There was likewise no consideration of the mitigation measures employed and in place to further minimize the impact of oil and gas development - including many locally-developed and applied measures.	Chapter 4 (Section 4.12, Social and Economic) details the economic benefits of mineral production by alternative. Many of the mitigation measures employed locally have been incorporated into the alternatives of the MLP/DEIS as stipulations and best management practices.	253
Individual	The MLP details new conditions of approval for future leases that are unwarranted, and also impose No Surface Occupancy restrictions on vast tracts of land, even land that is already leased. This is fundamentally unfair and goes against the BLM's charge to manage America's public lands for multiple use, and for the good of the nation.	A NSO stipulation resulting from the MLP would not be applied to an existing lease. Chapter 1 (Section 1.1, Introduction and Background) states: “The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The	254

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	I have to admit that I was shocked when I began reviewing the draft MLP. Imposing such unreasonable restrictions will do nothing more than eliminate an entire industry from the planning area. This is not just about money for the corporations; it is about the people and families who will suffer from losing their jobs, the communities that will suffer from the loss of businesses and revenue, the nationally-owned energy resources that will be left untapped and undeveloped and therefore not be utilized to provide for the common good, and quite frankly it is also about right and wrong. It is wrong to place unnecessary restraints over an existing oil and gas field and arbitrarily slap No surface Occupancy restrictions on existing leases, leases which were purchased in good faith by the lease holders.	Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	

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Individual	This MLP goes way too far in restricting oil and gas operations on the area. Operating companies will lose their ability to lease in resource-rich locations, they will lose the ability to access even leases they already possess, and they will lose the ability to expand, such as in the Cane Creek area.	A NSO stipulation resulting from the MLP would not be applied to an existing lease. Chapter 4 (Section 4.12, Social and Economic) details the economic benefits of mineral production by alternative. Many of the mitigation measures employed locally have been incorporated into the alternatives of the MLP/DEIS as stipulations and best management practices. Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a	256

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		greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	
Individual	The oil and gas industry has adopted several measures to not only protect the environment, but to reduce the visual and other impacts of their operations on other users. Well pads are carefully sited to not intrude on Visual Resource Management Areas, and surface disturbance is kept to an absolute minimum. Use of pipelines helps cut down on truck traffic. Extensive reclamation efforts return disturbed ground to its natural condition. This MLP ignores those efforts, and instead essentially eliminates the rights of producers to lease land for development - or even access their already existing leases.	The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities. The MLP/FEIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights.	257
Individual	Any concerns that the MLP sought to address by shutting off access to the land to oil and gas development were not properly identified in the MLP - the document admits that air quality in the area is good, there are no sensitive cultural sites present, water quality is not likely to be compromised, and there is no congressionally designated wilderness present - and in any case, such concerns would be better addressed in the site specific NEPA analyses that are required by existing law. The fact is that the NEPA law and the existing Resource Management Plan were doing their jobs more than adequately, and ensuring protection of the environment and other resources in the planning area, including visual resources. So it remains unclear why the extreme measures called for in the MLP are even necessary.	The Moab MLP/DEIS was prepared in accordance with BLM Washington Office Instruction Memorandum 2010-117: Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013). Through the scoping process conducted in March 2012, the BLM identified the issues to be addressed in the MLP. These included air quality, water quality, cultural resources, recreation, and visual resources. Leasing stipulations were developed to mitigate impacts to these resources from projected future mineral operations.	259
Individual	The COA's themselves are also unacceptable, even if they were only applied to future leases. These COA's, including no-surface-occupancy restrictions, effectively bar any future leasing in the region. This means that the many jobs that oil and gas supports, and the millions of dollars in annual revenues generated for local and state government, will evaporate.	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a	262

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		greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. The economic impacts of each alternative are detailed in Chapter 4 (Section 4.12, Social and Economic).	
Individual	Throughout the MLP, oil and gas and potash mining are considered as detriments, and no consideration is given either to the benefits of the development of these resources, nor to the measures and procedures in place to allow them to be developed in a way that is safe for the environment. It is as though the efforts taken by the industry, in some cases in cooperation with regulatory agencies, to curb emissions, protect ground water, limit water usage, minimize surface impact, and reduce visual impacts never happened. But the fact is that those measures HAVE been implemented, and the companies operating within the planning area, which this MLP would essentially drive out, have incorporated those practices into their own development plans. The BLM has an obligation to consider all of those factors when developing a management plan with such sweeping implications as this one. It is shameful that you did not.	The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	267
Individual	The entire focus of the MLP seems to be protection of the regions from development. Conservation is a valid and worthy goal, but this plan takes it to an unacceptable extreme. It is not the duty or proper role of the BLM to prevent development, it is to manage that development appropriately. The stipulations, restrictions, and conditions being applied to both future and, inexplicably, existing leases, are severe to the point of prohibiting oil and gas development. This not only curtails economic activity that many local residents, businesses and governments depend on, but also denies the American public access to mineral resources that they collectively own. This plan leaves vast quantities of national energy resources off-limits from ever being developed.	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment	268

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		from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	
Individual	This MLP, including the BLM's preferred Alternative, "D," is slanted inequitably towards conservation at the expense of economic development. In drafting these alternatives, it appears that the BLM has inexplicably failed to take all factors into proper consideration. For instance, the fact that oil and gas development, as well as potash mining, can be, and is, done very safely and with remarkably little impact these days. The industry has made tremendous strides in the areas of mitigation and prevention. The industry has been a leader in air quality maintenance, employing a variety of means to control and reduce emissions from the equipment they use. This is evidenced by several empirical measures, such as the fact that particulate matter concentrations are well under the NAAQS	The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	270

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	standards in this area. The industry has also long had procedures in place to protect ground water, which have been proven highly successful. In regards to any environmental issues, from wildlife habitat, to vegetation, to soil erosion, the industry has in place detailed mitigation processes. That makes the punitive nature of this MLP all the more difficult to understand.		
Individual	First, the MLP places such stringent restrictions on oil and gas leasing in the area that it effectively imposes a ban on energy development. All of the alternatives presented in the EIS impose sweeping No Surface Occupancy stipulations on large tracts of land, including land currently leased, which will preclude any drilling, completions, pipeline installation, or any other activity necessary to develop the regions oil and gas resources. I find it wholly unacceptable for the BLM to arbitrarily exclude a particular industry from using public lands, and especially to deny rights to existing leases.	A NSO stipulation resulting from the MLP would not be applied to an existing lease. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of	272

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		proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	
Individual	The EIS does not identify any imminent or alarming threat to any of the region's ecological resources that requires such sweeping action be taken. In fact, under the current law and RMP, any new activity on any new leases will need to be reviewed as per the NEPA law prior to any activity commencing. This will identify any previously overlooked, or more site-specific environmental concerns, which can then be addressed.	An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. Through the scoping process conducted in March 2012, the BLM identified the issues to be addressed in the MLP. These included protecting important viewsheds and high use recreational experiences. Leasing stipulations were developed to mitigate impacts to these resources from projected future mineral operations.	273
Individual	I am concerned that the MLP prioritizes the filming industry over the development of local energy resources. The MLP does not make clear how the oil and gas industry poses a burden on the filming industry, and yet seems to make concessions to the filming industry over energy development. Again, it is not the task of the BLM to favor any particular use over another.	A viewshed analysis would be required only for the 14 high use filming locations listed in Chapter 2 (Table 2-3). Although conflicts in the past have been minimal and a solution has been found, the stipulation is intended to prevent conflicts in the future. The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. The imposition of a viewshed analysis is not an onerous requirement, but Chapter 4 (Section 4.8.1) acknowledges that CSU stipulations can result in "additional costs and delays to mineral operators." The exact	275

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		cost of this constraint could only be quantified on a site-specific basis. While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets.	
Individual	The remaining alternatives (B-D) are unacceptable and inappropriate for the region, considering the economic disruption that they will create, and due to the fact that they do not recognize energy exploration and production as legitimate and valid used of public lands. The action alternatives all seek to severely limit access to oil and gas leases, based on unfounded presumptions that such development poses a great risk to the environment of the region. This is simply not the case, especially considering the enormous strides the oil and gas industry has made in recent years in developing technology and best operating practices that minimize impacts and surface disturbance.	The commenter's preference for Alternative A is noted. The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	276
Individual	In regards to air quality, for instance, the oil and gas companies operating in the region have instituted a great many measures to limit emissions, and control dust production. As a result, the region has remarkably good air quality. Nevertheless, the environmental qualitative analysis utilized by the authors only included emissions from oil and gas development and potash mining, and ignored other sources such as burning, tourist traffic, other transportation, etc. This was unfair and very unscientific. The same is true with water; the industry has long employed techniques, such as cementing and the use of surface and intermediate casing, to protect ground water. Yet these efforts were evidently not considered by the authors when they developed alternatives that each imposed strict no surface occupancy stipulations on this very responsible and well regulated industry.	Currently, there are no "existing elevated levels of background pollution in the Moab MLP area." Air quality in the Moab MLP area is under increased scrutiny due to the proximity to the National Parks and their Class I airsheds. BLM's proposed mitigation in the MLP is intended to sustain this excellent air quality. The established procedures for protecting groundwater have been incorporated into mineral lease stipulations and best management practices in the alternatives in the MLP/DEIS.	277
Individual	One can only assume that the BLM's reason for taking these drastic measures in the MLP were environmentally based, but the evidence does not support these actions on that basis either. In terms of air quality, the EIS even admits that air quality is good in the region - even though oil and gas and potash leasing has been taking place. The only thing that will change the Planning Area's air quality will be a change in the EPA standards used to measure it- not the quality of the air itself. Eliminating or severely restricting leasing will not change the air quality for the better, but it will negatively affect quality of life when jobs are eliminated.	Currently, there are no "existing elevated levels of background pollution in the Moab MLP area." Air quality in the Moab MLP area is under increased scrutiny due to the proximity to the National Parks and their Class I airsheds. BLM's proposed mitigation in the MLP is intended to sustain this excellent air quality. The established procedures for protecting groundwater have been incorporated into mineral lease stipulations and best management practices in the alternatives in the MLP/DEIS.	282

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	The same can be said of other environmental values as well. Oil and gas leasing has no measurable impact on water quality or supply, considering the extensive and standard measures that are used to isolate wellbores from ground water, and the fact that many operators in the area are going to waterless completions. The industry has also been very respectful of animal habitat and natural ground cover, so those cannot be the reason for this extreme action.		
Individual	The MLP imposes unreasonable conditions of approval on the oil and gas industry for future leases, and also makes them applicable to existing leases. This far exceeds the BLM's authority, and violates the multiple use doctrine. As a federal land management agency, the BLM is not in a position to pick and choose who can have access to our public lands. Designating wide swaths as No Surface Occupancy (NSO) places these lands off limits for oil and gas development, without reason or justification. There is no pressing environmental catastrophe in the region that is begging for a solution of this extreme magnitude, and the authors have apparently completely disregarded the success the industry has demonstrated, here and elsewhere, in minimizing its impact and developing their product responsibly.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease. FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the	283

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		public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	
Individual	I cannot for the life of me understand why you would submit a leasing plan that essentially forbids leasing, and impose draconian restrictions on even land that is currently leased. Slapping No-Surface-Occupancy (NSO) stipulations on wide parcels of land, including acreage that is leased or part of currently proposed expansion plans, is excessive and flies in the face of the principle of multiple use. Multiple use for who? That is supposed to mean more than just backpackers and film crews.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations,	287

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		and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations.	
Individual	First, the new conditions of approval and No Surface Occupancy restrictions outlined in each of the alternatives are unfair and impossible to justify. By imposing these restrictions, your office is allowing no point of access for the oil and gas industry to the area, including to existing leases. There is nothing balanced in that approach whatsoever. The multiple use mandate dictates that	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new	290

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	these lands must be left available for various uses, including the extractive industries. There were no justifications offered in the document as to why oil and gas should be completely shut out of the area. There is no clear and present threat to air quality; water is not being harmed - the authors of the report even admit that the chances of something going wrong with the well casing that could then contaminate local ground water is extremely remote. No habitat was found that would be unavoidably destroyed by the industries activities, and no cultural areas have been identified. At any rate, each lease would need to be subjected to its own full environmental analysis under federal law before any activity could commence; if there were issues, they would be more effectively dealt with at this time. The NEPA process, and the existing Resource Management Plan (RMP) adequately worked together to ensure environmental protection of the region - there was no need to propose a plan this extreme in its application.	stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease. FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights. Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, "In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production.	

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		Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period." Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	
Individual	The MLP imposes very strict Conditions of Approval unilaterally on the oil and gas industry, and even expects these COAs to be applied to existing leases. It places much of the area under No-Surface Occupancy, which means that even if leases could be issued, the lessee would not be able to access the land or develop the minerals underneath.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and	292

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		undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. A NSO stipulation resulting from the MLP would not be applied to an existing lease. Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	
Individual	There is no direct or clear risk posed by the industry, especially as it operates in the region, to the local environment. Air quality remains good in the area, and Particulate Matter concentrations are well under NAAQS standards. There is no risk to water supply, as many operators are going to water-less completions, and industry use of water is a minute fraction of total use in any case. Nor is there a risk to water quality, since ground water is fully protected by the industry's well construction procedures. The EPA even recently announced that oil and gas, and fracking in particular, cause no widespread water concerns. There were no TCP's identified in the planning area that would require extra protection, and the industry has gone to great and successful lengths to protect wildlife and their habitat, as well as prevent erosion and the introduction of invasive species. So it eludes me as to what problem this MLP is trying to solve.	The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater and wildlife, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	293
Individual	Additional areas, like the Labyrinth Canyon portion of the Green River, need to be closed to oil and gas drilling and potash mining and so protect special landscape for future generations. Also, loopholes allowing for exemptions from environmental protections must be eliminated, so we get the benefit of the bargain when allowing drilling and mining on our public lands	The commenter’s preference for Alternative C is noted. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in	296

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		the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	
Individual	If companies want to use our lands for exploration purposes I believe they should put massive funds in escrow for future mitigation projects to clean up their messes. Hold the escrow for no less than 200 years.	The requirements for bonding of operations on Federal oil and gas leases are found in the Federal Regulations at 43 CFR 3104.	306
Red Ant Works, Inc.	Insert uncompromising provisions for enforcement of violations. Eliminate any opening for waivers, modifications and loopholes to agreements made by oil and gas interests.	As stated in Chapter 1 (Section 1.4.2, Issues Considered but not Further Analyzed, Issues Addressed Through Policy or Administrative Action), enforcement of management decisions is not addressed in the MLP/DEIS.	313
Individual	I must add, also, that many experts now say that we must begin leaving most remaining undeveloped fossil fuels where they are if we really want to avoid the worst impacts of climate change. I believe BLM should take a much more cautious approach to all fossil fuel development on public lands as a result. Fossil fuels extraction can no longer be considered to fall under some sort of blanket national interest need. Lastly, if I return to the Moab region, it will be to see wild places, magnificent scenery and wildlife we have the foresight to protect for future generations. I have never liked the presence of industry and mining operations next to the Colorado River, and I hope that the Bureau of Livestock and Mining will begin to rein in the impact of these extractive technologies on the Canyonlands ecosystems. Please consider preserving them [the public lands] instead of selling and/or leasing them to energy corporations.	A range of alternatives were considered in the MLP/DEIS for the level of resource protection and mineral development. Alternative C in the MLP/DEIS considers a lower level of mineral development with an emphasis on recreation use and resource protection. BLM may choose from all the alternatives to compose the proposed MLP and Final EIS. Due to BLM's multiple use mandate (FLPMA), varying levels of oil and gas development are considered in the alternatives for the MLP/DEIS.	321, 368, 564
Individual	The values, monetary and otherwise, of those lands in their natural state far exceed the potential value, monetary and in supply of energy commodities, to the nation's markets. Many decades of exploration for those commodities have yielded only a tiny fraction of total U.S. consumption of them, and what has been found and produced is primarily located outside of the Moab/Monticello districts in northeastern Utah. There is good geologic information	Chapter 4 (Section 4.12.5, Nonmarket Value Impacts) addresses the economic benefits to local communities from the amenity values provided by open space and scenic landscapes. Chapter 4 (Section 4.12, Social and Economic) also addresses the economic and fiscal impacts of oil and gas production.	322

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	for why that is the area of almost all of Utah's energy production. According to the U.S. Energy Information Administration, the total oil production in Utah in 2014 (last full year of data), was 112,000 barrels/day. That is 1.3% of the entire U.S. daily oil production for that year. It is a mere 0.6% of the total U.S. daily oil consumption. Therefore there is no economic merit to the argument that potential production from the geologically very unfavorable Moab/Monticello lands will have any benefit in reducing the U.S. dependence on foreign oil.		
Individual	Utah oil production is only 6% of the production of the 10 states with higher production than Utah. That Utah ranks 11th in state oil production in the nation should not be stated with pride. Natural gas production in Utah, about 453 million cubic feet in 20014, is 1.7% of annual 2014 consumption (about 27 trillion cubic feet), and thus has no national. By contrast, the red rock country of Utah in its natural state is a permanent value to the nation and Utah.	Chapter 4 (Section 4.12.5, Nonmarket Value Impacts) addresses the economic benefits to local communities from the amenity values provided by open space and scenic landscapes. Chapter 4 (Section 4.12, Social and Economic) also addresses the economic and fiscal impacts of oil and gas production.	323
Individual	The language allowing exceptions, waivers, and modifications of lease stipulations should be abandoned for all alternatives.	Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances, it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	325
Individual	The BLM is not managing our public lands as they should. These lands are a public trust and we do not want on public lands leased out to privatization and development this is especially true for the irresponsible industries in control of the Oil and Gas. These industries have shown that they cannot responsibly protect the lands, the waters, and the communities which are nearby from their contaminations, and ruined habitat.	A range of alternatives were considered in the MLP/DEIS for the level of resource protection and mineral development. Alternative C in the MLP/DEIS considers a lower level of mineral development with an emphasis on recreation use and resource protection. BLM may choose from all the alternatives to compose the proposed MLP and Final EIS. Due to BLM's multiple use mandate (FLPMA), varying levels of oil and gas	384, 563

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	This is public land. Once it is drilled or mined, it is usually ruined forever. Water is precious and will only get more so. Potash mining, fracking, etc., are all water intensive and potentially can pollute extensively. The Animas River disaster demonstrates that mining legacies can last generations. Finally, Moab and its surrounding canyons and red rock are world class destinations. It would be a shame to have the area marred by industrialization.	development are considered in the alternatives for the MLP/DEIS. Conditions of approval and best management practices, along with the stipulations included in the management alternatives are applied to oil, gas, and potash leases to protect natural resources, communities, and other resource uses from damage or contamination.	
Individual	Recent drops in commodity prices underscore the fact that mining, oil and gas and potash extraction are not a sure thing…I do not think that leases to extractive industries should be open ended. If the companies that hold these leases do not conform to the BLM's regulations they should lose their leases. An example of very shoddy work is the pipeline on Big Flat. Also if the leases are not developed within a given amount of time they should be retired.	Oil and gas leases are issued with a primary term of 10 years and can be held by production thereafter. The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash	436

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		exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30	
Individual	Most would agree that large multiple well mineral projects should have a more detailed plan for control of fugitive dust. But a Fugitive Dust Control Plan for a single 3-5 acre drill pad, for enhanced in-field production after development drilling is completed, is simply unnecessary and burdensome to operators. There should clearly be a justification for this. There is limited benefit to throwing more red tape at an industry that has made significant strides at becoming a much cleaner industry. The current industry that is involved in potash, oil and gas do an incredible job at working with federal, state and local agencies to maintain safe practices. They also work at being environmentally aware of their surroundings during their activity as well as reclaiming their areas of disturbance to a level that is generally equal to or better than they found it. Please do not hinder this industry further and cancel this plan that would require a Fugitive Dust Control Plan for mineral activities that would disturb a surface area larger than 0.25 acre. Instead let's keep a close eye on the industry and maintain the current standards that are already adequate. Let us assist these industries to help our country to become a country be less dependent on foreign sources with governments that not stable.	The Utah Division of Air Quality requires a Fugitive Dust Control Plan on all disturbances greater than 0.25 acres. The BLM has incorporated this requirement into the alternatives for the MLP/DEIS.	437

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National Parks Conservation Association	We request that the BLM exclude exceptions, modifications, and waivers within areas of NSO stipulation. Although we understand and appreciate the need for flexibility in mitigating resource impacts due to continually changing technologies and monitoring efforts, lease stipulations must provide a level of certainty and clear expectations for both a leaseholder and affected stakeholders. Providing certainty in the Final MLP is especially important, because, as the BLM explained in the press release that accompanied the Draft EIS, MLPs (and the broader leasing reforms) "were designed to encourage stakeholder input early in the planning process, which reduces protests and litigation and provides developers with greater certainty." There must be certainty that an NSO lease stipulation is just that – without exceptions, modifications and waivers that leave room for potentially allowing surface disturbance in an area that requires more protection for natural or cultural resources. An NSO stipulation should be a clear, consistent, requirement that a potential leaseholder would need to consider if interested in purchasing leases within the MLP planning area.	Alternative D provides operational flexibility for mineral leasing and development through some specific exceptions. Much of the acreage managed with a NSO stipulation is applied to protect high quality visual resources (VRM Class II). An exception could be granted if a visual analysis demonstrates that a proposed operation would not result in long-term visual impairment from key observation points, as defined by BLM. Although the stipulation in Alternative D provides some flexibility, it still informs the operator that it may be difficult to meet the visual objectives. Alternatives B and C provide very limited exceptions, modifications, and waivers for NSO stipulations. In most cases, exceptions, modifications, waivers provide operators with increased operational flexibility by providing a means to reduce, eliminate, or modify restrictions while still meeting the objectives of the land use plan amendment (BLM Washington Office Instruction Memorandum 2008-032). A more restrictive leasing stipulation, such as NSO, is intended to inform the operator regarding the difficulty of meeting resource objectives such as those intended to protect visual resources. A less restrictive leasing stipulation, such as CSU, could mislead the operator regarding the difficulty of achieving resource objectives. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	438

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National Parks Conservation Association	Furthermore, the language of the general exceptions, modifications, and waivers, as written, is very unclear in terms of the type of additional analysis that would be required of a leaseholder if an "authorized officer" were to consider allowing an exception, modification or waiver, and whether it would be subject to public review. Including detailed criteria for exceptions, modifications and waivers in MLPs is specifically required by the BLM's Fluid Minerals Handbook. See H-1624-1 at V.C.2. ("The BLM should design the purpose and criteria for exception, waiver and modification for each stipulation to recognize and accommodate changing environmental protection needs over time.); see also id. at IV.C.3. ("The plan or plan amendment should also identify the documentation requirements for supporting a waiver, exception or modification and any public notification associated with granting them."). NPCA acknowledges that requiring a NEPA analysis for every potential exception, modification, or waiver would be cumbersome and potentially unnecessary, however, we are also alarmed by the level of discretion given to an "authorized officer" as they work with a leaseholder at the permitting stage. Without clear criteria for allowing exceptions, modifications, and waivers, it would be entirely up to the discretion of whoever the current "authorized officer" may be at the time. The BLM needs to develop and incorporate explicit language to ensure transparency in the exception, modification and waiver process and to identify trigger points for additional NEPA analysis requirements.	In most cases, exceptions, modifications, waivers provide operators with increased operational flexibility by providing a means to reduce, eliminate, or modify restrictions while still meeting the objectives of the land use plan amendment (BLM Washington Office Instruction Memorandum 2008-032). A more restrictive leasing stipulation, such as NSO, is intended to inform the operator regarding the difficulty of meeting resource objectives such as those intended to protect visual resources. A less restrictive leasing stipulation, such as CSU, could mislead the operator regarding the difficulty of achieving resource objectives. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	439
National Parks Conservation Association	Where exceptions, modifications, and waivers are included that apply to stipulations intended to protect national park resources (visual, auditory, night skies), they need to require explicit consultation with the NPS to ensure there will be no impacts to park resources. The BLM recently included such a requirement in the Dinosaur Trail MLP, part of the White River RMP Amendment for Oil and Gas Development, which similarly addresses oil and gas leasing and development on lands adjacent to a national park (Dinosaur National Monument).2 This may be implied in some cases, but needs to be clearly stated in the Final MLP.	Exceptions, modifications, and waivers are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, are subject to public review and consultation, including with the National Park Service.	440
Sportsmen for Responsible Energy	We note that 25% of the planning area already is under lease. This includes pronghorn fawning habitat and lambing/rutting habitats for Desert bighorn sheep. With respect to lands already under lease,	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not	475

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Development/National Wildlife Federation	SFRED encourages BLM to clarify that the agency retains the right even under these existing leases to prevent "adverse impacts" by requiring "reasonable measures" to prevent environmental harms. Many, if not all, of the conservation measures included in the proposed CSUs are becoming more standard practices within the industry and are sensible actions to preserve vital habitat values. We also note with some concern that under BLM's Preferred Alternative D, "exceptions" to the well-spacing standard contained in the CSU will be granted if "the requirement…would preclude a lessee/operator from exercising their lease rights." Since lease "rights" are bounded by both stipulations included therein and provisions of relevant planning documents, including this MLP, this statement is misguided.	conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. ***Text has been added to Appendix A (Baseline CSU, Alternative D) to clarify the exception regarding well spacing. The revised exception is as follows: If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights <u>where the spacing would locate a well pad outside of the lease</u> (underlined text has been added).***	
Individual	A stipulation in Table 2.1 page 2-7 would require that a Fugitive Dust Control Plan be developed if a mineral activity disturbs 0.25 acres or more. That is 104.4 feet by 104.4 feet. You cannot turn a truck around in 0.25 acres. You would be hard pressed to turn a vehicle pulling a trailer with four wheelers on it around in 0.25 acres. Therefore, every single truck that drives in the MLP area for any mineral activity has to be included in a Fugitive Dust Control Plan. The proposed stipulation to require a Fugitive Dust Control Plan on any disturbance on 0.25 or more acres should be removed from the MLP.	Trucks would be restricted to designated roads and permitted disturbances. If a proposed disturbance is greater than 0.25 acres a Fugitive Dust Control Plan would be required. The Utah Division of Air Quality requires a Fugitive Dust Control Plan on all disturbances greater than 0.25 acres. The BLM has incorporated this requirement into the alternatives for the MLP/DEIS.	496

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Western Energy Alliance/American Petroleum Institute	BLM must make explicit in the Final EIS, MLP, and RMP amendments that the authorized officer may not impose management direction in a way that cumulatively violates existing lease rights.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	505
Western Energy Alliance/American Petroleum Institute	The MLP should expressly state that surface use issues on private surface will be resolved primarily between the surface owner and the operator and that BLM will not apply management direction that conflicts with the agreement reached between the surface owner and operator.	According to the Land Use Planning Handbook 1601-1, the decision area in a land use plan includes the lands within a Planning Area for which the BLM has authority to make land use and management decisions. The BLM has jurisdiction over all BLM-administered lands (surface and subsurface) and over the subsurface minerals only in areas of split estate (areas where the BLM administers Federal subsurface minerals, but the surface is owned by a non-Federal entity, such as State Trust Land or private land).	506
Individual	All decisions made in the planning process will apply only to public lands and, where appropriate, split-estate lands where the subsurface mineral estate is managed by the BLM. This implies the surface management constraints developed for federal lands will be applied to private land where the subsurface is owned by the government thereby stripping these people of 'valid existing rights' to surface management. What if a private landowner is in	According to the Land Use Planning Handbook 1601-1, the decision area in a land use plan includes the lands within a Planning Area for which the BLM has authority to make land use and management decisions. The BLM has jurisdiction over all BLM-administered lands (surface and subsurface) and over the subsurface minerals only in areas of split estate (areas where the BLM administers Federal subsurface minerals, but	543

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	disagreement? As described by law and policy, the BLM will strive to ensure that its management actions are as consistent as possible with other adjoining planning jurisdictions, both Federal and non-Federal. How about just "the BLM will ensure that its management actions are consistent"?? Striving provides no requirements to do such . . . . ·	the surface is owned by a non-Federal entity, such as State Trust Land or private land).	
Individual	There should not be any waivers or exceptions or modifications of stipulations that do not involve documented consultation with other agencies with potentially affected lands and waters in any areas designated as no surface occupancy (NSO) or Baseline CSU and there should be public notice and opportunity for comment before any such change is approved.	Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	557
Individual	We ask the BLM to reject entirely all development of oil, gas, potash, or any other extraction of resources from these 785,000 acres and halt further expansion of these activities on all other BLM-managed public lands in Utah. We ask that public lands not be destroyed or exploited in any way and that the BLM return to the mandate of protecting and preserving public lands – which is the only course of action that is in the public interest.	The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources.	562
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	BLM also appears to have failed entirely to consider a "no-leasing" proposal raised in the BLM's stakeholder input workshops. BLM should end new fossil fuel leasing and ban new hydraulic fracturing and other unconventional well stimulation activities in the planning area.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. The text has been revised to include a no leasing alternative for oil and gas in Section 2.3 (Alternatives Considered But Not Analyzed in Detail).	566
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper,	The potential development of over 168 or more oil and gas wells will irreversibly damage the environment and harm local communities. As BLM's DEIS indicates, continued fossil fuel development—including a trend towards increased use of risky hydraulic fracturing techniques in vulnerable formations—will worsen air quality, accelerate soil erosion, pollute and deplete shrinking water	The environmental impacts associated with the projected oil and gas development for Alternative D are detailed throughout Chapter 4 of the MLP/DEIS. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in	567

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and Holiday River Expeditions	resources, scar and despoil scenic landscapes, fragment and degrade habitat for imperiled species, and diminish the biological diversity of natural communities.	Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	In light of this context, the only truly reasonable alternative to current management direction—that would both protect public health and preserve public lands for future generations—is to (1) suspend all new leasing of fossil fuels in the planning area, and (2) disallow new hydraulic fracturing (or "fracking") or other unconventional well stimulation operations on existing leases. Unconventional well stimulation refers to any activities that extract natural gas and oil from rock formations. As discussed below, keeping all unleased fossil fuels in the ground and banning fracking and other unconventional well stimulation methods would lock away millions of tons of greenhouse gas pollution and limit the destructive effects of these practices, and strip and underground coal mining.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	568
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The discussion below both serves to describe the many unacceptable risks of fossil fuel development which compel the consideration of a "no-leasing-no-fracking" alternative and serves to identify issues that must be addressed in the PRMP and EIS, including (1) the climate change impacts of new fossil fuel development; (2) the ecological and public health impacts of unconventional oil and gas well stimulation, including hydraulic fracturing; and (3) similar impacts with respect to coal mining. We request BLM to fully consider these issues in its development of a final EIS reasonable range of alternatives, adopt no-leasing-no-fracking as the preferred alternative, and address each of the issues below in the EIS.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	569
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Expansion of fossil fuel production will substantially increase the volume of greenhouse gases emitted into the atmosphere and jeopardize the environment and the health and well-being of future generations. In order to avoid catastrophic climate change, BLM should be looking for ways to reduce, rather than increase, greenhouse gas emissions. A no-leasing alternative is not only reasonable but also imperative. Such an alternative is not even mentioned in the DEIS, see DEIS 2-3 to 2-4, but is documented by having been raised by at least one stakeholder (the Sierra Club) in the stakeholder working group report submitted to BLM.	The impacts of the projected oil and gas development for the alternatives in the MLP/DEIS pertaining to air quality and water resources are addressed in Chapters 4 (Section 4.3 and 4.13). The impacts of projected oil and gas development on other resources are found throughout Chapter 4. The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only	570

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		been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Clearly, an end to new leasing and unconventional oil and gas extraction is a reasonable approach to protecting public health and the environment. The DEIS improperly assumes that the (currently-enjoined) BLM hydraulic fracturing regulations will be sufficient to minimize impacts on groundwater resources. As discussed in detail below, this assumption is invalid and improperly discounts a host of water and health impacts associated with hydraulic fracturing, not limited solely to potential aquifer contamination from target formation fractures.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	582
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	BLM should similarly recognize that the environmental and public health hazards of these increasingly widespread extraction techniques are too great to continue allowing them to be used in the planning area. These risks include contamination of water resources and increased surface runoff, over-depletion of dwindling water resources, deterioration of air quality, human health and safety risks, radioactive contamination, induced seismicity, harm to wildlife, and industrialization of landscapes and changes in land use.	The impacts of the projected oil and gas development for the alternatives in the MLP/DEIS pertaining to air quality and water resources are addressed in Chapters 4 (Section 4.3 and 4.13). The impacts of projected oil and gas development on other resources are found throughout Chapter 4. The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	583
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Surface waters can be contaminated in many ways from unconventional well stimulation. In addition to storm water runoff, surface water contamination may also occur from chemical and waste transport, chemical storage leaks, and breaches in pit liners. As described below, contaminated surface water can result in many adverse effects to wildlife, agriculture, and human health and safety. It may make waters unsafe for drinking, fishing, swimming and other activities, and may not always be infeasible to restore the original water quality once surface water is contaminated.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more	584

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		beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. In addition, the following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Areas with the greatest oil and gas development interest within the Planning Area generally have Entrada and Glen Canyon Aquifers exposed at the surface and extending to a depth of approximately 1,000 feet. To ensure the effective isolation of these sensitive formations, a continuous string of steel pipe (or "casing") known as the "surface" casing is placed in the well, extending from the surface to at least 50 feet below the bottom of the aquifer. The entire length of that casing string is then cemented into place. The casing is then pressure tested to ensure there are no leaks before deeper drilling resumes. After drilling to the top of the Paradox Formation at a depth of approximately 4,500 to 5,500 feet, a second continuous string of steel is placed inside the first, from the surface to the bottom of the hole. This casing string, known as "intermediate" casing, is then cemented into place with the goal of again cementing the entire length of casing. The intermediate casing string also serves to isolate water flows that may be present in the Cutler Formation. If the cement does not circulate all the way to surface, a cement bond log (CBL) or cement evaluation tool (CET) is run in the well to evaluate the effectiveness of cement placement. This casing string is then pressure tested and the well is drilled to the target formation and to the final well depth. As drilling continues to the target formation which contains oil and gas, the oil, gas, and drilling fluids are contained within the casing. At this point in the procedure aquifers are separated from the fluids by two layers of steel casing and two layers of cement. When the final well depth has been reached, another steel casing string, known as "production" casing is then set	

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		inside the intermediate casing from the bottom of the well to the surface usually, but always to at least 200 feet above the bottom of the intermediate casing. This casing is then cemented from the bottom of the well to at least 200 feet above the bottom of the intermediate casing, and a CBL or CET is run to evaluate the cement on this casing string also.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Massive volumes of chemicals and wastewater used or produced in oil and gas operations have the potential to contaminate local watersheds. Between 2,600 to 18,000 gallons of chemicals are injected per hydraulically fracked well, with considerable variation as far as what chemicals injected. Unconventional well stimulation relies on numerous trucks to transport chemicals to the site as well as collect and carry disposal fluid from the site to processing facilities. A U.S. GAO study found that up to 1,365 truckloads can be required just for the drilling and fracturing of a single well pad while the New York Department of Conservation estimated the number of "heavy truck" trips to be about 3,950 per horizontal well (including loaded and unloaded). Accidents during transit may cause leaks and spills that result in the transported chemicals and fluids reaching surface waters. Chemicals and waste transported by pipeline can also leak or spill. EPA does not have spill estimates for Utah, it has estimated that for every 100 hydraulically fractured wells in Colorado, 1.3 spills occurred on or near the well pad (including spills of fracking chemicals and produced water), and for everyone 100 in Pennsylvania, between 3.3 and 12.2 spills, based on operator's self-reported data. The number could actually be higher, as spills commonly go unreported. Further, this figure is based on an estimate of spills occurring over a limited time period and not the entire lifetime of the well. Thus, at minimum, even using the lower Colorado figure, two additional spills (1.3% x 142 wells) can be expected to occur in the planning areas, an impact which is nowhere disclosed in the DEIS. Produced waters that fracking operations force to the surface from deep underground can contain high levels of total dissolved solids, salts, metals, and naturally occurring radioactive materials. Flowback waters (i.e., fracturing fluids that return to the surface) may also contain similar constituents along with fracturing fluid additives such as surfactants and hydrocarbons. Given the volumes of chemicals and waste produced and their potentially harmful constituents, the potential for environmental disaster is real. The Final EIS should evaluate how often accidents can be expected to occur, and the effect of chemical and fluid spills. Such analysis should also include identification of the particular harms faced by	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. ***Leaks and Spills: Text has been added under all alternatives in Chapter 4 (4.13.2, Water Resources) to address the impacts of leaks and spills by alternative. Spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation.*** ***Language has been added to Chapter 4 (4.13.2, Water Resources) to assess the impacts of proposed mineral leasing stipulations on impaired water bodies by alternative.***	585

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	communities near oil and gas fields. The Final EIS must include specific mitigation measures and alternatives based on a cumulative impacts assessment, and the particular vulnerabilities of environmental justice communities in both urban and rural settings.	The spill prevention measures identified in Appendix B will become conditions of approval or applicant committed mitigation measures for site-specific actions. The text in Appendix B has been changed to state: "Where surface pipelines cross existing drainages or intersect points with large contributing drainage areas, the pipelines must 1) be buried below potential scour depth, based on a scour analysis that includes the identified 100-year floodplain, and stabilized with rock to minimize the potential for erosion, or 2) washes shall be spanned with supports located within and at the edge of the floodplain." Chapter 4 (Section 4.12.7, Environmental Justice Impacts) states that there are no EJ populations within or in close proximity to the Planning Area. Thus, there is very little potential for environmental effects on any place-based EJ population.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The Final EIS should examine and quantify the risks to human health and the environment associated with on-site chemical and wastewater storage, including risks from natural events and negligent operator practices. Again, such analysis must also include an analysis of potential impacts faced by environmental justice communities in rural settings.	***Text has been added under all alternatives in Chapter 4 (4.13.2, Water Resources) to address the impacts of leaks and spills by alternative. Spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation.*** The spill prevention measures identified in Appendix B will become conditions of approval or applicant committed mitigation measures for site-specific actions. The text in Appendix B has been changed to state: "Where surface pipelines cross existing drainages or intersect points with large contributing drainage areas, the pipelines must 1) be buried below potential scour depth, based on a scour analysis that includes the identified 100-year floodplain, and stabilized with rock to minimize the potential for erosion, or 2) washes shall be spanned with supports located within and at the edge of the floodplain." Chapter 4 (Section 4.12.7, Environmental Justice Impacts) states that there are no EJ populations within or in close proximity to the Planning Area. Thus, there is very little potential for environmental effects on any place-based EJ population.	586
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper,	Current federal rules do not ensure well integrity. The well casing can potentially fail over time and potentially create pathways for contaminants to reach groundwater. Well casing failure can occur due to improper or negligent construction. The EIS should study the	There is no evidence that past closures of oil and gas wells have resulted in impairments to groundwater. The BLM is aware of one historic (1950's-60's) plugging failure that resulted in salt water reaching the surface from inside the production casing. There was no indication, direct or implied, of groundwater having been affected. Because the operator that	587

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and Holiday River Expeditions	rates of well casing failures over time and evaluate the likelihood that well casing failures can lead to groundwater contamination.	plugged the well no longer existed, the BLM required that operator's successor to re-enter the well, drill out the salt and failed cement plugs, and re-plug the well. ***Text has been added to Chapter 3 (3.7.1, Minerals: Oil and Gas, Historical Drilling Activity) summarizing the extent of this knowledge. In addition, an analysis assumption has been added to Chapter 4 (4.8.1, Minerals, Oil and Gas, Assumptions) explaining that BLM drilling experience has shown that plugging and closure procedures have proven successful in protecting groundwater resources.***	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Further, according to the EPA, "evidence of any fracturing-related fluid migration affecting a drinking water resources…could take years to discover." The EIS must consider long-term studies on the potential for fluid migration through newly created subsurface pathways. Fluid migration is of particular concern when oil and gas operations are close to drinking water supplies.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. In addition, the following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Areas with the greatest oil and gas development interest within the Planning Area generally have Entrada and Glen Canyon Aquifers exposed at the surface and extending to a depth of approximately 1,000 feet. To ensure the effective isolation of these sensitive formations, a continuous string of steel pipe (or "casing") known as the "surface" casing is placed in the well,	588

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		extending from the surface to at least 50 feet below the bottom of the aquifer. The entire length of that casing string is then cemented into place. The casing is then pressure tested to ensure there are no leaks before deeper drilling resumes. After drilling to the top of the Paradox Formation at a depth of approximately 4,500 to 5,500 feet, a second continuous string of steel is placed inside the first, from the surface to the bottom of the hole. This casing string, known as "intermediate" casing, is then cemented into place with the goal of again cementing the entire length of casing. The intermediate casing string also serves to isolate water flows that may be present in the Cutler Formation. If the cement does not circulate all the way to surface, a cement bond log (CBL) or cement evaluation tool (CET) is run in the well to evaluate the effectiveness of cement placement. This casing string is then pressure tested and the well is drilled to the target formation and to the final well depth. As drilling continues to the target formation which contains oil and gas, the oil, gas, and drilling fluids are contained within the casing. At this point in the procedure aquifers are separated from the fluids by two layers of steel casing and two layers of cement. When the final well depth has been reached, another steel casing string, known as "production" casing is then set inside the intermediate casing from the bottom of the well to the surface usually, but always to at least 200 feet above the bottom of the intermediate casing. This casing is then cemented from the bottom of the well to at least 200 feet above the bottom of the intermediate casing, and a CBL or CET is run to evaluate the cement on this casing string also	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	In some areas hydraulic fracturing may occur at shallower depths or within the same formation as drinking water resources, resulting in direct aquifer contamination. The EIS must disclose where the potential for such drilling exists.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially	589

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		the bottom of the intermediate casing, and a CBL or CET is run to evaluate the cement on this casing string also.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Setbacks may not be adequate to protect groundwater from potential fracking fluid contamination. A recent study by the University of Colorado at Boulder suggests that setbacks of even up to 300-feet may not prevent contamination of drinking water resources. The study found that 15 organic compounds found in hydraulic fracturing fluids may be of concern as groundwater contaminants based on their toxicity, mobility, persistence in the environment, and frequency of use. These chemicals could have 10 percent or more of their initial concentrations remaining at a transport distance of 300 feet, the average "setback" distance in the U.S. The proposed RMPA contains a wide variety of setback distances, ranging from a mere 100 feet, subject to exceptions, for ephemeral streams, to 330 feet for riparian areas and streams, to 1,000 feet for the Colorado River and Fisher Creek. The effectiveness and feasibility of any setbacks considered as part of the PRMP must be substantively evaluated, not merely described generally in acreages affected by particular stipulations.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. Leaks and Spills: ***Text has been added under all alternatives in Chapter 4 (4.13.2, Water Resources) to address the impacts of leaks and spills by alternative. Spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation.*** The specific pollutant of concern for each of the impaired waterbodies is identified in Chapter 3 (Soil and Water, Impaired Waters/TMDL Reports). ***Language has been added to Chapter 4 (4.13.2, Water Resources) to assess the impacts of proposed mineral leasing stipulations on impaired water bodies by alternative.***	590

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		The spill prevention measures identified in Appendix B will become conditions of approval or applicant committed mitigation measures for site-specific actions. The text in Appendix B has been changed to state: "Where surface pipelines cross existing drainages or intersect points with large contributing drainage areas, the pipelines must 1) be buried below potential scour depth, based on a scour analysis that includes the identified 100-year floodplain, and stabilized with rock to minimize the potential for erosion, or 2) washes shall be spanned with supports located within and at the edge of the floodplain." The buffers specified in Alternative D to protect water resources were provided by the Environmental Protection Agency (EPA). The recommendations provided by the EPA are as follows: 1) 100 foot buffer on ephemeral streams, 2) 750 foot buffer on impaired waters, and 3) 500 foot buffer on intermittent streams.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Finally, disposal of wastes from oil and gas operations can also lead to contamination of water resources. Potential sources of contamination include: · leaching from landfills that receive drilling and fracking solid wastes; · spreading of drilling and fracking wastes over large areas of land; · wastewaters discharged from treatment facilities without advanced "total dissolved solids" removal processes, or inadequate capacity to remove radioactive material removal; and · breaches in pits or underground disposal wells. The Final EIS must evaluate the potential for contamination from each of these disposal methods.	In order to prevent the contamination of water resources, operators must dispose of waste produced from oil and gas operations on Federal lands in accordance the BLM's rules and regulations outlined in 43 CFR 3160, the operational requirements in Onshore Oil and Gas Orders Nos. 1, 2 and 7, and the guidance in the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development - The Gold Book. ***Text has been added under all alternatives in Chapter 4 (4.13.2, Water Resources) to address the impacts of leaks and spills by alternative. Spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation.***	591
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	To the extent that the DEIS assumes that disturbed areas will be successfully reclaimed in 10 years, these assumptions are unreliable given the proposed stipulations' vague standards regarding the timing of reclamation activities ("extensive interim reclamation") and BLM's overall poor record in ensuring that operators follow-through on reclamation. The EIS must justify any assumptions regarding the reclamation of disturbed areas by addressing the rate of operator compliance with reclamation standards, timeliness of compliance, effectiveness of reclamation, and proposed or existing monitoring and enforcement mechanisms that assure successful reclamation.	The BLM has made a reasonable assumption, based on experience within the Planning Area, that disturbed areas would be successfully reclaimed within a scope of 10 years. The commenter has not provided any information to show otherwise. Appendix B (Best Management Practices) provides measures for achieving successful reclamation within a timely manner.	593
Center for Biological Diversity, Living	Ample scientific evidence indicates that well development and well stimulation activities have been linked to an array of adverse human health effects, including carcinogenic, developmental, reproductive,	No known adverse health effects have been identified within the Planning Area associated with oil and gas development.	599

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Rivers, Colorado Riverkeeper, and Holiday River Expeditions	and endocrine disruption effects. This is all the more alarming when considering how close wells may be developed to schools, residences, and businesses. Just as troubling, is how much is unknown about the chemicals used in well stimulation activities. The potential human health dangers and the precautionary principle should further compel BLM to consider not allowing further development of oil and gas minerals in the planning area. In comparing a no-leasing-no-fracking alternative to leasing and continued unconventional well development scenarios, the Final EIS should include a health impact assessment, or equivalent, of the aggregate impact that unconventional extraction techniques, including fracking, will have on human health and nearby communities.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. In addition, the following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Areas with the greatest oil and gas development interest within the Planning Area generally have Entrada and Glen Canyon Aquifers exposed at the surface and extending to a depth of approximately 1,000 feet. To ensure the effective isolation of these sensitive formations, a continuous string of steel pipe (or “casing”) known as the “surface” casing is placed in the well, extending from the surface to at least 50 feet below the bottom of the aquifer. The entire length of that casing string is then cemented into place. The casing is then pressure tested to ensure there are no leaks before deeper drilling resumes. After drilling to the top of the Paradox Formation at a depth of approximately 4,500 to 5,500 feet, a second continuous string of steel is placed inside the first, from the surface to the bottom of the hole. This casing string, known as “intermediate” casing, is then cemented into place with the goal of again cementing the entire length of casing. The intermediate casing string also	

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Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Similarly, poor understanding exists as to how fracking wells perform. For example, information about the performance and subsurface movement of wells is limited due to confidential business information claims by operators, poor recordkeeping, and lack of baseline data collection, hindering any understanding of the "design and performance of individual wells or wells in a region" and groundwater impacts.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design.	600

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Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The EIS should also study the human health and safety impacts of noise pollution, light pollution, and traffic accidents resulting from oil and gas development. A recent study found that automobile and truck accident rates in counties in Pennsylvania with heavy unconventional oil and gas extraction activity were between 15 and 65 percent higher than accident rates in counties without unconventional oil and gas extraction activities. Rates of traffic fatalities and major injuries may be higher in areas with heavy drilling activity than areas without.	No known adverse health effects or an increase in traffic accidents have been identified within the Planning Area associated with oil and gas development.	601

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Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Naturally occurring radioactive materials can be brought to the surface through drilling and extraction processes, yet BLM rules do not appear to require any testing for radioactive materials whatsoever before waste fluids are disposed. The buildup of radioactive materials in pipes and equipment can accumulate to amounts that are harmful to workers who interact with the pipes and equipment. Studies have found high concentrations of the element radium, a highly radioactive substance, in water samples from streams in Pennsylvania where treated shale gas wastewater was disposed. Concentrations were roughly 200 times higher than background levels. Given the potential for radioactive substances to be present in treated wastewater and the high potential for accidental spills and releases, the EIS should assess the amount, the type, and the potency of radioactive elements that are naturally occurring in the landforms subject to the RMP and evaluate the likely risks that stem from bringing such materials to the surface. This analysis should address how radioactive materials could impact the specific areas in which wastewaters are treated, disposed, or accidentally released.	The BLM is not aware of any radioactive contamination within the Planning Area associated with oil and gas operations. The commenter has provided no specific information to the contrary.	602
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	If oil and gas development is allowed to proliferate in the planning area, increased unconventional oil and gas extraction and underground waste injection will increase the risk of induced seismicity. Induced seismic events could damage or destroy property and cause injuries or even death, especially in a state where earthquakes are rare and communities are typically not prepared for them. A no-leasing-no-fracking alternative would minimize these risks, while continued leasing and unconventional well development would increase them.	The BLM is not aware of any increased earthquake activity within the Planning Area associated with oil and gas operations. The commenter has provided no specific information to the contrary.	603
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The proliferation of unconventional oil and gas development, including increases in extraction and injection, will increase earthquake risk. Accordingly, the EIS must fully assess the risk of induced seismicity cause by all unconventional oil and gas extraction and injection activities, including wastewater injection wells. The analysis should assess the following issues based on guidance from the scientific literature, the National Research Council, and the Department of Energy: (1) whether existing oil and gas wells and wastewater injection wells in the area covered by the RMP have induced seismic activity, using earthquake catalogs (which provide an inventory of earthquakes of differing magnitudes) and fluid extraction and injection data collected by industry;(2) the region's fault environment by identifying and characterizing all faults in these areas based on sources including but not limited to the USGS Quaternary Fault and Fold	The BLM is not aware of any increased earthquake activity within the Planning Area associated with oil and gas operations. The commenter has provided no specific information to the contrary.	604

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	database. In its analysis, BLM should assess its ability to identify all faults in these areas, including strike-slip faults and deep faults that can be difficult to detect; (3) the background seismicity of oil- and gas-bearing lands including the history of earthquake size and frequency, fault structure (including orientation of faults), seismicity rates, failure mechanisms, and state of stress of faults; (4) the geology of oil- and gas-bearing lands including pore pressure, formation permeability, and hydrological connectivity to deeper faults; (5) the hazards to human communities and infrastructure from induced seismic activity; and (6) the current state of knowledge on important questions related to the risk and hazards of induced seismicity from oil and gas development activities, including: (a) how the distance from a well to a fault affects seismic risk (i.e., locating wells in close proximity to faults can increase the risk of inducing earthquakes); (b) how fluid injection and extraction volumes, rates, and pressures affect seismic risk; (c) how the density of wells affects seismic risk (i.e., a greater density of wells affects a greater volume of the subsurface and potentially contacts more areas of a single fault or a greater number of faults); (d) the time period following the initiation of injection or extraction activities over which earthquakes can be induced (i.e., studies indicate that induced seismicity often occurs within months of initiation of extraction or injection although there are cases demonstrating multi-year delays); (e) how stopping extraction or injection activities affects induced seismicity (i.e., can induced seismicity be turned off by stopping extraction and injection and over what period, since studies indicate that there are often delays—sometimes more than a year—between the termination of extraction and injection activities and the cessation of induced earthquake activity); (f) the largest earthquake that could be induced by unconventional oil and gas development activities in areas covered by the RMP, including earthquakes caused by wastewater injection; and (g) whether active and abandoned wells are safe from damage from earthquake activity over the short and long-term.		
Center for Biological	Invasive species may be introduced through a variety of pathways that would be increasingly common if oil and gas activity is allowed	Appendix B (Best Management Practices) would be applied to oil and gas leases to protect sensitive resources from the	609

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Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	to expand. Machinery, equipment, and trucks moved from site to site can carry invasive plant species to new areas. In addition, materials such as crushed stone or gravel transported to the site from other locations may serve as a conduit for invasive species to migrate to the well site or other areas en route. Aquatic invasive species may also spread more easily given the large amounts of freshwater that must be transported to accommodate new drilling and extraction techniques. These species may be inadvertently introduced to new habitats when water is discharged at the surface. Alternatively, hoses, trucks, tanks, and other water use equipment may function as conduits for aquatic invasive species to access new habitats.	spread of invasive species. The BLM is aware of the threat of the spread of invasive species from any surface disturbing activity, whether it is oil/gas and potash development, or any recreational use. The BMPs are state-of-the-art mitigation measures to prevent the spread of the species.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Anthropogenic climate change poses a significant threat to biodiversity. Climate disruption is already causing changes in distribution, phenology, physiology, genetics, species interactions, ecosystem services, demographic rates, and population viability: many animals and plants are moving poleward and upward in elevation, shifting their timing of breeding and migration, and experiencing population declines and extinctions. Because climate change is occurring at an unprecedented pace with multiple synergistic impacts, climate change is predicted to significantly increase extinction risk for many species. Because expansion of oil and gas production in Utah will substantially increase the emissions of greenhouse gases, this activity will further contribute to the harms from climate change to wildlife and ecosystems.	The impacts of the projected oil and gas development for the alternatives in the MLP/DEIS pertaining to greenhouse gas emissions is addressed in Chapter 4 (Section 4.3).	610
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	BLM can end the dangerous practice of hydraulic fracturing within the planning area not only through an end to new leasing, but also through a ban of this practice on existing leases. A lessee's right to extract leased minerals is subject to BLM's duty and authority to protect environmental resources and any regulation that BLM deems necessary and proper. The Mineral Leasing Act charges the Secretary of the Interior with the protection of environmental values in its oversight of federal mineral extraction. It directs the Secretary of the Interior to "regulate all surface-disturbing activities conducted pursuant to any lease issued under this chapter," and to "determine reclamation and other actions as required in the interest of conservation of surface resources." The MLA further dictates that, "[n]o permit to drill on an oil and gas lease...may be granted without the analysis and approval" by the Secretary of Interior "of a plan of operations covering proposed surface-disturbing activities within the lease area." BLM has broad discretion in how it carries out these duties. The MLA authorizes the Secretary "to prescribe necessary and proper	The U.S. District Court of Wyoming enjoined the BLM from enforcing the final rule for hydraulic fracturing. This injunction is currently still effective.	618

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	rules and regulations and to do any and all things necessary to carry out and accomplish the purposes of this chapter ...” Similarly, under FLPMA, BLM has discretion to “manage the public lands under principles of multiple use and sustained yield[,]” and “by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.”		
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Accordingly, BLM has issued regulations to protect the environment from mineral extraction. Key among them are BLM’s regulations providing that leasehold rights are subject to “such reasonable measures as may be required by the authorized officer to minimize adverse impacts to other resource values,” and that operators “shall conduct operations in a manner which protects the mineral resources, other natural resources, and environmental quality.” Thus, new operations on existing leases may be subject to reasonable measures to protect the environment post-lease. Here, BLM has ample evidence of numerous environmental and public health harms of hydraulic fracturing and other unconventional well stimulation methods. In other respects, the safety of these practices is completely unknown. BLM should use its power to “do any and all things necessary” to protect local communities and the environment by banning new fracking and other unconventional well stimulation methods within the planning area. Such a ban may apply to all existing leases, and not just new leases that post-date a revised RMP. BLM regulations provide that all site-specific actions (presumably including drilling permit issuance) shall conform to the governing Resource Management Plan. Similar requirements exist for National Forest System lands. Since land use planning and plan consistency is specific and mandatory under FLPMA, BLM can require operators with existing leases to comply with the proposed fracking ban once it is adopted under a revised RMP.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design.	619
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Oil and gas development not only fuels the climate crisis but entail significant public health risks and harms to the environment. Accordingly, a revised EIS should thoroughly analyze the alternative of no new fossil fuel leasing and no fracking or other unconventional well stimulation methods within the Moab planning area.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified.	621
KnowWho Services	Please preserve wildlands in Utah. They are unique. They are important. They deserve protection. The time has come to stop	The commenter’s preference for Alternative C is noted.	622

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	leasing public lands to oil and gas industries. That is an outdated method. It's time to start putting resources toward renewable energy development...Again, I urge you to adopt Alternative C, and to ensure as much land as possible is protected from fossil fuel leasing, without loopholes that let the industry get around these protections.	The management alternatives do not include actions for renewable energy because that is outside the scope of the planning document. For information regarding renewable energy in the Moab and Monticello Field Offices, please see their respective Resource Management Plans.	
HECHO	No Surface Occupancy (NSO): To the layperson, the terminology "NSO" means just that-- no surface occupancy. However, BLM has different degrees of NSO, depending on whether exceptions, modifications and waivers apply. For most of the NSO in the Draft MLP, "general" exceptions, waivers, and modifications apply, which, in our opinion, does not provide the needed certainty that protections for important recreation, cultural and national park resources in the planning area will remain in place. We recommend that BLM either remove exceptions, waivers, and modifications from the NSO stipulations altogether or provide narrowly-tailored, specific criteria for when they can be applied, including requirements that the public and key stakeholders, such as the National Park Service, be notified and provided an opportunity to comment on proposed exceptions, modifications and waivers.	In Alternative D, any exceptions, modifications, and waivers applied to the NSO stipulations are designed to provide some operational flexibility under specific limited circumstances while still protecting relevant resources. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	632
HECHO	Best Management Practices (BMPs): We compliment the BLM for putting together a comprehensive list of BMPs. The language i.e., "[E]xisting roads will be used to the extent possible" leaves too much room for projects to come in and invoke this language to construct more or new roads. We recommend that the BLM review these BMPs and tighten the language further.	The BMP referred to is notifying operators that existing roads will be used unless a new road is warranted. As stated in Appendix B (Introduction), "BMPs should be selected to meet the site-specific requirements of the project and local environment. No one management practice is best suited to every site or situation."	634
Individual	Table 2–5 Minerals: Oil and Gas * *Apply a "Baseline CSU" stipulation in areas with sensitive resources in order to minimize the amount of surface disturbance and related impacts resulting from mineral development. These resources include the Courthouse Wash Watershed, the Salt Wash Watershed, SRMAs (where specified), selected lands identified by BLM as having wilderness characteristics, areas inventoried as having a high visual quality	Mitigation outside the area of impact would be addressed in accordance with the BMPs identified in Appendix B (Mitigation Outside the Area of Impact). Rehabilitation of vegetation, soils, and habitat would also mitigate impacts to visual resources.	638

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	(VRI Class II that is designated as VRM Class III), bighorn sheep habitat (except a small portion in the Potash Processing Facility Areas-see below), sagebrush/steppe habitat (in areas with moderately high to very high ecological intactness), and crucial deer and elk habitat. The Baseline CSU stipulation includes a total of about 213,218 acres and is shown on Maps 2-12-D. The specific areas where this stipulation would be applied are also identified in the sections for the referenced resources. The Baseline CSU stipulation would reduce conflicts in areas with heavy recreation use, reduce the impacts to wilderness values, reduce visual intrusions, and reduce loss of wildlife habitat; it would consist of the following: * *1. Multiple wells per pad as appropriate.* *2. Well pads would be placed no closer than 2-miles apart.* *3. Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed along existing roads.* *4. Limit un-reclaimed surface disturbance to no more than 15 acres per well pad, including associated facilities, roads, pipelines, and utilities.* *5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to well head/production facilities to minimize long-term surface disturbance.* *6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.* *7. This stipulation would allow for geophysical operations.* *8. Compensatory mitigation outside the area of impact could be required to offset impacts to resources when onsite mitigation alone may not be sufficient to adequately mitigate impacts and achieve BLM resource objectives. An exception to the 2-mile spacing requirement would be provided as specified in Appendix A.* *This CSU is similar to management policy in the area now, with the exception of the 2-mile drilling placement and the compensatory offsite mitigation. Offsite mitigation has been used in the wildlife program for years. This new CSU would apply that to a number of resources, with unspecified actions required. * *How does one do offsite compensatory mitigation for impacts to visual resources? * *What would that involve? * *The MLP is silent on this issue.*		
The Wilderness Society	In the Dinosaur Trail MLP, under the phased approach, leasing will first proceed in that portion of the Dinosaur Trail planning area with the most accessible oil and gas resources and fewest potential resource conflicts, and later proceed to areas with lower development potential. Here, BLM could apply a similar phased approach, by first providing for leasing and development in that portion of the planning area where industry interest is most heavily focused and where resource conflicts are minimal, and later providing for leasing and development elsewhere. Similarly, the	The Planning Area has high potential for the development of both oil and gas and potash which presents different circumstances than those referred to by the commenter. The oil and gas and potash deposits overlie each other and occur primarily in the same formation. Therefore, oil and gas and potash leasing and development could occur on the same tracts of land at the same time. The objective of Alternative D is to minimize surface development by separating leasing of the	683

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	Beaver Rim MLP, prepared by the Lander Field Office, also incorporates phased leasing, as well as phased development, by using a surface disturbance cap. This type of surface disturbance cap would be especially appropriate in the Moab MLP, given the existence of leases in sensitive areas and as the broadly-applicable Baseline CSU stipulation already includes reclamation and mitigation requirements, and the environmental impacts of development were forecasted under the assumption that disturbed acreage would be successfully reclaimed.	two commodities which have different, and sometimes conflicting infrastructure needs. The BLM is imposing a phased approach to potash leasing in Alternative D. As stated in Chapter 2 (Section 2.2, Description of Alternatives), separating leasing of oil/gas and potash would minimize surface impacts by eliminating redundant infrastructure and ensuring orderly development by setting apart the competing objectives of the two commodities. Potash leasing would involve a phased approach and would initially only be issued within identified areas. A phased approach to potash leasing would provide the opportunity to lease a limited portion of the Planning Area in order to determine the feasibility of potash development and methods for reducing resource conflicts. The purpose of phased potash leasing is to minimize resource conflicts and to test the feasibility of solution mining for deep deposits of potash on public lands within the Planning Area. Phased potash leasing would provide an opportunity to issue prospecting permits and/or to lease within a specific portion of the Planning Area (identified as Potash Leasing Areas [PLAs]) in order to determine the area's production potential. Phased leasing provides an adaptive management approach so that if potash were successfully discovered and produced there would then be an opportunity to consider additional potash permitting and leasing. The noncompetitive potash leasing process provided by the Federal regulations at 43 CFR 3500 involving potash permits and preference right leases is not a phased leasing approach to potash. As stated in Table 2-6 in Chapter 2 of the MLP/DEIS, the purpose of phased potash leasing is to minimize resource conflicts and to test the feasibility of solution mining for deep deposits of potash on public lands within the Planning Area. Phased potash leasing would provide an opportunity to issue prospecting permits and/or to lease within a specific portion of the Planning Area (identified as Potash Leasing Areas [PLAs]) in order to determine the area's production potential. Phased leasing provides an adaptive management approach so that if potash were successfully discovered and produced there would then be an opportunity to consider additional potash permitting and leasing. Phased leasing of potash initially involves three blocks of public lands in areas (PLAs) where potash leases or potash permits had been issued. Within these areas, potash resources have been identified and the feasibility of potash production has	

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		been pursued. New oil and gas leases would not be issued within PLAs and potash permits and leases would not be issued outside of PLAs. Oil and gas development would occur outside of potash leasing areas and outside of areas with high resource conflicts.	
The Wilderness Society	The Moab MLP must require consultation with the National Park Service before BLM is allowed to remove any lease stipulation designed to protect Arches or Canyonlands National Park. The NSO stipulation designed to protect cultural sites under the preferred alternative of the Draft Moab MLP allows for both general waiver and modification, and allows for “an exception if the project is not visible or audible from the cultural site or cultural concentration area.” The Moab MLP must require that BLM consult with affected tribes and agencies before the agency removes lease stipulations and other protective measures.	Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review.”	684
State of Utah School and Institutional Trust Lands Administration	SITLA is an independent state agency that manages these lands, approximately 124,295 acres of which are located within the boundaries of the MLP. The trust lands sections within the boundaries of the MLP are adjacent to or scattered among federal lands and, as a result, the additional restrictions the MLP places on leasing federal minerals will negatively impact the development of SITLA's mineral resources and the revenue generated therefrom.	The commenter believes that SITLA parcels adjoining or surrounded by BLM lands with significant leasing restrictions (such as closed or NSO) will render the SITLA parcels “valueless.” No evidence from past lease sales is offered to support this argument. One could argue, in fact, that SITLA parcels surrounded by NSO would be more valuable, as those SITLA parcels now provide the only platform from which to access surrounding BLM minerals. Rather than trying to pursue an argument based on pure logic, as reasonable people can reach different conclusions by such application, BLM examined SITLA minerals leases from the recent past in the Planning Area. The approach undertook the following: 1. Based on information posted on SITLA’s leasing website (http: //trustlands.utah.gov/business-groups/oil-gas/competitive-mineral-lease-offerings/), BLM identified all competitive lease sales involving SITLA parcels adjoining Wilderness Study Areas (WSAs). These are clearly identified with bold face, all capitalized warnings on the lease offerings notice. Since WSAs are closed to new minerals leasing, SITLA parcels adjoin such lands are the most likely to be “valueless,” in the language of the commenter. This process identified twelve lease parcel offerings adjoining WSAs in Grand and San Juan Counties from January 2010, through January 2015. 2. BLM next examined the bonus lease bids received on these twelve parcels, based on information from the same website. Ten parcels were sold, garnering lease bids ranging from a low of $1322 to a high of $64640. Two parcels received no bids. Many factors, of course, affect what an operator is willing to bid for a lease parcel, but the evidence from SITLA’s own recent	704

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		lease history does not support the argument that restrictions on BLM lands adjoining SITLA parcels renders those SITLA parcels "valueless".	
State of Utah School and Institutional Trust Lands Administration	If the Preferred Alternative, Alternative D of the MLP is adopted, the number of acres subject to standard terms and conditions for oil and gas leasing will go from 210,884 acres under the current Resource Management Plans ("RMP"), represented in the MLP as Alternative A, to zero. See MLP Chapter 4-Minerals: Oil and Gas, Page 27, Line 4 and Page 30, Line 27. Similarly, the number of acres subject to No Surface Occupancy ("NSO") stipulations would increase from 133,574 acres under Alternative A to 305,899 acres under Alternative D. See MLP Chapter 4- Minerals: Oil and Gas, Page 27, Line 14 and Page 30, Line 7. Finally, while only 753 acres are currently closed to oil and gas leasing under Alternative A, this number would increase to 145,284 acres under Alternative D. See MLP Chapter 4-Minerals: Oil and Gas, Page 27, Line 20 and Page 30, Line 18. Between the number of acres closed to oil and gas leasing and those available with NSO stipulations, approximately 57% of the area within the MLP is effectively unavailable for oil and gas leasing and development. Although the MLP states that the difference between Alternatives A and D is a reduction of only 64 fewer wells, the MLP has failed to adequately consider the actual feasibility of developing lands subject to NSO stipulations. As explained to SITLA by oil and gas operators in the area, the complexity of the formation in this area greatly affects the length of the laterals for horizontal wells which seriously curtails the availability of horizontal drilling. See Draft Moab Master Leasing Plan Comments, submitted by Michael J. Keller, Environmental, Health and Safety Manager, Fidelity Exploration Production & Company, dated November 16, 2015, page 3 (stating that NSO stipulations effectively eliminate oil and gas development in this area since horizontal drilling economics and technical effectiveness are justified for short distances only, typically less than one mile for the complex Paradox geology).	Chapter 4 (Minerals: Oil and Gas, Impacts from Alternative D) states, “In Alternative D, 305,899 acres would be managed with NSO stipulations. NSO stipulations could increase the complexity of mineral operations and slow down production. Development in NSO areas would require the use of more costly methods, such as directional and horizontal drilling, to access oil and gas resources. NSO stipulations would preclude the use of the surface for the development of oil and gas, but would still allow the recovery of some of these resources at a greater cost. Precluding surface disturbance in areas with NSO stipulations would decrease the number of wells drilled during the planning period.” Alternative D provides some flexibility for mineral development by allowing exceptions to the NSO stipulations. For example, if proposed mineral operations (including geophysical) in VRM Class II areas would not result in long-term visual impairment from key observation points, an exception to the NSO stipulation could be granted. In addition, scattered State lands and existing Federal leases in the area provide additional access for mineral operations. The closed areas are applied only to lands adjacent to Arches and Canyonlands National Parks. Horizontal drilling within the Planning Area has reached well over 1-mile.	705
State of Utah School and Institutional Trust Lands Administration	The BLM's failure to adequately analyze the limitations of horizontal drilling in the area in the context of the true impact of the NSO stipulations and the effect all of the leasing restrictions will have on trust lands is inconsistent with the planning criteria provided in the MLP, which states that the BLM will strive to ensure that its management actions are as consistent as possible with other adjoining planning jurisdictions. See MLP Chapter 1, Page 12, Line 6. Given the negative impacts that Alternative D will have, SITLA urges the BLM to adopt Alternative A and continue to allow oil and gas leasing and development consistent with the current RMPs.	The commenter believes that SITLA parcels adjoining or surrounded by BLM lands with significant leasing restrictions (such as closed or NSO) will render the SITLA parcels “valueless.” No evidence from past lease sales is offered to support this argument. One could argue, in fact, that SITLA parcels surrounded by NSO would be more valuable, as those SITLA parcels now provide the only platform from which to access surrounding BLM minerals. Rather than trying to pursue an argument based on pure logic, as reasonable people can reach different conclusions by such application, BLM	707

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		examined SITLA minerals leases from the recent past in the Planning Area. The approach undertook the following: 1. Based on information posted on SITLA's leasing website (http: //trustlands.utah.gov/business-groups/oil-gas/competitive-mineral-lease-offerings/), BLM identified all competitive lease sales involving SITLA parcels adjoining Wilderness Study Areas (WSAs). These are clearly identified with bold face, all capitalized warnings on the lease offerings notice. Since WSAs are closed to new minerals leasing, SITLA parcels adjoin such lands are the most likely to be "valueless," in the language of the commenter. This process identified twelve lease parcel offerings adjoining WSAs in Grand and San Juan Counties from January 2010, through January 2015. 2. BLM next examined the bonus lease bids received on these twelve parcels, based on information from the same website. Ten parcels were sold, garnering lease bids ranging from a low of $1322 to a high of $64640. Two parcels received no bids. Many factors, of course, affect what an operator is willing to bid for a lease parcel, but the evidence from SITLA's own recent lease history does not support the argument that restrictions on BLM lands adjoining SITLA parcels renders those SITLA parcels "valueless". In addition, horizontal drilling within the Planning Area has reached distances of well over 1-mile.	
State of Utah School and Institutional Trust Lands Administration	The lands within the area of the MLP were subject to extensive evaluation and analysis for oil and gas and potash leasing in the years leading up to the adoption of the 2008 RMPs. Despite the fact that the 2008 RMPs were only two years old, in 2010, the BLM issued Instruction Memorandum No. 2010-117 WO ("IM"), which purports to establish a process for "ensuring orderly, effective, timely, and environmentally responsible leasing of oil and gas resources on Federal lands." Regarding existing RMPs, the IM states that through "RMP effectiveness monitoring and periodic RMP evaluations, state and field offices will examine resource management decisions to determine whether the RMPs adequately protect important resource values in light of changing circumstances, updated policies, and new information." In the case of the MLP, there has been no change in circumstances or new information affecting oil and gas leasing since the adoption of the 2008 RMPs. As a result, the only justification for the BLM to have begun the MLP process was an updated policy that specifically disfavors mineral development and violates the multiple use mandate of the Federal Land Policy and Management Act of 1976 ("FLPMA").	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states "The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the	708

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		Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development." ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP.*** Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process. The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	
State of Utah School and Institutional Trust Lands Administration	Although the MLP states that the planning process will recognize the existence of valid existing rights, information SITLA has received indicates that the BLM is currently imposing the proposed MLP lease stipulations as Conditions of Approval ("COAs") for the issuance of Applications for Permit to Drill ("APD"). Specifically, Fidelity Exploration Production & Company ("Fidelity"), the operator of numerous federal and trust land wells in the area, has experienced the BLM incorporating the proposed stipulations and limitations in the MLP as conditions to receiving APD or other project approval. These measures include heightened natural resource data requests and mitigation measures that are beyond the scope of the 2008 RMPs and any stipulations in Fidelity's current leases. See Draft Moab Master Leasing Plan Comments, submitted by Michael J. Keller, Environmental, Health and Safety Manager, Fidelity Exploration Production & Company, dated November 16, 2015, pages 1 - 2. The imposition of the restrictions and stipulations in the MLP to valid existing leases is a significant concern for SITLA as many of its lessees own both trust land and federal leases and the inability of companies to develop their federal leases in accordance with the rules and regulations under which they were acquired may lead them to abandon their efforts in the area entirely. See id. (stating BLM's implementation of the MLP would effectively eliminate any future leasing activities within Fidelity's 125,000+ acres of current lease-position and significantly restrict Fidelity's existing lease rights).	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	710

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State of Utah School and Institutional Trust Lands Administration	Furthermore, the question of whether the BLM is improperly applying new plan decisions as COAs despite the fact that they are inconsistent with the rights granted under the existing leases, is an issue that will likely lead to litigation. This fact appears to be conceded in the MLP as the MLP identifies "valid existing rights associated with leases and permits" as an item under "Issues Considered but not Further Analyzed," which can be resolved in the future with administrative action. See MLP Chapter 1, Page 10, Line 30. Such administrative decisions may lead to legal review or litigation between the BLM and its current lessees, which will further delay or derail oil and gas development on federal lands and adjoining trust lands.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. Policy or administrative actions include those actions that are implemented by the BLM as a standard operating procedure, because law requires them, or because they are the policy of the BLM. Administrative actions do not require a planning decision to implement. Therefore, valid existing rights associated with leases and permits are issues addressed through policy or administrative action. See Chapter 1 (Section 1.4.2, Issues Considered but Not Further Analyzed, Issues Addressed Through Policy or Administrative Action).	711
Individual	It's obvious our National and State public lands are a finite and potentially even dwindling public resource. Should they be better protected for all who wish to appreciate their many intrinsic values, whether in person, online or by other means? Does the General Mining Law of 1872 need to be updated (or even scrapped & new laws made)? Should oil and gas companies be held more accountable for their accidents on public lands? Should mining and	The Moab MLP/DEIS was prepared in accordance with BLM Washington Office Instruction Memorandum 2010-117: Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013). The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS	712

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	drilling in or near unique ancient yet delicate ecosystems be out and out prohibited? If you answered yes to just 1 of these questions, I think you already know the right thing to do. And my family and I personally thank you. Imagine the cumulative and irreversible consequences if, as a Nation we keep letting our natural heritage be exploited and damaged by a very select few for their own purely financial gain.	Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources. The MLP/DEIS includes alternatives that provide a greater and lesser degree of restrictions in various use programs, but would not eliminate or invalidate any valid existing development rights. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	
Individual	Let's be more specific in where we plan to place these rigs and ensure that no single aspect of the whole experience of being in a national park is compromised. Please ensure that a final plan is clear as to where and how development will take place and provide clear and enforceable protections for the parks and surrounding community. Don't allow drilling or oil rigs within 50 miles of the national parks. Our National Parks were created to preserve the existence and appearance of nature untrammeled by man. Oil rigs on the horizon do not fulfill that promise. Please do all you can to keep oil rigs far far away from Arches N.P.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Going beyond these closed areas would not meet the objective in Alternative D of providing mineral leasing and development outside of these high value areas. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources.	714, 716, 721, 746
Individual	Several years ago my wife and I were visiting this wonderful area and after dinner drove to the Canyonlands National Park entrance near Moab to watch the sunset As we sat and watched the beautiful sunset over the land we were surprised to see lights and hear the clanging noises of a work site. Upon closer inspection we were surprised to see a drilling rig in full operation near the road that leads to the park entrance. This was a shock and disappointment as we did not expect that there would be drilling allowed so close to these two iconic parks. Please take action to ensure that this activity is controlled in a manner so as to not ruin the wonderful sites in this and other areas under your control.	A range of alternatives were considered in the MLP/DEIS for the level of resource protection and mineral development. BLM may choose from all the alternatives to compose the proposed MLP and final EIS. In Alternative D, new oil and gas leasing would not occur within the areas closed around the National Parks.	742

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Individual	The final plan needs to include a strong degree of certainty of where and how potential development will take place, as well as clear consistent and enforceable protections for the parks.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources of the adjacent National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources.	748
Individual	I have been visiting the Red Rock country since 1967 for peace of mind, spiritual renewal, closeness to nature, wonder at the beauty that nature creates, quiet time and more. These land cannot be replaced and lose their very essence and ability to provide all of the above if marred by energy development with its road, trucks, dust, noise, etc. Any current way of providing energy from oil and gas is destructive to the natural environment and people's ability to enjoy it. My personal opinion on leasing at all is that energy companies need to change and to change now. They need to put all that time, money and effort that they are currently putting into drilling, into creating energy from renewable sources.	A range of alternatives were considered in the MLP and DEIS for the level of resource protection and mineral development. BLM may choose from all the alternatives to compose the proposed MLP and Final EIS. Due to FLPMA, BLM's multiple use mandate, varying levels of oil and gas development are considered in the alternatives for the MLP and DEIS. The management alternatives do not include actions for renewable energy because that is outside the scope of the planning document. For information regarding renewable energy in the Moab and Monticello Field Offices, please see their respective Resource Management Plans.	765
Individual	I do not think ANY leasing in the Moab area is sensible. The desert is so fragile and that area so amazingly unique that we just cannot risk it. Their have been numerous studies showing that fracking is causing minor earthquakes now, can you imagine what that will do to a fragile arch??? We just can't risk this damage for a short term gain of some natural gas, it's not worth it on so many levels.	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well.	781

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		The BLM is not aware of any increased earthquake activity within the Planning Area associated with oil and gas operations. The commenter has provided no specific information to the contrary.	
Individual	When I say "protects," that means, among other things, no fracking. Fracking results in pollution of the air, water and ground and can result in more-than-usual earthquakes in an area - the opposite of protection. So, NO fracking.	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. The BLM is not aware of any increased earthquake activity within the Planning Area associated with oil and gas operations. The commenter has provided no specific information to the contrary.	788
Individual	There are also significant loop-holes written into this alternative, in the form of waivers, modifications and exemptions. These loop-holes only stand to blur the lines of what this MLP intended to clarify for the public: what is and is not for sale .	Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances, it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for	793

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		each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review." Any exceptions, modifications, and waivers applied to the NSO stipulations are intended to provide some operational flexibility under specific limited circumstances while still protecting relevant resources. In most cases, exceptions, modifications, waivers provide operators with increased operational flexibility by providing a means to reduce, eliminate, or modify restrictions while still meeting the goals, outcomes, and objectives of the land use plan amendment.	
Individual	Oil and gas are not going to be around forever and it is simply naive not to look for resources elsewhere. This should be where our efforts our placed. The amount of oil that we can drill in the Moab area is not feasible for the detrimental impacts it will have on people locally and also people globally.	The commenter's desire for alternative forms of energy is noted.	796
Minerals: Potash			
Individual	The BLM should eliminate the Red Wash potash leasing area to protect riparian and riparian-related resources. It should also contract the Ten Mile and Hatch Point PLAs to eliminate conflict with BLM-identified lands with wilderness character.	As stated in Chapter 2 (Table 2-6), "Identified PLAs include blocks of public land in areas where potash leases (Upper Ten Mile) or potash permits (Red Wash and Hatch Point) have been issued. Within these areas, potash resources have been identified and the feasibility of potash production is being pursued." Within the Red Wash PLA, as well as the other PLAs, riparian areas are protected with a NSO stipulation precluding mineral operations within 500 feet. In Chapter 1 (Introduction) it states: "This planning effort does not entail a full RMP revision, but rather maintains a limited focus on the management decisions pertaining to oil and gas and potash leasing in the Planning Area." Furthermore, Chapter 1 (Section 1.4.1) has been revised to clarify that this plan amendment would not make decisions regarding whether lands inventoried by the BLM as having wilderness characteristics should be managed to protect, preserve, and maintain these characteristics. Therefore, this plan amendment	4

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		would not make decisions for managing new areas for their wilderness values.	
Pinnacle Potash International	PPI is disappointed in the lack of consideration and consultation that was given to the production, and more specifically potash production, industry. All of the options presented offer the status quo of restrictions or more. To restrict exploration to a "Potash Leasing Area (PLA)" is naive to the nature of the potash deposit in the Paradox Basin. Additionally, the colocation of potash facilities violates the nature of capitalism. Any proprietary equipment owned and operated by PPI would not welcome or cohabitate with another competitor. The fact that nearly half of the options presented do not allow for potash leasing does a disservice to the state and, more importantly, our country. PPI requests that the options be revised and include consultation from industry representatives in addition to those mentioned in the report	Alternative A is the No Action alternative, or the "status quo," and the other action alternatives (Alternatives B, C, and D) are all more restrictive to mineral leasing and development. As stated in Chapter 2 (Table 2-6), "Identified PLAs include blocks of public land in areas where potash leases (Upper Ten Mile) or potash permits (Red Wash and Hatch Point) have been issued. Within these areas, potash resources have been identified and the feasibility of potash production is being pursued." In Chapter 2 (Table 2-6, Minerals: Potash) the reference to the colocation of potash production facilities in the CSU stipulation does not refer to potash processing facilities. Colocation refers to the placement of facilities associated with production wells and not to potash processing facilities. The text in Chapter 2 (Table 2-6, Minerals: Potash) and Appendix A has been changed to clarify this point as follows: "Facilities associated with potash production wells would be designed to minimize surface impacts." Alternatives A, B1, and D, provide for potash leasing and development. The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality, cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption	137

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		does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. In the potash RFD the acreage involved with solar evaporation ponds at Intrepid Potash is 1) 452 acres for evaporation ponds, 2) 126 acres of borrow area utilized in pond construction and maintenance, and 3) 8 acres of pond infrastructure for a total of 596 acres rounded up to 600 acres per 100,000 tons of production. This would amount to 1,800 acres for 300,000 tons of production projected in Alternative D. The projection of 12 well pads (with up to 4 well bores per pad) is merely an analysis assumption and not a limitation. As stated in the potash RFD, the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. By letter dated May 17, 2012, the BLM requested information from all of the potash prospecting permit applicants regarding the mining and processing of potash resources within the Paradox Basin. The letter requested the following information: I) Maximum annual potash production. 2) Type of products (including potash) produced. 3) Number of production wells per square mile over the life of the mine. This includes injection and recovery wells. In addition, please provide well pad sizes. 4) Optimum drill hole size. 5) Processing facilities required to sustain a lite of mine operations for approximately 30 years. a. Solar vs. crystallization, or other. b. Estimated size of evaporation ponds, surge ponds, or tailings ponds. c. The total acreage involved with processing facilities.	

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		6) The amount and type (quality) of water needed tor mining and processing of potash along with the location of water sources. 7) Shipping methods. The BLM received no specific information from any of the applicants regarding the mining and processing of potash deposits within the Planning Area.	
Individual	The MLP has applied regulations utilized for different commodities to the management of potash, through arbitrary and capricious authority of this NEPA decision, rather than a formal CFR rule making change process. The “diligent development” requirement is modeled from the 43 CFR 3400 coal regulations, and the “paying quantities” language is modeled from the 43 CFR 3100 oil and gas regulations. Neither of these requirements appears in the 43 CFR 3400 regulations which guide potash development on public lands. Current potash regulations have no producing diligence requirement in order to hold leases. Conversely the MLP states that it has applied “unsuitability criteria,” required in the 43CFR 3500 regulations prior to allowing preference right leasing, and yet does not fully explain how those criteria were applied or where they can be found in the MLP. The MLP appears to arbitrarily pick and choose what part of the 43 CFR 3500 regulations it will and won’t use.	The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change.	156
Individual	Arbitrary and illegal timeframe on potash development. Plan puts an arbitrary ten year “time clock” on potash resource development, in addition to “diligence” and “paying quantities” constraints not required in the current 43 CFR 3500 potash regulations. The MLP fails to cite legal authority for taking this action that is inconsistent with existing regulation.	In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The Secretary of Interior has broad authority to regulate leasable minerals provided by 30 U.S.C. 187 which includes ensuring the exercise of reasonable diligence. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has	160

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		a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to	

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		extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year time frame provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening	

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		a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30.	
Individual	Development of potentially off-lease Potash Processing Facility areas. The MLP identifies specific area where it will allow future potash processing facilities to be located. It is unclear if this requirement would also apply to potential development on the existing Preference Right leases in the area where those lease rights currently allow construction of facilities required for development. The MLP fails to recognize or address what type of regulatory approval action BLM would take to provide a land use "authorization" for a lessee to operate on lands off lease. The MLP fails to address the financial difficulties this requirement will present in that financiers generally will not commit millions of dollars in loans for on-the-ground capital facilities with no guarantee of long term land tenure provided by a lease underneath such facility. The location of the PPFA's will also play a key role in where and how well fields are set out and the necessary piping between the field wells, the plant, and the evaporation ponds. The MLP also fails to describe exactly what types of facilities it considers would be required to be located in the PPFA's. Well fields, compressor stations, equipment maintenance facilities, fuel storage?	The BLM could not impose the CSU stipulation from the MLP to existing potash leases requiring processing facilities to be located within potash processing facility areas (PPFAs). However, the operator may find benefits to locating the facilities within the PPFAs because of 1) environmental concerns raised during site-specific analysis for a proposed potash operation on the existing leases, 2) the PPFAs are identified as having minimal resource conflicts, and 3) the PPFAs are located closer to infrastructure such as roads, railroads, and transmission lines. Any land use authorizations necessary for a potash lessee to operate on lands off lease would be addressed at the site-specific proposal level.	162
Individual	Development scenarios for potash are not accurate. The MLP did not appear to utilize a team of experienced external potash experts to develop the RFD for potential potash development, as prescribed by IM 2010-117. This is evident in the assumptions related to the level and amount of well pads and wells that would likely be required to develop sub-surface caverns necessary to produce the resource, which is likely significantly underestimated. There is no clear understanding presented of probable well configurations or spatial design for cavern creation from horizontal drilling. Although the MLP identifies the need for and ostensibly provides for flexibility to determine the best methods for recovery with a phased management approach, discussion and involvement with experts could have presented a more accurate scenario which may have resulted in different management constraints. There also appears to be overestimation of evaporation pond acreage required for production from evaporation ponds when compared to current production levels and pond acreage from the areas one potash	The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality, cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity.	163

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	operation, and analysis for crystallization recovery projects which are unlikely in this area. Additionally, yearly production quantity estimates are likely also overestimated, in relationship to how worldwide potash supply and demand is structured.	K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. In the potash RFD, the acreage involved with solar evaporation ponds at Intrepid Potash is 1) 452 acres for evaporation ponds, 2) 126 acres of borrow area utilized in pond construction and maintenance, and 3) 8 acres of pond infrastructure for a total of 596 acres rounded up to 600 acres per 100,000 tons of production. This would amount to 1,800 acres for 300,000 tons of production projected in Alternative D. The projection of 12 well pads (with up to 4 well bores per pad) is merely an analysis assumption and not a limitation. As stated in the potash RFD, the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. By letter dated May 17, 2012, the BLM requested information from all of the potash prospecting permit applicants regarding the mining and processing of potash resources within the Paradox Basin. The letter requested the following information: I) Maximum annual potash production. 2) Type of products (including potash) produced. 3) Number of production wells per square mile over the life of the mine. This includes injection and recovery wells. In addition, please provide well pad sizes. 4) Optimum drill hole size.	

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		5) Processing facilities required to sustain a lite of mine operations for approximately 30 years. a. Solar vs. crystallization, or other. b. Estimated size of evaporation ponds, surge ponds, or tailings ponds. c. The total acreage involved with processing facilities. 6) The amount and type (quality) of water needed tor mining and processing of potash along with the location of water sources. 7) Shipping methods. The BLM received no specific information from any of the applicants regarding the mining and processing of potash deposits within the Planning Area.	
Individual	In Chapter 2 - Alternatives, the Introduction indicates: "The stipulations developed for the protection of specific resources would apply to oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." Comment It appears that the MLP is selectively applying potash regulations relevant to "unsuitability criteria," but is ignoring other potash regulations that do not require 'diligent development" in order to hold leases. Also, application of the unsuitability criteria at 43 CFR 3501.17 refers specifically to 43 CFR 1600 – Planning regulations, for description of what unsuitability criteria consist of. The MLP does not describe these criteria or how the MLP "adheres" to them. The MLP's decision to apply "diligence" and "paying quantities" lease requirements to potash leases is contrary to 43 CR 3500 regulations for potash. From a regulation standpoint, potash was specifically dealt with differently in regard to production requirements for holding leases. If the 43 CFR 3500 regulations intended to point to other sections of the CFR requirements for a diligence requirement, there would have been language added to that effect. The MLP needs to identify or provide the BLM's perceived legal authority for making such regulatory changes in an administrative NEPA decision process.	The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. The Secretary of Interior has broad authority to regulate leasable minerals provided by 30 U.S.C. 187 which includes ensuring the exercise of reasonable diligence. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change.	175
Individual	Table 2–19: Projected Potash Development and Surface Disturbance on BLM Lands (over next 15 years) Action) (p 2-59) Comment	The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report	191

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	It's extremely doubtful that the crystallization process for potash recovery would ever be used in this area. The power requirements are massive and the additional capital expenditure costs for plants are prohibitive. The MLP projected output for this type of plant, at a million plus tons per year, could also play into market conditions in unexpected ways that would ultimately not favor Paradox Basin solution mining for recovery of the resource. In addition, the surface acres projected for evaporation ponds are likely off a significant amount. Intrepid Potash produces about 100,000 tons per year from 400+ acres of ponds. A rough equivalent for 300,000 tons per year would be 1200 acres. The Alternative D limit of 12 wells over a 15 year period is also highly restrictive and could severely constrain production capacity. Again we don't know enough about how this technology will develop. What analysis has BLM conducted to see if it's feasible to produce 300,000 tons of potash per year from 12 well pads?	intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality, cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. In the potash RFD the acreage involved with solar evaporation ponds at Intrepid Potash is 1) 452 acres for evaporation ponds, 2) 126 acres of borrow area utilized in pond construction and maintenance, and 3) 8 acres of pond infrastructure for a total of 596 acres rounded up to 600 acres per 100,000 tons of production. This would amount to 1,800 acres for 300,000 tons of production projected in Alternative D. The projection of 12 well pads (with up to 4 well bores per pad) is merely an analysis assumption and not a limitation.	

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		As stated in the potash RFD, the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity.	
Utah Guides and Outfitters	The potash holdings that are proposed in Red Wash, and 10-Mile are a threat to the health of the Green River through Stillwater Canyon, a beloved section of the Green River. Additionally, the Hatch Point holdings sit on top of Indian Creek, a major tributary and hiking attraction for many of our guests on the Colorado River. There are also significant loopholes written into this alternative (D), in the form of waivers, modifications and exemptions. These loopholes only stand to blur the lines of what this MLP intended to clarify for the public: what is and is not for sale.	The commenter does not provide specific information regarding the threats to the Green River and Indian Creek from the Red Wash, 10-Mile, Hatch Point PLAs. Alternative D applies a NSO stipulation to the Green River corridor, a 1-mile set back from the rim of the Green River, Indian Creek, and a large portion of the Hatch Point PLA. In addition, the drainages within and adjacent to the Red Wash, 10-Mile, and Hatch Point PLAs are protected with NSO stipulations. These NSO stipulations impose major constraints to mineral operations and provide substantial protection to the Green River and Indian Creek. Any exceptions, modifications, and waivers applied to the NSO stipulations are intended to provide some operational flexibility under specific limited circumstances while still protecting relevant resources. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	210
Individual	The MLP also inexplicably separates potash from oil and gas leasing, a cooperative arrangement that has worked remarkably well for many years, a joint endeavor to develop local resources while minimizing land disturbance. The MLP tries to claim that this arrangement encourages "redundant infrastructure," but the opposite is true; joint leasing means using the same roads, and other features, instead of having to build separate access for	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an	221, 229, 232

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	separate leases. Obviously, joint leasing also limits the overall amount of land that is used between the two developments.	opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial	

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		Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production.	
Individual	...Alternatives such as B2 and C, which outright preclude any potash leasing within the planning area. This is patently unfair to the industry, which has as much right as anyone to apply for a lease to develop an important natural resource, and especially to the workers who make their livelihoods in the industry, and their families who depend on that paycheck.	Potash leasing and development is provided for in Alternatives A, B1, and D.	260
Individual	Not only are the stipulations applied to existing and future oil and gas leases wrong, but the outright prohibition against potash development is unconscionable. Alternatives B2 and C do just that - such ideas should not be entertained by an agency that has a duty to manage public land for multiple use. Barring a particular use without feasible cause does not fit in any way with that mandate.	Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	264

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		Potash leasing and development is provided for in Alternatives A, B1, and D. Alternatives B2 and C provide for only oil and gas leasing; no new potash leasing would occur. Oil and gas is a proven economic commodity in the Planning Area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Leasing for oil and gas alone would meet the objective of minimizing surface impacts by eliminating the potential for redundant infrastructure associated with co-development of oil/gas and potash and eliminating the potential for potash processing facilities. As stated in Chapter 2 (Section 2.2, Description of Alternatives), “Alternative B2 provides for only oil and gas leasing; no new potash leasing would occur. Oil and gas is a proven economic commodity in the Planning Area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Leasing for oil and gas alone would meet the objective of minimizing surface impacts by eliminating the potential for redundant infrastructure associated with co-development of oil/gas and potash and eliminating the potential for potash processing facilities. Alternative B2 would also minimize surface impacts by limiting the density of oil and gas development in a manner that would not dominate the landscape.” The Cane Creek Mine began as a conventional underground potash mine in 1963 and in 1970 potash from the old underground workings was extracted by solution mining methods. The Cane Creek mine is located on State and private land and was acquired by Intrepid in 2000. The Cane Creek Mine has been in production for over 50 years utilizing the existing infrastructure which includes rail, solar evaporation ponds, potash plant, highway, gas, power, as well as water rights from the adjacent Colorado River. Within the Planning Area, no potash production has occurred on public land even on potash leases that have been in place since 1984. The deep potash deposits (about 6,500 feet) on public land within the Planning Area could only be recovered by solution mining methods that have only recently been applied to some of the potash deposits below the existing mine workings at the Cane Creek Mine. Therefore, the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Whereas	

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		oil and gas production has occurred continuously on public lands within the Planning Area since the early 1900's.	
Individual	Two of the alternatives call of an outright ban of any further potash leasing. There is no reason or justification given for this. All of the alternatives call for a separation of potash leasing from oil and gas leasing. Again, no real reason given. This joint leasing has been a great marriage of development for many years, and has had several environmental benefits to supplement the business advantages; with joint leasing, less land is disturbed that would be the case with separate leases. Infrastructure, contrary to the EIS's assertions, is shared, meaning less construction needed.	Alternatives B2 and C provide for only oil and gas leasing; no new potash leasing would occur. Oil and gas is a proven economic commodity in the Planning Area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Leasing for oil and gas alone would meet the objective of minimizing surface impacts by eliminating the potential for redundant infrastructure associated with co-development of oil/gas and potash and eliminating the potential for potash processing facilities. The commenter provides no examples regarding the cooperative development of oil/gas and potash. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's	279

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		going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases.	
Individual	Furthermore, I do not think there is any credible reason to separate potash leasing from oil and gas, as the MLP recommends. The combination of the two has, in the past, made for a very workable development relationship, and resulted in less overall surface disturbance. It makes little sense to separate the leasing, and the reasons for it were not spelled out in the EIS.	The commenter provides no examples regarding the cooperative development of oil/gas and potash. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well	281

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		pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases.	
Individual	It is not only oil and gas, but potash development that is under attack in this MLP. For reasons at best unclear, the MLP separates potash leasing from oil and gas leasing, which would end years of cooperation between the two industries that served to minimize overall surface impact by concentrating development in a single	The commenter provides no examples regarding the cooperative development of oil/gas and potash. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of	284

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	area. Further, Alternatives B (2) and C outright ban potash leasing. This is unbelievable, and entirely inappropriate.	mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial	

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		Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production. As stated in Chapter 2 (Section 2.2, Description of Alternatives), "Alternative B2 provides for only oil and gas leasing; no new potash leasing would occur. Oil and gas is a proven economic commodity in the Planning Area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Leasing for oil and gas alone would meet the objective of minimizing surface impacts by eliminating the potential for redundant infrastructure associated with co-development of oil/gas and potash and eliminating the potential for potash processing facilities. Alternative B2 would also minimize surface impacts by limiting the density of oil and gas development in a manner that would not dominate the landscape." The Cane Creek Mine began as a conventional underground potash mine in 1963 and in 1970 potash from the old underground workings was extracted by solution mining methods. The Cane Creek mine is located on State and private land and was acquired by Intrepid in 2000. The Cane Creek Mine has been in production for over 50 years utilizing the existing infrastructure which includes rail, solar evaporation ponds, potash plant, highway, gas, power, as well as water rights from the adjacent Colorado River. Within the Planning Area, no potash production has occurred on public land even on potash leases that have been in place since 1984. The deep potash deposits (about 6,500 feet) on public land within the Planning Area could only be recovered by solution mining methods that have only recently been applied to some of the potash deposits below the existing mine workings at the Cane Creek Mine. Therefore, the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Whereas oil and gas production has occurred continuously on public lands within the Planning Area since the early 1900's.	

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Grand County Council	The Council also recommends changes and clarification to the Draft MLP, Chapter 2 as it pertains to Potash Leasing. Specifically the suggested requirements for "diligence" within a PLA are felt to be unrealistic and would likely have the effect of discouraging any serious pursuit of Potash development. We recommend the following amendments to the specific sections as follows: • Remove the requirement for "paying quantities" and/or "commercial production" (chapter 2,2- 23 and chapter 2, 2-26/27). Replace this with a requirement to demonstrate "active development of a resource." And, ensure that exceptions are demonstrated consistently throughout the document.	In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers	298

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		(SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of	

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		potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year time frame provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30. In Chapter 2 (Table 2-6, Minerals: Potash) and Appendix A, the flexibility requested by the commenter is provided by the following clause: "The Authorized Office may grant an extension of the diligent development period in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, or that could not be readily accommodated in the normal course of business by a prudent lessee or operator".	
Grand County Council	Alternative D does not allow for Potash and Oil and Gas development simultaneously within the PLA. The County recommends that greater flexibility be built into this section. While we are not advocating for Potash and Oil/Gas development on the same lease, both should be allowed on separate parcels within the PLA.	In Alternative D (Table 2-6, Minerals: Potash) it states that the priority within PLAs (103,000 acres) will be to explore and develop potash deposits. New oil and gas leasing within a PLA will be considered only upon one or more of the following criteria being met: - For areas currently under an existing preference right lease or competitive lease for potash, upon relinquishment or initiation of proceedings to cancel the lease, or upon expiration of ten years from the date of the MLP ROD is signed, whichever is latest;	299

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		- For areas currently subject to an existing prospecting permit or exploration license for potash, upon relinquishment, cancellation, or expiration of the prospecting permit, or rejection of an application for a preference right lease, or upon expiration of ten years from the date of the MLP ROD is signed, whichever is latest; or - The Authorized Officer determines that there are compelling reasons why oil and gas leasing would be in the public interest, and that the potential for conflict with existing or future potash exploration and development is minimal or may be minimized.	
Individual	I visit the Green River LABRINTH CANYON BY CANOE at least every other year and would be very unhappy if I had to see and smell and hear mining for potash or oil anywhere near the river. I HAVE PERSONALLY SEEN THE DAMAGE DONE TO THE SURROUNDING LANDSCAPE NEAR THE WHITE RIVER IN COLORADO/UTAH AND DO NOT WANT IT REPEATED ALONG THE GREEN RIVER!	Under Alternative D (Preferred Alternative) the Green River would have protections including: 1. A NSO stipulation to the suitable Wild and Scenic River segments along the Green River would be applied. 2. No surface-disturbing activities within the 100-year floodplain of the Green River and associated back waters would be allowed. 3. An NSO stipulation to protect the visual resources along the rims of the Green River would be applied, with an exception noted in Appendix A. This stipulation would apply to a 1-mile setback from these rims (Map 2-62 B/D).	308
Holiday River Expeditions	Holiday cannot endorse Alternative D, (the BLM's current preferred alternative) due to the significant development of Potash in sensitive areas. The potash holdings that are up for sale in Red Wash, 10-Mile are a direct threat to the Green River through Stillwater Canyon, a section we run regularly. Additionally, the Hatch Point holdings sit on top of Indian Creek, a major tributary and hiking attraction for our guests on the Colorado River. These wilderness areas that would be permanently impacted, not to mention they sit alongside the most important source of water for tens of millions of downstream users. There are also significant loop-holes written into this alternative, in the form of waivers, modifications and exemptions. These loop-holes only stand to blur the lines of what this MLP intended to clarify for the public: what is and is not for sale.	The commenter does not provide specific information regarding the threats to the Green River and Indian Creek from the Red Wash, 10-Mile, Hatch Point PLAs. Alternative D applies a NSO stipulation to the Green River corridor, a 1-mile set back from the rim of the Green River, Indian Creek, and a large portion of the Hatch Point PLA. In addition, the drainages within and adjacent to the Red Wash, 10-Mile, and Hatch Point PLAs are protected with NSO stipulations. These NSO stipulations impose major constraints to mineral operations and provide substantial protection to the Green River and Indian Creek. Any exceptions, modifications, and waivers applied to the NSO stipulations are intended to provide some operational flexibility under specific limited circumstances while still protecting relevant resources. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease	327

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		stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	
Individual	This MLP allows current production to play out, but so severely constrains new development, that the MLP itself projects a loss of $1.87 billion dollars of economic output and the loss of $277 million dollars in state and local revenues over the next 15 years (I doubt these numbers are even close, they look low by a factor of 3 according to resource estimates I have seen, such as American Potash and Potash Minerals. New potash facilities would last 100 years, Cane Creek has been going since 1975 and has 3 generations of reserves remaining	The economic estimates provided in Chapter 4 are based on the best available information and the commenter has not provided any specific information to the contrary.	394
National Parks Conservation Association	NPCA does not support leasing for potash within the Moab MLP area. For many reasons, the possibility of full-scale development within the planning area, although currently low, is too great of a risk to take within this sensitive landscape. The intense water consumption of 1.3-1.5 billion gallons per year for potash processing coming from surface, groundwater sources, or from off-site locations is a staggering amount of water for a desert environment to supply and sustain. In addition, the potash processing facilities, as outlined in the DEIS, have the potential to completely transform the overall feel of the shared Moab landscape into an industrial zone. The scale of development and surface disturbing activities along with increased truck traffic and pipelines crossing the landscape to support potash processing facilities would create significant visual impacts to the millions of people travelling in and out of the Moab area along the major thoroughfare of Highway 191.	The commenters concerns regarding potash development are noted. In Alternatives B2 and C potash leasing and development would be precluded with the exception of the four existing potash leases.	463
National Parks Conservation Association	Further, contrary to the requirements of NEPA, the potential additional, cumulative air quality impacts from potash processing throughout the MLP area, are not clearly analyzed and understood in the MLP DEIS and have the ability to significantly impact clean air and dark, night skies identified as fundamental resources to each	Future potash production and processing are likely to result in greater overall emissions of some pollutants in the Planning Area. Given the uncertainty and inability to know what these emissions will be, where they will occur, and when they will occur, it is not possible to analyze their modeled contribution to possible future emissions scenarios. If and when specific	464

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	national park. See 40 C.F.R. §§ 1502.16, 1508.7, 1508.8 (requiring a "hard look" at direct, indirect and cumulative impacts).	development plans are submitted to BLM a comprehensive analysis will be done.	
National Parks Conservation Association	If potash remains a component of the Final MLP, there should not be exceptions for small-scale processing facilities without review of potential impacts. There also needs to be a better analysis and explanation of potential impacts of potash transport as it relates to transport from Potash Leasing Areas to Potash Processing Facility Areas (DEIS 4-49) and of potential air quality impacts from potash processing.	An exception to a lease stipulation would be analyzed in the document prepared for NEPA compliance for site-specific mineral proposals. A small scale processing facility is a site-specific proposal and the impacts would be analyzed in an associated environmental analysis. Potash transport to PPFAs is speculative and the potential impacts, including air quality impacts from potash processing, could not be adequately addressed until there is a site-specific proposal.	465
Individual	In calendar year 2012, the U.S. imported 5.78 million tons of potash ($300 per ton) - potash imports growing at 3 per year - over 87% of our needs being imported from foreign sources! http: //www.ers.usda.gov/data-products/fertilizer-importsexports/summary-of-the-data-findings.aspx That is a gross value of $1,734,000,000 - almost $2 billion a year - this was not addressed in the MLP.	In the Reasonably Foreseeable Development (RFD) Scenario for Potash it states that the United States is the largest consumer of potash and imports about 80 percent of the potash used mainly from Canada. About 85 percent of US potash sales are to the fertilizer industry and the principal use of potash worldwide is as an agricultural fertilizer. Growing world population and its need for food will require continued growth in both potash production and consumption. Unless prohibited by national policy, buyers will purchase potash from the cheapest source. There are no decisions that could be made in the MLP that in themselves could improve the competitiveness of the American potash market.	466
Individual	As the Cane Creek mine has demonstrated the extraction is vastly longer term than 15 years - they have been in production since the 1970s (Texas Gulf Corp). Just imagine what beneficial economic horsepower Grand County would have with 2 or 3 new potash operations. Where will we get the water for operating these new facilities? The Wingate and Entrada are formations that contain brackish (salt) water in the area - look also at Mayhews brine resource report that describes the abundance of subsurface salt water - perfect for new facilities. No need to be chicken little about water, there is plenty of water unfit for humans or crops in the area. (Concentrated subsurface brines in the Moab region, Utah Geological and Mineralogical Survey 1965)	Water consumption associated with potash production is addressed in Chapter 4 (Section 4.13.2, Water Resources). The source of this water could come from one of four sources: 1) rivers and other surface water, 2) groundwater from usable aquifers, 3) saline water from the Paradox Member, or 4) off-site locations. However, detailed impacts of this water use cannot be addressed until site-specific operations identify the water source. If the water is obtained from an existing water right granted on the Green or Colorado River systems, then the impact from the use has already been considered during allocation. Water obtained from local usable aquifers could result in the drawing down of the water table and reduction of available water resources for wildlife, vegetation, springs, streams, or public consumption. Withdrawal could affect local groundwater flow pattern and create changes in quality and quantity of the remaining groundwater. Saline water from the Paradox Member would affect neither usable groundwater nor surface water. The impacts from obtaining water from offsite sources cannot be addressed until the location of the sources are identified during review of site-specific proposals.	470

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Individual	Potash and oil/gas has been produced within the MLP area with no significant or catastrophic negative impacts, the infrastructure is in place for more production. The BLM MLP does not describe how dependent we as humans are on potassium (potash K20 or KCl) - it is vital - not to be trivialized nor locked up. Where potassium is deficient in the soil, potash fertilizers can correct the problem and boost crop yields and quality. Are we to depend upon foreign sources for this vital substance? over 87% of our needs being imported from foreign sources! - does the BLM address this critical national interest in the balance? Please show me where as I did not find it. Americas dependence on foreign potash was not even part of the discussion - why?	In the Reasonably Foreseeable Development (RFD) Scenario for Potash it states that the United States is the largest consumer of potash and imports about 80 percent of the potash used mainly from Canada. About 85 percent of US potash sales are to the fertilizer industry and the principal use of potash worldwide is as an agricultural fertilizer. Growing world population and its need for food will require continued growth in both potash production and consumption.	471
Individual	Page 2-3 says “oil and gas is a proven economic commodity in the planning area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area.” The BLM seems to overlook the fact that there is an ongoing potash operation in the area. Through their own exhaustive investigations for the MLP, the BLM has demonstrated that there is no real environmental impact from the worst case scenario. Yet they propose to separate the leasing areas of the two minerals and set an arbitrary timeline for production of potash to be developed. The BLM should not separate oil, gas, and potash leasing and should not set a timeline for potash production.	As stated in Chapter 2 (Section 2.2, Description of Alternatives), “Alternative B2 provides for only oil and gas leasing; no new potash leasing would occur. Oil and gas is a proven economic commodity in the Planning Area while the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Leasing for oil and gas alone would meet the objective of minimizing surface impacts by eliminating the potential for redundant infrastructure associated with co-development of oil/gas and potash and eliminating the potential for potash processing facilities. Alternative B2 would also minimize surface impacts by limiting the density of oil and gas development in a manner that would not dominate the landscape.” The Cane Creek Mine began as a conventional underground potash mine in 1963 and in 1970 potash from the old underground workings was extracted by solution mining methods. The Cane Creek mine is located on State and private land and was acquired by Intrepid in 2000. The Cane Creek Mine has been in production for over 50 years utilizing the existing infrastructure which includes rail, solar evaporation ponds, potash plant, highway, gas, power, as well as water rights from the adjacent Colorado River. Within the Planning Area, no potash production has occurred on public land even on potash leases that have been in place since 1984. The deep potash deposits (about 6,500 feet) on public land within the Planning Area could only be recovered by solution mining methods that have only recently been applied to some of the potash deposits below the existing mine workings at the Cane Creek Mine. Therefore, the feasibility of developing deep potash deposits with solution mining methods has not been established on public lands within the Planning Area. Whereas	497

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		oil and gas production has occurred continuously on public lands within the Planning Area since the early 1900's. The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were	

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		issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash	

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		leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued.	

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		The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year time frame provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30.	
Western Energy Alliance/Americ	Appendix A - Mineral Leasing Stipulations contains 59 pages of proposed regulations dictating how activities possibly affecting resources within or juxtaposed to potash and other leasable	Appendix A is a compilation of potential stipulations and lease notices by alternative, referred to in Chapter 2 of the MLP/DEIS. In addition, Appendix A lists exceptions,	509

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an Petroleum Institute	commodities would be conducted should the draft MLP go into effect. While it is helpful to have a list of resources within the MLP domain, the effect of Appendix A would likely be to stifle or preclude mineral development. Instead, BLM should follow its current regulations governing potash leasing and review proposed site-specific disturbances on their own merit, rather than discouraging mineral development through the proposal of stipulations that may not be supported by law.	modifications, and waivers applicable to each stipulation by alternative. The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change.	
Individual	BLM has applied regulations for different commodities to the management of potash. The “diligent development” requirement comes from the 43 CFR 3400 coal regulations, and the “paying quantities” language comes from the 43 CFR 3100 oil and gas regulations. Neither of these requirements appears in the 43 CFR 3400 regulations which guide potash development on public lands. By what authority does BLM pick regulations out of other parts of the 43 CFR and apply them to potash? Current potash regulations do not require the lessee to establish production in order to hold the lease, they simply pay a minimum royalty per acre to hold the lease. The leases are subject to 20 year readjustments by BLM where constraints from the MLP could be applied, along with adjusting royalty rates for future production. Is this even legal? Can BLM arbitrarily go around Congress? And, the MLP directs that the diligence requirements from the 3400 regulations be applied to any new potash leases granted under the 3500 regulations. Is this legal? Clarification is needed on application of a CSU stipulation to all potash leases that requires processing facilities to be located within a PPFA. Does this mean applying to existing leases, or new leases? Would an existing PRLA owner be denied the opportunity to build any type of structures or facilities on exiting leases? Offsite mitigation is a new construct for potash operations. This has been used elsewhere in the wildlife program to create additional habitat for some species. This CSU seems to imply it would be used for recreation and visual resources. What does that type of compensatory mitigation consists of?	The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. The Secretary of Interior has broad authority to regulate leasable minerals provided by 30 U.S.C. 187, which includes ensuring the exercise of reasonable diligence. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change. The BLM could not impose the CSU stipulation from the MLP to existing potash leases requiring processing facilities to be located within potash processing facility areas (PPFAs). However, the operator may find benefits to locating the facilities within the PPFAs because of 1) environmental concerns raised during site-specific analysis for a proposed potash operation on the existing leases, 2) the PPFAs are identified as having	513

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		minimal resource conflicts, and 3) the PPFAs are located closer to infrastructure such as roads, railroads, and transmission lines. Any land use authorizations necessary for a potash lessee to operate on lands off lease would be addressed at the site-specific proposal level.	
American Potash Corporation	1) Eliminate the arbitrary pre exploration and development constraints on exploration and production drill spacings, solar evaporation pond size, annual potash production limits and instead implement what is the mining industry standard of determining these parameters based on the data generated for each unique ore deposit. 2) Re-implement the RMP standard of open-ended lease-holding policy, ensuring an operator the flexibility to adjust to changing world-wide potash market conditions without the threat of loss of lease. Remove application of new MLP constraints to existing leases through inclusion as Conditions of Approval (COA's) at the permit review stage. Remove requirements found in coal and oil and gas regulations to potash leases. Potash regulations require no diligence for production to maintain Preference Right lease under existing RMP and this policy should remain in place. 3) Re-implementation of RMP policy of dealing with various wildlife life cycle issues, allowing for the ability to better plan financing and operations and eliminate the possibility of operations being effectively restricted or shut down on effectively a year-round basis. The MLP fails to identify any significant impacts to wildlife resources from management under the existing 2008 RMP. Yet many of the wildlife habitat areas are proposed for NSO or no leasing. The rest of the area is subject to an array of restrictive, overlapping timeframes for rutting, lambing, nesting, and fledging periods for an entire array of species. It adds significant costs in delay time and uncertainty with the need for field survey's in almost every instance to see what is happening on the ground with the wildlife life cycles, then trying to guess what restrictions might be in effect 2-3 months when the financing is arranged, and crews and drill rigs are scheduled. These types of timing restrictions, when applied to so many species, creates great uncertainty for timing of all operational components of a project, putting severe constraints on resource development. The MLP needs to recognize these timing overlap constraints and prepare a table that shows all the potential timing overlaps and how many months a year an operator could be constrained form operation in a worst case scenario, where all potential wildlife species that could occur in an area are, in fact, found utilizing the area at their identified timeframes.	1) The potash development projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. 2) Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM's obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM	514

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	4) Re-implement existing RMP view scape analyses requirements, reducing the possibility of surprise implementation of restrictions or closures due to the potentially short-term desires of Hollywood. The MLP fails to identify any impacts to the areas filming industry from current management under the 2008 MLP, yet will require visual modeling on 177,594 acres for protection of high use filming locations. Analysis in Chapter 4 fails to indicate if it has been or will be a problem. The filming industry has the flexibility to find suitable filming locations in a variety of locations in the area that are currently protected. This new constraint is completely without defensible rationale. Further, why does the film industry take precedence over mineral production? This is counter to what has always been the hierarchy of multiple use priority on BLM public lands, where the mineral estate has always been considered primary.	issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and	

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		infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year time frame provided under 43	

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		C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30. 3) The wildlife stipulations in the MLP are very similar to those in the 2008 Moab and Monticello RMPs; these stipulations are consistent throughout the BLM in Utah and are also similar to those found in most western states. Stipulations vary only slightly among all four alternatives in the MLP/DEIS. Changes between the MLP and the RMP are minor realignments of big game habitats for consistency with Utah Division of Wildlife Resources habitat delineations. Habitat for Desert bighorn sheep is increased by 5,759 acres (reflecting extensive GPS collar research by UDWR) in the action alternatives. The only identified NSO areas for terrestrial wildlife are found in Alternative A and C. These are limited to prime desert bighorn habitats, with Alternative A (101,900 acres) remaining as identified in the 2008 RMP and Alternative C (107,000 acres) realigned to match UDWR's current desert bighorn habitat delineation. In Alternatives B and D, desert bighorn lambing/rutting areas have CSU stipulations which preclude drilling operations and permanent facilities (on 107,000 acres) but provide for other temporary actions outside of the sensitive lambing and rutting periods, thus facilitating additional flexibility from the stipulations in the 2008 RMP. Prime desert bighorn habitats are in areas where extensive development would be typically problematic due to topography of these areas. Other big game species (deer and elk) have seasonal restrictions. These general areas and types of seasonal	

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		restrictions have been in place for many years. Most operators are aware of the need to incorporate these dates into their operational plans and, if appropriate, these dates can sometimes be adjusted. Within the Moab FO, the only overlap of winter range areas with spring fawning or lambing areas is 515 acres west of Highway 191 and just south of La Sal Junction. The remainder of the Moab MLP area would have either only one or no big game seasonal protective measures. The NSO stipulation for the Endangered Colorado River Fish (within the 100-year floodplain of the Colorado, Green, and Dolores Rivers) was developed with USFWS in the 2008 RMP. This stipulation does not change in the current effort. ESA species, including Bald and Golden Eagles, Raptors and Migratory Birds are all afforded some level of Federal protection. These protective measures are required by the USFWS under various laws. The seasonal and spatial restrictions found in the MLP/DEIS for these species have been developed by the USFWS and are consistent throughout the state of Utah. Adherence to these conditions is required to comply with the Endangered Species Act and various laws protecting eagles, raptors, and migratory birds. Currently, much of the known habitats and occupancy for several of ESA species is known, therefore reducing some of the need for surveys to evaluate habitats. ESA species are very rare and the Moab FO has had minimal need to adjust or project timing or locations to accommodate the presence of an individual ESA species. Additionally, surveys for ESA species, Bald and Golden Eagles and Raptors may be required no matter when the activity is planned. All permanent facilities or projects that create long-term habitat alteration would require nesting surveys for ESA species, Bald and Golden Eagles and Raptors during the breeding season prior to project finalization. These surveys are incorporated into the site-specific project NEPA analysis and if needed, USFWS consultation. These requirements and needs are not new to the MLP and have been in place prior even to the 2008 RMP. The results of these surveys may influence project development. If there is no suitable nesting structure within the USFWS recommended spatial buffers of a project area, surveys may not be needed. Sensitive raptors species are afforded the same timing and spatial requirement as all other raptors, as recommended by the USFWS. For kit fox and prairie dogs, the stipulations are the same as the 2008 RMP. Their habitats typically do not	

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		overlap with big game winter range but may coincide with pronghorn fawning and bighorn lambing areas. The kit fox, a sensitive species, does have seasonal restrictions specific to occupied natal dens, which may be waived if surveys indicate kit fox with their pups are not present. Current modeling efforts are in place that can help to refine where the kit fox may occur and often project on-sites can determine the need for surveys. Kit fox are fairly uncommon throughout the Moab FO and finding a natal den is very rare; therefore there has been minimal need to adjust project timing to accommodate the presence of a kit fox with their pups. For prairie dogs there is exception language that, if due to the size of the prairie dog town, there is no reasonable location to develop a lease and avoid colonies, the Authorized Officer would allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. In regards to the timing overlap question (assuming raptor surveys needs have been met), there would be no seasonal wildlife TL stipulations in areas outside of deer and elk winter ranges (29,700 acres) and bighorn lambing/rutting areas (107,000 acres). If a project were in kit fox habitat and/or fawning areas for pronghorn, no activity could be allowed from March 1- July 31 within 85,639 acres. If surveys were performed and indicated no natal kit fox dens were within 200 meters of the project, then the project would be limited only to activities outside of 4/1 to 7/31 to protect pronghorn fawning and migratory bird nesting. In this site-specific situation, 'worst case' would still allow a construction window of 7 months, from 8/1 through 2/28. If raptors had been identified, project location or other mitigation measures would be applied, typically not timing restrictions unless the project or portions of the project created temporary disturbances within the spatial buffer of the raptor nest. In deer and elk winter range (29,700 acres), there is minimal kit fox habitat and/or fawning areas for pronghorn, so other wildlife timing limitations would not be expected. In deer and elk winter range 'worst case' would still allow a window of 7 months, 4/16 through 11/15. If raptors had been identified, project location or other mitigation measures would be applied, rather than timing restrictions unless the projects were temporary. If the project were temporary and raptors did occur in the area or raptor surreys were determined to be not necessary, the work window might then be limited to 9/1 to 11/15. If a temporary action had been started prior to the onset of the winter season, UDWR will	

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		usually allow for some short-term encroachment into the winter season. Activities in desert bighorn lambing/rutting habitat (107,000 acres) are limited to temporary actions through a CSU stipulation. In the "worst case," if raptors occurred in the area or surveys were not performed and the temporary action is determined to impact desert bighorn, work would be allowed from 12/15 to 3/1. Timing limitations for ESA species area are not required unless there is a known individual in the area or surveys are not current and therefore occupancy status is not known. The entire Moab MLP area has been evaluated for both Mexican Spotted Owl (MSO) and Southwestern Willow Flycatcher (SWFL). Within the MLP area, there are approximately 116,300 acres of suitable MSO habitats, of which over 70,000 acres are typically surveyed by the BLM and would not need additional project specific surveys. Only 2,800 acres of suitable (but unoccupied) MSO habitats are found in deer winter range; therefore, additional timing limitation requirements would not be expected. These 2,800 acres are routinely surveyed by the BLM. SWFL and Yellow Billed Cuckoo (YBCU) timing stipulations coincide with other timing limitations outside of deer and elk winter range areas. There are only 92 acres of SWFL/YBCU habitats that overlap with winter ranges and these areas are not known to be occupied; therefore, additional SWFL & YBCU timing limitations would not be expected. It should be pointed out that both SWFL and YBCU occupy riparian habitat, which is managed with a NSO stipulation to protect riparian resources. Though these seasonal restrictions can seem cumbersome, upfront work between the BLM and applicants early in the development stage of these projects can simplify survey needs and ensure there is an ample window of time to complete projects or develop project plans, ensuring Federal Acts are not violated, and impacts to protected and state sensitive species and big game are minimized. Accurate surveys completed at the correct time will help to avoid delays, facilitate project planning, and allow accurate environmental analysis that is less likely to be litigated, thus allowing the project to move forward in a timely fashion. The Moab BLM does recognize that many of the timing limitation stipulations can overlap, possibly creating additional constraints. However, not all habitats that have these seasonal stipulations are located in the same place. As mentioned	

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		above, winter ranges for deer and elk overlap very little with pronghorn, deer, and elk spring fawning areas. ESA species such as the SWFL and YBCU are very specific to small, highly vegetated riparian areas that typically are located within areas with watershed stipulations that will coincide with ESA requirements. The MSO does have the largest potential habitat for an ESA species in the Planning Area and may need site-specific surveys but habitat evaluation throughout the Planning Area has been completed and many areas are maintained under protocol survey, therefore reducing the scope of survey needs by outside parties. The MLP/DEIS acknowledges the impacts of wildlife and sensitive species restrictions on mineral development in Chapter 4. It should be noted that the wildlife and special status species restrictions vary only slightly among alternatives; no further analysis of overlapping restrictions is required when these restrictions are substantially the same for all the alternatives. ***Text has been added to Sections 4.8.1 and 4.8.2 concerning the impacts of overlapping timing limitations.*** 4) The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. Although conflicts in the past have been minimal and a solution has been found, the CSU stipulation is intended to prevent conflicts in the future. A viewshed analysis would be required only for the 14 high use filming locations listed in Chapter 2 (Table 2-3). Although conflicts in the past have been minimal and a solution has been found, the stipulation is intended to prevent conflicts in the future. A viewshed analysis would be completed prior to mineral operations being authorized in the vicinity of high use filming locations. Therefore, an approved mineral operation would not be overridden by filming activities. The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. The imposition of a viewshed analysis is	

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		not an onerous requirement, but Chapter 4 acknowledges that CSU stipulations can result in "additional costs and delays to mineral operators" (page 4-41). The exact cost of this constraint could only be quantified on a site-specific basis. While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets. As stated in the BLM Land Use Planning Manual (H-1601-1), land use plans ensure that the public lands are managed in accordance with the intent of Congress as stated in FLPMA (43 U.S.C. 1701 et seq.), under the principles of multiple use and sustained yield. As required by FLPMA and BLM policy, the public lands must be managed in a manner that protects the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; that will provide for outdoor recreation and human occupancy and use; and that recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands by encouraging collaboration and public participation throughout the planning process.	
Individual	Clarification Required: A group of my Potash Prospecting Applications (PPA) are north of Magna Resources (aka Sweetwater) and another group is south of Magna Resources (aka Sweetwater and have the same land characterizations yet areas I applied for are not being considered as Potash Leasing Areas (PLA). What makes my 3 PPA areas so unique yet the other PPAs held by Canadian and Australian firms being considered as Potash Leasing Areas? Is there an abrupt change in the land forms/flora - fauna/ endangered - threatened species/soil types/drainage/fossils? Is this more special consideration? In summary a Canadian firm and an Australian firm (Magna Resources aka Sweetwater and Potash Minerals aka K2O respectively) received the following: Memorandum of Understanding Potash Prospecting Permits Potash Leasing Areas Question: why do I, born in Utah, coming from pioneers who settled in Lisbon Valley, get denied special treatment? Does BLM favor foreign interests? Or did I not use the right lobbyist? I am just seeking equality.	As stated in Chapter 2 (Table 2-6), "Identified PLAs include blocks of public land in areas where potash leases (Upper Ten Mile) or potash permits (Red Wash and Hatch Point) have been issued. Within these areas, potash resources have been identified and the feasibility of potash production is being pursued."	516

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Individual	Any evaluation of public land development should consider the benefits/costs to all stakeholders, including the silent majority American taxpayer and consumer. As you know the development and sustained production of potash is critical to sustaining US agriculture. Full weight should be given to this benefit. Also, regulatory creep, particularly as it pertains to so-called protection of cultural sites, needs to stop. Consider these remarks in your proposed changes to the "Leasing Plan".	***The economic benefits of mineral development are detailed in Chapter 4, Section 12.*** ***The commenter's opposition to the protection of cultural sites is noted.***	524
Individual	Why are there no photos of the MLP area? Could you at least present a visual of what a potash plant and recovery area could look like? The MLP preferred alternative D would only worsen this situation of creating a one industry economy, and taking away high paying jobs and revenues to local governments. The only impacts that would seem to rise to the level of "significance" in this draft EIS appear to be the impact from all these new constraints on the mineral development opportunities that are being forgone in the MLP Preferred alternative. Where are the significant impacts to other resources? Why is there no input from non-government economists in this plan?	The MLP/DEIS relied on maps to depict the environment associated with the decisions in the Planning Area. Alternative D provides for both oil and gas leasing and potash leasing while protecting recreational uses and other important resources. The potential for significant impacts is addressed in Chapter 4 of the MLP/DEIS. A non-government economist was utilized for input into the socioeconomic sections of the MLP/DEIS (Chapter 5, List of Preparers). The economic analysis incorporated perspectives and information gained from BLM's public outreach and participation efforts. For socioeconomic analysis, this included input from public scoping and socioeconomic workshops, as described in Chapter 5. The Socioeconomic Baseline Report lists many non-governmental information sources that informed BLM's preparation of that	527
Reunion Potash Company	1) Regarding Appendix A - Mineral Leasing Stipulations: The stipulation controlling well spacing necessarily requires the application of an unproven technology to the recovery of potash in the entire Moab MLP area. No substantive basis exists in fact or law to mandate this stipulation. Did the Interdisciplinary Team, mandated by IM 2010-117 and mentioned in Chapter 2.1, demonstrate that directional drilling from well pads separated by two miles will work for this area? 2) The exception under Alternative D seems to allow the proponent some variability in the drilling spacing stipulation by stating that the proponent must demonstrate a technically feasible alternative while maintaining maximum well spacing. This places the burden of proof directly on the operator. How does a proponent experiment to find the maximum technologically feasible placement of wells when he has to present a definitive Mining Development Plan before beginning operations? If allowed to test the theories prior to filing a MDP the proponent would have to drill experimental wells. The drilling of experimental	1) IM 2010-117 states that the Interdisciplinary Team (IDT) must be familiar with current oil and gas development technologies and impacts. This principal would also apply to potash in that the IDT would have to be familiar with current potash development technologies and impacts. This IDT would not be selected until there is a specific potash lease proposal. 2) The exception in Alternative D for the CSU stipulation requiring 2-mile spacing states: "Within Potash Leasing Areas (PLA), an exception to the 2-mile placement could be granted if the proponent successfully demonstrates that a 2-mile placement is not technologically feasible for potash recovery. An exception to the 2-mile placement would still require the maximum technologically feasible placement of potash wells." The BLM has acknowledged that the feasibility for solution mining of deep potash deposits has not been established within the Planning Area (Chapter 2, Table 2-6, Minerals: Potash) outside of the existing Cane Creek Mine. A proposed mine plan could be submitted for experimental wells with the purpose	536

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	wells to satisfy the curiosity of the BLM is an undue burden placed on the operator of any potash lease. To find the maximum distance between wells necessarily means at some point one has to move far enough apart to fail. Who gets to pay for that failure? How many times does one have to fail to prove a particular distance is in fact the maximum limit? The RFD scenario document developed by the BLM presents Tunnel Cavern Development and Canadian Type Cavern Development as two possible development techniques for potash recovery. The MLP completely dismisses the Canadian Type Cavern in favor of the more costly Tunnel Cavern Type of development while failing to justify its decision with substantive comparative analysis between the two schemes. This lack of analytical depth denotes the arbitrary nature of the MLP decision making process. While the decision to require a two mile spacing stipulation might work for oil and gas development, the technology advances driving that decision, as of yet, are unproven in potash cavern development. The rationale behind the proposed stipulation, while understandable, is not founded in good science as it applies to potash development. We therefore recommend that this stipulation be amended to exclude potash from this well spacing constraint. We further recommend that, due to the lack of detailed analysis demonstrating the consequences of this and other stipulations, any consideration regarding potash should be removed in its entirety from this MLP, pending further study, and be addressed separately in a totally new amendment to the 2008 RMP.	of testing the recovery of potash and determining the maximum technologically feasible placement of potash wells. A prudent operator would pursue this testing in order to assess both the economic and technical feasibility for developing a comprehensive mine plan for the entire property. As stated in the Potash RFD, "Within the Planning Area, two methods of cavern development are anticipated: 1) tunnel cavern development and 2) Canadian type cavern development." The MLP does not dismiss Canadian Type Cavern development or other potential methods for solution mining of potash.	
Reunion Potash Company	As a result of their own investigations the BLM has indicated a need for a supply of potash in the United States. Exploratory work has demonstrated that potash exists in vast quantities in the Paradox Basin. Current production of potash in the Paradox Basin indicates that production of potash can be attained. It is unfathomable that the Canyon Country District of the BLM would even consider setting an arbitrary time window of ten years for development of 25% of the known potash reserves in the United States and then, if production is not attained within this timeframe, withdrawing these reserves from future development. FLPMA requires the BLM to recognize the nation's needs for domestic sources of minerals. There are no environmental barriers to production of potash and oil and gas simultaneously as evidenced by the detailed work of the MLP. It is evident, from the cooperative efforts of industry in other areas under BLM	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well	537

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	management, that industry and government can work together to resolve issues. We therefore recommend that the BLM allow oil and gas and potash leasing to occur simultaneously on the same lands. Any time line prescribed for the exploration, development, or production of either commodity should be controlled by the terms of the lease agreement in accordance with Federal Regulations.	pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the	

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		high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2)	

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		development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase.	

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		Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year timeframe provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30.	
Reunion Potash Company	Regarding Appendix A - Mineral Leasing Stipulations: The BLM proposes to move all potash processing into designated areas described generally as PPFAs. Existing potash lease holders have the right to produce and process their minerals on site as granted by specific language contained in their leases and the BLM can demand that processing facilities be moved to the stipulated PPFAs by withholding permits for processing facilities on lands within existing leaseholds. Existing Preference Rights Lease holders are granted the valid and existing right through Federal Regulation 43 CFR 3500 to use the lands contained in the lease for processing of the leased mineral. If these lease holders are forced to move their facilities to lands where they have no rights, tenure must, somehow, be granted to those new lands on an equivalent basis. This issue is not addressed at all in the current draft of the MLP. Due to the lack of detailed analysis demonstrating the consequences of this and other stipulations, it is our recommendation that any consideration regarding potash should be removed in its entirety from this MLP, pending further study, and be addressed separately in a totally new amendment to the 2008 RMP.	The BLM could not impose the CSU stipulation from the MLP to existing potash leases requiring processing facilities to be located within potash processing facility areas (PPFAs). However, the operator may find benefits to locating the facilities within the PPFAs because of 1) environmental concerns raised during site-specific analysis for a proposed potash operation on the existing leases, 2) the PPFAs are identified as having minimal resource conflicts, and 3) the PPFAs are located closer to infrastructure such as roads, railroads, and transmission lines. Any land use authorizations necessary for a potash lessee to operate on lands off lease would be addressed at the site-specific proposal level.	538

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Reunion Potash Company	Regarding Appendix A - Mineral Leasing Stipulations, Page A-13 gives the description of the stipulation addressing Potash Processing Facility Areas under Alternative B1, and the description for Alternative D on Pages A-13 and continued on Page A-14 is the same as B1 except for the Exception clause. The Director of the BLM has issued IM 2010-117 as the guide for the development of MLPs. Under Section 1 B Stipulation Consistency; the Director states that: As part of this consistency review, state offices will request review by the Office of the Solicitor, usually the Regional Solicitor's Office, to ensure the enforceability of existing, new, or revised lease stipulations. Reunion Potash has four existing Preference Rights Leases in the Upper Ten Mile PLA. These leases grant the holder the right to produce and process potash minerals on the leasehold. Chapter 4 of the MLP Section 4.2 ANALYSIS METHODS, Sub Section 4.2.2 Analysis, Sub Heading Assumptions, states in part: While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject development of existing leases to reasonable conditions, as necessary, through the application of Conditions of Approval at the time of permitting. What is the legal authority for a Mineral Leasing planning tool to directly and detrimentally impact a contract between the United States of America and a valid lease holder through the application of Conditions of Approval at the time of permitting? Has the Office of the Solicitor been asked to render an opinion as to the enforceability of this stipulation as it applies to existing Preference Rights Leases? Prior to the inclusion of this stipulation in the MLP, the BLM must demonstrate its legal authority granting the plan, through this stipulation, the ability to dismiss the rights granted to potash leasees under Federal Regulation 43 CFR 3500 governing potash leasing and the explicit language contained in Preference Rights Leases. Due to the lack of detailed analysis demonstrating the consequences of this and other stipulations, it is our recommendation that any consideration regarding potash should be removed in its entirety from this MLP, pending further study, and be addressed separately in a totally new amendment to the 2008 RMP.	Alternative D was developed to provide operational flexibility for mineral leasing and development through specific exceptions. The BLM could not impose the CSU stipulation from the MLP to existing potash leases requiring processing facilities to be located within potash processing facility areas (PPFAs). However, the operator may find benefits to locating the facilities within the PPFAs because of 1) environmental concerns raised during site-specific analysis for a proposed potash operation on the existing leases, 2) the PPFAs are identified as having minimal resource conflicts, and 3) the PPFAs are located closer to infrastructure such as roads, railroads, and transmission lines. Any land use authorizations necessary for a potash lessee to operate on lands off lease would be addressed at the site-specific proposal level. The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. The Office of the Solicitor has reviewed the MLP/DEIS.	539
Reunion Potash Company	Regarding Appendix A - Mineral Leasing Stipulations, Page A-13 gives the description of the stipulation addressing Potash Processing Facility Areas. Through this stipulation the BLM will mandate that all potash processing facilities be moved to	In Chapter 4 (Section 4.8.2, Potash) it states, "Potash Processing Facility Areas (PPFAs) would limit the areas available for the location of such facilities. Although transporting potash from PLAs to PPFAs would involve some complexities, such as slurrying potash by pipeline, as well as	540

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	designated areas that have been selected to minimize the environmental impact of those facilities. There is no discussion in the MLP that addresses the economic impact of moving these facilities away from the potash production areas. Certainly there will additional costs related to the remote processing of potash. Some of the additional costs would benefit the local economy in the form of taxes on the additional infrastructure required to reach the PFFA sites. Additional infrastructure would require adding to the workforce to maintain that infrastructure. Federal right of ways usually come at some cost in the form of yearly rentals. All of these would increase the ongoing cost to the operator of these facilities. The additional materials required to reach the remote processing sites for gas pipelines, water pipelines, communication lines, rail lines, and roads all will contribute to an increased capital cost for the operator of any potash facility. Moving potash processing areas to areas not on or contiguous with a producing potash lease will unnecessarily inflict additional costs to that project. While on the surface it may seem like a good idea to concentrate potash processing areas into one area, the MLP does not address any cumulative economic impact that would occur due to this movement and certainly does not compare it to any benefits derived therefrom. Therefore, it is Reunion Potash Company's position that before the inclusion of this stipulation into the MLP occurs, a complete reevaluation of the benefits attributed to the relocation of these facilities weighed against the additional costs thereof has to be fully investigated. Due to the lack of detailed analysis demonstrating the consequences of this and other stipulations, it is our recommendation that any consideration regarding potash should be removed in its entirety from this MLP, pending further study, and be addressed separately in a totally new amendment to the 2008 RMP.	other additional costs, the location of the PPFAs are within proximity to roads, highways, utilities, and railroads. Therefore, the location of PPFAs could simplify distribution and save time in the development of potash resources."	
Reunion Potash Company	Chapter 4 of the MLP Section 4.8 MINERALS, Sub Section 4.8.1 Oil and Gas, under sub heading Assumptions, the second sentence in the second paragraph states that post-lease actions can be encumbered by CSU and TL stipulations. Omitted in the sentence is the NSO stipulation for post-lease action. There is not a paragraph describing surface use restrictions in 4.8.2 POTASH under the sub heading Assumptions. Does the omission of the NSO stipulation for post-lease action in the surface use restriction under 4.8.1 evidence the fact that the BLM recognizes that an NSO stipulation is an unreasonable condition for development of mineral resources under existing oil and gas and potash leases?	The omission of the NSO stipulation for post lease actions in the surface use restrictions under Section 4.8.1 (Oil and Gas, Assumptions) is because a NSO stipulation would go beyond the valid existing rights of the lease. This is not recognition that a NSO stipulation is an unreasonable condition for development of mineral resources. However, a NSO stipulation is considered a major constraint to development. The referenced assumption in Section 4.8.1 has been revised as follows, "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the	541

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	The first assumption listed immediately above says that "Implementation actions will comply with valid and existing rights". Does the MLP through the application of Conditions of Approval at the time of permitting attempt to provide a means to undermine the valid and existing rights granted by oil and gas and potash leases? It is Reunion Potash Company's position that the application of an NSO designation to any lands within its Preference Rights Leases is an unreasonable condition and therefore cannot be applied under the above Conditions of Approval at the time of permitting. We recommend that any stipulation allowing the application of an NSO designation to any area of an existing lease be removed from the MLP. Due to the lack of detailed analysis demonstrating the consequences of this and other stipulations, it is our recommendation that any consideration regarding potash should be removed in its entirety from this MLP, pending further study, and be addressed separately in a totally new amendment to the 2008 RMP	lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures." The revised assumption in Section 4.8.1 has also been added to Section 4.8.2 (Potash, Assumptions).	
Reunion Potash Company	In the MOAB MASTER LEASING PLAN AND DRAFT RESOURCE MANAGEMENT PLAN AMENDMENTS/DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE MOAB AND MONTICELLO FIELD OFFICES, as published, there is a stipulation being proposed that would limit the term of existing Potash Leases. Appendix A lists the stipulations being considered for application to Potash leasing. Pages A 9 and A 10 provide a description for one of those stipulations being considered under Alternative B 1 and the BLM preferred Alternative D. Reunion Potash Company holds four valid and existing Preference Rights Leases, subject to readjustment, in Grand County that are wholly within, but not part of, the proposed Upper Ten Mile PLA. These leases convey to the holder certain rights as described in the language of the leases and as granted through the regulations governing Potash Leasing; 43 CFR 3500. Accordingly, the BLM lacks legal authority to implement a taking of Reunion's leases, as articulated in the MLP, and as such the agency's rule making appears arbitrary and capricious and otherwise not in accordance with the law. There is no legal authority for a Mineral Leasing planning tool to directly and detrimentally impact a contract between the United States of America and Reunion Potash Company. There is no citation evidencing that the Office of the Solicitor has rendered an opinion as to the enforceability of this stipulation as it applies to existing Preference Rights Leases. This stipulation also proposes to include a diligence clause in all future potash leases. This again is in direct conflict with the controlling regulations for potash leasing: 43 CFR 3500 for the	The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation measures. The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. The Secretary of Interior has broad authority to regulate leasable minerals provided by 30 U.S.C. 187 which includes ensuring the exercise of reasonable diligence. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which	542

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	same reasons cited above. If the MLP is implemented containing this stipulation, the BLM would effectively change the Federal Regulations governing existing potash leases and any new potash leases through an Administrative Order as opposed to Congressional action as is required by law. Due to the lack of clarity as to the legal authority required to implement this stipulation we recommend that this stipulation be removed in its entirety from the MLP. We further recommend that, due to the lack of any detailed analysis demonstrating the consequences of this and other stipulations, any consideration regarding potash should be removed from this MLP, pending further study, and be addressed separately in a totally new amendment to the 2008 RMP.	potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing.	
Individual	Baseline Reasonably Foreseeable Development scenarios need technical review. At first glance there appear to be some evaporation pond acreage needed irregularities, production values are possibly overestimated, there is an evaluation for crystallization type recovery projects which are unlikely in this area.	A technical review was conducted for the Reasonably Foreseeable Development scenarios for both oil/gas and potash. The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze	545

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		the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality, cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. In the potash RFD the acreage involved with solar evaporation ponds at Intrepid Potash is 1) 452 acres for evaporation ponds, 2) 126 acres of borrow area utilized in pond construction and maintenance, and 3) 8 acres of pond infrastructure for a total of 596 acres rounded up to 600 acres per 100,000 tons of production. This would amount to 1,800 acres for 300,000 tons of production projected in Alternative D. The projection of 12 well pads (with up to 4 well bores per pad) is merely an analysis assumption and not a limitation. As stated in the potash RFD, the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity.	

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Individual	Any potash processing facilities proposed, regardless of size must have a full review of potential impacts certainly including water requirements, source and impact of diverting that water from this desert environment.	Any site-specific proposal for potash processing facilities would be subject to compliance with the National Environmental Policy Act. The environmental documentation would analyze impacts on water resources.	560
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Since water supplies are not presently secure in the Colorado River basin, except in the minds of speculators, neither are they secure for the potash industry. In this atmosphere of water insecurity, the potential of bankruptcy for the potash industry is therefore quite high. Logically, potash leasing should be omitted entirely from the MLP process to reduce the dangerous position that industry and the state of Utah is placing upon the established obligations of the federal government.	Water consumption associated with potash production is addressed in Chapter 4 (Section 4.13.2, Water Resources). The source of this water could come from one of four sources: 1) rivers and other surface water, 2) groundwater from usable aquifers, 3) saline water from the Paradox Member, or 4) off-site locations. However, detailed impacts of this water use cannot be addressed until site-specific operations identify the water source. If the water is obtained from an existing water right granted on the Green or Colorado River systems, then the impact from the use has already been considered during allocation. Water obtained from local usable aquifers could result in the drawing down of the water table and reduction of available water resources for wildlife, vegetation, springs, streams, or public consumption. Withdrawal could affect local groundwater flow pattern and create changes in quality and quantity of the remaining groundwater. Saline water from the Paradox Member would affect neither usable groundwater nor surface water. The impacts from obtaining water from offsite sources cannot be addressed until the location of the sources are identified during review of site-specific proposals.	620
Individual	Chapter 4 page 101 As discussed in the recreation section of this chapter, the BLM does not expect a change in recreation visitation across alternatives. BLM wants to close off new potash and oil production costing over $2 BILLION or more. Not so sure if we can trust the BLM economic analysis of $2 billion over 15 years, it is much higher. How can you justify this loss when we have a $19 trillion dollar debt? The economic analysis had no formal input from private sector experts, you know, the guys who pay all of the bills? WHY IS THERE NO ANALYSIS FROM NON GOVERNMENT ENTITIES?	A non-government economist was subcontracted for input into the socioeconomic sections of the MLP/DEIS (Chapter 5, List of Preparers). The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions: – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the	637

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		Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).***	
Reunion Potash Company	In addition, Reunion's initial review of one of the formative documents of the MLP, the Reasonably Foreseeable Development (RFD) Scenario for Potash in the Moab Master Leasing Plan Area (MMLPA), BLM Canyon Country District, indicates that this document contains serious and substantive flaws and their influence on the decisions made developing the MLP are not fully understood at this time. A 120 day extension will not seriously harm any stakeholder and will allow for a full and detailed analysis of the Potash RFD, its integration into the MLP, and ultimately its impact on Reunion Potash Company. In order to approve the MLP, the BLM must base its reasoning and conclusions on the rulemaking	The RFD has been available on the Moab MLP website for public review since May 2014. The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality,	640

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	record, consisting of the comments, scientific data, expert opinions, and facts accumulated during the pre-rule and proposed rule stages. It is obvious from the Potash RFD that scientific data and expert opinion, if not seriously flawed, certainly contains dated suppositions, errors, and misstatements. Due to the flaws in the Potash RFD and the short timeframe for review, Reunion has been unable to make effective and comprehensive comments on the MLP to try to assist the BLM in creating a document that is more scientifically accurate and more representative of the original purpose of the MLP effort. In order to approve the MLP, the BLM must base its reasoning and conclusions on the rulemaking record, consisting of the comments, scientific data, expert opinions, and facts accumulated during the pre-rule and proposed rule stages. It is obvious from the Potash RFD that scientific data and expert opinion, if not seriously flawed, certainly contains dated suppositions, errors, and misstatements. Due to the flaws in the Potash RFD and the short timeframe for review, Reunion has been unable to make effective and comprehensive comments on the MLP to try to assist the BLM in creating a document that is more scientifically accurate and more representative of the original purpose of the MLP effort.	cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. In the potash RFD the acreage involved with solar evaporation ponds at Intrepid Potash is 1) 452 acres for evaporation ponds, 2) 126 acres of borrow area utilized in pond construction and maintenance, and 3) 8 acres of pond infrastructure for a total of 596 acres rounded up to 600 acres per 100,000 tons of production. This would amount to 1,800 acres for 300,000 tons of production projected in Alternative D. The projection of 12 well pads (with up to 4 well bores per pad) is merely an analysis assumption and not a limitation. As stated in the potash RFD, the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity.	
Agapito Associates, Inc.	We have deep concerns and would respectfully comment on the MLP, draft RMP and its parent document the RFD. Although Alternative A, B, C and D are meant to represent the spectrum of options for mineral leasing, we find the assumptions made by the	In Chapter 1 (Section 1.1, Introduction) it states, "The BLM Washington Office (WO) Instruction Memorandum (IM) No. 2010-117: Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook	641

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	application of an Oil & Gas leasing protocol (handbook) for potash exploration and mining to be flawed. We cannot speak to every point in the documents under consideration here but speak to the overall flawed assumptions. BLM has taken the decision to design a MLP under the authority of BLM Washington Office (WO) Instruction Memorandum (IM) No. 2010-1171 that is specifically designed for Oil and Gas Leasing. Under those auspices, which specifically state that it is not applicable for Mineral leasing, the IM specifies: "A process for ensuring orderly, effective, timely, and environmentally responsible leasing of Oil & Gas resources on Federal lands. The leasing process established in this IM will create more certainty and predictability, protect multiple-use values when the Bureau of Land Management (BLM) makes leasing decisions, and provide for consideration of natural and cultural resources as well as meaningful public involvement." This is not apparent in the Draft RMP.	H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013) outline the process and criteria for preparing a MLP. Although the IM and the Handbook pertain to oil and gas leasing decisions, the BLM determined that the MLP concepts are also applicable to potash leasing decisions." The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act.	
Agapito Associates, Inc.	The current status quo, as defined by the RFD, illustrates a flawed system considering: • No PRLs have been within the Planning Area issued since 1985, while the BLM states that to date, 223 PPAs have been submitted, including some PPAs that have languished in application with BLM decision since the 1980's. • No competitive potash leasing has ever been carried out in the Paradox Basin KPLAs. • The KPLA designation in the Basin has changed but not evolved. Rather, the designation to turn an area into a KPLA has resulted in rejecting PPAs. • The new grade, thickness, and area stipulations for defining potash resources do not acknowledge the changing investment environment for positive Rate of Return (RoR) on contemporary potash projects. The assumptions of the RFD are already out of date with respect to pricing. The economics, technology and variability of potash mining and production is a rapidly moving target and so it is not feasible to attempt to project the number and locations of projects and stipulations promoting or restricting those developments with respect to land use.	The Reasonably Foreseeable Development (RFD) scenario is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality, cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. The economic information utilized in Chapter 4 (Section 4.12, Social and Economic, Potash Development and Production) was based on the best available information at the time of analysis.	642
Agapito Associates, Inc.	We do not think that industry has been included to provide the needed technical input. While not all issues of concern are addressed here, we have highlighted some of the more inconsistent and untenable issues with respect to BLM's stated mission (cited below) for the balanced management of lands:	The Mining and Minerals Policy Act of 1970 declares that it is the continued policy of the Federal government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources.	643

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	"The BLM has the responsibility to promote the orderly and efficient development and the maximum recovery of leasable minerals, including potash," as specified under 30 United States Code (USC) Chapter 2 §21a, the Mineral Leasing Act of 1920 as amended, the Federal Land Policy and Management Act (FLPMA) of 1976 (43 USC 1761), and the Secretary of the Interior's 1986 Potash Order (51 Federal Register 39425, October 28, 1986). "The BLM has the duty to allow and encourage leaseholders to develop their leases subject to reasonable restrictions."	The Federal Land Policy and Management Act of 1976 reiterates that the 1970 Mining and Minerals Policy Act shall be implemented and directs that public lands shall be managed in a manner that recognizes the nation's need for domestic sources of minerals and other resources. The Secretary of Interior's 1986 Potash Order was revised and superseded by the Secretary of Interior's 2012 Potash Order. These Orders apply to potash leasing and development within a designated potash area in New Mexico and does not apply to the potash resources within the Planning Area. According to the BLM's Energy and Mineral Policy of 2008, the BLM land use planning and multiple use management decisions will recognize that energy and mineral development can occur concurrently or sequentially with other resource uses, providing that appropriate stipulations or conditions of approval are incorporated into authorizations to prevent unnecessary or undue degradation and reduce environmental impacts. The commenter has not provided any specific information regarding how the MLP violates the Mining and Minerals Policy (30 USC), the Mineral Leasing Act, or FLPMA. The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality, cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption	

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		6) The amount and type (quality) of water needed tor mining and processing of potash along with the location of water sources. 7) Shipping methods. The BLM received no specific information from any of the applicants regarding the mining and processing of potash deposits within the Planning Area.	
Agapito Associates, Inc.	There is no justification for separating the two industries for leasing. Stipulations for a 10 year limit on potash development and having potash leasing areas revert to Oil & Gas leasing is arbitrary.	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with	644

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		competing objectives on where and how to develop the minerals. Conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the	

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		Bureau's experience in other regions of the country, such as New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area	

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		to have a valuable potash deposit (see id. § 3508.11), and prior to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year timeframe provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that	

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		could not be readily accommodated in the normal course of business by a prudent lessee or operator. A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30.	
Agapito Associates, Inc.	Increasing the size of the Oil & Gas parcels is an unnecessary strategy to reduce the number of operators.	In Chapter 2 (Table 2-5, Minerals: Oil and Gas) it states, "The size of oil and gas lease parcels would be maximized to the extent possible. This would reduce the number of operators and thereby increase the likelihood of eliminating redundant infrastructure and corridors."	645
Agapito Associates, Inc.	The restriction by either CSU (controlled Surface Use) or NSO (No Surface Operations) along State Highway 191, Potash Road, and Dead Horse Point would selectively impact mineral extraction even though there is existing commercial infrastructure including mining, evaporation ponds, water wells, pipelines, hotels, a landfill, and an airport.	The BLM recognizes that CSU and NSO stipulations impact mineral extraction.	646
Agapito Associates, Inc.	The application of phased leasing (a) to manage potash exploration and development within the Planning Area and (b) to designate exclusive use of directional and horizontal drilling technology is untenable. The lack of a clear path forward poses a major risk to mining companies wishing to develop the area. This risk of uncertainty is likely to prove a regulatory deterrent to exploration/mining and prohibitive to investment. As stated in the RFD, this technology is being utilized at Intrepid's Moab Mine to target Potash 9. We know that this technology is still relatively experimental.	***The decision in Chapter 2 (Table 2-6, Minerals: Potash) pertaining to phased leasing has been revised to remove the reference to exclusive use of directional and horizontal drilling and added in-situ recovery in association with solution mining. The decision now states that the purposes of phased potash leasing are to minimize resource conflicts and to test the feasibility of solution mining (in-situ recovery) for deep deposits of potash on public lands within the Planning Area utilizing drilling technology.*** As stated in Chapter 2 (Section 2.2, Description of Alternatives), separating leasing of oil/gas and potash would minimize surface impacts by eliminating redundant infrastructure and ensuring orderly development by setting apart the competing objectives of the two commodities. Potash leasing would involve a phased approach and would initially only be issued within identified areas. A phased approach to potash leasing would provide the opportunity to lease a limited portion of the Planning Area in order to determine the feasibility of potash development and methods for reducing resource conflicts. The purpose of phased potash leasing is to minimize resource conflicts and to test the feasibility of solution mining for deep deposits of potash on public lands within the Planning Area. Phased potash leasing would provide an opportunity to issue prospecting permits and/or to lease within a specific portion of the Planning Area (identified as Potash Leasing Areas [PLAs]) in order to determine the area's production potential. Phased leasing provides an adaptive management	647

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		approach so that if potash were successfully discovered and produced there would then be an opportunity to consider additional potash permitting and leasing. The noncompetitive potash leasing process provided by the Federal regulations at 43 CFR 3500 involving potash permits and preference right leases is not a phased leasing approach to potash.	
Agapito Associates, Inc.	From the perspective of mining, we do not agree with the basis for the proposed restrictions and, instead, believe projects of comparable feasibility lie both within and outside of the proposed restricted areas. There are multiple plant sites and attractive county infrastructure that could support multiple potash operations (more than two) in the region.	In Alternative D, surface impacts would be minimized by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter's preference for Alternative A is noted.	655
Agapito Associates, Inc.	The proposed Mineral Leasing Stipulations for mineral operations (Draft Moab MLP Appendix A) are flawed and, in some instances, infeasible for potash solution mining: § "Well pads would be placed no closer than 2 miles apart." The spacing of clustered well pads is highly dependent upon the method of solution mining planned (multiple methods exist), surface access, drilling capabilities, and the economics of mining. Two mile spacing is close to the limit of current drilling technology in the mining industry and is far greater than pad spacing being used in potash mining today. Two-mile spacing would likely sterilize those portions of the potash resource stranded beyond the reach or economic feasibility of directional drilling. Sterilized areas likely represent as much as 75% or more of the in situ potash resources based on typical pad spacing used in industry today, which is typically limited to less than one mile between pads.	In Appendix A, the CSU stipulation in Alternative D pertaining to 2-mile spacing allows an exception as follows: "Within Potash Leasing Areas (PLA), an exception to the 2-mile placement could be granted if the proponent successfully demonstrates that a 2-mile placement is not technologically feasible for potash recovery. An exception to the 2-mile placement would still require the maximum technologically feasible placement of potash wells."	657
Agapito Associates, Inc.	The proposed Mineral Leasing Stipulations for mineral operations (Draft Moab MLP Appendix A) are flawed and, in some instances, infeasible for potash solution mining: § "Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads." The location of production facilities (processing plants) is an important technical and strategic consideration for any solution mining operation and can significantly affect project economy and feasibility. It is unrealistic to assume that the design and location of competing production facilities can be coordinated and harmonized. Facilities are likely to be developed at different points in time and their designs are likely to be driven by dissimilar, and sometimes opposing, economic and technical concerns resulting in different site requirements. It is equally naive to expect that a solution mining wellfield can be developed by placing	In Chapter 2 (Table 2-6, Minerals: Potash) the reference to the colocation of potash production facilities in the CSU stipulation does not refer to potash processing facilities. Colocation refers to the placement of facilities associated with production wells and not to potash processing facilities. ***The text in Chapter 2 (Table 2-6, Minerals: Potash) and Appendix A has been changed to clarify this point as follows: "Facilities associated with potash production wells would be designed to minimize surface impacts."*** ***Furthermore, the reference to "existing" roads in the same CSU stipulation has been revised as follows: "Pipelines and utilities would be placed along existing roads, including new roads constructed in association with the project."***	658

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	pipelines and utilities immediately adjacent to existing roads considering that the current road network of interest is minimal, random, and incomplete for the type of surface access required for solution mining. This suggests that well pads would need to be located proximal to existing roads, which, when combined with a 2-mile minimum pad spacing stipulation, unrealistically limits surface access for mining.		
Agapito Associates, Inc.	The proposed Mineral Leasing Stipulations for mineral operations (Draft Moab MLP Appendix A) are flawed and, in some instances, infeasible for potash solution mining: § "Limit unreclaimed surface disturbance to no more than 15 acres per well pad, including associated facilities, roads, pipelines, and utilities." A 15-acre limit per well pad is grossly unrealistic for contemporary potash solution mining, particularly with a 2-mile minimum pad spacing stipulation which requires even larger pads and support roads. If BLM's intent by this stipulation is actually to allow more than 15 acres of surface disturbance per pad, but will accept up to 15 acres left unreclaimed after mining with the remainder required to be reclaimed, then this stipulation should be written clearly to this effect.	***In Chapter 2 (Tables 2-5 and 2-6) and Appendix A, the CSU stipulation has been revised to state that the 15 acre limit per well pad is based on disturbance following interim reclamation.***	659
Agapito Associates, Inc.	The proposed Mineral Leasing Stipulations for mineral operations (Draft Moab MLP Appendix A) are flawed and, in some instances, infeasible for potash solution mining: § "Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance." The surface disturbance required for developing a wellfield is generally the same surface disturbance required during wellfield operations. Wells pads, roadways, and pipeline/utility routes will need to remain in service over the life of the wellfield. It is only until after a wellfield is exhausted that any significant reclamation is possible. Therefore, the notion of interim reclamation is unrealistic. It may be possible to subdivide a particular solution mine into more than one wellfield, depending upon suitable conditions, where exhausted wellfields can be reclaimed, fully or partly, concurrent with ongoing operations in other wellfields. We regard these proposed stipulations as arbitrary and prohibitive toward mining. Competent mining expertise should be considered before adopting any mining stipulations, particularly those of a highly specific nature such as these.	To reduce areas of disturbance not needed for long-term operations, interim reclamation will be initiated for areas such as active well and facility locations, pipelines, and roads when well completion operations or facility installation operations are concluded. Final reclamation will be completed at the end of the project for all surface disturbances that was necessary for long-term operations.	660
Agapito Associates, Inc.	We believe the Alternative D lease restrictions favor Oil & Gas and various special interests ahead of mining, and that this strategic favoritism represents unjustified government overreach where technical, economic, and free-market considerations should otherwise govern mining development. Conversely, the BLM office for Pecos District in New Mexico has issued guidance for co-development of oil, gas and potash which involves a notification of	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an	661

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	drilling methodology to avoid the remote possibility of conflict (IM No. NMP000-2015-001).3 "There is little potential for conflict between uranium mining operations and oil, gas or potash drilling. In the past, there have been no unresolved conflicts between Oil & Gas and uranium operations. The same would be expected for uranium operations and any future potash drilling. ……potential conflicts between potash and, Oil & Gas development may be mitigated somewhat by enhanced horizontal drilling technology which provides greater latitude in well site selection."	opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it's not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power, pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. The commenter implies that the concurrent development of oil and gas and potash has successfully occurred in New Mexico without conflicts. However, the conflicts between the potash and oil and gas industries in New Mexico began shortly after the discovery of potash in 1925 (ironically discovered by an oil test well drilled in the basin) and the first potash production in 1934. Secretarial Orders were issued in 1939, 1951, 1975, 1986, and 2012 in an attempt to resolve these conflicts. The Secretarial Order of 2012 has resulted in litigation by oil and gas operators who assert that the 2012 Order negatively affects valid existing oil and gas leases, unlawfully cedes to the potash industry BLM's statutory duties under the FLPMA and MLA to manage the Secretarial Area and regulate valid existing oil and	

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		gas leases, and grants a disproportionate amount of power to the potash lessees who may veto certain oil and gas development within the Secretarial Area. Overall, the management of the two resources through the Secretary's Orders has been contentious throughout the years, resulting in many disputes and court cases. The MLP/DEIS acknowledges in Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) that designating PLAs and restricting new oil and gas leasing in these areas could reduce the area available for oil and gas leasing which would reduce the amount of oil and gas drilling and potential production.	
Agapito Associates, Inc.	The co-development of potash and Oil & Gas leases can be part of a sustainable plan in the Moab MLP Planning area that is adjacent to Arches and Canyonlands National Parks. Both have been a part of the economy in the area for over fifty years and should provide no significant conflict to the continued conservation of the viewscape, soundscape, and recreational activities of the area. Two million visitors per year to the area presents its own challenges and impacts, not much different from the balanced and mixed economic development that should continue and that does not depend exclusively on low paying recreational jobs.	The commenter's preference for Alternative A is noted.	662
Agapito Associates, Inc.	Substantial baseline data for air, water, and infrastructure exist for all of these industries with respect to economic and environmental impacts. It could and should be collected and analyzed to have a realistic discussion based on solid scientific study.	The baseline data for resources, socioeconomics, and mineral development are found in Chapter 3 of the MLP, the Socioeconomic Baseline Report, the Reasonably Foreseeable Development scenarios for both oil/gas and potash, the Calpuff Far-Field Air Quality Analysis Technical Support Document, and in a USGS report prepared for Groundwater and Surface-Water Resources in the Planning Area.	663
Agapito Associates, Inc.	We believe that all potash projects in the Paradox Basin should be allowed to be pursued on their own merit with only a minimum baseline of regulatory oversight. The BLM should not be involved in mine and plant design by regulation through the RMP.	The commenter's preference for Alternative A is noted.	664
Agapito Associates, Inc.	BLM should take useful technical advice and input from industry and the current PPA Applicants as well as the Oil & Gas industry for a more balanced approach and establish a timely and systematic approach to the granting of leases.	The actual issuance of leases is a separate process from the MLP. The potash projections utilized in the MLP/DEIS (Table 2-19) are derived from the reasonably foreseeable development scenario (RFD) for potash. The RFD is a technical report intended to project a baseline scenario of potash exploration, development, production, and reclamation to aid the BLM with land use planning. The RFD provides a mechanism to analyze the effects that discretionary leasing management decisions may have on potash development, local and regional economies, and important resource values such as air quality,	665

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		cultural resources, wildlife, and recreation. The RFD projects the level of potash activity that can reasonably be expected to occur in the Planning Area over the life of the Moab MLP (15 years). The RFD is neither a planning decision nor the "No Action Alternative" in the MLP/DEIS. The RFD projections represent average activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. In the potash RFD the acreage involved with solar evaporation ponds at Intrepid Potash is 1) 452 acres for evaporation ponds, 2) 126 acres of borrow area utilized in pond construction and maintenance, and 3) 8 acres of pond infrastructure for a total of 596 acres rounded up to 600 acres per 100,000 tons of production. This would amount to 1,800 acres for 300,000 tons of production projected in Alternative D. The projection of 12 well pads (with up to 4 well bores per pad) is merely an analysis assumption and not a limitation. As stated in the potash RFD the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity. By letter dated May 17, 2012, the BLM requested information from all of the potash prospecting permit applicants regarding the mining and processing of potash resources within the Paradox Basin. The letter requested the following information:	

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		I) Maximum annual potash production. 2) Type of products (including potash) produced. 3) Number of production wells per square mile over the life of the mine. This includes injection and recovery wells. In addition, please provide well pad sizes. 4) Optimum drill hole size. 5) Processing facilities required to sustain a lite of mine operations for approximately 30 years. a. Solar vs. crystallization, or other. b. Estimated size of evaporation ponds, surge ponds, or tailings ponds. c. The total acreage involved with processing facilities. 6) The amount and type (quality) of water needed tor mining and processing of potash along with the location of water sources. 7) Shipping methods. The BLM received no specific information from any of the applicants regarding the mining and processing of potash deposits within the Planning Area.	
The Wilderness Society	We recommend that BLM adopt Alternative C and close the Planning Area—which already contains potash leases and development facilities—to any new, additional potash leasing or permitting. BLM should redefine the areas open for leasing and permitting in the “first phase” of potash development. In recent months, the collection of authorized permits and leases in the planning area has changed significantly, and we recommend that BLM revise the MLP to reflect the most current inventory of valid existing rights in the planning area. Both the Red Wash and Hatch Point PLAs were established based on the presence of existing prospecting permits in the areas. However, because the permits that were used to form the boundaries of these PLAs have since terminated, BLM should defer leasing in these areas until after the “first phase” of development. Furthermore, potash development in the Red Wash and Hatch Point PLAs would threaten wilderness resources in those areas. Finally, the Draft MLP lacks a detailed evaluation of the potential impacts of transporting potash from the Red Wash and Hatch Point PLAs (as well as the Upper Ten Mile PLA). Those impacts could be significant, in particular on recreational, wilderness, and scenic resources both in and outside of the PLAs. Although the BLM acknowledges that transporting potash “would involve complexities, such as slurrying potash by pipeline, as well as other additional costs,” the Draft EIS does not	Phased leasing of potash initially involves three blocks of public lands in areas (PLAs) where potash leases or potash permits had been issued. Within these areas, potash resources have been identified and the feasibility of potash production has been pursued. Although the potash prospecting permits have expired, the BLM could still consider issuing new potash prospecting permits in these areas. The Upper Ten Mile PLA is located in the northern portion of the Ten Mile Known Potash Leasing Area (Ten Mile KPLA). A KPLA is established where BLM has determined that a valuable deposit of potash exists and leasing is done only through a competitive process. The Upper Ten Mile PLA includes lands surrounding four existing potash leases. The unleased acreage within the Upper Ten Mile PLA would provide an opportunity for all of the other prospecting permit applicants pursuing potash leases outside of PLAs to acquire potash leases competitively.	686

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	identify or take a hard look at those “complexities” and “costs.” Also, because, elsewhere in the Plan, PLA boundaries are limited to areas already containing permits and leases, and the Plan contains a mechanism that could expand the Upper Ten Mile PLA, BLM should restrict the boundary of the PLA to encompass only currently leased lands for the first phase of development.		
The Wilderness Society	The existence of prospecting permit applications should not be allowed to preclude or delay PLA removal. We also recommended that BLM reconsider the criteria under which PLAs can be removed from the planning area in the absence of potash production. The MLP should provide separate diligent development requirements for new and existing potash leases. While a ten year diligent development requirement should be attached to any new leases, the same timeframe should not apply to existing leases due for readjustment. Since there are only four viable, existing leases within the potash leasing area, the Plan should more narrowly address how the diligent development requirement would apply to these leases. BLM should impose a separate and shorter diligent development period for existing leases in the planning area. Also, the exception for “small-scale potash processing facility” should be eliminated because it would expose an additional 213,218 acres of the planning area to the significant environmental impacts associated with potash processing, and it does not contain adequate safeguards to protect against these impacts.	The existence of prospecting permit applications within the PLA would demonstrate continuing interest in pursuing potash development in the area. Therefore, the PLA would not be removed until the potash prospecting applications are processed.	687
State of Utah	Finally, BLM attempts to generate a belief in changed circumstances by alleging that potash extraction operations and oil and gas operations in the same area are incompatible. This is simply not supported by the facts. The state's oil, gas and mining regulators and BLM project approval processes can easily resolve any issues related to operation of the two separate developmental processes. This is especially true when no human miners are engaged in underground potash extraction, as is generally the case in areas where the two have been separated. In fact, leasing on the same tract can lead to a net reduction in infrastructure. 19 Joint exploration operations near Hatch Point show that petroleum and potash companies work together to share roads, drilling pads, and drill holes to minimize surface disturbance. A temporary increase in potash prices, even accompanied by an increase in demand for leases, simply does not qualify as the required change the circumstances surrounding oil and gas development, and therefore does not support the need for any type of MLP review process.	The objective of Alternative D is to minimize surface impacts by separating leasing of the two commodities (oil/gas and potash), locating potash processing facilities in areas with the least amount of sensitive resources, and limiting the density of mineral development. The commenter presumes there is an opportunity for cooperation between two different operators where it might not actually exist. Cooperation implies an opportunity for the two industries to plan infrastructure needs. Whereas one industry will likely develop first and implement the infrastructure that meets their needs, that may not meet the needs of the second industry. Without an overall plan it’s not possible to plan for the needs of both commodities. The BLM acknowledges that the development of the two commodities could occur at the same time. However, if commodity prices of both climb and successful production of both reaches a peak, it would be difficult to contain development while still meeting other resource objectives. Well pads, roads, and pipeline corridors could be shared to the extent possible. However, the two different development scenarios would have different infrastructure needs (power,	733

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		pipeline, railroad with different destinations). The commodity developed first would be the first to develop infrastructure. Subsequent development could have different needs. Each infrastructure is developed with its specific needs in mind and don't directly overlay each other. Eventually this could lead to additional surface disturbance and impacts to meet the needs of both operators. Co-location of two different operations could result in technical and legal conflicts. Depending on proximity they could be competing geologically. The actions of one could affect what's going on with the other. Potentially adverse conditions from co-locating could make it difficult to achieve resource objectives. Co-location of drilling operations on a single well pad would require a larger footprint and more surface impacts to accommodate all facilities and potential activities. If not co-located, there could be duplicative surface disturbance. Orderly development would be difficult to achieve with competing objectives on where and how to develop the minerals. Joint exploration for potash and oil and gas near Hatch Point, as referred to by the commenter, was neither formally proposed to the BLM nor ever took place. In addition, the BLM is unaware of any such joint venture that has taken place on State lands in the Hatch Point area.	
Individual	We cannot endorse Alternative D, (the BLM's current preferred alternative) due to the significant development of Potash in sensitive areas. The potash holdings that are up for sale in Red Wash, 10-Miles from the Green River are a direct threat to Stillwater Canyon. Stillwater Canyon is one of the loveliest and most pristine areas on the Green River. Additionally, the Hatch Point holdings sit on top of Indian Creek, a major tributary and hiking attraction for our guests on the Colorado River. You know, in the long run, even the medium run, mines get used up; scenery, if it's protected, doesn't. So the economic value of Needles, Dead Horse Point, and nearby places to Utah is much greater, long term, than the potash. Any choice should specifically prohibit potash mining as a gross waste of the very limited water resource, and prohibit any development in lands with wilderness quality.	The commenter's preference for Alternatives B2 and C which exclude new potash leasing is noted.	297, 324, 331, 717, 792
NEPA			
Individual	Judicial NEPA precedent has been established over the years, based on the results of environmental litigation, which has resulted in development of a NEPA standard referred to as "hard look." This	The commenter has provided no specific examples of the BLM's failure to take a "hard look" at environmental consequences of the proposed alternatives in the MLP/DEIS.	171

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	standard incorporates the following NEPA requirements for BLM decision making: o Assumptions spelled out o Inconsistencies explained o Methodologies disclosed o Contradictory evidence rebutted o Records referenced o Analysis solidly grounded in science o Guesswork eliminated, and o Conclusions supported in a manner capable of judicial understanding Although this language does not appear in the NEPA Act or CEQ guidelines, the courts have established this “hard look” requirement as precedent. This judicial precedent has been applied by the Interior Board of Land Appeals (IBLA), and both the 9th and 10th Circuit Courts. The draft MLP clearly does not take a “hard look.” Assumptions for potential potash development are highly flawed from a technical standpoint, it presents inconsistent application of 43 CFR regulation, technical and/or economic methodologies for applying newly developed MLP constraints to existing leases are not identified, it presents contradictory evidence in regard to sources related to air quality, the analysis with few exceptions(air quality and socioeconomics) is not grounded in science, the discussion on air quality impacts is beyond the comprehension of anyone without special formalized training in this science, and environmental impact analysis relies on generalities and guesswork with very little quantified data presented to justify constraint development.	The BLM gathered the necessary data essential to make a reasoned choice among the alternatives analyzed in detail in the MLP/DEIS, and provided an analysis that led to an adequate disclosure of the potential environmental consequences of the alternatives in Chapter 4.	
Individual	THIS IS NATIONAL LAND. LET ME REPEAT THAT. THIS IS NATIONAL LAND. THE NATION IS REQUIRED TO BE NOTIFIED BY THIS PLAN ACCORDING TO NEPA LAW. YOU HAVENOT DONE THAT.	The public scoping period began with the publication of the Notice of Intent (NOI) in the Federal Register on March 5, 2012. The public scoping period was open through May 7, 2012 and three public scoping meetings were held during that time. In addition, the BLM hosted an open house meeting to share the preliminary range of alternatives on May 14, 2014. The Notice of Availability (NOA) for the public comment period on the MLP/DEIS was released on August 21, 2015 in the Federal Register and signaled the 90 day public comment period for the MLP/DEIS. The BLM has followed all laws concerning public notification and involvement requirements of FLPMA (43 U.S.C. 1712), the FLPMA implementing regulations (43 CFR 1610.2), NEPA (42 U.S.C. 4371), and the CEQ regulations (40 CFR 1501.7).	386

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Individual	The Plan ignores requirements from the National Environmental Policy Act of 1964 (NEPA) by creating significant restraints to a specific resource with no identification and limited quantification of meaningful or significant impacts to other resources in the area.	An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. Through the scoping process conducted in March 2012, the BLM identified the issues to be addressed in the MLP. These included protecting important viewsheds and high use recreational experiences. Leasing stipulations were developed to mitigate impacts to these resources from projected future mineral operations.	395
Western Energy Alliance/American Petroleum Institute	The DEIS projects a loss of nearly $2 billion in economic output resulting from adoption of BLM's preferred alternative. DEIS at 4-93 – 4-101. The total economic output of Grand and San Juan Counties combined in 2012 was less than $1 billion, so this is not an insignificant impact by any measure. The costs dwarf any potential benefits of the MLP, and BLM should not move forward with this process. The purpose and need statement in the DEIS here is unreasonably narrow because it focuses only on imposing new restrictions on oil and natural gas development or removing certain lands from availability for leasing, and the result of this error is an EIS that fails to evaluate an appropriate range of alternatives. The broader purpose, which includes concepts such as ensuring effective leasing and protecting multiple uses, does not appear in the DEIS. BLM should revise the EIS to reframe the purpose and need statement to include fostering development of energy resources, which in turn must drive the remainder of BLM's analysis and the alternatives that BLM considers.	The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions: - Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential	501

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		competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). - Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. - Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions cited above. Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).*** Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the	

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		majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash.	
Utah Mining Association	The Draft EIS fails to demonstrate a reasonable purpose or need. This MLP allows current production to continue, but so severely constrains new development that the BLM itself projects a loss of $2.15 billion dollars of economic output over the next 15 years. There is no compelling resource reason for the new restrictions and constraints contained in the MLP. The MLP provides an array of exceptions, modifications and waivers that are confusing and will only add to the uncertainty created by this plan.	An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. Through the scoping process conducted in March 2012, the BLM identified the issues to be addressed in the MLP. These included protecting important viewsheds and high use recreational experiences. Leasing stipulations were developed to mitigate impacts to these resources from projected future mineral operations. In most cases, exceptions, modifications, waivers provide operators with increased operational flexibility by providing a means to reduce, eliminate, or modify restrictions while still meeting the goals, outcomes, and objectives of the land use plan amendment. More restrictive leasing stipulations are intended to inform the operator regarding the difficulty of meeting resource objectives such as those intended to protect visual resources.	521
Individual	Please include Green River, Labyrinth Canyon, and Indian Creek in the protected areas of your plan.	Under Alternative D (Preferred Alternative) the Green River/Labyrinth would have protections including:	1

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		1. A NSO stipulation to the suitable Wild and Scenic River segments along the Green River would be applied. 2. No surface-disturbing activities within the 100-year floodplain of the Green River and associated back waters would be allowed. 3. An NSO stipulation to protect the visual resources along the rims of the Green River would be applied, with an exception noted in Appendix A. This stipulation would apply to a 1-mile setback from these rims (Map 2-62 B/D). Under the Preferred Alternative, Indian Creek would have protections including: 1. The Indian Creek ACEC would be closed to mineral leasing (3,894 acres, Map 242-C/D). 2. A NSO stipulation for a 0.5-mile radius around high use climbing and canyoneering areas (Map 2-21B/D) to provide visual and auditory protection to the immediate foreground would be applied, with an exception noted in Appendix A. 3. A NSO stipulation would be applied to the Indian Creek SRMA. See Map 2-25-B/C/D (76,427 acres).	
Other			
Individual	The truck traffic on 313 and on Dead Horse Point is dangerous.	Trucks are necessary for transporting drilling equipment and supplies along with produced oil and water from the Big Flat area. There are no alternatives for this traffic other than Highway 313. The BLM is not aware of any accidents involving this traffic and the recreational public.	49
San Juan County Commission	The apparent intent of the MLP as evidenced by proposed stipulations in the various new alternatives is to further restrict future mineral development and manage more for recreation uses and scenic and auditory aspects including establishment of "buffer" areas adjacent to national parks. These proposed changes in management would be inconsistent with San Juan County's Master Plan. This plan supports commerce and economic development (p. 20 of 93 of the Plan), endorses multiple uses of public lands (p. 21 of 93) and supports achieving and maintaining a continuing yield of mineral resources at the highest reasonably sustainable levels (p. 12 of 2008 amendment).	While County and Federal planning processes, under FLPMA, are required to be as integrated and consistent as practical, the Federal agency planning process is not bound by or subject to County plans, planning processes, or planning stipulations. The BLM will identify these conflicts in the MLP/FEIS. A consistency review is included in Chapter 5 of the MLP/FEIS (Table 5-2).	212
Grand County Council	1. "Labyrinth Canyon Special Management Area" designation • Establish an unconditional No Surface Occupancy area as indicated on attached map	Locatable minerals, or hard rock mining as referred to by the commenter, and associated mineral withdrawals are not addressed in a Master Leasing Plan which pertains only to decisions regarding leasable minerals (oil/gas and potash).	301

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	--Unconditional NSO to apply to: oil & gas, hard rock mining, potash, and any kind of extractive industry. Ineligible for exemption or waiver. • Establish an area along the Green River as mineral withdrawal and no new leasing as per attached map	The Secretary of Interior has established a mineral withdrawal along the Green River (Three Rivers Mineral Withdrawal). The area of the withdrawal is shown on Map 2-4-A/B/D. Within the Labyrinth Canyon Special Management Area delineated by the County for mineral withdrawal there are 21,917 acres of public lands. Of this acreage, 13,656 acres has been withdrawn along the Green River within the boundary of the County's proposal. The BLM assumes that the areas labeled "Labyrinth Mineral Withdrawal and Labyrinth NSO" constitute the Labyrinth Special Management Area. In Alternative D, 68 percent of the Labyrinth Canyon Special Management Area would be managed with a NSO stipulation for mineral leasing. In Alternative C, the entire area would be managed with a NSO stipulation. The BLM recognizes that Alternative C more closely meets the County's management goals for the "Labyrinth Canyon Special Management Area."	
Individual	And I know, too, that most of you are devoted to the best management of resources given your (extremely) limited budget and man (and woman) power. For most of my life in the West (I was born in Los Angeles and grew up in Southern Oregon) the BLM and Forrest Service have tried to control (or balance) what is called 'development' and conservation. Well, if there's anything we on the planet earth can all agree on it's that each day there is less and less to conserve and that our species has pretty much made a mess of what natural systems we've encountered	Thank you for your interest and comments on the MLP.	377
Individual	Also, rather than linking to sources which may or may not retain a given address on the world wide web, all sources should be posted online with the MLP.	The website references cited in the MLP/DEIS are publicly accessible. In many cases it is neither efficient nor practical to post the entire document online.	424
HECHO	Public Outreach and Participation (5.3): Our recommendation for the final EIS is that the public outreach, mailing lists, newsletters, and public scoping be broadened to include the Latino populations within Moab, Grand Junction, Durango, Price, and Salt Lake City proper. There are a number of elected officials, chambers of commerce, and organizations that focus on Latino issues within the regional geographic area. By providing information about the planning area to this important population they can be engaged and provide comments.	The public will be notified of the availability of the Final EIS in the Federal Register, in the Monticello, Moab, and Salt Lake newspapers, and on the BLM website.	631
Reunion Potash Company	Reunion Potash Company ("Reunion") respectfully requests that the Bureau of Land Management, Canyon Country District Office extend the comment period for a period of 120 days with regard to	The BLM released the Notice of Availability for the Draft EIS on August 21, 2015, initiating the 90-day public comment period, which ended on November 23, 2015. The BLM received 687	639

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	The Moab Master Leasing Plan (MLP) and Draft Resource Management Plan (RMP) Amendments/Draft Environmental Impact Statements (EIS) for the Moab and Monticello Field Offices. Reunion has diligently worked at reviewing the MLP while attempting to understand the impact of the MLP on its valid and existing Preference Rights Leases. As presented, the MLP will have a significant and detrimental impact on Reunion's leases, but given the limited time the Draft MLP has been available to the public and the extensive nature of the regulatory scheme that it proposes, Reunion is only in the early phases of its review.	substantive comments, including many comments from both the potash and oil and gas industry and conservation special interest groups, and feel satisfied with the diversity and range of comments received. Therefore, the comment period will not be extended.	
The Wilderness Society	While the Draft Moab MLP identifies best management practices, it can and should specifically identifying conditions of approval for specific resources, such as watersheds, that shall be applied if specific conditions exist.	Best management practices (BMPs) area described in Appendix B of the MLP/DEIS as follows: "A Best Management Practice (BMP) is a state-of-the-art mitigation measure applied on a site-specific basis to reduce, prevent, or avoid adverse environmental or social impacts. 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. For each proposed action, a number of BMPs may be applied as necessary to mitigate expected impacts. BMPs can be applied by incorporating them into individual project proposals as design features or incorporating them into the Bureau of Land Management's (BLM) authorization of the project as conditions of approval. BMPs should be selected to meet the site-specific requirements of the project and local environment. No one management practice is best suited to every site or situation. BMPs must be adaptive and monitored regularly to evaluate effectiveness. BMPs by their very nature are dynamic innovations and must be flexible enough to respond to new data, field research, technological advances, and market conditions. The BLM continues to improve the way it manages mineral development of the Public Lands. Part of that improvement includes the use of BMPs to lessen the effects of mineral development on the environment. The mineral industry and the BLM are constantly developing and improving BMPs. The BMPs listed below may be applied to proposed mineral actions within the Moab Master Leasing Plan area. The list is not comprehensive and may be modified over time as conditions change and new practices are identified. Periodically, the BMPs may be updated to stay current with the latest technology and with the latest Department of Interior and BLM direction."	685

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Individual	I suggest a 50-mile wide buffer zone around all our national parks from any natural resource extraction plan.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Going beyond these closed areas would not meet the objective in Alternative D of providing mineral leasing and development outside of these high value areas. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources.	724
State of Utah	In summary, while the state is strongly supportive of the outdoor recreation industry and associated economic contributions, and supportive of landscape level allocation decisions which protect access to the landscape, and the quality of the outdoor experience for these businesses, the state cannot support BLM's extra-legal process. Instead, the state recommends the BLM defer these land allocation decisions to the congressional process currently underway and sponsored by Utah Representatives Bishop and Chaffetz. Local government and other interested stakeholders are providing invaluable advice to the Representatives about the very issues contemplated in the proposed MLP decisions.	The Congressional process involving lands within the Planning Area is outside the scope of the MLP.	726
State of Utah	The IM also states that an MLP may be initiated by "updated policies" and "new information." However, again, BLM fails to cite any individual updated policies that trigger that need for an MLP in either the Moab or Monticello areas. Instead, the draft MLP lists several of the documents created after the decision to initiate the MLP was made, such as the BLM Utah State Office's "implementation plan" and the Notice of Intent for the MLP EIS. As a result, the draft MLP analysis actually cites the NOI for the MLP as an "updated policy" that triggers an MLP itself. A document created as part and parcel of the preparation for an MLP process is not an "updated policy" that justifies the creation of a MLP in the first place. BLM's reference to these documents as evidence of new policies which support the need for an MLP simply represents	***In Chapter 1 (Section 1.2.2, Updated Policies), text has been added to the beginning of the section which states that BLM Washington Office Instruction Memorandum 2010-117 established updated policy on the oil and gas leasing process.*** The remainder of the section explains how this policy was implemented for the Moab MLP. In Chapter 1 (Section 1.1, Introduction and Background), it states: ”A MLP is a mechanism for completing additional planning, analysis, and decision making that may be necessary for areas meeting the criteria for preparing a MLP. The BLM identified lands within the Moab and Monticello Field Offices	734

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	circular reasoning. The information cited in the MLP as "new information" supporting the review is either not the correct type or does not provide sufficient detail to constitute the trigger for an MLP process. BLM identifies 14 different documents that are "new data ... for consideration in the MLP process," yet only one of the 14 documents involves oil and gas development.	which meet the following criteria: 1) largely unleased; 2) industry interest and high mineral development potential; 3) majority Federal mineral interest and; 4) the potential for impacts to important resource values. Therefore, the BLM exercised its discretion to utilize the MLP process.“ In Chapter 1 (Section 1.2.2, Need), it states “The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development. In evaluating mineral leasing decisions, as in any land use planning process, the BLM will consider changing circumstances, updated policies, and new information.” As stated above, the trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions. The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states, "The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development." ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new***	

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		information are utilized in any land use planning process. These factors are not requirements that warrant an MLP. Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process.	
State of Utah	The single oil and gas related document, the "RFD Scenario for Oil and Gas in the Moab Master Leasing Plan Area," was developed in 2012 as part of the analysis of the Moab MLP.23 Again, the new information, in this case the updated RFD, did not exist at the time the MLP process began, so cannot be used to support the initiation of the MLP review. The BLM has essentially "put the cart before the horse" by simply initiating the MLP process, then later developing information it then alleges is the "new information" necessary to satisfy the requirements of the APA. Similarly, the BLM's citation of the subsequently created RFD for Potash (2014), the Moab Field Office Visual Resource Inventory (2011), the Socioeconomic Baseline Report for the Moab MLP (2012) do not qualify as new information sufficient to support the MLP review.	The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	735
State of Utah	BLM also identifies numerous and sundry other pieces of information as the required "new information." necessary to support the need for an MLP review. In fact, new information of the type listed is generated by many sources on a constant cycle, based upon the need to research issues or otherwise monitor conditions. For example, the state is constantly reviewing wildlife data, and making adjustments to habitat designations, as the DEIS suggests. However, changes of this type do not warrant a BLM plan review, due to the overarching principle that state wildlife data, or transportation data, or recreational data, do not, in and of themselves, require any particular management action. Instead, the data is to be used as part of planning processes driven by other significant factors which may necessitate a plan review.	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states, “The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development.”	736

Organization	Comment	Response	Comment ID
		The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP. Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process. The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	
State of Utah	Acquisition of new lands from SITLA or any other entity, is not significant new information requiring a plan review, except to insure that the existing BLM RMP provisions apply to the newly-acquired lands. In fact, none of the information presented by the BLM as support for the MLP review rises to the level of significance requiring RMP review, especially in light of the recent completion date for the RMPs. BLM does not cite any change in oil and gas development from that found in the 2008 RMP, therefore there are no changes in circumstances, updated policies or significant new information which supports a legally-justified MLP review process. The MLP review should be suspended in favor of supporting locally generated landscape-scale protections through the congressional process.	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states, “The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development.” ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP.*** Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process.	737

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		The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	
Individual	These are wilderness areas and oil drilling or tourist development have no place in or near (by 100s of miles) these parks and monuments. I have visited--and loved--both these areas and enjoyed the views and serenity.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources.	744
Other Laws			
Coalition to Protect America's National Parks	Because of the NPS Organic Act's requirement that the conservation of park resources take precedence over use, we firmly believe that the MLP's Preferred Alternative should give full deference to minimizing, to the extent practicable, the impacts to the national park resources that could foreseeably be caused by the proposed oil, gas, and potash development.	The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management.	122
San Juan County Commission	Section 1.8.1 State of Utah, should also list H.B. 393 Energy Zones Amendments. This legislation, passed March 23, 2015, designated energy zones for several counties, including San Juan County. The energy and mineral zone designated in San Juan County includes most of the MLP area in the county (roughly that area east of the west rims of Hatch and Hart Points). The purpose of this legislation was to give preference and priority to the exploration, development and production of energy and mineral resources. Processing of applications for permits to explore, develop, produce and transport mineral and energy resources would be expedited by the land managing agency in these zones.	Section 1.8.1 of the MLP/DEIS lists State of Utah Plans and does not list all legislation passed by the State of Utah. H.B. 393 Energy Zones is discussed in Chapter 5 in Section 5.2.6 (Consistency with Other Plans).	215

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Individual	Its obvious the 1872 mining law allows endless devastation by developers and nobody is changing it to reflect what we need in 2015	The MLP process is a targeted land use plan amendment pertaining to leasable minerals (oil/gas and potash) and does not address locatable minerals associated with the Mining Law of 1872.	387
Individual	The Plan attempts to make regulatory changes to 43 CFR 3500 regulations by applying a "diligent development requirement" to potash leasing not a requirement in CFR regulations. The Plan does not cite its legal authority to prescribe regulatory changes.	The BLM has broad authority to regulate environmental aspects of mineral activity under the Mineral Leasing Act. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The MLP/DEIS (Section 2.1) defines the potash unsuitability criteria and how they would be applied as follows: "The stipulations developed for the protection of specific resources would apply to both oil and gas leasing and potash leasing as well as geophysical exploration. The stipulations have been developed in accordance with the potash unsuitability criteria specified at 43 CFR 3501.17." To impose a CSU stipulation for potash development is not a regulatory change. In Alternative D, the BLM would impose a CSU stipulation requiring diligent development of potash resources. Due to the high level of competing uses (oil/gas, potash, and recreation) in the Planning Area, a diligent development requirement for potash would allow for other uses if potash production is not being pursued in a reasonable amount of time. The BLM issued four potash leases within the Planning Area in 1984. Up to the present time, no potash production has occurred on these leases even through the period in which potash prices reached a record high of above $900 per ton in 2008. The Bureau has determined that, for the area subject to the proposed MLP, there is a need for a lease stipulation that would require the lessee to diligently pursue developing a paying mine within a certain time. The MLP area is subject to competition between existing and foreseeable oil and gas development and possible potash development. The area has a high potential for the development of oil and gas that is capable of being produced by conventional means. The area is also currently subject to increased interest for potash exploration, but it is unclear whether the development potential is as high as for oil and gas or whether potash production can be achieved utilizing solution mining methods. Based on the Bureau's experience in other regions of the country, such as	393

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		New Mexico, concurrent oil and gas production and potash production is difficult and prone to conflict. Nonetheless, the Bureau is interested in facilitating potash exploration and production, as well as oil and gas production. However, under the statutes and regulations governing potash leases and the standard lease form typically used for potash leasing, a lessee may hold a lease for decades without attempting to develop a paying mine, so long as the lessee pays a minimum royalty in lieu of production (and appropriate rental). Consequently, under the present circumstances, it is not in the public interest to issue potash leases because those leases may tie up lands that otherwise could be developed, or more easily developed, for oil and gas production. A potash lease stipulation that requires diligent efforts to develop a paying mine within a time certain would help eliminate this problem. Under such a stipulation, if the potash lessee did not develop a paying mine within a time certain, after being given a reasonable amount of time to do so, BLM would be allowed to pursue lease cancellation so the lands could be unencumbered for oil and gas leasing. A number of factors are relevant to what constitutes a reasonable period of time. The Society of Mining Engineers (SME) Mining Engineering Handbook (2nd Edition) identifies three stages of mining: (1) prospecting and exploration, (2) development, and (3) exploitation. Prospecting and exploration consists of searching and defining the ore deposit and can involve a time frame of 2-8 years. Development consists of environmental compliance and the construction of facilities and infrastructure. This stage can involve a time frame of 2-5 years. Exploitation consists of the production of ore on a large scale and can involve a time frame of 5-30 years (SME Handbook, 2nd Edition, 1992). The SME Handbook refers to metallic ores or other valuable minerals (coal or nonmetallics). The prospecting and exploration stage for potash on land administered by the BLM occurs prior to lease issuance. For noncompetitive leases, this occurs during the period of time in which the lease applicant has explored the area pursuant to a prospecting permit, which has an initial 2-year term subject to extensions so long as exploration has been diligent. See 43 C.F.R. §§ 3505.60 - 3505.62). The applicant receives the lease (preference right lease) only after, among other things, the BLM has concurred that the applicant has discovered a valuable potash deposit. See id. §§ 3507.18, 3507.19 (a)(1). For competitive leases, the BLM has already determined the area to have a valuable potash deposit (see id. § 3508.11), and prior	

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		to leasing the applicant may have explored the area pursuant to an exploration license. See id. § 3508.11. As a result, prospecting and exploration do not factor into what may be a reasonable period of time to achieve production after a potash lease has been issued. The development and construction stage of potash mining occurs after a lease is issued. This stage includes environmental compliance associated with a mine plan submitted under the regulations at 43 C.F.R. § 3592. Based on BLM's experience with the mining of leasable minerals in general, the environmental compliance prepared under NEPA, NHPA, ESA, and other Federal and State laws necessary to fully permit the mine may take up to 3 years to complete. Once environmental compliance is completed, and the mine is fully permitted, it is reasonable to assume that the construction of facilities and infrastructure could take another 3 years. This is based on recent potash mining projects underway in Canada and the United States. K&S Corporation's (formerly Potash One) Legacy Project in Saskatchewan and ICPotash Corporation's Ochoa Project in New Mexico both project a 3-year construction time. Production, or the exploitation stage of potash mining, should commence immediately at the end of the construction phase. Therefore, assuming permitting and development proceed at a normal rate, it is reasonable to assume that full scale production could be achieved within 6 years of lease issuance. This is consistent with the 6-year timeframe provided under 43 C.F.R. § 3504.25(a) for an operator under a new lease to begin production or pay a minimum royalty. The BLM recognizes, however, that due to circumstances such as market dynamics and workload demands on the BLM and other agencies that have a role in permitting, 6 years may not be sufficient to bring a potash lease into production. An additional 4 years appears to be sufficient time to allow for such contingencies. Consequently, a 10 year timeframe for achieving potash production after lease issuance is reasonable. This should ensure reasonable diligence while at the same time provide a timeframe that is cognizant of the realities of opening a new mine on Federal lands administered by BLM. The Authorized Officer may grant a lease suspension in the event of delays in the permitting process that were unforeseen, that were in no way attributable to the lessee or operator, and that could not be readily accommodated in the normal course of business by a prudent lessee or operator.	

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		A potash lease could be cancelled in accordance with the Federal regulations at 43 CFR 3514.30.	
Western Energy Alliance/American Petroleum Institute	The Trades are concerned that BLM MLP policy impermissibly circumvents APA rulemaking requirements, especially given that it amends and supplements properly promulgated planning rules in the Code of Federal Regulations. BLM must address the legality of its reliance upon the MLP policy before issuing a final Moab MLP that may be subject to immediate invalidation given that IM 2010-117 was not issued in compliance with the APA.	Contrary to the commenter's assertions, the BLM's policies regarding mineral leasing do not amend or otherwise unlawfully supplement the BLM's promulgated regulations, Instead, these internal guidance documents state agency policy and provide guidance as to agency procedure. They do not have the force and effect of law and they do not create any binding norms or substantive rules. Nor do they commit BLM's discretion as to the management of a single acre of public lands. They fall within the Administrative Procedure Act's (APA) exception for general statements of policy or rules of agency procedure. Thus, notice and comment rulemaking was not required. Consistent with FLPMA and the BLM's planning regulations at 43 CFR 1610.5-5, the BLM determined to initiate amendments to consider new data, new or revised policy and a change in circumstances that may result in a change in the terms, conditions, and decisions of the existing Moab and Monticello Resource Management Plans (RMP). The Moab MLP/Draft RMP Amendments/Draft EIS was prepared consistent with agency guidance in the BLM Washington Office Instruction Memorandum 2010-117: Oil and Gas Leasing Reform - Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013), and other applicable agency policies.	502
Western Energy Alliance/American Petroleum Institute	On page 1-11 of the DEIS: "Utilization of the least restrictive stipulations necessary to protect the applicable resource in accordance with WO IM 2002-174." That is precisely what the EPAct requires BLM to consider and adopt. BLM's citation to WO IM 2002-174 in this context is unclear. This 2002 IM addresses stipulations for threatened and endangered species, but does not address the "least restrictive stipulation" obligation. BLM should clarify its intent in citing this 2002 IM, should delete the consideration of "least restrictive stipulations" from the list of issues not further analyzed, and should adopt only those stipulations that are the least restrictive means necessary to protect the subject resource.	***The citation to WO IM 2002-174 in Chapter 1 (Section 1.4.2, Issues Considered But Not Further Analyzed) was incorrect and has been changed to cite the Energy Policy Act of 2005.***	504
The Wilderness Society	BLM must develop a comprehensive "vision" statement and "framework" for the Moab MLP taking into consideration the important resource values. The "vision" and "framework" should be explicitly stated and should be incorporated throughout the MLP. The vision and framework can then best inform the BLM's	According to Manual 1624-1, the MLP establishes a guiding framework for the development of the area and provides a vision for how future development will proceed. The description of the Alternatives in Section 2.2 of Chapter 2 provides a vision for how future leasing and development would proceed.	534

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	consideration of which alternative, or attributes from different alternatives, to select.		
The Wilderness Society	BLM must develop a “vision” and develop RCOs and RPMs based on that vision statement. RPMs such as unitization, phased leasing and development and the requirement to use specific emission capture technologies should be integral in meeting that “vision.” Additionally, BLM should more explicitly state when and where particular RPMs will apply to existing leases.	According to Manual 1624-1, the MLP establishes a guiding framework for the development of the area and provides a vision for how future development will proceed. The description of the Alternatives in Section 2.2 of Chapter 2 provides a vision for how future leasing and development would proceed. According to Manual 1624-1, the MLP may retain the underlying resource condition objectives of the existing RMP for all or a portion of the Planning Area. The resource objectives from the RMPs for the Moab and Monticello Field Offices (2008) are carried forward into the MLP and are specified in Tables 2-1 through 2-16 in Chapter 2. They are referred to as "Objectives" rather than "Resource Condition Objectives.” Chapter 1 (Section 1.1, Introduction and Background) states: "The resource protection measures identified in the Moab MLP will also apply to areas currently under lease where they do not conflict with the rights granted to the holder of the lease. The Federal Government retains certain rights when issuing an oil and gas lease. While the BLM may not unilaterally add a new stipulation to an existing lease that it has already issued, the BLM can subject the development of existing leases to reasonable measures in order to minimize impacts to other resource values. These reasonable measures would be applied as Conditions of Approval to post lease actions (e.g. permits to drill) and may include, but are not limited to, modification to siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures." At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year (43 CFR 3101.1-2). The BLM may impose surface use restrictions exceeding the 200-meter/60-day rule only where the restrictions are necessary to satisfy BLM’s obligation under FLPMA section 302(b) to prevent unnecessary and undue degradation of public lands or resources. However, the prevention of undue and unnecessary degradation cannot render lease operations uneconomic or technically infeasible. Although the 200-meter/60-day rule does not specifically apply to existing potash leases, the same concepts discussed above would apply.	668

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State of Utah	In December, 2014, the Administrative Draft of the Moab Master Leasing Plan and Environmental Impact Statement (Administrative Draft Moab MLP) was released to Cooperating Agencies for comment. The state submitted comments on the Administrative Draft Moab MLP in a letter dated January 23, 20154 and incorporates that letter by reference into this review. The "Master Leasing Plan" (MLP) concept, as a distinct process, is not directly derived from Congressional legislation, executive order, or even duly adopted Department of the Interior or BLM regulations. The entire Master Leasing Plan concept is based on information contained in a single six-page 2010 Instruction Memorandum (IM) from the BLM's Washington Office to BLM field officials. The identified MLP process, which adds a massive new regulatory reconsideration and review burden on land and resource users and field office officials, was not proposed as a regulatory amendment to the BLM RMP process. Nor were the states and the public provided an opportunity to provide public comment on the specific terms of the concept. The MLP process is not directly grounded in FLPMA or other federal statutes, nor regulations, and as such, cannot supersede the BLM's duly adopted planning regulations.	Contrary to the commenter's assertions, the BLM's policies regarding mineral leasing do not amend or otherwise unlawfully supplement the BLM's promulgated regulations, Instead these internal guidance documents state agency policy and provide guidance as to agency procedure. They do not have the force and effect of law and they do not create any binding norms or substantive rules. Nor do they commit BLM's discretion as to the management of a single acre of public lands. They fall within the Administrative Procedure Act's (APA) exception for general statements of policy or rules of agency procedure. Thus, notice and comment rulemaking was not required. Consistent with FLPMA and the BLM's planning regulations at 43 CFR 1610.5-5, the BLM determined to initiate amendments to consider new data, new or revised policy and a change in circumstances that may result in a change in the terms, conditions, and decisions of the existing Moab and Monticello Resource Management Plans (RMP). The Moab MLP/Draft RMP Amendments/Draft EIS was prepared consistent with agency guidance in the BLM Washington Office Instruction Memorandum 2010-117: Oil and Gas Leasing Reform - Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013), and other applicable agency policies.	727
State of Utah	The legislatively authorized process for allocating lands for oil and gas leasing on BLM lands is through the land planning provisions of FLPMA, and the duly-adopted planning regulations codified by the BLM. The Resource Management Plan (RMP) process provides for "a process ensuring orderly, effective, timely, and environmentally responsible leasing of oil and gas resources on Federal lands," which BLM redundantly asserts is the stated purpose of the BLM's proposed MLP concept. In addition, the only tool provided by Congress to the BLM for conservation and protection of lands is the Area of Critical Environmental Concern (ACEC). All efforts to provide planning provisions for the protection of landscape-scale areas must be evaluated through the regulations providing for the review of ACECs, and created (or not) based upon the conclusions of this review. Entire sections of the proposed MLP have not been evaluated through this required process, and are therefore without basis in law or regulation. BLM is also charged with the primary duty of preventing "unnecessary and undue degradation" of the lands under its	FLPMA does not preclude the BLM from applying mineral leasing stipulations to areas other than ACECs. The application of mineral leasing stipulations for resource protection through a land use planning process does not constitute special management.	728

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	management. Any stipulations and conditions proposed for attachment to leases needs to be founded in this congressionally-approved requirement.		
State of Utah	The MLP process and proposed decisions will essentially negate the vast amount of time and effort which went into both the Moab Field Office Resource Management Plan (Moab RMP), and the Monticello Field Office Resource Management Plan (Monticello RMP). Notably, both RMPs, finalized in 2008, received a positive Governor's Consistency Review. BLM regulation requires the adoption of recommendations provided by the Governor as part of a consistency review, if the recommendations provide for "a reasonable balance between the national interest and the State's interest." In its place, BLM now asserts that the purpose of the proposed rejection of the mutually-agreed balance of interests and resources is to: "1) evaluate in-field considerations such as optimal parcel configurations and potential development scenarios; 2) identify and address potential resource conflicts and environmental impacts from development; 3) develop mitigation strategies through leasing stipulations and best management practices; and 4) consider a range of new constraints, including prohibiting surface occupancy or closing areas to leasing." Each of these goals was also a definitive part of the process leading up to the 2008 RMPs. Therefore, pursuant to the Administrative Procedure Act's prohibition against arbitrary and capricious actions, the BLM must be aware of, and provide for public review, new information, updated policies or substantially changed conditions sufficient to overcome the APA's arbitrary and capricious standard, and thereby support the analysis for different stipulations and conditions, mitigation strategies, or prohibitions as contained in the 2008 RMPs.	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states, "The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development." ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP.*** Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process. The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	729
State of Utah	In addition, the BLM must also demonstrate compliance with the terms of state law concerning ACECs, wilderness, and other resource allocation categories as part of the required consistency review. BLM has not met the statutory or regulatory requirements	While County and Federal planning processes, under FLPMA, are required to be as integrated and consistent as practical, the Federal agency planning process is not bound by or subject to County plans, planning processes, or planning stipulations. The BLM will identify these conflicts in the MLP/FEIS.	730

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	related to consistency with state laws, policies, programs or procedures within the DEIS.	***A consistency review is included in Chapter 5 of the MLP/FEIS (Table 5-2).*** The MLP is a focused land use plan amendment pertaining only to mineral leasing decisions. The decisions in the MLP do not involve the designation of ACECs, wilderness, or Wild and Scenic Rivers.	
State of Utah	The BLM has not identified, nor provided for public review as required by NEPA, sufficient factual information demonstrating changed circumstances which support the need for review of the area under the MLP process. The Instruction Memorandum (IM) for the MLP process requires "changing circumstances, updated policies, or new information," related to oil and gas planning in order to support new planning recommendations and avoid characterization of its planning decisions as arbitrary and capricious under the APA. The proposed MLP fails to present any changes in circumstances related to oil and gas development in either the Moab or Monticello RMP planning areas.	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states, "The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development." ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP.*** Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process. The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	731
State of Utah	Rather than an emphasis on oil and gas issues, the proposal identifies only a 2008 spike in potash prices as the required change	The Moab MLP area includes only a portion of the lands included in the 2008 Resource Management Plans (RMPs) for	732

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	in circumstance. Use of this information to support an MLP review, on its face, does not comply with the BLM's self-identified purpose of the MLP process, which is to consider a "step-down" analysis of oil and gas leasing. For example, the IM itself is entitled "Oil and Gas Leasing Reform," and the stated purpose of the review is "ensuring orderly, effective, timely, and environmentally responsible leasing of oil and gas resources on Federal lands" (emphasis added). Elsewhere the document refers extensively to the BLM's "oil and gas leasing authority" and "fluid minerals leasing decisions." The plain meaning of the IM, and the requirements of the APA, is that BLM should consider a MLP review only if "changing circumstances" exist which specifically relate to oil and gas leasing, otherwise the MLP review represents an arbitrary and capricious action. A change of circumstance related to any other issue, such as grazing or land ownership, does not qualify. In addition, the fluctuation in potash prices itself does not rise to the quantum of evidence sufficient to support an MLP review. In fact, the spike in potash prices was temporary, with both current prices and prices for the last few years generally reflecting prices prior to the 2008 spike.	the Moab and Monticello Field Offices. The mineral leasing decisions outside of the MLP area would remain as specified in the 2008 RMPs. An oil and gas lease sale proposed in late 2008 that included lands within the MLP area generated a large amount of public controversy which resulted in oil and gas leasing reform (BLM Washington Office Instruction Memorandum 2010-117). Public controversy centered on conflicts with viewsheds, proximity to National Parks, and recreational uses. The oil and gas leasing reform policy included provisions for master leasing plans. Based on IM 2010-117, the BLM determined that the Planning Area meets the criteria for preparing an MLP. Therefore, additional planning and analyses are required in order to consider important resource values prior to making new mineral leasing decisions. In Chapter 1 (Section 1.2.2, Need), it states, "The BLM introduced the MLP as part of its 2010 Oil and Gas Leasing Reform effort (IM 2010-117). The BLM determined that the Planning Area meets the criteria for preparing an MLP and additional planning and analysis are warranted prior to new or additional mineral leasing and development." ***The text in Chapter 1 has been changed to clarify that changing circumstances, updated policy, and new information are utilized in any land use planning process. These factors are not requirements that warrant an MLP.*** Chapter 1 provides details regarding the changing circumstances, updated policies, and new information that were utilized in the MLP process. The trigger for the MLP process was a determination that the lands within the Planning Area met the criteria for preparing a MLP as specified in IM 2010-117. The new information cited involves resource information that would be considered in evaluating new mineral leasing decisions.	
Recreation			
Wingate Rimrock, LLC Public Land Solutions	We have the following requests to protect and further enhance recreation experiences in the MLP planning area that will not materially affecting existing or future mineral lease revenues: • Broaden the proposed "No Surface Occupancy" (NSO) stipulations for developed recreation sites, such as overlooks/viewpoints, campgrounds, and trailheads, to a 2-mile setback: Amasa Back Trailhead, Anticline Overlook, Bartlett Campground, Big Bend Campground Overflow, Big Bend Recreation Site, Blue Hill Trailhead, Bridger Jack Mesa Camping	The commenter's preference for Alternative C is noted.	9, 10, 53, 54

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	Area, Canyon Rims Entrance Area, Canyonlands Overlook, Cliffline Interpretive Site, Copper Ridge Dinosaur Tracks Trailhead, Corona Arch Trailhead, Courthouse Rock CG & Mill Canyon Dinosaur Trackway, Cowboy Camp Camping Area, Creek Pasture Camping Area, Dewey Bridge Recreation Site, Donnelly Canyon Day Use Area, Drinks Canyon Recreation Site, Fisherman's Point Beach Access, Gold Bar Campground, Hal Canyon Campground, Hamburger Rock Campground, Hatch Point Campground, Horsethief Campground, Hunter's Canyon/Spring Camping Area, Indian Creek Falls Group Campsite, Jaycee Park Campground & Portal Trail, Kane Creek Trailhead, Kings Bottom Campground, Ledge Campground Loop, Ledge Campground Loop, Ledge Group Area, Lone Mesa Group Sites, A, B, C, D, E, Lone Mesa Viewpoint, Looking Glass Rock Interp. Site, Lower Gemini Bridges Trailhead (Private)Mill Canyon Dinosaur Trailhead, Mineral Bottom River Access, Minor Overlook, Moab Brand Trails Mountain Bike Trailhead, Moab Rim Trailhead, Monitor and Merrimac Trailhead, Monitor and Merrimac Viewpoint, Moonflower Canyon Camping Area, Needles Overlook, Newspaper Rock, Oak Grove Campground, Plateau Viewpoint, Poison Spider Mesa Trailhead, Potash Boat Ramp, Sandy Beach River Access, Shay Mountain Vista, Superbowl Campsite, Takeout Beach River Access, Trough Springs Canyon Trail Trailhead, Upper Big Bend Camping Area White Wash Campground and Trailhead, William's Bottom Camping Area Wilson Arch Windwhistle Campground. • Apply a 1-mile NSO setback from key routes, trails, climbing, canyoneering, and filming locations: Trails--Klondike Bluffs bicycle trails, Bar M bicycle trails, Porcupine Rim trail, Magnificent Seven/7 Up bicycle trail systems, Ahab bicycle trails, Lower Monitor and Merrimac bike trail, Kokopelli's Trail, Hunter Canyon hiking trail, Jeep Routes, Metal Masher (Arth's Rim) jeep route, Gold Bar Rim jeep route, Golden Spike jeep route, Poison Spider jeep route, Cliffhanger jeep route, Chicken Corners jeep route Top of the World jeep route, Moab Rim jeep route, Behind the Rocks jeep route, Kane Creek jeep route, Lockhart jeep route, Seven Mile Rim jeep route, Secret Spire jeep route, Jug Rock Equestrian Trail System, Jewel Tibbets hiking trail, Trough Springs hiking trail; Climbing & Canyoneering--Indian Creek, Wall Street, Ice Cream Parlor, The Tombstones of Kane Creek, Needle Rock (Tombstone), Long Canyon/Day Canyon/Culvert Canyon, Cameltoe Canyon, Granary Canyon, Rock of Ages, Repeat Junior, Winter Camp Slot; Filming--Needles Overlook, Colorado River corridor and Corona Arch, Green River Canyon, Kane Creek corridor, Looking Glass Rock View from Dead Horse Point, Potash Road/Shafer Basin (including Fossil Point)Long		

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	Canyon, Highway 211 (including Newspaper Rock), Highway 313, Monitor and Merrimac/Determination Towers/Mill Canyon, Gemini Bridges, Jewell Tibbetts Arch White Wash.		
Wingate Rimrock, LLC Public Land Solutions	We have the following requests to protect and further enhance recreation experiences in the MLP planning area that will not materially affecting existing or future mineral lease revenues: Apply an NSO stipulation to all "special recreation management areas" and related "focus areas," Canyon Rims SRMA, Colorado Riverway SRMA, Labyrinth Rims/Gemini Bridges SRMA, South Moab SRMA, Indian Creek SRMA, Dolores River Canyons SRMA, Hatch Wash Hiking and Backpacking Focus Area, Needles and Anticline Roads Focus Area (Utah Scenic Backways), Bar M Mountain Biking Focus Area, Bartlett Slickrock Freeride Mountain Bike Focus Area, Gemini Bridges/Poison Spider Mesa Focus Area, Goldbar/Corona Arch Hiking Focus Areas, Klondike Bluffs Mountain Biking Focus Area, Labyrinth Canyon Canoe Focus Area, Mill Canyon/Upper Courthouse Mountain Biking Focus Area, Mineral Canyon/Horsethief Point Competitive BASE Jumping Focus Area, Seven Mile Canyons Equestrian Focus Area, Spring Canyon Hiking Focus Area, Tusher Slickrock Mountain Biking Focus Area, Behind the Rocks Hiking Focus Area, 24 Hours of Moab Mountain Biking Focus Area.	The commenter's preference for elements of Alternative C is noted. NSO stipulations affect mineral lease revenues because fewer wells would be projected.	11, 55
Wingate Rimrock, LLC	we have the following requests to protect and further enhance recreation experiences in the MLP planning area that will not materially affecting existing or future mineral lease revenues: Increase Protection along the Green River for recreation opportunities, water quality, scenic values, and archeological resources by focusing development outside Upper Ten Mile (east of the wash), Labyrinth Canyon and tributaries to the Green River at Red Wash, and Hatch Point.	The commenter provides no specific recommendations regarding the requested changes. A preference to Alternative C is noted.	12
Wingate Rimrock, LLC	we have the following requests to protect and further enhance recreation experiences in the MLP planning area that will not materially affecting existing or future mineral lease revenues: Protect both the Green and the Colorado Rivers for water quality and recreation activities by requiring development companies to apply best management practices throughout the Moab MLP planning area and apply an NSO stipulation to preclude mineral activities within public water reserves, 100-year floodplains and within 660 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs.	The buffers specified in Alternative D to protect water resources were provided by the Environmental Protection Agency (EPA). The recommendations provided by the EPA are as follows: 1) 100 foot buffer on ephemeral streams, 2) 750 foot buffer on impaired waters, and 3) 500 foot buffer on intermittent streams. While a greater buffer provides more protection as specified in Alternative C, the goal of Alternative D is to provide for mineral development while protecting water resources.	13
Outdoor Industry Association	While we believe the Moab Master Leasing Plan is headed in the right direction, we would also like to offer-up support for a few	The commenter's preference for Alternative C is noted.	50

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	important changes from the draft plan that would help ensure strong protections for Moab's outdoor recreation resources, including: --broadening or lengthening energy development setbacks around developed recreation sites such as overlooks, viewpoints, campgrounds, and trailheads		
Outdoor Industry Association	While we believe the Moab Master Leasing Plan is headed in the right direction, we would also like to offer-up support for a few important changes from the draft plan that would help ensure strong protections for Moab's outdoor recreation resources, including: --providing or applying setbacks to protect key recreation routes, including hiking trails and climbing and canyoneering areas	Under Alternative D, a NSO stipulation for a 0.5-mile radius would be applied around high use climbing and canyoneering areas (Map 2-21B/D, 22,575 acres), high use routes (motorized) and trails (nonmotorized) (Map 2-20-B/D (95,143 acres), and developed recreation sites (24,311 acres, Map 2-19-A/D), with an exception as specified in Appendix A.	51
Outdoor Industry Association	While we believe the Moab Master Leasing Plan is headed in the right direction, we would also like to offer-up support for a few important changes from the draft plan that would help ensure strong protections for Moab's outdoor recreation resources, including: --strengthening protections along the Green River and Colorado Rivers, and improve protections for their tributaries and connected water bodies, to ensure that water quality and scenic values will not be compromised by energy development.	Under the Preferred Alternative, the Green River and Colorado River would have protections including: 1. A NSO stipulation to the suitable WSR segments along the Colorado and Green Rivers with the exception of Colorado River Segment 3 in Monticello (19,347 acres, Map 247-A/B/D) would be applied, and the Monticello WSR Segment 3 along the Colorado River would be closed to mineral leasing (753 acres, Map 2-48A/B/C/D). 2. No surface-disturbing activities within the 100-year floodplain of the Colorado River, Green River, and associated back waters would be allowed (19,198 acres, Map 2-49-A/B/C/D). Under the Preferred Alternative, the Green River would have protections including: 1. A NSO stipulation to protect the visual resources along the rims of the Green River would be applied, with an exception noted in Appendix A. This stipulation would apply to a 1-mile setback from these rims (Map 2-62 B/D). Under the Preferred Alternative, the Colorado River would have protections including: 1. A NSO stipulation to the entire Colorado Riverway SRMA within the Planning Area (31,702 acres, Map 2-23-B/C/D). 2. A NSO stipulation to preclude mineral activities within 750 feet of the Colorado River (Map 2-36B/D). The buffers specified in Alternative D to protect water quality were provided by the Environmental Protection Agency (EPA). The recommendations provided by the EPA are as follows: 1) 100 foot buffer on ephemeral streams, 2) 750 foot buffer on impaired waters, and 3) 500 foot buffer on intermittent streams.	52

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Public Land Solutions	--Increase protection along the Green River for recreation opportunities, water quality, scenic values, and archeological resources by focusing development outside Upper Ten Mile (east of the wash), Labyrinth Canyon and tributaries to the Green River, and Hatch Point.	The commenter's preference for Alternative C is noted.	56
Public Land Solutions	--Protect both the Green and the Colorado Rivers for water quality and recreation activities by requiring development companies to apply best management practices throughout the Moab MLP planning area and apply an NSO stipulation to preclude mineral activities within public water reserves, 100-year floodplains and within 660 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs.	In Alternative D, the recommendations of the EPA were followed concerning protection of water resources. While a greater buffer provides more protection as specified in Alternative C, the goal of Alternative D is to provide for mineral development while protecting water resources.	57
Recreation Stakeholders	However, we believe that Alternative D should be modified by enhancing the site-specific analysis component as it relates to energy/mineral project impacts to destination and/or important motorized and non-motorized recreation facilities.	Site-specific analysis would occur when an on the ground project is proposed utilizing the decisions in the MLP.	91
Recreation Stakeholders	Develop a decision matrix for the proposed "No Surface Occupancy" (NSO) stipulations for developed recreation sites, such as overlooks/viewpoints, campgrounds, and trailheads. Decisions should be made on a site-specific basis using criteria and mitigations to address; direct, sound, or visual impacts, conflicts between recreation traffic with industrial vehicles, conversion of recreation routes to "haul" roads, line-of-site vs. topographical based buffers, and post-project restoration of commercial routes back to recreation routes. NSO buffers could extend up to a 2-mile setback.	Varying buffers have been placed around recreation resources and facilities by alternative. Site-specific decisions require a site-specific proposal. The alternatives in the MLP provide a broad framework for mineral leasing decisions. The details suggested by the commenter would be addressed in site-specific proposals for mineral operations.	92
Recreation Stakeholders	Apply up to a 1-mile NSO setback from key routes, trails, climbing, canyoneering, and filming location based on site specific analysis using aforementioned decision matrix criteria/ mitigation.	Varying buffers have been placed around recreation resources and facilities by alternative. Site-specific decisions require a site-specific proposal. The alternatives in the MLP provide a broad framework for mineral leasing decisions. The details suggested by the commenter would be addressed in site-specific proposals for mineral operations.	93
Recreation Stakeholders	"Special recreation management areas" and related "focus areas" should have an additional layer of NSO-related analysis and setback parameters before permitting a resource industry project.	All SRMAs and Focus Areas are managed with a NSO stipulation in Alternative C. The commenter's preference for Alternative C is noted.	94
Recreation Stakeholders	Clarify in the Record of Decision (ROD) that "NSO" does not apply to recreation projects so as to avoid confusion in subsequent site-specific planning efforts.	The MLP process pertains to mineral leasing decisions only as stated in Chapter 1 (Section 1.1, Introduction and Background).	95
Recreation Stakeholders	With the inclusion of our suggested Enhanced Recreation Analysis, recreational interests should be properly protected. Therefore, many of the more restrictive measures placed on locating resource	Varying buffers have been placed around recreation resources and facilities by alternative. Site-specific decisions require a site-specific proposal. The alternatives in the MLP provide a	96

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	development in Alternative D become unnecessary and the modification to Alternative D should lessen these restrictions. We believe our recommendations will help the final plan protect both the recreation and extractive industry-based economy in the Greater Grand County Area.	broad framework for mineral leasing decisions. The details suggested by the commenter would be addressed in site-specific proposals for mineral operations.	
Grand County Council	"Moab Recreation Area" designation comprised of the following six recreation zones, with management objectives as follows: a. Monitor/Merrimac • Honor valid existing lease rights • No new mineral claims or leasing b. Gemini Bridges South • Purpose: --Recreation: Motorized and non-motorized --Energy development • Honor valid existing lease rights • Allow future leasing with a No Surface Occupancy stipulation • No lease retirement c. Amasa Back/Goldbar • No new mineral claims or leasing • Lease and claim retirement d. Bar M/Klondike (Arches West) • No new mineral claims or leasing e. Mineral Canyon • No new mineral claims or leasing • Lease and claim retirement area	Locatable minerals, or hard rock mining as referred to by the commenter, and associated mineral withdrawals are not addressed in a Master Leasing Plan which pertains only to decisions regarding leasable minerals (oil/gas and potash). The BLM will continue to honor valid existing rights as stated in Chapter 1 (Section 1.5) regardless of the alternative chosen in the MLP. The concept of “no lease retirement” is not part of the MLP process. However, a lease retirement zone would correlate with areas identified as “closed” in the MLP. Monitor/Merrimac: In Alternative D, 67.2 percent of the area would be managed with a NSO stipulation and 9.4 percent would be closed. In Alternative C, 93.7 percent of the area would be managed with a NSO stipulation and 6.3 percent would be closed. The BLM recognizes that Alternative C more closely meets the County’s management goals for this area. Gemini Bridges South or Gemini Bridges-Big Flat (as referred to on the County’s map): In Alternative D, 94.2 percent of the area would be managed with a NSO stipulation and 5.8 percent would be closed. In Alternative C, 85.1 percent of the area would be managed with a NSO stipulation and 14.9 percent would be closed. Amasa Back/Goldbar: In Alternative D, 91.7 percent of the area would be managed with a NSO stipulation and 8.3 percent would be closed. In Alternative C, 45.4 percent of the area would be managed with a NSO stipulation and 54.6 percent would be closed. The BLM recognizes that Alternative C more closely meets the County’s management goals for this area. Bar M/Klondike: In Alternatives D and C, 10.8 percent of the area would be managed with a NSO stipulation and 89.2 percent would be closed. Mineral Canyon: In Alternatives D and C, 89.2 percent would be managed with a NSO stipulation and 10.8 percent would be closed.	302
Individual	fracking & petroleum extraction does not coexist in the SAME place as recreation of the kind that the Moab region offers	The commenter has provided no specific information regarding the impacts of oil and gas production on recreational uses.	304
Individual	By attracting millions of tourism dollars, public lands sustain businesses, create jobs, and pump money into Moab's local	The Moab MLP/DEIS was prepared in accordance with BLM Washington Office Instruction Memorandum 2010-117: Oil and	305

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	economy. As BLM develops a master leasing plan for the Moab area, we need to ensure a balance between responsible oil and gas development and the protection of our parks and great outdoors.	Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (May 17, 2010) and BLM Handbook H-1624-1: Planning for Fluid Mineral Resources (January 28, 2013). The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights. Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report.	
Individual	Research has shown the economic value of tourism in Utah, and especially for Moab. I personally try to spend at least ten days a year in the area, mostly for quiet hiking and birdwatching. Oil and gas equipment would negatively impact my experience, and encourage me to search elsewhere for my vacation location.	Hiking and bird watching occur primarily in canyons and riparian areas where mineral operations are precluded in Alternative D (Preferred Alternative). Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report.	333
Individual	It's important to recognize the renewable resource of tourism which is bringing millions of people and tax dollars to Utah. This should be managed for- these folks are not coming to see it hear oil or gas harvesting. Please taken into consideration the irreversible damage this extraction causes to the land and tourism.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic).	335
Individual	I hike and boat in Labyrinth Canyon and its side canyons, and am shocked to hear that drilling is even considered for the area. Gas drilling is NOT a compatible use with wilderness recreation! The restorative and sanity-making features of a quality wilderness experience involve utter quiet, absolute dark nights, and the absence of motorized machinery. Please do not sacrifice Labyrinth. Please do not remit Labyrinth to the recesses of my heart as a fond memory. I could not bear to visit it again and see it devastated.	Under Alternative D (Preferred Alternative) the Green River/Labyrinth would have protections including: 1. A NSO stipulation to the suitable Wild and Scenic River segments along the Green River would be applied. 2. No surface-disturbing activities within the 100-year floodplain of the Green River and associated back waters would be allowed. 3. A NSO stipulation to protect the visual resources along the rims of the Green River would be applied, with an exception	336, 344, 360, 375

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		noted in Appendix A. This stipulation would apply to a 1-mile setback from these rims (Map 2-62 B/D).	
Individual	I visit the Moab area regularly, to recreate, relax and escape from the urban jungle along the Wasatch Front. I come seeking vast open space, and in particular, I come seeking a wilderness experience -- free from the constant presence of motors and development infrastructure. It pains me to see the oil & gas impacts north of Canyonlands, and I cringe at the site of the potash development tarnishing the sea of wildness that makes Moab such strong destination in the first place. Please utilize the process outlined in the Master Leasing Plan to make the best decision now, while you have the chance. Moab will be stronger in the long run if we protect our wild places and not subject them to the short-term profits associated with extracting fossil fuels or potash in lands that have so much more to offer -- not for us, but for our children and theirs.	Thank you for your interest and comments on the MLP.	345
Individual	I come to Utah to experience the other worldly beauty of its landscape, whether at Dead Horse Point, Arches NP, Labyrinth Canyon, the many side canyons of Muddy Creek/Dirty Devil River, the Escalante and San Rafael highlands and canyons. I could go on. Many areas that I visit are not designated for protection but are under the jurisdiction of the BLM. These are beautiful lands very worthy of protection for us and future generations.	Under Alternative D (Preferred Alternative) the Green River/Labyrinth would have protections including: 1. A NSO stipulation to the suitable Wild and Scenic River segments along the Green River would be applied. 2. No surface-disturbing activities within the 100-year floodplain of the Green River and associated back waters would be allowed. 3. A NSO stipulation to protect the visual resources along the rims of the Green River would be applied, with an exception noted in Appendix A. This stipulation would apply to a 1-mile setback from these rims (Map 2-62 B/D). The other locations mentioned by the commenter are outside the Planning Area.	376
Individual	As a visitor to Moab and surrounding areas two or three times a year I implore you to not spoil this pristine land that is more precious that any extractions that lie beneath. These beautiful areas should not be spoiled by anything from potash leasing to oil and gas leasing. Tourism is and will be the most beneficial thing to happen to Utah.	Thank you for your interest and comments on the MLP.	383
National Parks Conservation Association	NPCA also supports NSO stipulations within a two mile setback from the rims of the Colorado and Green Rivers as applied in Alternative C and within one-mile of the centerline of Scenic Backways and Byways including Highways 128, 313, 279, and 211, as well as the Needles Overlook, Anticline Overlook, and Lockhart Basin (including Kane Creek Road) as applied in Alternative D.	Alternative D was developed to provide for mineral development while protecting high use recreation and scenic quality; Alternative C emphasizes resource protection over mineral leasing. The BLM recognizes that Alternative C provides more protection for recreation and scenic quality than does Alternative D.	442

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		The intent of the stipulation protecting the rims of the Colorado and Green Rivers is to protect the view of the rivers, both from the rivers themselves and from the rims. The BLM's experience with viewsheds from river level indicates that very little setback is required in order for structures to not be visible from the river. The intent of the stipulation is also to protect the view of the rivers from the rim and not the general view of the landscape beyond the rims. BLM experience indicates that a 1-mile distance is sufficient to reduce visual impacts within the foreground view, especially given the topography of the Planning Area. The exception to the NSO stipulation states: "The Authorized Officer may grant an exception if a viewshed analysis indicates no impairment of the visual resources of the rims from either the rims or from the rivers." This exception could not be achieved if the structure were visible within the 1-mile setback from the rim. The commenter's desire for Alternative C regarding protection of scenic byways and backways is noted. Alternative D provides for mineral leasing and development while protecting resources. Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for scenic byways and backways than does Alternative D.	
Outdoor Alliance	Broaden the proposed "No Surface Occupancy" (NSO) stipulations for developed recreation sites to a 2-mile setback in order to protect the recreation experience and associated viewsheds. It is extremely important that the unique camping experiences at Moab-area campgrounds, such as Superbowl CG near the Indian Creek climbing area, be preserved.	The commenter's preference for Alternative C is noted.	490
Outdoor Alliance	Apply a 1-mile NSO setback from key hiking routes, mountain biking trails, climbing areas, and canyoneering routes. It is well established that potash, oil, and gas exploration and development proximal to valuable human-powered recreation resources can diminish their quality and benefits. Apply a NSO stipulation to all special recreation management areas and related focus areas such as the Indian Creek SRMA and the mountain biking areas around Bar MN. These areas are of regional importance and are worthy of increased protections. Increase protections for both the Green and the Colorado Rivers for water quality and recreation activities in order to protect public water sources and maintain high-quality paddling experiences for tourists and locals.	The commenter's preference for Alternative C is noted.	491

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Public Land Solutions	we have the following requests to protect and further enhance recreation experiences in the MLP planning area that will not materially affecting existing or future mineral lease revenues: • Broaden the proposed "No Surface Occupancy" (NSO) stipulations for developed recreation sites, such as overlooks/viewpoints, campgrounds, and trailheads, to a 2-mile setback (Please see attached list). • Apply a 1-mile NSO setback from key routes, trails, climbing, canyoneering, and filming locations. (Please see specific routes below.) • Apply an NSO stipulation to all "special recreation management areas" and related "focus areas." (Listed below.) • Increase Protection along the Green River for recreation opportunities, water quality, scenic values, and archeological resources by focusing development outside Upper Ten Mile (east of the wash), Labyrinth Canyon and tributaries to the Green River at Red Wash, and Hatch Point. Protect both the Green and the Colorado Rivers for water quality and recreation activities by requiring development companies to apply best management practices throughout the Moab MLP planning area and apply an NSO stipulation to preclude mineral activities within public water reserves, 100-year floodplains and within 660 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs.	The commenter's preference for Alternative C is noted.	517
National Park Service, Southeast Utah Group	Impacts to recreation, p. 4-60: In the paragraph beginning with the word "Managing...," we suggest revising the last sentence to avoid the false implication that mineral development has occurred in the Island of the Sky District of Canyonlands National Park.	***The sentence in Chapter 4 (Section 4.10, Recreation, Impacts from Alternative A) has been changed to read, "Recent trends have shown that mineral development adjacent to the Dead Horse Point and Island in the Sky districts did not precipitate..."***	556
The Wilderness Society	The Preferred Alternative prohibits surface disturbing activities within 0.5 miles of developed recreation site boundaries. This applies to 24,311 acres within the planning area based on BLM's analysis. Given the noise pollution, visual impairment, and increased truck traffic and associated fugitive dust associated with increased oil and gas development, we recommend a 1 mile NSO stipulation from the boundary of developed recreation site boundaries - as proposed under Alternative C - as more appropriate. A 1 mile NSO will help to reduce the impact of development on these developed recreation sites. There are six special recreation management areas (SRMA) within the planning area totaling 511,452 acres. Under the Preferred Alternative all VRM Class II, Hatch Wash Hiking and Backpacking Focus Area and anticline road in the Canyon Rims SRMA are managed as NSO	Alternative D was developed to provide for mineral development while protecting high use recreation resources; Alternative C emphasizes resource protection over mineral leasing. The BLM recognizes that Alternative C provides more protection for recreation resources than does Alternative D. BLM's experience with drilling operations indicates that most potential mineral conflicts would be eliminated by applying a NSO stipulation within 0.5-miles of developed recreation sites.	670

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	while the remainder are managed as Baseline CSU; 11 focus areas in Labyrinth Rims/Gemini Bridges SRMA are managed as NSO while the remainder is managed as base line CSU; 2 focus areas in South Moab SRMA are managed as NSO while the remainder is managed as Baseline CSU; and the Colorado Riverway, Dolores River Canyons and Indian Creek SRMAs are all managed as NSO. This is an unnecessarily convoluted management strategy for areas that have already been identified as areas "where the existing or proposed recreation opportunities and desired recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness…."We propose supporting the designation already bestowed upon these areas by managing all SRMAs as NSO as proposed under Alternative C. See infra for more information and comments on SRMAs.		
The Wilderness Society	Canyon Rims SRMA: in its current form BLM's preferred alternative would allow impacts from oil and gas development – truck traffic, noise and visual impacts – to interfere with recreation and degrade its relevant and important scenic values. Draft MLP at 4-64. To eliminate these impacts and ensure a better recreation experience, BLM should apply NSO stipulations to the entire SRMA. Labyrinth Canyon/Gemini Bridges SRMA: To comply with FLPMA and the SRMA's management objectives, BLM must analyze the MLP's impacts to both the identified relevant and important values and recreation. BLM has not done this. The Draft MLP does not mention the potential impacts to the potential ACEC's relevant and important values. BLM's preferred alternative would allow interference with the recreation management objectives from the noise, traffic and visual impacts of mineral development. Draft MLP at 4-64. Furthermore, in some sections of the SRMA, BLM's preferred alternative would actually roll back protections from that which it established in the Moab RMP, allowing baseline CSU stipulations where NSO was previously required. BLM should adopt Alternative C and apply NSO stipulations to the entire SRMA. South Moab SRMA: To meet the SRMA management objectives, BLM should adopt Alternative C and apply NSO stipulations to the entire SRMA.	The BLM acknowledges that Alternative C virtually eliminates impacts to recreation from mineral development on new leases in the Canyon Rims and Labyrinth SRMAs. Alternative D was developed to provide for mineral development while protecting high use recreation areas; Alternative C emphasizes resource protection over mineral leasing. The MLP/DEIS acknowledges the impacts to recreation in these three SRMAs states: 1) "Applying a NSO stipulation on 46,290 acres of the Canyon Rim SRMA would eliminate impacts related to mineral leasing and development. Applying the Baseline CSU stipulation on the remaining 55,250 acres of this SRMA could reduce some of the noise, traffic, and visual impacts of mineral impacts, but would not eliminate all potential impacts." 2) "Applying a NSO stipulation on 54,255 acres of Focus Areas within the Labyrinth/Gemini Bridges SRMA would eliminate impacts related to mineral leasing and development. Applying the Baseline CSU stipulation on the remaining 221,533 acres of this SRMA could reduce some of the noise, traffic, and visual impacts of mineral impacts, but would not eliminate all potential impacts." 3) "Applying a NSO stipulation on 6,990 acres of Focus Areas within the South Moab SRMA would eliminate impacts related to mineral leasing and development. Applying the Baseline CSU stipulation on the remaining 16,153 acres of this SRMA could reduce some of the noise, traffic, and visual impacts of mineral impacts, but would not eliminate all potential impacts." There are three potential ACECs within the Labyrinth/Gemini Bridges SRMA: 1) Labyrinth Canyon, 2) Upper Courthouse, and 3) White Wash.	682

Organization	Comment	Response	Comment ID
		The relevant and important values of the potential ACECs were protected by other means in the 2008 RMPs and Alternative D expands on these protections.	
Individual	BLM can make it a clear win for outdoor recreation and our public lands with a few important changes, including: · stronger limits on surface impacts near hiking, climbing, and canyoneering locations, as well as rivers, streams, and drinking water resources; and · increased protections for the following popular recreation areas: Upper Ten Mile, Labyrinth Canyon, Red Wash, and Hatch Point.	The commenter's preference for Alternative C is noted.	698
State of Utah	BLM has missed the mark on the qualities of landscape level protections required to insure the outdoor recreation may prosper in the Moab region. Congress is the only entity which has the authority to make the required landscape-level allocation choices in a clean and clear fashion, and is currently gathering information to make a substantive legislative proposal toward that end. The State of Utah recommends the BLM suspend the current effort, and instead work with the outdoor recreation industry, local government, other stakeholders and the state to produce legislation which will resolve these issues in the Moab region.	BLM has worked closely with Federal, State, and local agencies as well as with NGOs, industry representatives, and other interested parties through public scoping, alternative development, and comments on the MLP/DEIS. The Canyon Country District Office has been directed to prepare this MLP/DEIS based on Washington Office (WO) Instruction Memorandum No. 2010-117 (Leasing Reform) and BLM-Utah's Leasing Reform Implementation Plan, under approval of the BLM Director in February 2011. The BLM is directed by the FLPMA to plan for and manage "public lands." As defined by the Act, public lands are those Federally owned lands, and any interest in lands (e.g. Federally owned mineral estate), that are administered by the BLM. Land use plans and planning decisions are the basis for every action the BLM undertakes. Public participation and input are important components of land use planning. Land use plans include the RMPs completed for the Moab and Monticello Field Offices in 2008. The Moab MLP is being developed through the BLM land use planning amendment process because the BLM has determined development of the Moab MLP is likely to result in changes to the plan level decisions in the existing Moab and Monticello RMPs which must be made through the plan amendment process. Should the legislative proposal become law, the BLM will adjust the land use plan accordingly.	725
Individual	Moab's long term economy is dependent on protecting the natural environment for the thousands of world wide visitors that flock there. Protecting its pristine beauty will do more for the economy than the short term gains from the oil and gas companies. Please protect our state treasure as a master plan is developed.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic).	757

Organization	Comment	Response	Comment ID
Individual	Please keep the trails open.	The designation of roads and trails is outside the scope of the MLP.	761
Individual	The natural areas around Moab need to be valued for qualities other than energy extraction. Recreational use of the areas is a sustainable, income producing asset. This plan should do more to prioritize this use of the lands. Potash mining should not be allowed on these lands – it is too destructive for this area. Also, the loopholes allowing exemptions from environmental regulations in this plan should be eliminated.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. Potash leasing is precluded in Alternatives B2 and C. In most cases, exceptions, modifications, waivers provide operators with increased operational flexibility by providing a means to reduce, eliminate, or modify restrictions while still meeting the goals, outcomes, and objectives of the land use plan amendment. More restrictive leasing stipulations are intended to inform the operator regarding the difficulty of meeting resource objectives such as those intended to protect visual resources.	791
Renewable Energy			
Holiday River Expeditions	It is only a matter of time before we as a nation will move towards a renewable energy economy; our state & Moab District in particular are positioned to have vast solar & wind potential instead of continued investment in solely extractive energy projects, we need to leave room for this job growth potential. The longer our land use plans and policies ignore this inevitable energy shift, the further economically behind we will be in the coming years.	The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources. The management alternatives do not include actions for renewable energy because that is outside the scope of the planning document. For information regarding renewable energy in the Moab and Monticello Field Offices, please see their respective Resource Management Plans.	329
Individual	It will be a tragedy when Moab looks like a completely different place. Not only is it important to preserve, but it is also place where we can start on a local level, putting in our efforts to slow down climate change. We can make an impact right here in our own state. The facts of climate change recently, are overwhelming and we need to start taking measures to make a change. We need to consider and take action on renewable resources.	The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources. The management alternatives do not include actions for renewable energy because that is outside the scope of the planning document. For information regarding renewable energy in the Moab and Monticello Field Offices, please see their respective Resource Management Plans.	349, 472, 738, 739, 795
Social and Economic			
Individual	The 'proposed' job creation is not worth the impact on the land.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics)	5

Organization	Comment	Response	Comment ID
		from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic).	
Individual	Oil and gas development is a critical industry for Moab and Grand County. This industry provides hundreds of jobs, both directly and indirectly, with wages that are far above those of other industries in the region. These higher incomes support local businesses, which in turn create more jobs. The industry also generated millions of dollars in revenue for our communities, to pay for such things as fire, police and emergency medical services, infrastructure, community health programs, and K-12 education. The loss of the oil and gas industry, which adoption of the action alternatives in the MLP would result in, would do irreparable economic harm to our area. BLM needs to end the delaying tactic and treat the resource industry with the fairness it deserves, after all they generate wealth and ultimately funds BLM. The plan clearly states that the alternatives do not impact recreational use so why does BLM prefer alternative D which essentially destroys the potential mineral and oil/gas, a trillion dollar hit to a failing economy and bankrupt nation. Will it be left to BLM to determine if new Conditions of Approval/stipulations developed from the new MLP constraints, are a "reasonable" economic hardship to operations on existing leases? Increases litigation costs and time.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic).	66, 68, 228, 233, 246, 266, 269, 271, 278, 280, 291, 294, 431
Individual	Massive projected potential economic losses. The “constraints” imposed on the mineral industry from Alternative D will result in a projected potential loss of $2.15 billion dollars in economic output, local and state revenue, and the loss of 285 jobs over the next 15 years. Implementation of the new mineral constraints would have no projected economic impact to recreation economic output from that identified in the current 2008 RMP (the No Action Alternative). The MLP identifies the overall lack of economic diversity in the MLP area, the low paying jobs that the recreation industry creates, the high unemployment, and low per capita income that results. It points out that mineral development jobs are the highest paying jobs in the region. It also point out the rapidly growing tourism use, use that has grown in spite of the mineral development in the region over the past 30 years. The MLP preferred alternative D would only worsen this situation of creating a one industry economy, and taking away high paying jobs and revenues to local governments.	The commenter is equating the term “likely” in the recreation impact section with the word “potential” in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM’s best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic “benefit” from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process.	166

Organization	Comment	Response	Comment ID
		The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions: – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in	

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		such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash.	
Individual	This MLP needs to provide a benefit/cost analysis. The environmental analysis identifies virtually no quantifiable environmental impacts that would be lessened or removed from implementation of the mineral constraints. Potential environmental positive impacts are qualitative guesses of "maybe" or "could." The only significant impact from implementation of these unnecessary constraints is the tremendous potential losses in economic output from loss of mineral development opportunities. When added together these losses could total $2.15 billion dollars over the life of the plan, with no identified gain in economic output or opportunities in the other resources. The public needs to have a very clear picture of what this MLP process is about, and what the results could be. It would be a different story if there were significant identified gains in environmental quality, or significant gains in economic opportunities from the other resources in the area, but the analysis clearly indicates this is not the case.	Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).*** The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions:	172

Organization	Comment	Response	Comment ID
		– Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies	

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		a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).***	
San Juan County Commission	Table 2-21, p. 2-69 and 2-70: This section of the table shows the projected social and economic impacts of the alternatives. The projected difference in output and labor income from oil, gas and potash development and production over the 15 year life of the RMPs between Alternative A and Alternative D is a loss of $2.15 billion and 1647 fewer jobs. Output and labor income from recreation activities, although significant at $1.2 billion and 1086 jobs in Alternative A is not projected to change in any alternative over the same 15 year period. Implementing new RMPs with more restrictions on mineral exploration and development with the purpose of increasing recreation opportunities and experiences with a resultant significant loss in mineral revenues and no corresponding increase in recreation revenues isn't practical. In the recent past, over 60% of San Juan County's tax revenues have come from centrally assessed properties, primarily oil, gas and mining properties. San Juan County cannot afford to take the projected decrease in revenue expected to result from these revised RMPs.	Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).*** The fiscal impacts of the alternatives in the MLP/DEIS to San Juan County are detailed in Chapter 4 (Section 4.12.4, Fiscal Impacts).	218
Individual	Second, the Preferred Alternative, D, has several unique problems, but most stem from the apparent fact that its development relied far too much on an incredibly biased report put out by Headwaters Economic, a politically biased organization that has its own agenda. This report was listed as one of the supporting documents, and there did not appear to be a counterbalancing report listed. I find it highly inappropriate for a federal agency to make major policy decisions based off of a report generated by a clearly biased quasi-political organization.	The socioeconomic analysis in the MLP does not rely on the Headwaters report. The Headwaters report and Chapter 4 both rely on the same underlying study done by the BLM. This study was a one year comprehensive survey (National Visitation Use Monitoring) consisting of about 2,000 interviews and including data on visitor spending. The visitor spending profiles were then input into IMPLAN models which were used by both Headwaters and BLM professional staff.	222
Individual	The MLP fails to recognize that oil and gas production and potash development are legitimate uses of public lands. These industries employ many procedures and practices that ensure that they do	FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best	235

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	their work responsibly and with minimal impact, and in doing so produce highly valuable resources, which in the case of public lands are national resources. Energy is critical not only to the economy, but to the security of our nation. It is wrong on many levels for the ELM to blithely shut off access to these resources.	meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple-use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources, but would not eliminate or invalidate any existing lease rights.	
Individual	There is little if any consideration of the economic impact of the industries, or the value of the products they produce, or of the extensive and effective environmental protections that are built into the development plans.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The alternatives in the MLP/DEIS incorporate many established environmental practices into the mineral leasing decisions and best management practices. These include emission control measures, procedures for protecting groundwater, mitigating impacts to visual resources, interim reclamation, multiple wells per pad, and colocation of facilities.	237
Individual	It is also wrong for an agency of the United States Government to produce a document intended to guide management of a large area of public land well into the future, which is so obviously biased against one particular user. This MLP will have serious impacts on the local economy and quality of life for local residents, and to take such a slanted, biased approach was inappropriate to say the least.	FLPMA (Section 103(c)) defines "multiple use" as the management of the public lands and their various resource values so that they are utilized in a combination that will best meet the present and future needs of the American people. Accordingly, the BLM is responsible for the complicated task of striking a balance among the many competing uses of the public lands. The multiple use mandate does not require that all uses be allowed on all areas of the public lands. The purpose of the mandate is to require the BLM to evaluate and choose an appropriate balance of resource uses which involves tradeoffs between competing uses. The MLP is a targeted RMP amendment specifically addressing oil/gas and potash leasing and development (see MLP/DEIS Section 1.2, Purpose and Need). The MLP/DEIS analyzes development scenarios for a range of alternatives which apply varying levels of mitigation for potentially impacted resources.	255

Organization	Comment	Response	Comment ID
		Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report.	
Individual	Finally, the MLP appears to give unwarranted priority to the filming industry, over and · above energy development. This makes little sense economically, as the energy industry employs far more local people and supports the local economy in a way that the filming industry simply cannot do.	The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. The imposition of a viewshed analysis is not an onerous requirement, but Chapter 4 (Section 4.8.1, Minerals: Oil and Gas) acknowledges that CSU stipulations can result in "additional costs and delays to mineral operators." The exact cost of this constraint could only be quantified on a site-specific basis. While minerals operations have provided roads for access and abandoned drill pads for staging operations, very few filming operations seek mineral production facilities in the viewsheds that they are filming. Although filming's direct economic input may be limited, it has the effect of increasing tourism through exposure for the area in national and international markets.	258
Individual	Both industries contribute enormously to the local economy. Energy and mining jobs are substantially higher paying than those created by the recreation industry, and make greater overall contributions to the economy in terms of supporting local businesses. They also generate a tremendous amount of revenue for local governments, necessary to fund essential services, schools, and roads. Implementing this MLP with any one of the alternatives would result in a stark decrease in local tax receipts, and a concurrent increase in demand for public services due to mass layoffs. It is no wonder that local counties are asking for an extension to the amendment period.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic). The BLM is not aware of any requests for an extension of the comment period for the MLP/DEIS by local counties.	285
Individual	The BLM needs to take a more balanced approach to evaluating land use, to include incorporation and honest evaluation of economic impacts. Oil and gas, and potash development, are key economic contributors to the region, providing hundreds of jobs and generating income and revenue in the millions. Recreation and filming are not the only industries in the area, and are not even the core ones.	Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient	289

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		to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never	

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		exist, given the inherent uncertainties in the minerals sphere, and especially for potash. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).***	
Individual	It is my belief that ultimately what our tourism here is based on is our wilderness and natural scenery. Virtually all of the activities here (National and state parks, hiking, river running, mountain biking, jeeping, 4-wheeling, etc.) are here because of our scenery. And while people are here to enjoy it, they want a place to stay, a restaurant for dinner, and the "been there, done that" souvenir. That's the basics of our tourist economy. Our scenery is our best resource, and it is not "renewable." Based on the information given at the open house, it accounts for more of everything. If we take care of it- as in keep it wild, remote, quiet, dark, try to keep all the tourists on the trails, etc. - our tourist economy could be perpetuated indefinitely and be a sustainable economy. If we trade out our scenery to resource extraction, we won't be able to get it back. The mineral extraction jobs would be based on the boom and bust cycle of whatever that mineral may be worth, and much of the scenery would be neglected to the point that it may not be that viable of a backup economy. As already implied, a clear description of park, wilderness, and recreational losses is needed….Why are the actual economics of oil and gas extraction upon local communities not analyzed? There is literature on the transient effects of influxes of non-local workers, instability in local communities, increases in crime, etc. This is an effect on the human environment.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic).	5, 310, 358, 362, 430, 789
Individual	The Plan is very weak on economic and technical analysis, technical and economic experts, say from Agapito, should have been utilized for consultation re: real world potash economics. This lack of expertise yields an analysis that is erroneous yet there it is, for example the Plan discusses 'crystallization' in its economic analysis! No one in their right mind who knows anything about it would dream of crystallization as a processing technique in SE	The Moab BLM relied on its own socioeconomic expertise as well as socioeconomic professionals at Booz Allen Hamilton (Chapter 5, List of Preparers). The commenter provides no concrete examples of how another consultant would have reached different conclusions.	397

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	Utah. Questions: Why was this flawed analysis utilized? Why were experts such as Agapito not consulted? Who on the team has direct potash or oil/gas experience other than as a regulator?	Based on the potash RFD along with BLM experts, the higher elevations in the southern portion of the Planning Area could be more conducive to the utilization of crystallization processing. Chapter 4 provides sufficient means to calculate the economic output from lower spending levels which might result from solar evaporation. K2O Utah indicated in an investor article and in a presentation to San Juan County that they were planning on producing potash at a rate of 2 million tons per year utilizing crystallization processing. The potash operation would be located in the Hatch Point area where higher elevations would not be as conducive to solar evaporation methods. This projection is an analysis assumption utilized in Chapter 4. The assumption does not limit the magnitude of potash production or the method of processing. Similarly, as described in the RFD for potash, Reunion Potash Corporation submitted a preliminary Potash Solution Mining Project to the BLM in 2008 involving their 4 preference right leases. The project would consist of a well field with 3 well pads, a plant site for crystallization processing, and an interconnecting access road and pipeline. The well field would result in approximately 50 acres of surface disturbance, the plant site would disturb an additional 50 acres, and the access road and pipeline would contribute some additional surface disturbance. The project would entail about 100,000 tons per year of potash production and if successful the operation could expand to 500,000 tons per year. As stated in the potash RFD, the baseline projections represent approximate activity levels over the next 15 years and are not intended to be thresholds for limiting future activity.	
Individual	CHAPTER 5 CONSULTATION AND COORDINATION The Plan coordinated with all of the other intertwined regulations, such as NEPA, FLPMA, NHPA,AIRFA, NAGPRA, ARPA, various executive orders. The plan had input from NPS, USFWS, EPA, NPS, DOJ, State of Utah et. al. it is a comprehensive list I am sure but I see no inputs from academia or industry. Why were there no non-governmental consultations in the economic analysis?	A non-government economist was utilized for input into the socioeconomic sections of the MLP/DEIS (Chapter 5, List of Preparers). The economic analysis incorporated perspectives and information gained from BLM's public outreach and participation efforts. For socioeconomic analysis, this included input from public scoping and socioeconomic workshops, as described in Chapter 5. The Socioeconomic Baseline Report lists many non-governmental information sources that informed BLM's preparation of that document and by extension the economic impact analysis.	398
Individual	Questions: The BLM economic analysis is devoid of national trade deficits impact, why? The BLM prohibition of resource extraction	Potash production does have an export market and thereby does have a positive effect on the national trade deficit. This	467

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	damages the nation - how does BLM plan to make up the difference? BLM preferred alternative D will only make our trade deficit worse and the people of Grand County will be forever stuck in service sector minimum wage jobs.	effect would be foregone to a greater degree under some alternatives than others, assuming market conditions and corporate investment decisions do in fact bring about new potash development and production. The DEIS has been modified to acknowledge this potential effect. All resource uses will support both minimum wage and higher wage jobs. BLM makes a decision among the management alternatives based on many considerations, not just economic impacts. Each alternative has negative impacts and foregone opportunities. BLM cannot, and does not have the authority, to mitigate or compensate all impacts. ***Text has been added to Chapter 4 (Section 4.12.3, Social and Economic, Summary of Economics by Alternative) as follows: "It should also be noted that potash production has an export market and thereby has a positive effect on the national trade deficit. To the extent that market conditions and corporate investment decisions do in fact bring about new potash development and production, the benefits to the trade deficit would vary based on the amount of production that occurs from the level of development enabled by each alternative. Alternatives B2 and C would forego benefits to the national trade deficit because potash development on Federal mineral estate in the Planning Area would not occur."***	
Individual	High paying resource sector jobs do not suffer the annual winter layoffs the service sector sees each winter - this was also missing from the BLM economic analysis. www.jobs.utah.gov.wi	The employment numbers in the economic impact analyses for all resource uses include a range of high- and low-paying jobs, and represent average jobs per year. Indirect and induced effect jobs for all resource uses include service sector jobs. The Socioeconomic Baseline Report shows that natural resource / mining jobs do have higher average annual wages than service-related and government jobs; agricultural jobs do not. (Table 4-5 and Table 4-6, Socioeconomic Baseline Report). The DEIS has been modified to mention the wage and seasonality aspects of employment generated by oil and potash development and production. ***Text has been added to Chapter 4 (Section 4.12.2, Social and Economic, Methods of Analysis) as follows: "For instance, jobs related to oil or potash development and production (particularly direct effect jobs) are likely be higher-paying than the predominantly service-related jobs associated with recreation or the agricultural jobs associated with grazing. (See the mining, service-related, and agricultural sector average annual wages in Table 4-5 and Table 4-6 of the Socioeconomic Baseline Report.) Similarly, jobs related to oil or potash development and***	468

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		production are more likely to be full-time jobs and also less affected by seasonal layoffs than jobs associated with recreation or grazing."	
Individual	Here is a look from the BLM MLP at wages: "3.11.1 Summary and Update of Socioeconomic Conditions · The average annual wage in Grand County in 2012 was $ 28,772. In San Juan County, the average annual wage in 2012 was $ 32,651. These figures compare to an average annual wage in Utah of $ 41,301. · The highest average wages in Grand County in 2012 were in the Natural Resources and Mining sector at $67,740, followed by Federal Government ($52,580), and State Government ($45,530). *"* from the MLP section Chapter 4 page 101: "As discussed in the recreation section of this chapter, the BLM does not expect a change in recreation visitation across alternatives." If there are no negative impacts to recreation across alternatives then why would BLM restrict potash and oil production costing over $270 million in lost royalties to the BLM and $1.87 BILLION in economic gains to the community over the 15 year life of the plan?	Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash.	469
Western Energy Alliance/American Petroleum Institute	The MLP must be revised to include a comprehensive analysis of the cumulative socio-economic impacts of the proposed leasing and development restrictions. The MLP examines the various leasing restrictions separately and finds that they will suppress economic output by an estimated $2.15 billion dollars over the next 15 years, but this may significantly underestimate the severity of the restrictions. For example, the MLP proposes an array of overlapping timing limitations for rutting, lambing, nesting, and fledging periods; setback requirements from riparian and other areas; noise and visual resource restrictions; and numerous other constraints. It is impossible to determine what areas would be available for surface development, and under what conditions after application of all of these management constraints. In addition, BLM proposes to close access to significant domestic energy resources in the MLP area. These closures and restrictive lease stipulations would have a significant negative impact on capital investment in energy development, job creation, and economic activity in the planning area. To inform the public, and foster informed agency decision-making, BLM should provide maps that overlay by alternative the timing and spatial limitations in combination with withdrawals and other proposed restrictions on oil and natural gas leasing and development, and then fully assess the cumulative economic impact thereof. These limitations include, but are not limited to, wildlife stipulations, ACEC designations, special	BLM recognizes that increased restrictions of minerals activities could negatively impact minerals development, especially under the more restrictive alternatives. Chapter 4 (Section 4.12.3, Economic Impacts) clearly indicates the impacts on employment, labor income and output that might occur under the various alternatives. The development estimates (number of wells, potash production capacity, etc.) under the various alternatives are the result of the cumulative restrictions noted by the commenter, and are reflected in the Chapter 4 economic impact analysis. The wildlife stipulations in the MLP are very similar to those in the 2008 Moab and Monticello RMPs; these stipulations are consistent throughout the BLM in Utah and are also similar to those found in most western states. Stipulations vary only slightly among all four alternatives in the MLP/DEIS. Changes between the MLP and the RMP are minor realignments of big game habitats for consistency with Utah Division of Wildlife Resources habitat delineations. Habitat for Desert bighorn sheep is increased by 5,759 acres (reflecting extensive GPS collar research by UDWR) in the action alternatives. The only identified NSO areas for terrestrial wildlife are found in Alternative A and C. These are limited to prime desert bighorn habitats, with Alternative A (101,900 acres) remaining as	512

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	management designations, Visual Resource Management, and Travel Plan access restrictions. BLM should analyze and disclose the total effect of all of the stipulations and restrictions imposed upon energy development and quantify the amount of oil and natural gas resources that would not be developed in terms of lost royalties, taxes, economic output, and jobs.	identified in the 2008 RMP and Alternative C (107,000 acres) realigned to match UDWR's current desert bighorn habitat delineation. In Alternatives B and D, desert bighorn lambing/rutting areas have CSU stipulations which preclude drilling operations and permanent facilities (on 107,000 acres) but provide for other temporary actions outside of the sensitive lambing and rutting periods, thus facilitating additional flexibility from the stipulations in the 2008 RMP. Prime desert bighorn habitats are in areas where extensive development would be typically problematic due to topography of these areas. Other big game species (deer and elk) have seasonal restrictions. These general areas and types of seasonal restrictions have been in place for many years. Most operators are aware of the need to incorporate these dates into their operational plans and, if appropriate, these dates can sometimes be adjusted. Within the Moab FO, the only overlap of winter range areas with spring fawning or lambing areas is 515 acres west of Highway 191 and just south of La Sal Junction. The remainder of the Moab MLP area would have either only one or no big game seasonal protective measures. The NSO stipulation for the Endangered Colorado River Fish (within the 100-year floodplain of the Colorado, Green, and Dolores Rivers) was developed with USFWS in the 2008 RMP. This stipulation does not change in the current effort. ESA species, including Bald and Golden Eagles, Raptors and Migratory Birds are all afforded some level of Federal protection. These protective measures are required by the USFWS under various laws. The seasonal and spatial restrictions found in the MLP/DEIS for these species have been developed by the USFWS and are consistent throughout the state of Utah. Adherence to these conditions is required to comply with the Endangered Species Act and various laws protecting eagles, raptors, and migratory birds. Currently, much of the known habitats and occupancy for several of ESA species is known, therefore reducing some of the need for surveys to evaluate habitats. ESA species are very rare and the Moab FO has had minimal need to adjust or project timing or locations to accommodate the presence of an individual ESA species. Additionally, surveys for ESA species, Bald and Golden Eagles and Raptors may be required no matter when the activity is planned. All permanent facilities or projects that create long-term habitat alteration would require nesting surveys for ESA species, Bald and Golden Eagles and Raptors during the breeding season prior to project finalization. These surveys are	

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		incorporated into the site-specific project NEPA analysis and if needed, USFWS consultation. These requirements and needs are not new to the MLP and have been in place prior even to the 2008 RMP. The results of these surveys may influence project development. If there is no suitable nesting structure within the USFWS recommended spatial buffers of a project area, surveys may not be needed. Sensitive raptors species are afforded the same timing and spatial requirement as all other raptors, as recommended by the USFWS. For kit fox and prairie dogs, the stipulations are the same as the 2008 RMP. Their habitats typically do not overlap with big game winter range but may coincide with pronghorn fawning and bighorn lambing areas. The kit fox, a sensitive species, does have seasonal restrictions specific to occupied natal dens, which may be waived if surveys indicate kit fox with their pups are not present. Current modeling efforts are in place that can help to refine where the kit fox may occur and often project on-sites can determine the need for surveys. Kit fox are fairly uncommon throughout the Moab FO and finding a natal den is very rare; therefore there has been minimal need to adjust project timing to accommodate the presence of a kit fox with their pups. For prairie dogs there is exception language that, if due to the size of the prairie dog town, there is no reasonable location to develop a lease and avoid colonies, the Authorized Officer would allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. In regards to the timing overlap question (assuming raptor surveys needs have been met), there would be no seasonal wildlife TL stipulations in areas outside of deer and elk winter ranges (29,700 acres) and bighorn lambing/rutting areas (107,000 acres). If a project were in kit fox habitat and/or fawning areas for pronghorn, no activity could be allowed from March 1- July 31 within 85,639 acres. If surveys were performed and indicated no natal kit fox dens were within 200 meters of the project, then the project would be limited only to activities outside of 4/1 to 7/31 to protect pronghorn fawning and migratory bird nesting. In this site-specific situation, 'worst case' would still allow a construction window of 7 months, from 8/1 through 2/28. If raptors had been identified, project location or other mitigation measures would be applied, typically not timing restrictions unless the project or portions of the project created temporary disturbances within the spatial buffer of the raptor nest.	

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		In deer and elk winter range (29,700 acres), there is minimal kit fox habitat and/or fawning areas for pronghorn, so other wildlife timing limitations would not be expected. In deer and elk winter range 'worst case' would still allow a window of 7 months, 4/16 through 11/15. If raptors had been identified, project location or other mitigation measures would be applied, rather than timing restrictions unless the projects were temporary. If the project were temporary and raptors did occur in the area or raptor surreys were determined to be not necessary, the work window might then be limited to 9/1 to 11/15. If a temporary action had been started prior to the onset of the winter season, UDWR will usually allow for some short-term encroachment into the winter season. Activities in desert bighorn lambing/rutting habitat (107,000 acres) are limited to temporary actions through a CSU stipulation. In the "worst case," if raptors occurred in the area or surveys were not performed and the temporary action is determined to impact desert bighorn, work would be allowed from 12/15 to 3/1. Timing limitations for ESA species area are not required unless there is a known individual in the area or surveys are not current and therefore occupancy status is not known. The entire Moab MLP area has been evaluated for both Mexican Spotted Owl (MSO) and Southwestern Willow Flycatcher (SWFL). Within the MLP area, there are approximately 116,300 acres of suitable MSO habitats of which over 70,000 acres are typical surveyed by the BLM and would not need additional project specific surveys. Only 2,800 acres of suitable (but unoccupied) MSO habitats are found in deer winter range; therefore, additional timing limitation requirements would not be expected. These 2,800 acres are routinely surveyed by the BLM. SWFL and Yellow Billed Cuckoo (YBCU) timing stipulations coincide with other timing limitations outside of deer and elk winter range areas. There are only 92 acres of SWFL/YBCU habitats that overlap with winter ranges and these areas are not known to be occupied; therefore, additional SWFL & YBCU timing limitations would not be expected. It should be pointed out that both SWFL and YBCU occupy riparian habitat, which is managed with a NSO stipulation to protect riparian resources. Though these seasonal restrictions can seem cumbersome, upfront work between the BLM and applicants early in the development stage of these projects can simplify survey needs and ensure there is an ample window of time to complete projects or develop project plans, ensuring Federal Acts are not	

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		violated, and impacts to protected and state sensitive species and big game are minimized. Accurate surveys completed at the correct time will help to avoid delays, facilitate project planning, and allow accurate environmental analysis that is less likely to be litigated, thus allowing the project to move forward in a timely fashion. The Moab BLM does recognize that many of the timing limitation stipulations can overlap, possibly creating additional constraints. However, not all habitats that have these seasonal stipulations are located in the same place. As mentioned above, winter ranges for deer and elk overlap very little with pronghorn, deer, and elk spring fawning areas. ESA species such as the SWFL and YBCU are very specific to small, highly vegetated riparian areas that typically are located within areas with watershed stipulations that will coincide with ESA requirements. The MSO does have the largest potential habitat for an ESA species in the Planning Area and may need site-specific surveys but habitat evaluation throughout the Planning Area has been completed and many areas are maintained under protocol survey, therefore reducing the scope of survey needs by outside parties. The MLP/DEIS acknowledges the impacts of wildlife and sensitive species restrictions on mineral development in Chapter 4. It should be noted that the wildlife and special status species restrictions vary only slightly among alternatives; no further analysis of overlapping restrictions is required when these restrictions are substantially the same for all the alternatives. ***Text has been added to Sections 4.8.1 and 4.8.2 concerning the impacts of overlapping timing limitations.*** The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the	

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		majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions in Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. The commenter believes that SITLA parcels adjoining or surrounded by BLM lands with significant leasing restrictions (such as closed or NSO) will render the SITLA parcels "valueless." No evidence from past lease sales is offered to support this argument. One could argue, in fact, that SITLA parcels surrounded by NSO would be more valuable, as those SITLA parcels now provide the only platform from which to access surrounding BLM minerals. Rather than trying to pursue an argument based on pure logic, as reasonable people can reach different conclusions by such application, BLM examined SITLA minerals leases from the recent past in the Planning Area. The approach undertook the following: 1. Based on information posted on SITLA's leasing website (http: //trustlands.utah.gov/business-groups/oil-gas/competitive-mineral-lease-offerings/), BLM identified all competitive lease sales involving SITLA parcels adjoining Wilderness Study Areas (WSAs). These are clearly identified with bold face, all capitalized warnings on the lease offerings notice. Since WSAs are closed to new minerals leasing, SITLA parcels adjoin such lands are the most likely to be "valueless," in the language of the commenter. This process identified twelve lease parcel offerings adjoining WSAs in Grand and San Juan Counties from January 2010, through January 2015. 2. BLM next examined the bonus lease bids received on these twelve parcels, based on information from the same website. Ten parcels were sold, garnering lease bids ranging from a low of $1322 to a high of $64640. Two parcels received no bids. Many factors, of course, affect what an operator is willing to bid for a lease parcel, but the evidence from SITLA's own recent lease history does not support the argument that restrictions on	

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		BLM lands adjoining SITLA parcels renders those SITLA parcels "valueless".	
Utah Mining Association	Economic impacts are significant and should not be ignored. According to the BLM's own analysis, the highest average wages in Grand County and San Juan County in 2012 were in the Natural Resources and Mining sector. The proposed MLP would have significant negative economic impacts on jobs and the economy of the area, and should be withdrawn in its entirety. Alternatively, the BLM should choose Alternative A, the No Action Alternative, and allow the 2008 RMP's, developed with tremendous public input over a seven year period, to work as intended.	Chapter 4 (Section 4.12) of the MLP/DEIS presents potential impacts to social and economic conditions (socioeconomics) from implementing management actions presented in Chapter 2. Existing socioeconomic conditions and trends are summarized in Chapter 3 and detailed in the Socioeconomic Baseline Report. The jobs projected and fiscal impacts under each alternative in the MLP/DEIS are disclosed in Chapter 4 (Section 4.12, Social and Economic).	522
Individual	The socioeconomic impacts of the alternatives will be addressed Analysis later in the document projects a $2.15 billion dollar loss of economic output from mineral development between the No Action alternative and Alternative D, the preferred alternative. Document should be clearly written to limit negative economic impacts by favoring positive growths over other guideline considerations	The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. ***The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions*** – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in	547

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		Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).***	
HECHO	Economic Data: The document has a great deal of economic data on oil and gas and potash resources; however, not much economic data on the recreation and tourism resources in the planning area. We recommend that the final EIS have more economic data for the recreation and tourism resources.	Chapter 3 of the MLP/DEIS needs to be read in conjunction with the Socioeconomic Baseline Report which contains most of the data relating to recreation and tourism used for the analysis in Chapter 4. Chapter 3 (Section 3.11, Social and Economic) states: "The Socioeconomic Baseline Report (BLM 2012) includes the current conditions, trends, and forecast for the social and economic conditions."	633

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Individual	The analysis shows no impact from mineral development to the areas recreation industry economic output or quality, as recreational visitation use has been soaring in this area over the past decade. Yet by virtue of putting the MLP in place, our region will lose a projected $2.15 billion dollars in economic output of the next 15 years.	The commenter is equating the term "likely" in the recreation impact section with the word "potential" in reference to the economic benefits from minerals. In fact, neither is known with certainty, and represents BLM's best available information. The recreation impacts are likely much more reliable than the minerals impacts, since they are based on real historical data. Even extrapolation from historical data to the future is risky, however, as the past is no guarantor of the future. This will be emphasized in the FEIS in the Socioeconomic Section of Chapter 4 (4.12.3). ***Text has been added to clarify this point in Section 4.12.3.*** Most of the economic "benefit" from minerals summarized in Chapter 4 of the DEIS is based largely on the economic conditions that existed at the beginning of the MLP process. The economic analysis for potash in Chapter 4 (Section 4.12.3) is based on the following assumptions: – Potash market prices rebound sufficiently to make extraction and processing economically viable. As of September 2014, the price was $287 per ton. This price is probably not sufficient to allow for economically viable potash development in the Planning Area. For example, estimates of new production in Saskatchewan, with shallower depth wells than would be necessary in the Planning Area, require a market price of over $400 per ton to be economically viable. Further, expansion of existing facilities require a much lower cost, approximately $200 per ton, to be economically viable, resulting in a potential competitive disadvantage for new facilities in the Planning Area (GenSource Potash Corp 2013, Mineweb 2013). – Related to the above, sufficient investment capital would need to be acquired. First year costs under Alternative A, for example, could total over $2.99 billion (see below). This figure represents over 3.5 times the size of total economic output in Grand and San Juan Counties combined in 2012, based on IMPLAN data for the two counties. The uncertainty over future potash prices may make the raising of this much investment capital problematic. Further, the aforementioned figures exclude infrastructure costs such as pipelines, roads, power lines and, importantly, rail access. These costs could increase overall development costs significantly and further complicate the raising of investment capital. – Potash wells and associated fiscal impacts depend on construction and operation of potash production facilities (PPF). As noted above, construction and operation of such facilities may not be economically viable under current market	636

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		conditions for potash. Without the associated PPF, the drilling and completion of potash development wells is unlikely to occur. Events since the publication of the DEIS suggest that the potential economic benefits from mineral development may be much less than described in the DEIS. For example, the majority of the potash production projection in the RFD and the associated economic benefits, cited by the commenter, may prove to be unattainable based on the analysis assumptions Chapter 4 (Section 4.12.3, Economic Impacts). Additionally, the price of oil has dropped by almost two-thirds since the DEIS analysis was done, leading to a much reduced flow of minerals royalties to government, and decreasing the level of ongoing minerals development. This potential decrease in minerals royalties (as well as the potential impact from an increase in such) is discussed in Chapter 4 of the DEIS, section 4.12.4, pp 4-107). Finally, the commenter's use of the term "loss" implies a reduction from something that currently exists. The potential economic benefits cited do not currently exist, and may never exist, given the inherent uncertainties in the minerals sphere, and especially for potash. ***Table 2-21 (Comparative Summary of Impacts) has been changed to clarify the caveats and assumptions underlying the economic analysis in Chapter 4 (Social and Economic).***	
State of Utah School and Institutional Trust Lands Administration	This drastic reduction in the number of acres available for oil and gas leasing and development within the boundaries of the MLP will have a direct and significant impact on the 124,295 acres of trust lands within the area. Since the development of an oil and gas play requires the commitment of significant acreage, the inability of exploration and production companies to lease and drill on federal lands adjacent to trust land sections in the MLP effectively renders the trust land parcels valueless. Although the MLP does not specifically examine the impact of Alternative D on trust lands, it notes that under Alternative A, oil and gas development would generate $435.1 million dollars (in present value) over the 15-year life of the plan, while Alternative D would only generate $329.5 million dollars over the life of the plan, resulting in a loss of $123 .6 million dollars. See MLP Chapter 4-Social and Economic, Page 80, Line 5 and Page 81, Line 13. Furthermore, this reduction in revenue must be considered a conservative estimate in light of the information provided by operators regarding the feasibility of accessing the minerals on lands with NSO stipulations.	The commenter believes that SITLA parcels adjoining or surrounded by BLM lands with significant leasing restrictions (such as closed or NSO) will render the SITLA parcels "valueless." No evidence from past lease sales is offered to support this argument. One could argue, in fact, that SITLA parcels surrounded by NSO would be more valuable, as those SITLA parcels now provide the only platform from which to access surrounding BLM minerals. Rather than trying to pursue an argument based on pure logic, as reasonable people can reach different conclusions by such application, BLM examined SITLA minerals leases from the recent past in the Planning Area. The approach undertook the following: 1. Based on information posted on SITLA's leasing website (http: //trustlands.utah.gov/business-groups/oil-gas/competitive-mineral-lease-offerings/), BLM identified all competitive lease sales involving SITLA parcels adjoining Wilderness Study Areas (WSAs). These are clearly identified with bold face, all capitalized warnings on the lease offerings notice. Since WSAs are closed to new minerals leasing, SITLA parcels adjoin such lands are the most likely to be "valueless," in the language of	706

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		the commenter. This process identified twelve lease parcel offerings adjoining WSAs in Grand and San Juan Counties from January 2010, through January 2015. 2. BLM next examined the bonus lease bids received on these twelve parcels, based on information from the same website. Ten parcels were sold, garnering lease bids ranging from a low of $1322 to a high of $64640. Two parcels received no bids. Many factors, of course, affect what an operator is willing to bid for a lease parcel, but the evidence from SITLA's own recent lease history does not support the argument that restrictions on BLM lands adjoining SITLA parcels renders those SITLA parcels "valueless".	
Soil Resources			
National Park Service, Southeast Utah Group	1) Table 2-11, Best Management Practices (BMPs) to reduce fugitive dust emissions: In Table 2-1, last row on p. 2-39, we note and appreciate that BMPs to reduce fugitive dust emissions must be applied throughout the entire Planning Area in Alternatives B, C, and D. This is appropriate, given results of the air quality analysis indicating the significance of dust (PM10) as a major pollutant of concern relative to visibility impacts in Canyonlands and Arches NP. However, the entry under Alternative B in the first row at the top of p. 2-40 indicates that BMPs only are to be applied to soils with high to moderate wind erosion ratings shown on Map 2-31-8/C/D. This entry and Map 2-31-B/C/D both contradict information in the last row at the bottom of p. 2-39, and we recommend that the contradictory information at the top of p. 2-40 and Map 2-31-8/C/D be removed from the document to avoid confusion. 2) Section 3.12.1, Wind erodible soils, wind erosion, and fugitive dust emissions: In Table 3-19 (also BLM 2008a,b), wind-erodible soils are defined by BLM according to wind erodibility groups developed by the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) and attributed to soils described in NRCS soil survey products. Several surface soil properties are used by NRCS to characterize soil erodibility by wind, including texture, organic matter content, carbonate content, rock fragment content, and mineralogy. Following this approach, sandy and sandy loam soils generally are described as being most susceptible to wind erosion, whereas fine-textured silts and clays are described as being least susceptible (assuming low rock fragment content). However, all soils with low organic matter content (e.g., desert soils) are susceptible to wind erosion when dry, disturbed, and subjected Jo high winds (Blanco and Lal 2008). When dry and disturbed, fine-textured soils (despite being considered least susceptible to wind erosion according to NRCS	***1) The text in Chapter 2 (Table 2-11) has been clarified to indicate the BMPs apply across the Planning Area and the map is provided to show those soils that are most vulnerable to fugitive dust emissions.*** ***2) The text has been added to Chapter 3 (Section 3.12.1, Wind Erodible Soils) as suggested.***	550

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	wind erodibility groups) are of great concern with respect to dust emissions because fine particles have the greatest capacity for being suspended in the atmosphere and transported long distances downwind - with resulting impacts on air quality, scenic views, human health, and other resources and values (Blanco and Lal 2008). We recommend that this information and the following excerpt be incorporated in Section 3.12.1 to strengthen dust-related content and to provide further justification for the application of dust mitigation BMPs across the entire planning area in Alternatives B, C, and D: "Soil erodibility depends on the size distribution of soil particles and their ability to form stable macro- and micro-aggregates. Soil particles coalesce and form aggregates in interaction with soil organic matter. Sandy loam and sandy soils with low organic matter content develop aggregates with weak bonds and are thus the most erodible [by wind]. Fine textured soils, in turn, often develop stable and strong aggregates resistant to wind erosion. Any soil that is dry and pulverized is, however, susceptible to erosion. Under these conditions, particle removal [by wind] is the order of: clay>silt>fine sand, decreasing with increase in particle size" (Blanco and Lal 2008: 61, emphasis added).		
Special Designations: Areas of Critical Environmental Concern			
The Wilderness Society	Behind the Rocks, Highway 279/Shafer Basin/Long Canyon, Indian Creek, and Shay Canyon ACECs are each managed to protect the relevant and importance value of scenery. While NSO stipulations go a long way towards ensuring the identified resource values are protected, loosely and ill-defined modification and waiver criteria leave the door open for surface disturbance that would harm ACEC values. Further, BLM acknowledges that its preferred alternative – applying NSO stipulations to the ACEC – could still result in impacts to these areas' scenery from horizontal drilling that occurs outside the ACEC to access the federal mineral resources within. Draft MLP at 4-143. To comply with FLPMA's mandate to protect this value, BLM should adopt Alternative C and close these ACECs to all mineral leasing.	Alternative D was developed to provide for mineral development while protecting sensitive resources; Alternative C emphasizes resource protection over mineral leasing. The BLM recognizes that Alternative C provides more protection for sensitive resources than does Alternative D. The Shafer portion of the Highway 279/Shafer Basin/Long Canyon ACEC and the Indian Creek ACEC are managed as closed in Alternative D.	681
Special Designations: National Historic Trails and Backways and Byways			
Old Spanish Trail Association	Map 2-46-C depicts the OSNHT Corridor two (2) miles on either side of the designated trail centerline on lands within the Planning Area. The OSNHT alignment was designated based on historical documentation only, with the location of physical segments ("retracement routes") to be determined as trail development plans were implemented. Until specific management objectives are developed for the OSNHT it is imperative that a reasonable corridor	Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the	76

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	be protected to maintain the integrity of the trail within the "open-air recreation" [historical sightseeing] purpose of designation.	OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	

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Old Spanish Trail Association	While the two (2) mile corridor on either side of alignment is a good faith effort to preserve Trail integrity as an interim management measure (pending trail management plans), we would urge also defining a corridor based on viewshed from the centerline alignment. A viewshed definition would allow assessment of effects of proposed actions on navigation landmarks (which may be some considerable distance from the trail), landforms, vegetation, water sources and cultural features (for example campsites [parajes], rancherias, treadway [jornadas] and pastures for recruitment of stock) associated with the period of significance (1829-1848) and theme of commerce and trade on which Congress determined the Trail qualified as significant in American history for designation as an NHT. Farmington BLM has created a viewshed map of the OSNHT which can serve as a model. Saint George Field Office and the Beaver Dam Wash National Conservation Area have also acknowledged a protective trail corridor and viewshed in its recent Draft RMP alternatives.	A Lease Notice has been applied to a 2-mile corridor along the entire OSNHT. This Lease Notice would allow the BLM to adjust to new information as it becomes available regarding the viewshed along the OSNHT within the 4-mile corridor. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment.	77
Old Spanish Trail Association	The Map 2-46-C should also depict the corridor as continuous along the edges and through the planning area and beyond. Map 3-51 which is used to describe the existing situation of the trail alignments is likewise flawed as an assessment tool because it depicts a continuous Special Designation as if it can be managed as "segments." Segmenting the description of the trail is not only misleading because of legal responsibilities for administration of trails under NTSA but also results in a flawed consideration of "cumulative impacts."	The BLM acknowledges that the OSNHT extends from Santa Fe to Los Angeles. However, this planning effort is focused only on mineral leasing decisions within the Planning Area. Thus, the effect of mineral leasing decisions on the OSNHT within the Planning Area is the only consideration. The MLP is not an OSNHT planning effort, nor is it an attempt to manage the trail itself.	78
Old Spanish Trail Association	Alternative C (page 2-45) proposes: Apply an NSO stipulation along the Congressionally Designated OSNHT (28.8 miles). The NSO would apply to a 2-mile width on both sides of the OSNHT (71,439 acres, Map 2-46-C). OSTA supports the application of alternative C for the OSNHT Special Designation. The preferred alternative D would not be consistent with protection of the trail resource under the NTSA.	A Lease Notice has been added to Alternative D that would apply to a 4-mile corridor along the OSNHT. The Lease Notice informs the operator that lands within the lease are crossed by the OSNHT and that modifications to Surface Use Plans of Operations may be required in order to protect the historic integrity of the trail.	79
Old Spanish Trail Association	The Potash Leasing Alternatives do propose a "viewshed" approach. The impacts of the oil and gas leasing proposal can be generally understood by reference to map 2-46-C depicting a two mile corridor on either side of the designated NHT centerline, but not so with the Potash Leasing activity (see page 2-73 for Potash Alternatives for the OSNHT which are not depicted on a map). We have created a map (attachment 2) showing a continuous four (4) mile OSNHT corridor overlaid on Map 2-15-D, the agency "preferred alternative" for oil and gas leasing stipulations. We urge adoption of	The BLM acknowledges that Alternative C provides greater protection for the OSNHT than Alternative D.	80

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	Potash Leasing Alternative C for the OSNHT Special Designation (page 2-73): Old Spanish National Historic Trail: Under Alternative C, applying an NSO stipulation within a 2-mile width on both sides along the entire OSNHT would protect the scenic and historic significance of the trail to a greater degree than Alternatives A and B. This would extend a NSO to about 3000 acres of the "Upper Ten Mile" (Map 2-8 B1/D) Potash Preference Lease area.		
Old Spanish Trail Association	Affected Environment and the OSNHT. The affected environment discussion on page 3-96 betrays a misunderstanding of the purpose of the designation of the OSNHT as a NHT: In general, the OSNHT within the Planning Area is visible only in some locations. On public lands, only one segment of trail trace (2.46 miles) is resource condition Category II (location verified and evident with minor alteration). The trace in this location is intact from the period of significance. Much of the remaining portion of the OSNHT within the Planning Area has little or no identified on the ground evidence and very little recreational value. In most places any traces have been obscured by bladed roads. Non-historic features besides the roads include a transmission line and post and wire fences. There are no resource condition Category I segments (location verified, evident, and unaltered) along these 43.2 miles within the Planning Area. Recreational use on the OSNHT within the Planning Area is low. The majority of the OSNHT mileage within the Planning Area has low scenic values. The statements that "[m]uch of the remaining portion of the OSNHT within the Planning Area has little or no identified on the ground evidence and very little recreational value" and "[t]he majority of the OSNHT mileage within the Planning Area has low scenic values" contradict the purpose of the law designating the trail for "open-air recreation" and reflect an unsupported opinion that the trail has "low scenic value" that is inappropriate for an EIS. The trail corridor should be evaluated under the law for its ability to provide "an opportunity to vicariously share the experience of the historic users of the trail" [16 USC 1251] with the presumption that the continuous trail will be developed for "open-air recreation" [16 USC 1241]. The analysis of impacts of the proposed action must be premised on this trail management responsibility of the BLM. The passage of the trail corridor in the planning area would appear by any definition to be highly scenic and iconic of the canyon country of the Colorado Plateau.	***Chapter 3 has been amended to more fully explain the OSNHT resources within the Planning Area including the potential trail experiences and opportunities as well as the specific high potential sites and segments.***	81

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Old Spanish Trail Association	Pages 4-145 to 4-146 consider environmental consequences of approval of the action on the OSNHT by alternative. The assumptions stated (page 4-145) are: In all alternatives, the Old Spanish National Historic Trail (OSNHT) would be managed to safeguard the nature and purposes of the trail. This would minimize adverse impacts to the resources, qualities, values, and associated settings, and the primary use or uses of the trail. In all alternatives, proposed management would not substantially interfere with or be incompatible with the nature and purposes of the OSNHT. The assumptions do not hold for the alternatives because they are premised on a mistaken premise of the nature and purpose of NHT designation. The statement mentioned in section 3 that the trail does not have "recreation value" betrays this difference in the premises. The "assumptions" would only hold if the trail purpose is consistent with law 'as a continuous "open air recreation" [historic sightseeing] trail developed, managed and maintained (and rehabilitated where feasible) within a trail historic landscape which promotes the "opportunity to vicariously share" historic trail experience.' The assumptions might be met if the trail was to be managed as an "historic property" under the National Historic Preservation Act, but they are not met when applied to the purposes of the National Trails System Act under which the route was designated.	***Chapter 3 has been amended to more fully explain the OSNHT resources within the Planning Area including the potential trail experiences and opportunities as well as the specific high potential sites and segments.***	83
Old Spanish Trail Association	The impact common to all alternatives is listed as: Applying an NSO stipulation along the U.S. Highway 191 utility corridor would reduce the level of surface disturbance, reduce possible changes to scenic elements of the landscape, and preserve scenic and historic settings along the OSNHT where it follows the highway. Under the premise that the Trail is to be administered under the NTSA this statement should be altered to: Applying an NSO stipulation along the four-mile wide [strikethrough (along the U.S. Highway 191 utility)] corridor would reduce the level of surface disturbance, reduce possible changes to scenic elements of the landscape, and preserve scenic and historic settings along the OSNHT [strikethrough (where it follows the highway)].	In Chapter 4 under Impacts Common to All Alternatives it is stated, "Applying an NSO stipulation along the U.S. Highway 191 utility corridor would reduce the level of surface disturbance, reduce possible changes to scenic elements of the landscape, and preserve scenic and historic settings along the OSNHT where it follows the highway." This statement refers to an NSO stipulation applied specifically to the highway corridor. The stipulation indirectly protects the values of the OSNHT. Therefore, the reference to the U.S. Highway 191 utility corridor cannot be deleted.	84
Old Spanish Trail Association	Environmental consequences from Alternative B are stated (page 4-145) as: "Applying a CSU stipulation along the OSNHT could help to protect the scenic, natural, and historic significance of the trail in these	The definition of resource condition Category II has been augmented in Chapter 3. In addition, a Lease Notice has been applied to the entire OSNHT in Alternative D and CSU	85

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	areas. The CSU stipulation would require a visual assessment to protect the integrity of viewsheds along a 2 mile width on both sides of the OSNHT where the where the resource condition is Category II (22,181 acres). This would provide more protection for the integrity of the viewsheds from the intact portions of the OSNHT as compared to Alternative A. The viewsheds in portions of the OSNHT that are not resource condition Category II could be adversely impacted by mineral development. The physical evidence of the trail trace itself would be protected through compliance with the NHPA." This statement reinforces the assertion above regarding compliance with NTSA. This stipulation might address “adverse effects” under the NHPA but does not address responsibilities to protect trail resources under NTSA. No definition of the “Category II” classification in the glossary, or elsewhere in the document is provided so it is impossible to independently determine if the conclusion can be supported.	stipulations have been imposed around high potential sites and segments. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: “The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary.”*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	

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Old Spanish Trail Association	Alternative C is states: "Applying an NSO stipulation along the Congressionally designated OSNHT, would preserve the historic integrity and natural condition of the trail in its entirety, including the viewshed. When compared to Alternatives A and B, the area protected would be greater. The NSO would apply to a 2-mile width on both sides of the entire OSNHT (71,439 acres)." Again as indicated above, Alternative C would best meet the spirit and intent of designation of the OSNHT and if incorporated in the agency preferred alternative (D) would appear to satisfy agency obligations to protect designated trail resources.	The BLM recognizes that Alternative C provides greater protection for the OSNHT than Alternative D. Alternative D has been modified. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.***	86
Old Spanish Trail Association	The statement of Alternative D (page 1-146) would allow approval of a potash processing area within two-miles of the trail centerline and therefore, unless the facility would not be visible within the trail viewshed would be inconsistent with OSNHT protection responsibilities under NTSA.	A potash processing facility area (PPFA) is located adjacent to the northern side of the Blue Hills segment of the OSNHT. However, a high voltage transmission line lies between the trail and the PPFA and therefore the view to the north side of the trail is already highly compromised. While the Lease Notice for the OSNHT applies to the PPFA, the CSU stipulation regarding	87

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		visuals has been changed to only apply to the south side of the OSNHT.	
Old Spanish Trail Association	Cumulative impacts on the OSNHT are considered on page 4-238-239...This cumulative impact assessment mis-applies BLMs responsibilities under the NTSA. Under the No action alternative the BLM has responsibilities to protect the Old Spanish National Historical Trail as a component of the NTSA and as included in the BLMs National Landscape Conservation System. Protocols should have already been developed to protect trail resources in an interim management environment pending the completion of the Comprehensive Management Plan and individual Historic Trail Activity Plans.	The Comprehensive Management Plan for the OSNHT has not been completed nor have any Historic Trail Activity Plans been completed within the BLM Canyon Country District. In the cumulative impact section of Chapter 4 (Section 4.21.3) it states that Alternative A provides no specific mitigation for protecting the trail and could result in contributing the most to the cumulative impacts to the OSNHT. In Chapter 2 (2-12) for Alternative A it is stated that the BLM would comply with the Comprehensive Management Plan; however, this plan has not been developed. Therefore, the statement in the cumulative impact section concerning Alternative A is correct.	88
Old Spanish Trail Association	Impacts ancillary to approval of this action are inadequately addressed: roadways, transmission lines and developments and disturbances within the trail management corridor should be reviewed to fall within existing disturbances and if approved they should be required to be reclaimed to pre-lease condition unless determined to be beneficial in NHT management and use.	Ancillary actions in relation to the OSNHT would be considered for site-specific mineral proposals. These actions would be subject to the Lease Notice and CSU stipulations discussed in Alternative D. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the***	89

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		current setting of the trail based on a visual assessment would be applied within 2-miles of these segments. ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
Old Spanish Trail Association	Trail Activity Plan. A treatment measure should be added to the agency preferred alternative which would commit to preparing an OSNHT-Trail Activity Plan.	The MLP pertains only to mineral leasing decisions and is not intended as a means for developing an activity level plan for the OSNHT. An OSNHT - Trail Activity Plan is an agency responsibility that would be undertaken following the completion of the Comprehensive Management Plan.	90
Individual	Map 2-46-C depicts the OSNHT Corridor two (2) miles on either side of the designated trail centerline on lands within the Planning Area. The OSNHT alignment was designated based on historical documentation only, with the location of physical segments ("retracement routes") to be determined as trail development plans were implemented. Until specific management objectives are developed for the OSNHT it is imperative that a reasonable corridor be protected to maintain the integrity of the trail within the "open-air recreation" [historical sightseeing] purpose of designation.	Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."***	407

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		Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites. ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
Individual	While the two (2) mile corridor on either side of alignment is a good faith effort to preserve Trail integrity as an interim management measure (pending trail management plans), we would urge also defining a corridor based on viewshed from the centerline alignment. A viewshed definition would allow assessment of effects of proposed actions on navigation landmarks (which may be some considerable distance from the trail), landforms, vegetation, water sources and cultural features (for example campsites [parajes], rancherias, treadway [jornadas] and pastures for recruitment of stock) associated with the period of significance (1829-1848) and theme of commerce and trade on which Congress determined the Trail qualified as significant in American history for designation as an NHT. Farmington BLM has created a viewshed map of the OSNHT which can serve as a model. Saint George Field Office and the Beaver Dam Wash National Conservation Area have also acknowledged a protective trail corridor and viewshed in its recent Draft RMP alternatives.	A Lease Notice has been applied to a 2-mile corridor along the entire OSNHT. This Lease Notice would allow the BLM to adjust to new information as it becomes available regarding the viewshed along the OSNHT within the 4-mile corridor. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment.	408

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Individual	The Map 2-46-C should also depict the corridor as continuous along the edges and through the planning area and beyond. Map 3-51 which is used to describe the existing situation of the trail alignments is likewise flawed as an assessment tool because it depicts a continuous Special Designation as if it can be managed as "segments." Segmenting the description of the trail is not only misleading because of legal responsibilities for administration of trails under NTSA but also results in a flawed consideration of "cumulative impacts."	The BLM acknowledges that the OSNHT extends from Santa Fe to Los Angeles. However, this planning effort is focused only on mineral leasing decisions within the Planning Area. Thus, the effect of mineral leasing decisions on the OSNHT within the Planning Area is the only consideration. The MLP is not an OSNHT planning effort, nor is it an attempt to manage the trail itself.	409
Individual	"Alternative C (page 2-45) proposes: Apply an NSO stipulation along the Congressionally Designated OSNHT (28.8 miles). The NSO would apply to a 2-mile width on both sides of the OSNHT (71,439 acres, Map 2-46-C). OSTA supports the application of alternative C for the OSNHT Special Designation. The preferred alternative D would not be consistent with protection of the trail resource under the NTSA."	A Lease Notice has been added to Alternative D that would apply to a 4-mile corridor along the OSNHT. The Lease Notice informs the operator that lands within the lease are crossed by the OSNHT and that modifications to Surface Use Plans of Operations may be required in order to protect the historic integrity of the trail.	410
Individual	"The Potash Leasing Alternatives do propose a "viewshed" approach. The impacts of the oil and gas leasing proposal can be generally understood by reference to map 2-46-C depicting a two mile corridor on either side of the designated NHT centerline, but not so with the Potash Leasing activity (see page 2-73 for Potash Alternatives for the OSNHT which are not depicted on a map). We have created a map (attachment 2) showing a continuous four (4) mile OSNHT corridor overlaid on Map 2-15-D, the agency "preferred alternative" for oil and gas leasing stipulations. We urge adoption of Potash Leasing Alternative C for the OSNHT Special Designation (page 2-73): Old Spanish National Historic Trail: Under Alternative C, applying an NSO stipulation within a 2-mile width on both sides along the entire OSNHT would protect the scenic and historic significance of the trail to a greater degree than Alternatives A and B. This would extend a NSO to about 3000 acres of the "Upper Ten Mile" (Map 2-8 B1/D) Potash Preference Lease area."	The BLM acknowledges that Alternative C provides greater protection for the OSNHT than Alternative D.	411
Individual	"Affected Environment and the OSNHT. The affected environment discussion on page 3-96 betrays a misunderstanding of the purpose of the designation of the OSNHT as a NHT: In general, the OSNHT within the Planning Area is visible only in some locations. On public lands, only one segment of trail trace (2.46 miles) is resource condition Category II (location verified and evident with minor alteration). The trace in this location is intact from the period of significance. Much of the remaining portion of the OSNHT within the Planning Area has little or no identified on the ground evidence and very little recreational value. In most places	***Chapter 3 has been amended to more fully explain the OSNHT resources within the Planning Area including the potential trail experiences and opportunities as well as the specific high potential sites and segments.***	412

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	any traces have been obscured by bladed roads. Non-historic features besides the roads include a transmission line and post and wire fences. There are no resource condition Category I segments (location verified, evident, and unaltered) along these 43.2 miles within the Planning Area. Recreational use on the OSNHT within the Planning Area is low. The majority of the OSNHT mileage within the Planning Area has low scenic values. The statements that "[m]uch of the remaining portion of the OSNHT within the Planning Area has little or no identified on the ground evidence and very little recreational value" and "[t]he majority of the OSNHT mileage within the Planning Area has low scenic values" contradict the purpose of the law designating the trail for "open-air recreation" and reflect an unsupported opinion that the trail has "low scenic value" that is inappropriate for an EIS. The trail corridor should be evaluated under the law for its ability to provide "an opportunity to vicariously share the experience of the historic users of the trail" [16 USC 1251] with the presumption that the continuous trail will be developed for "open-air recreation" [16 USC 1241]. The analysis of impacts of the proposed action must be premised on this trail management responsibility of the BLM. The passage of the trail corridor in the planning area would appear by any definition to be highly scenic and iconic of the canyon country of the Colorado Plateau."		
Individual	"Pages 4-145 to 4-146 consider environmental consequences of approval of the action on the OSNHT by alternative. The assumptions stated (page 4-145) are: In all alternatives, the Old Spanish National Historic Trail (OSNHT) would be managed to safeguard the nature and purposes of the trail. This would minimize adverse impacts to the resources, qualities, values, and associated settings, and the primary use or uses of the trail. In all alternatives, proposed management would not substantially interfere with or be incompatible with the nature and purposes of the OSNHT. The assumptions do not hold for the alternatives because they are premised on a mistaken premise of the nature and purpose of NHT designation. The statement mentioned in section 3 that the trail does not have "recreation value" betrays this difference in the premises. The "assumptions" would only hold if the trail purpose is consistent with law 'as a continuous "open air recreation" [historic sightseeing] trail developed, managed and maintained (and rehabilitated where feasible) within a trail historic landscape which promotes the "opportunity to vicariously share" historic trail experience.' The assumptions might be met if the trail was to be managed as an "historic property" under the National Historic	***Chapter 3 has been amended to more fully explain the OSNHT resources within the Planning Area including the potential trail experiences and opportunities as well as the specific high potential sites and segments.***	414

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	Preservation Act, but they are not met when applied to the purposes of the National Trails System Act under which the route was designated."		
Individual	"The impact common to all alternatives is listed as: Applying an NSO stipulation along the U.S. Highway 191 utility corridor would reduce the level of surface disturbance, reduce possible changes to scenic elements of the landscape, and preserve scenic and historic settings along the OSNHT where it follows the highway. Under the premise that the Trail is to be administered under the NTSA this statement should be altered to: Applying an NSO stipulation along the four-mile wide [strikethrough (along the U.S. Highway 191 utility)] corridor would reduce the level of surface disturbance, reduce possible changes to scenic elements of the landscape, and preserve scenic and historic settings along the OSNHT [strikethrough (where it follows the highway)]."	In Chapter 4 under Impacts Common to All Alternatives, it is stated: ”Applying an NSO stipulation along the U.S. Highway 191 utility corridor would reduce the level of surface disturbance, reduce possible changes to scenic elements of the landscape, and preserve scenic and historic settings along the OSNHT where it follows the highway.” This statement refers to an NSO stipulation applied specifically to the highway corridor. The stipulation indirectly protects the values of the OSNHT. Therefore, the reference to the U.S. Highway 191 utility corridor cannot be deleted.	415
Individual	"Environmental consequences from Alternative B are stated (page 4-145) as: ""Applying a CSU stipulation along the OSNHT could help to protect the scenic, natural, and historic significance of the trail in these areas. The CSU stipulation would require a visual assessment to protect the integrity of viewsheds along a 2 mile width on both sides of the OSNHT where the where the resource condition is Category II (22,181 acres). This would provide more protection for the integrity of the viewsheds from the intact portions of the OSNHT as compared to Alternative A. The viewsheds in portions of the OSNHT that are not resource condition Category II could be adversely impacted by mineral development. The physical evidence of the trail trace itself would be protected through compliance with the NHPA."" This statement reinforces the assertion above regarding compliance with NTSA. This stipulation might address “adverse effects” under the NHPA but does not address responsibilities to protect trail resources under NTSA. No definition of the “Category II” classification in the glossary, or elsewhere in the document is provided so it is impossible to independently determine if the conclusion can be supported."	The definition of resource condition Category II has been augmented in Chapter 3. In addition, a Lease Notice has been applied to the entire OSNHT in Alternative D and CSU stipulations have been imposed around high potential sites and segments. Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan, a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: “The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary.”***	416

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		Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of these sites. ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the visual integrity of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
Individual	"Alternative C is states: “Applying an NSO stipulation along the Congressionally designated OSNHT, would preserve the historic integrity and natural condition of the trail in its entirety, including the viewshed. When compared to Alternatives A and B, the area protected would be greater. The NSO would apply to a 2-mile width on both sides of the entire OSNHT (71,439 acres).” Again as indicated above, Alternative C would best meet the spirit and intent of designation of the OSNHT and if incorporated in the agency preferred alternative (D) would appear to satisfy agency obligations to protect designated trail resources."	The BLM recognizes that Alternative C provides greater protection for the OSNHT than Alternative D. Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan, a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: “The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish***	417

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		Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary." ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the visual integrity of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
Individual	The statement of Alternative D (page 1-146) would allow approval of a potash processing area within two miles of the trail centerline and therefore, unless the facility would not be visible within the trail viewshed would be inconsistent with OSNHT protection responsibilities under NTSA.	A potash processing facility area (PPFA) is located adjacent to the northern side of the Blue Hills segment of the OSNHT. However, a high voltage transmission line lies between the trail and the PPFA and therefore the view to the north side to the trail is already highly compromised. While the Lease Notice for the OSNHT applies to the PPFA, the CSU stipulation regarding visuals has been changed to only apply to the south side of the OSNHT.	418
Individual	Cumulative impacts on the OSNHT are considered on page 4-238-239...This cumulative impact assessment mis-applies BLMs responsibilities under the NTSA. Under the No action alternative	The Comprehensive Management Plan for the OSNHT has not been completed nor have any Historic Trail Activity Plans been completed within the BLM Canyon Country District.	419

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	the BLM has responsibilities to protect the Old Spanish National Historical Trail as a component of the NTSA and as included in the BLMs National Landscape Conservation System. Protocols should have already been developed to protect trail resources in an interim management environment pending the completion of the Comprehensive Management Plan and individual Historic Trail Activity Plans.	In the cumulative impact section of Chapter 4 (4.21.3) it states that Alternative A provides no specific mitigation for protecting the trail and could result in contributing the most to the cumulative impacts to the OSNHT. In Chapter 2 (2-12) for Alternative A it is stated that the BLM would comply with the Comprehensive Management Plan; however, this plan has not been developed. Therefore, the statement in the cumulative impact section concerning Alternative A is correct.	
Individual	Impacts ancillary to approval of this action are inadequately addressed: roadways, transmission lines and developments and disturbances within the trail management corridor should be reviewed to fall within existing disturbances and if approved they should be required to be reclaimed to pre-lease condition unless determined to be beneficial in NHT management and use.	Ancillary actions in relation to the OSNHT would be considered for site-specific mineral proposals. These actions would be subject to the Lease Notice and CSU stipulations. Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan, a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a***	420

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		CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of these segments. ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the visual integrity of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
Individual	Trail Activity Plan. A treatment measure should be added to the agency preferred alternative which would commit to preparing an OSNHT-Trail Activity Plan.	The MLP pertains only to mineral leasing decisions and is not intended as a means for developing an activity level plan for the OSNHT. An OSNHT Trail Activity Plan is an agency responsibility that would be undertaken following the completion of the Comprehensive Management Plan.	421
National Parks Conservation Association	The Old Spanish National Historical Trail, jointly administered by the National Park Service and BLM, was established in 2002 because of its rich history and national significance. The two agencies are currently developing a Comprehensive Administrative Strategy for the trail. Oil and gas leasing should be planned to avoid impacts on this historically significant trail and the story it tells of early trade between Santa Fe, New Mexico and Los Angeles, California. The Final MLP should include an NSO stipulation within a one mile buffer of the trail to protect the integrity of the viewsheds in scenic and cultural landscapes along the Old Spanish National Historical Trail.	Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."***	462

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		Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites. ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined.	
HECHO	Old Spanish National Historic Trail: As described in the affected environment of the Draft EIS, 43.2 miles of the trail are located in the planning area, 28.8 miles of which are located on public lands, and only 2.46 miles of the trail are in resource condition Category II; therefore, it is of critical importance to safeguard this resource. We emphasize our recommendation to apply the NSO stipulations from alternative C.	The commenter's preference for Alternative C is noted.	630
NPS National Trails Intermountain Region	1) Please consider including the Old Spanish NHT corridor among the Table 2-2 list of cultural resources that will carry a No Surface Occupancy stipulation. National historic trail corridor is similarly protected in other BLM RMPs, and that level of protection is appropriate here, as well. 2) Please list the NHT among the resources that will be included in the Lease Notice requiring view shed assessment. 3) Archeological components of the Old Spanish NHT require evaluation for potential effects under the National Historic	1) The OSNHT is included in Table 2-12 (Special Designations). 2) Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust	666

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	Preservation Act and merit discussion in the Section 3.3 Cultural Resources section. 4) NPS personnel are unfamiliar with the trail remnant/resource condition categorization system that is cited in Section 3.14.2 (p. 3-96). Would you please describe that system and clarify how it is used by BLM in managing NHTs? 5) The presence of high potential route segments and high potential historic sites (which are identified in the Comprehensive Administrative Strategy, or CAS, that has been developed jointly by NPS and BLM) appear to have been overlooked in the 3.14.2 discussion. There are at least three high potential historic sites and two high potential route segments (approximately 10 miles and 1.4 miles in length) within the planning area, and another three high potential historic sites and 20 contiguous miles of high potential route segments that could be indirectly impacted by activities in the planning area. These sites and segments are within five miles of the planning area, and so could sustain visual and audible adverse impacts and effects from oil and gas activities. These potential impacts need to be taken into consideration in the DEIS. 6) In addition, we note that references to the Old Spanish "Comprehensive Management Plan" and "Comprehensive Management Strategy" should be universally changed to "Comprehensive Administrative Strategy," which is the title most recently agreed to BLM and NPS. Likewise, it would be helpful to clarify that the "Old Spanish Trail Recognition Act" is an amendment to the National Trails System Act.	to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment.*** The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined. Alternative C provides a NSO stipulation for a 2-mile width along both sides of the OSNHT in its entirety.	

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		3) Those portions of the OSNHT where physical evidence remains are protected by the National Historic Preservation Act. ***4) Chapter 3 has been amended to more fully explain the OSNHT resources within the Planning Area including the potential trail experiences and opportunities as well as the specific high potential sites and segments.*** 5) Until specific management objectives are developed for locations along the OSNHT through a Comprehensive Management Plan a Lease Notice will be applied to a 2-mile corridor in Alternative D. A Lease Notice would provide flexibility until the completion of trail management plans. A Lease Notice informs a mineral operator that actions may be necessary in order to comply with the law pertaining to the OSNHT. A Lease Notice may be modified at any time to adjust to new information, whereas, a change to a lease stipulation would require a plan amendment. ***In Alternative D, a Lease Notice has been added to the mineral leasing decision in Chapter 2 (Table 2-12) regarding the OSNHT. The Lease Notice has also been added to Appendix A. The Lease Notice would be applied to a 2-mile corridor along the OSNHT. The Lease Notice states the following: "The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service by the BLM may be necessary."*** ***Three high potential sites along the OSNHT (Kane Springs. Looking Glass Rock, and Colorado River Crossing near Moab) have been preliminarily identified as high potential sites. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these sites.*** ***About 1.5-miles of the OSNHT on the Moab Trail (1.4-miles) and Mule Shoe (0.1-miles) segments have been preliminarily identified as high potential segments. The decision in Chapter 2 has been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of these segments.***	

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		About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential. The decision in Chapter 2 has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment. The CSU stipulations would protect the setting of the high potential sites and segments identified along the OSNHT. A Lease Notice would protect the remainder of the trail until the attributes of the trail are more clearly defined. ***Chapter 3 has been amended to more fully explain the OSNHT resources within the Planning Area including the potential trail experiences and opportunities as well as the specific high potential sites and segments.*** 6) References to the OSNHT Comprehensive Management Plan and Comprehensive Management Strategy have been changed to Comprehensive Administrative Strategy.	
NPS National Trails Intermountain Region	We ask that this office be consulted, as co-administrator of the NHT, in any future matters involving the Old Spanish Trail within the Moab and Monticello field areas. Our point of contact for compliance matters is Jill Jensen, who can be reached at 801-741-1012 ext.115, by email at Jill_Jensen@nps.gov, and by surface mail at National Trails Intermountain Region, National Park Service, 324 South State Street, Ste. 200, Salt Lake City, UT 84019.	The BLM will contact the NPS National Trails Intermountain Region as appropriate.	667
The Wilderness Society	BLM's preferred alternative would permit impacts to the trail from mineral development, allowing a potash processing facility along the trail. Draft MLP at 4-146. The preferred alternative could also impact the scenic, natural and historic settings of the trail. Id. Therefore it is incompatible with the purpose of the Old Spanish National Historic Trail. Alternative C, however, would preserve the historic character of the trail, including the trail's viewshed.	***The commenter's preference for Alternative C is noted.*** ***About 12.2-miles of the OSNHT along the Blue Hills segment has been preliminarily identified as a high potential segment. The decision in Alternative D has also been modified to state that a CSU stipulation requiring the lessee to maintain the current setting of the trail based on a visual assessment would be applied within 2-miles of the 12.2-mile high potential trail segment on the south side only of the trail alignment. The proposed PPFA is located on the north side of the Blue Hills segment. To the north of this segment, the view is highly impacted by a high voltage transmission line located parallel and immediately adjacent to this segment. In addition, a designated utility corridor linking Green River and Moab overlays this entire segment with the majority of the utility corridor lying to the north of the trail. Due to the visual impairments to the north of the trail, very little opportunity is available to***	680

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		vicariously share the experience of the original users of the historic route. The CSU stipulation would protect the setting of this high potential segment along its largely undisturbed south side.	
Special Designations: Wild and Scenic Rivers			
Grand County Council	Wild & Scenic River Management Objectives • Designate Wild & Scenic Rivers as per the BLM's suitability inventory (see attached maps) for the Colorado, Dolores, and Green Rivers	Designation of Wild and Scenic Rivers is a congressional responsibility.	303
Special Status Species			
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The DEIS identifies 9 federally protected, threatened, endangered, or proposed species that are known or suspected to occur in the planning area, as well as 28 BLM sensitive species (including both plants and animals). Many of these species will be adversely affected by an increase in oil and gas activity. The species include those highly vulnerable to both oil and gas development directly and climate change broadly, including the bonytail, Colorado pikeminnow, humpback chub, and razorback sucker. Other species are vulnerable to oil and gas development, infrastructure water depletions and stream flow changes, including the yellow-billed cuckoo and southwestern willow flycatcher. Hundreds of thousands of acres of Mexican spotted owl (threatened) and burrowing owl (sensitive) habitat are vulnerable to direct habitat loss, avoidance effects, and forage loss from oil and gas drilling, activity, and infrastructure. The DEIS, however, lacks any substantive effect of the potential effects of development on riparian, upland or grassland birds, disclosing only general information regarding the number of acres of habitat open under standard, CSU/TL, or NSO stipulations. Such general information is inadequate to permit an informed evaluation of the proposed action's effect on populations of species of concern.	The U.S. Fish and Wildlife Service (USFWS), the agency with jurisdictional authority over threatened and endangered species, must provide concurrence regarding the potential effects of decisions in the MLP. USFWS has jurisdiction over the management of Federally listed fish, wildlife and plant populations, critical habitat, and migratory birds. In addition, the USFWS will be consulted on any site-specific mineral proposal that could potentially affect any listed plant or animal species or their habitat. The comments received from the USFWS on the MLP/DEIS did not identify any major flaws in the analysis. The commenter provided no specific data on improving the analysis. The BLM contends that the analysis for special status species in Chapter 4 is adequate for decisions at the land use planning level.	612
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Although, as discussed above, BLM must consider an alternative of closing the entire area to new leasing and fracking, the least damaging alternative in the DEIS is alternative C, which would close 180,169 acres to oil and gas leasing, including 12,819 acres of Mexican spotted owl habitat, 60,749 acres of burrowing owl habitat, and 19,230 acres of sensitive plant habitat. Similarly, Alternative C provides greater protection for fish, riparian habitat and wetland habitat, and water quality, including protection for the four Colorado River endangered fish, Southwestern willow flycatcher, yellow-billed cuckoo, and Western red bat. The BLM should also address the effect of the proposed plan on proposed critical habitat for the	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only	613

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	yellow-billed cuckoo on BLM lands along the Colorado and Dolores River.	been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. The commenter's preference for Alternative C is noted. Yellow-billed cuckoo habitat located along the Colorado and Dolores Rivers is protected with a NSO stipulation for the Three Rivers Mineral Withdrawal in Alternative D. In addition, a Lease Notice would protect critical habitat for the yellow-billed cuckoo by precluding surface disturbing activities within 0.25-miles of occupied habitat from June 1 through August 31.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	In particular, the DEIS lacks any discussion of water use and depletion that may be associated with either oil and gas or potash operations, and the effects such depletions may have on habitat and population for endangered fish or riparian birds and bats. Water use by oil and gas and potash operations is an indirect but readily foreseeable effect of authorizing such operations within the planning area. Potential use of water from the Green, Colorado, or Dolores Rivers or their tributaries has the potential to affect habitat for the bonytail, Colorado pikeminnow, humpback chub, and razorback sucker, yellow-billed cuckoo, Southwestern willow flycatcher, and Western red bat. As best we can ascertain, the DEIS makes no attempt to quantify water depletions from the Green or Colorado Rivers that will result from oil and gas and potash development under the RMPA. As the Fish and Wildlife Service noted in a recent Biological Opinion for another Utah BLM oil and gas project: [t]he cumulative effect of water depletions, including from this action, adversely affects the four listed fish by further reducing the amount of water available to them, increasing the likelihood of water quality issues, increasing their vulnerability to predation, and reducing their breeding opportunities by shrinking the amount of breeding habitat within their range. Water depletions also reduce the ability of the river to create and maintain the primary constituent elements that define critical habitat.	***Text has been added to the analysis in Chapter 4 (4.13.2, Water Resources) providing a quantification of water use for oil and gas operations, as well as comparisons of total water use for mineral development and their corresponding impacts for all alternatives.*** In Chapter 4 (Section 4.13.2, Water Resources) the following explanation of water use for mineral operations is provided: "Mineral development utilizes water, although the water needs of oil and gas are far less than potash development. Within the Planning Area, a typical well drilled to the primary target formation would involve about 294,000 gallons of water. The water is used as a drilling medium, for mixing cement, and for various cleanup operations. Therefore, or the oil and gas wells projected in Alternative A, a total of about 68.2 million gallons of water could be utilized over the life of the plan. The source of this water is primarily municipalities and private sources. Water obtained from aquifers and surface water could result in the drawing down of the water table and reduction of available water resources for wildlife, vegetation, springs, streams, or public consumption. Withdrawal could affect local groundwater flow pattern and create changes in quality and quantity of the remaining groundwater. However, detailed impacts of this water use cannot be addressed until site-specific operations identify the water source. Potash development, including processing facilities, would require water as part of the production process. Water consumption associated with solar evaporation processing operations is estimated at 5,000 gallons per ton of potash production for a total of about 2 billion gallons per year. Water consumption associated with crystallization processing operations is estimated at 1,300 per ton of potash production for a total of about 2.6 billion gallons per year. Under Alternative A, a total of 4.6 billion gallons of water could be utilized for potash development. The source of this water could come from one of four sources: 1) rivers and other surface	614

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		water, 2) groundwater from usable aquifers, 3) saline water from the Paradox Member, or 4) off-site locations. However, detailed impacts of this water use cannot be addressed until site-specific operations identify the water source. If the water is obtained from an existing water right granted on the Green or Colorado River systems, then the impact from the use has already been considered during allocation. Water obtained from local usable aquifers could result in the drawing down of the water table and reduction of available water resources for wildlife, vegetation, springs, streams, or public consumption. Withdrawal could affect local groundwater flow pattern and create changes in quality and quantity of the remaining groundwater. Saline water from the Paradox Member would affect neither usable groundwater nor surface water. The impacts from obtaining water from offsite sources cannot be addressed until the location of the sources are identified during review of site-specific proposals." The U.S. Fish and Wildlife Service (USFWS), the agency with jurisdictional authority over threatened and endangered species, must provide concurrence regarding the potential effects of decisions in the MLP. USFWS has jurisdiction over the management of Federally listed fish, wildlife and plant populations, critical habitat, and migratory birds. In addition, the USFWS will be consulted on any site-specific mineral proposal that could potentially affect any listed plant or animal species or their habitat. Please refer to the BA included with the MLP/FEIS regarding potential adverse effects to threatened and endangered species. The comments received from the USFWS on the MLP/DEIS did not identify any major flaws in the analysis. The commenter provided no specific data on improving the analysis. The BLM contends that the analysis for water use by mineral operations in Chapter 4 is adequate for decisions at the land use planning level. Until site-specific operations identify the water source, the impacts from water depletion on threatened and endangered species cannot be accurately assessed.	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday	Moreover, there is no analysis of the effects of foreseeable spills from oil and gas activities on water quality and habitat, nor of the efficacy of various proposed buffer distances in mitigating foreseeable spills. Once again, the Fish and Wildlife Service's 2012 adverse effect finding for BLM oil and gas project on the Green and White Rivers discusses the likelihood and effect of spills: There is a greater potential for impacts from pollutants, if a pipeline, well pit, or other source were to inadvertently release contaminated fluids into	***Text has been added in Chapter 4 (4.13.2, Water Resources) to address the impacts of leaks and spills by alternative on surface and groundwater resources.*** Spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation.	615

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River Expeditions	waterways at points near the Green and White Rivers. Through direct or indirect discharge, these pollutants could reach the Green and White Rivers and negatively impact water quality to the point of affecting native fish populations. Direct impacts will result from a discharge from a pipeline or well pit reaching the Green and White Rivers in its original form or within a single release event. Indirect effects occur when discharges are released to the ground and are later released to the river after being carried by an erosion event or carried by rain or snowmelt runoff. As more well and pipeline development occurs in the project area the chance of pollutants reaching the White and Green Rivers increases, thus increasing the potential of harm to native fish populations. While applicant-committed measures will reduce the chance for spills or leaks of contaminants, accidental releases can and do still occur. According to the National Response Center, there have been at least 219 spills and releases within Carbon, Duchesne, and Uintah Counties from January 1991 through August, 2011 due to oil and gas development and related activities affecting water, land and air. Spill incidences reviewed in Utah include corrosion and leakage of surface and buried pipelines, broken well rods, valve and gasket failures, wellhead pressure buildups, shutoff alarm malfunctions, leakage of trace systems, loss of formation water to the surface during drilling, and vehicular related traffic accidents. Releases have included crude oil, natural gas, hydrochloric acid, condensate, salt water, ethylene glycol, and produced water in various quantities. Releases of harmful agents into floodplain habitats could result in significant adverse impacts to the endangered fish and their designated critical habitat. One of the constituent elements of the designated critical habitat for the four Colorado River fish is contaminant-free water. Any release of contaminants into the floodplain will result in degradation of critical habitat and could result in take of individual fish, including downstream impacts to larvae and juveniles. The Green and White Rivers are large to medium-sized rivers with variable dilution factors based on seasonal flows. However, contaminants are likely to accumulate in backwater/depressional areas that have reduced dilution and less flushing capacity (Woodward et al. 1985). Colorado pikeminnow and razorback sucker use these sites downstream, which provide cover and a food source, for overwinter survival and rearing areas. The proposed action includes applicant committed measures to minimize and reduce the potential for contaminants to be released	The U.S. Fish and Wildlife Service (USFWS), the agency with jurisdictional authority over threatened and endangered species, must provide concurrence regarding the potential effects of decisions in the MLP. USFWS has jurisdiction over the management of Federally listed fish, wildlife and plant populations, critical habitat, and migratory birds. In addition, the USFWS will be consulted on any site-specific mineral proposal that could potentially affect any listed plant or animal species or their habitat. Please refer to the BA included with the MLP/FEIS regarding potential adverse effects to threatened and endangered species. The comments received from the USFWS on the MLP/DEIS did not identify any major flaws in the analysis. The commenter provided no specific data on improving the analysis. The commenter is referring to a site-specific oil and gas project along the Green and White Rivers where the USFWS's adverse effect finding discusses the likelihood and effect of spills on threatened and endangered fish. The BLM recognizes in the MLP/FEIS in Chapter 4 (Section 4.13.2) the likelihood of inadvertent spills from mineral operations on surface and groundwater resources. However, until site-specific mineral operations are proposed within the Planning Area, the impacts to threatened and endangered fish species along the Green, Colorado, and Dolores Rivers cannot be accurately assessed. The BLM contends that the analysis for leaks and spills on surface and ground water resources in Chapter 4 is adequate for decisions at the land use planning level. Until site-specific operations are proposed, impacts to threatened and endangered fish species from potential mineral related spills would be speculative. In Alternative D, NSO stipulations would be applied to the Colorado, Green, and Dolores Rivers, the major tributaries to the rivers, and the rims of the rivers which would minimize the risk of spills on threatened and endangered fish species. These protective measures are addressed in Chapter 4 (Section 4.17, Special Status Species) of the MLP/DEIS.	

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	into the natural systems. However, oil and gas related accidents can be severe and have serious consequences to fish and wildlife resources. Although most incidents are relatively small in size, large scale spills do occur. If large-scale breaks occur in sensitive resource areas, the results can be catastrophic to fish and wildlife resources. The effects of smaller leaks that may cause chronic, sub-lethal effects to fish populations may be more prevalent. While the oil and gas industry has a wide variety of methods available to detect substantial leaks or integrity breeches, the technology for detection of small "pinhole" leaks is not as advanced. This creates a significant problem in that the current available methodology may allow small leaks to go undetected for extended periods of time often evading detection until they are manifested on the surface sediments or water. The severity of the impacts from larger spills will be dependent on the time of year, the river flows, presence of endangered fish, and the volume of the contaminant plume. Immediate effects of small leaks to fish populations are difficult to ascertain but will likely become evident in future reproductive or growth issues. The DEIS lacks any substantive analysis or even discussion of these spill-related impacts on the four Colorado River listed fish, or other listed and sensitive species that utilize riparian areas along the Colorado, Green, and Dolores Rivers.		
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	BLM proposes to initiate ESA § 7 consultation "when the proposed MLP for the Final EIS is determined." This does not, however, relieve BLM of the NEPA obligation to take a hard look at the impacts of the proposed plan and alternatives on threatened, endangered, and sensitive species in the FEIS.	The best available data was used in the preparation of the Moab MLP/DEIS. However, certain information is unavailable or requires site-specific information to analyze. Due to a lack of quantitative data, some impacts can be discussed only in qualitative terms. Subsequent project-level NEPA documents will provide the opportunity to collect site-specific data and analyze these data in quantitative terms. Impacts to threatened, endangered, and sensitive species from the management alternatives are discussed in Section 4.17, Special Status Species.	616
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	BLM should conduct a full assessment of the direct and indirect impacts of unconventional oil and gas development activities on wildlife and ecosystems through a suite of comprehensive studies on all species and ecosystems that could be affected. The studies should be particularly detailed for federally and state listed species, federal and state candidates for listing, and state species of special concern. The studies should address the following impacts: (1) habitat loss, degradation, and fragmentation, including edge effects; (2) water depletion; (3) air and water contamination; (4) introduction of invasive species; (5) climate change impacts; (6) health and	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven	617

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	behavioral effects such as increased stress and changes in life history behaviors; (7) changes in demographic rates such as reproductive success and survival; and (8) potential for population-level impacts such as declines and extirpations. These studies should consider these harms individually and cumulatively.	detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. In addition, the following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Areas with the greatest oil and gas development interest within the Planning Area generally have Entrada and Glen Canyon Aquifers exposed at the surface and extending to a depth of approximately 1,000 feet. To ensure the effective isolation of these sensitive formations, a continuous string of steel pipe (or “casing”) known as the “surface” casing is placed in the well, extending from the surface to at least 50 feet below the bottom of the aquifer. The entire length of that casing string is then cemented into place. The casing is then pressure tested to ensure there are no leaks before deeper drilling resumes. After drilling to the top of the Paradox Formation at a depth of approximately 4,500 to 5,500 feet, a second continuous string of steel is placed inside the first, from the surface to the bottom of the hole. This casing string, known as “intermediate” casing, is then cemented into place with the goal of again cementing the entire length of casing. The intermediate casing string also serves to isolate water flows that may be present in the Cutler Formation. If the cement does not circulate all the way to surface, a cement bond log (CBL) or cement evaluation tool (CET) is run in the well to evaluate the effectiveness of cement placement. This casing string is then pressure tested and the well is drilled to the target formation and to the final well depth. As drilling continues to the target formation which contains oil and gas, the oil, gas, and drilling fluids are contained within the casing. At this point in the procedure aquifers are separated from the fluids by two layers of steel casing and two layers of	

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		cement. When the final well depth has been reached, another steel casing string, known as "production" casing is then set inside the intermediate casing from the bottom of the well to the surface usually, but always to at least 200 feet above the bottom of the intermediate casing. This casing is then cemented from the bottom of the well to at least 200 feet above the bottom of the intermediate casing, and a CBL or CET is run to evaluate the cement on this casing string also.	
Visual Resource Management/Auditory Management (Soundscapes)			
Fidelity Exploration and Production Company	Preferred Alternative D presents vague Auditory Management stipulations requiring a 6.1 mile offset from National parks and noise limit of 51 decibels for production equipment measured at 350 feet from the source. Apparently these offsets are based on another state's guidance document. The modeling and offsets are not supported in the MLP document; BLM should provide Utah-specific data and modeling to provide an adequate basis for these restrictions. Arbitrary sound restrictions and mitigation could prove costly to oil and gas operators without any of the expected benefits.	As stated in Chapter 3 (Section 3.18.1) of the MLP/DEIS, noise propagation modeling based on geospatial grids of modeled ambient sound level data was performed by National Park Service in 2014 to determine the potential impacts of mineral operations on NPS soundscapes (Stanley and Miller 2015). This noise modelling, prepared specifically for the MLP, resulted in the 6.1-mile National Park offset for noise. The decibel level chosen was based on the Colorado Oil and Gas Conservation Commission 800 Series rules regarding maximum permissible noise levels at residential/agricultural/rural zones which limit noise levels to between 50 and 55 dbA at 350 feet from the source. The BLM is not aware of any similar rules in the State of Utah. ***The CSU stipulation has been changed as follows: "Noise mitigation efforts would be implemented with a maximum level of 55 decibels for production (measured at 350 feet from the source).*** The cost of complying with CSU stipulations is acknowledged in Chapter 4 (Section 4.8.1).	148
Individual	Unsupported requirements for auditory constraints and modelling. The MLP fails to present information indicating impacts that would justify the addition of auditory constraints for 369,519 acres within 6.1 miles of Arches National Park. The constraint sets decibel level restrictions of 51 dB at 350 feet with no indication of how this level was determined. It places an NSO stipulation of 2.5 miles from Arches National Park involving 148,432 acres, again with no identified justification or analysis to indicate why this is necessary. The MLP fails to identify, on any quantitative basis, how noise impacts result in impact to adjacent national parks. There is no discussion of noise impacts to the parks from the hundreds' of thousands of vehicles and busses that visit each year, the noise from the adjacent airport, rail line and SR 191. It then fails to analyze the financial or technical impact to potential mineral	The MLP can control only actions on BLM land. Analysis of actions within the National Parks, on State Highways, or on adjacent rail lines is beyond the scope of the MLP. The Preferred Alternative imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. As stated in Chapter 3 (Section 3.18.1) of the MLP/DEIS, noise propagation modeling based on geospatial grids of modeled ambient sound level data was performed by National Park Service in 2014 to determine the potential impacts of mineral operations on NPS soundscapes (Stanley and Miller 2015). This noise modelling, prepared specifically for the MLP, resulted in the 6.1-mile National Park offset for noise as well as	167

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	development from the imposition of these auditory constraints. It's simply constraint for the sake of constraint.	the 2.5-mile NSO buffer to reduce auditory impacts to backcountry portions of the National Parks. The decibel level chosen was based on the Colorado Oil and Gas Conservation Commission 800 Series rules regarding maximum permissible noise levels at residential/agricultural/rural zones which limit noise levels to between 50 and 55 dbA at 350 feet from the source. The BLM is not aware of any similar rules in the State of Utah. The CSU stipulation has been changed as follows: "Noise mitigation efforts would be implemented with a maximum level of 55 decibels for production (measured at 350 feet from the source). The cost of complying with NSO and CSU stipulations is acknowledged in Chapter 4 (Section 4.8.1).	
Individual	The MLP fails to identify any impacts to the areas filming industry from current management under the 2008 MLP, yet will require visual modeling on 177,594 acres for protection of high use filming locations. Analysis in Chapter 4 fails to indicate it has been or will be a problem. The areas filming industry has an ability to find suitable filming locations in a variety of locations in the area that are currently protected. This new constraint is completely without defensible rationale.	The majority of film locations are within VRM Class II areas, which are managed with a NSO stipulation in Alternative D. Only two of the listed film locations are not within VRM Class II areas (Jewel Tibbetts Arch and White Wash Sand Dunes). This means that a viewshed analysis would be required only in these two locations. The imposition of a viewshed analysis is not an onerous requirement, but Chapter 4 acknowledges that CSU stipulations can result in "additional costs and delays to mineral operators" (page 4-41). The exact cost of this constraint could only be quantified on a site-specific basis. A viewshed analysis would be required only for the 14 high use filming locations listed in Chapter 2 (Table 2-3). Although conflicts in the past have been minimal and a solution has been found, the stipulation is intended to prevent conflicts in the future.	168
Individual	Daylight visual resources should be addressed in areas near the Needles. When I worked at Needles, on a daily basis visitors stated that the drive through Indian Creek and opening into the area around the entrance to Needles was the most spectacular thing they had ever seen, and they usually believed it was part of the park. The area where campfire talks are presented has the whole rim from Indian Creek to past Anticline Overlook in full view, and that viewshed is at risk. The darkness visitors see during campfire talks has the potential to be compromised. The purposes of the Needles district revolve around solitude and naturalness. BLM lands above the rims of Salt Creek (and in Indian Creek) are lands with WC, and have many clear views to the north, east and west, which will be marred, especially at night.	The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. Alternative D also manages additional acreage in this area with a NSO stipulation for the Indian Creek SRMA and the rims of Hatch Point within the Canyon Rims SRMA. The Salt Creek drainage is outside of the Planning Area.	429

Organization	Comment	Response	Comment ID
Individual	I am concerned about the potential for potash mining and increased oil and gas drilling in the Dubinky Well/Tombstone Rock/Secret Spire area and in the Windwhistle/Needles Overlook/ Anticline Overlook area. These are the few highly scenic, quiet places that have not been totally overrun by mountain bikes, ATVs and 4WDs. Pronghorn and desert bighorns have not yet been driven out of these areas. I hope you will leave it undeveloped for them, and for people seeking quiet recreation.	The commenter's preference for Alternative C, which eliminates potash leasing and manages the areas described with a NSO stipulation, is noted.	432
Individual	If oil rigs were ever allowed in the viewshed of Arches or Canyonlands it would be a travesty of immense proportions. There is already more development within sight of these pristine areas than there should be, but that should not justify further exploitation. The final plan must include a strong degree of certainty of potential development as well as enforceable protections for the parks, including park scenic views from surface disturbing activities. All national parks should have a buffer area around them 1/2 the size of the park to keep the parks views.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Going beyond these closed areas would not meet the objective in Alternative D of providing mineral leasing and development outside of these high value areas. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources.	435, 713, 715, 722, 745
National Parks Conservation Association	We encourage the BLM to review the GIS data created by the NPS for viewsheds within Arches National Park based on key observation points inside the park. As part of NPCA's involvement in the Moab MLP Stakeholder meetings convened in 2014, we submitted a "National Park Conservation Viewshed" map (see attachment), based on the NPS data, highlighting the viewsheds of Arches and Canyonlands national parks to illustrate our priority areas for protection within the MLP process. We now also submit additional maps highlighting the overall park viewshed along with maps of individual viewsheds from specific key observation points within the park as they relate to Closed/NSO stipulations in the Preferred Alternative (see attached "Arches MLP Viewshed" maps). The overall viewshed map illustrates the views from the park as a colored scale showing the number of key observations points (KOPs) from which a visitor can see a particular area on the landscape (i.e. the dark red viewshed areas can be seen by visitors	***The commenter's preference for Alternative C is noted.*** ***Text has been added to Chapter 3 (Section 3.18) to acknowledge the importance of Park Service viewsheds.*** The immediate viewshed (VRM Class II and VRI Class II) from Arches National Park is shown on Map 2-60-D and the entire viewshed from the Park is shown on Map 2-60-C.	441

Organization	Comment	Response	Comment ID
	at up to 9 KOPs inside the park and the green viewshed areas can be seen from one KOP). The BLM should specifically evaluate this information in light of its duty to maintain a current inventory of "scenic values" associated with the public lands. 43 U.S.C. § 1711(a). That inventory should be updated, as necessary, based on the information provided by the NPS. An overlay of the NPS viewshed data for Arches National Park with the MLP Preferred Alternative closed/NSO stipulations indicates much of the landscape to the north, some to the northeast, and the area within the Ten Mile Potash Leasing Area west of Arches are within view of the park, but fall outside of an NSO stipulation. We urge the BLM to include NSO stipulations for all areas within the park viewshed even those outside the VRM/VRI II classification area. That includes the additional NSO north of Arches from Alternative C and other areas highlighted in the attached maps. At a minimum, the final MLP should include NSO for the multicolored areas north of Arches on the NPS viewshed map, which are within sight of multiple key observation points inside the park, and for all viewsheds from specific heavily visited areas inside Arches such as the Devil's Garden Campground, Delicate Arch, and The Windows. If NSO stipulations are not applied to the entire park viewshed (i.e. areas that are only seen from one, less visited area), then there should be a CSU stipulation requiring consultation with the NPS on siting to avoid visual impacts as much as possible.		
National Parks Conservation Association	Unmitigated glare from lighting and sky glow surrounding adjacent communities, development and land-use activities can impact the night sky resource which draws astro- and eco-tourism to the Moab area. To minimize the cumulative impacts of increased lighting from potential oil, gas, and potash development within the Moab MLP landscape, the BLM needs to require a Lightscape Management Plan for all operators in the planning area. NPCA understands the complexities and safety concerns of effectively mitigating lighting during drilling and production operations for oil, gas, and potash, however, the BLM should apply a CSU stipulation to each lease in the MLP planning area similar to the one included in the White River Field Office (WRFO) RMP Amendment for Oil and Gas Development outside of Dinosaur National Monument in northwestern Colorado.	In Alternative D, all lands within 2.5-miles of the National Parks are managed with a minimum of a NSO stipulation. In addition, about 112,516 acres are closed around Arches National Park and about 75,638 acres are closed adjacent to Canyonlands National Park (see Map 2-15-D, Oil and Gas Leasing Stipulations). BMPs developed for reducing impacts to night skies (Appendix B, Night Skies) would also be applied as conditions of approval to site-specific mineral operations throughout the Planning Area. The closed areas, NSO stipulations, and BMPs described for Alternative D were developed in order to reduce the impacts of mineral operations on viewshed, soundscape, and night sky resources of Arches and Canyonlands National Parks.	448
National Parks Conservation Association	The "Visual Resources, Night Skies, and Soundscapes within VRM Class II Areas (WR-CSU-26)" stipulation requires a site-specific Visual Resources Management and Noise Reduction Plan (Plan) submitted by the operator as a component of the Application for Permit to Drill or Sundry Notice –Surface Use Plan of Operations.	In Alternative D, all lands within 2.5-miles of the National Parks are managed with a minimum of a NSO stipulation. In addition, about 112,516 acres are closed around Arches National Park and about 75,638 acres are closed adjacent to Canyonlands	449

Organization	Comment	Response	Comment ID
	The operator shall not initiate surface disturbing activities unless the BLM authorized officer has approved the Plan. Consultation with the NPS should also be included to ensure industry is adapting to the most current, readily available technology and information is shared as lighting mitigation strategies become more available and understood.	National Park (see Map 2-15-D, Oil and Gas Leasing Stipulations). BMPs developed for reducing impacts to night skies (Appendix B, Night Skies) would also be applied as conditions of approval to site-specific mineral operations throughout the Planning Area. The closed areas, NSO stipulations, and BMPs described for Alternative D were developed in order to reduce the impacts of mineral operations on viewshed, soundscape, and night sky resources of Arches and Canyonlands National Parks.	
National Parks Conservation Association	Because dark night skies are a recognized resource throughout the Colorado Plateau, the Final MLP needs to include a lighting management stipulation to be applied throughout the MLP planning area, not just within certain VRM classification areas as specified in the White River RMPA. A stipulation to require a lighting plan by all operators within the MLP planning area at the Application for Permit to Drill stage is a way to require operators to minimize impacts on dark night skies during all phases of development. At the same time, it would allow flexibility to implement new technology as it is available and avoid an undue burden caused by mitigation requirements that may be difficult to obtain and/or implement. The Lightscape Management Plan shall include the following: a) Number of lights and lumen output of each (minimum number of lights and the lowest luminosity consistent with safe and secure operation of the facility) b) Alternatives to lighting (retro-reflective or luminescent markers in lieu of permanent lighting where feasible) c) Fixture design (lights of the proper design, shielded to eliminate uplight, placed and directed to eliminate light spill and trespass to offsite locations) d) Lamp color temperature (lights of the proper color to minimize night-sky impacts) e) Standard operating procedures (minimization of unnecessary lighting use through alternatives to permanent lighting, such as restricting lighting usage to certain time periods) f) Any activities that may be restricted to avoid night-sky impacts g) A process for promptly addressing and mitigating complaints about potential lighting impacts	The BLM acknowledges that dark night skies are a recognized resource throughout the Colorado Plateau. However the extent of the impact to dark night skies from mineral operations in the Planning Area has not been clearly identified. Because of the evolving nature of this resource and all of the potential mitigation measures, BMPs provide a flexible mechanism for addressing night skies. Therefore, in Alternative D, BMPs were developed for reducing impacts from mineral operations to night skies (Appendix B, Night Skies). These BMPs would be applied as conditions of approval to site-specific mineral operations throughout the Planning Area. BMPs may be updated or added to stay current with the latest technology which is continually evolving with regard to lighting. For more information, see Appendix B (Best Management Practices, Introduction). Furthermore, the greater flexibility provided by BMPs would provide an effective method for managing night skies in the Planning Area because of 1) the relatively low level of ongoing and projected mineral development, 2) the temporary nature of drilling and completion operations, and 3) the lack of permanent lighting on most production facilities. ***A BMP has been added to Appendix B requiring the development of a Lightscape Management Plan where an extensive amount of long term permanent lighting is proposed.*** Another major factor for consideration is that drilling operations are temporary (typically up to 6 weeks), and drilling rigs, which are subcontracted, are not under complete control of the lessee. The capability of a drilling rig to safely perform the proposed operation (including the capability of drilling over 1-mile laterally) under challenging subsurface conditions must remain the principal rig selection criteria.	450

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National Parks Conservation Association	In order to retain the existing character of the landscape, and the appropriate transmission of natural sounds that are fundamental components of the purposes and values for which the parks were established, management of noise pollution both during exploration and production of oil and gas resources is required for activities within the soundscape of Arches and Canyonlands National Parks. Auditory management needs to include the following actions to prevent or minimize all noise that, through frequency, magnitude, or duration, may adversely affect the natural soundscape or other park resources or values, or that exceeds levels that have been identified as being acceptable to, or appropriate for, wildlife and visitors at the parks. Similar to the "Visual Resources, Night Skies, and Soundscapes within VRM Class II Areas (WR-CSU-26)" stipulation in the Approved RMP Amendment WRFO Oil and Gas Development (Appendix 1-30), the Final Moab MLP needs to include a stipulation requiring an operator to submit a Noise Reduction Plan as a component of the Application for Permit to Drill. The operator shall not initiate surface disturbing activities unless the BLM authorized officer has approved the noise reduction plan. The Noise Reduction Plan should minimize noise through traditional sound barriers including earth and covered scaffolding constructed around exploration and production areas as well as using the best available technology such as multi-cylinder pumps, hospital-grade sound reducing mufflers, and placement of exhaust systems to direct noise away from sensitive receptors near or directly adjacent to the parks. The goal for development should be no more than 10 db or less increase from ambient background levels. At no time should exploration or production operations exceed noise levels between 50 and 55 db at the 350 feet from the source (Approved RMP Amendment WRFO Oil and Gas Development, Appendix 1-31). In addition, a noise reduction plan should outline a process for promptly addressing and mitigating complaints about potential noise impacts on the adjacent landscape.	Drilling rig selection is based on a number of technical attributes that are deemed necessary to safely and effectively drill the well as planned. The sound produced from a well site during drilling operations is often a composite of several different pieces of equipment—some of which are not part of the drilling rig, but are contracted independently—which change throughout the drilling process. Your suggested mitigation could produce the unintended consequence of making decibel level the principal rig selection criterion over safety and performance based attributes. For these reasons, the BLM has determined that it is not reasonable to impose a decibel standard for drilling operations. In Alternative D, closed areas, as well as NSO stipulations, have been applied around Arches and Canyonlands National Parks (see Map 2-15-D, Oil and Gas Leasing Stipulations). These proposed leasing decisions provide a wide auditory buffer around these Parks as shown on Map 2-15-D. A BMP is already in Appendix B (Noise) regarding the minimization of noise that is very similar to the one suggested. The wording of this BMP has been changed to substitute "quiet design mufflers" for "hospital grade sound reducing mufflers." A BMP on locating drill pads, roads, and facilities below ridgelines, etc. is already included in Appendix B. In Alternative D, the Parks are surrounded by areas that are either closed to leasing or managed with a NSO stipulation (see Map 2-15-D) In addition, a CSU stipulation requiring a maximum decibel level of 55 dB for production is applied within 6.1-miles of National Parks. A BMP requiring a qualified sound expert for all lands within the Planning Area is not necessary given level of protection already imposed for the Park. The CSU stipulation has been changed as follows: "Noise mitigation efforts would be implemented with a maximum level of 55 decibels for production (measured at 350 feet from the source). The suggested BMP providing examples of specific noise reduction measures is unnecessary because a BMP for minimizing noise using best available technology is already listed in Appendix B and meets the same objective. These proposed leasing decisions provide a wide auditory buffer around the Parks as shown on Map 2-15-D. BMPs can also be applied across the Planning to further mitigate noise impacts. Given this level of protection around the Parks, a noise reduction plan is not necessary to reduce auditory impacts.	451

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Park Rangers For Our Lands	We would like to see stronger protections for the restoration and protection of clear, dark night skies, especially as observed from within Arches and Canyonlands National Parks. And like the Dinosaur Trail MLP, there should be language that directs BLM consultation with the Park Service before any lease stipulations designed to protect Park resources are subject to waiver, exception, or modification. And finally, we would ask that BLM extend viewshed protections for Arches and Canyonlands National Parks to include the entire viewshed from the northern boundaries of Arches and Canyonlands, as well as the eastern boundary of Arches. These viewshed areas should also be closed to leasing.	The BLM acknowledges that dark night skies are a recognized resource throughout the Colorado Plateau. However the extent of the impact to dark night skies from mineral operations in the Planning Area has not been clearly identified. Because of the evolving nature of this resource and all of the potential mitigation measures, BMPs provide a flexible mechanism for addressing night skies. Therefore, in Alternative D, BMPs were developed for reducing impacts from mineral operations to night skies (Appendix B, Night Skies). These BMPs would be applied as conditions of approval to site-specific mineral operations throughout the Planning Area. BMPs may be updated or added to stay current with the latest technology which is continually evolving with regard to lighting. For more information, see Appendix B (Best Management Practices, Introduction). Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review." In Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Going beyond these closed areas would not meet the objective in Alternative D of providing mineral leasing and development outside of these high value areas.	494
Individual	The border of the National Parks should be the border, not some arbitrary modeled affected area that is tacked on for good measure. The NSO and CSU areas as they apply to Arches National Park to mitigate noise include a jet airport, a rail road, the garbage dump, and a highway that conveys 2,000,000 visitors through the area a year and is the main north/south freight corridor for eastern Utah and the four corners area. There is a convenience store, tent cities, and a Jurassic Park located on these lands. I find it hard to believe that an oil drilling rig would make enough noise to drown out the noise from the truck, motorhome, and car noise from Highway 191	The MLP can control only actions on BLM land. Analysis of actions within the National Parks, on State Highways, or on adjacent rail lines is beyond the scope of the MLP. The Preferred Alternative imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. As stated in Chapter 3 (Section 3.18.1) of the MLP/DEIS, noise propagation modeling based on geospatial grids of modeled	495

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	These nuisances are a yearlong events. A drilling rig might take 30 days to drill its hole and then be gone. The BLM should recognize the existing boundaries of the National Parks for what they are and eliminate the NSO and CSU noise stipulations from inclusion in the MLP.	ambient sound level data was performed by National Park Service in 2014 to determine the potential impacts of mineral operations on NPS soundscapes (Stanley and Miller 2015). This noise modelling, prepared specifically for the MLP, resulted in the 6.1-mile National Park offset for noise as well as the 2.5-mile NSO buffer to reduce auditory impacts to backcountry portions of the National Parks.	
National Park Service, Southeast Utah Group	1) Overview of Visual Resources, Sec. 3.18.1 (p. 3-17): We suggest that the DEIS overview of visual resources be revised to include additional information about the importance of this resource to Canyonlands and Arches National Parks. We recommend that the following be used to replace the third paragraph in this section of the DEIS - In addition, much of the Planning Area is within the scenic viewsheds observed from adjoining Arches National Park, Canyonlands National Park, and Deadhorse Point State Park. Visitors to these parks experience iconic scenic vistas that are among the most spectacular in the country, and that often include expanses of BLM-administered lands located within the Planning Area. Scenic visual resources and values are among the purposes for which Canyonlands and Arches were established, and the fundamental importance of these resources and values are identified in current management documents. To support the MLP planning effort, NPS used a digital elevation model to generate spatial models of the viewsheds seen from a set of key observation points in Canyonlands and Arches National Parks. The resulting viewshed models were provided to BLM for consideration in the development of stipulations to protect visual resources. 2) Table 2-15, leasing stipulations for the protection of the viewshed observed from Arches National Park (pp. 2-51 - 2-52): We acknowledge and appreciate that BLM has proposed a stipulation specifically for the purpose of protecting the viewshed observed from Arches National Park, and that Alternative D does provide significant protections. However, we suggest that it is somewhat misleading in Table 2-15 and on Maps 2-60-B, C, and D to define the park's viewshed as those lands surrounding Arches that are managed by BLM as VRM Class II and/or inventoried as VRI Class 11, since significant portions of the park's viewshed extend beyond the VRM II and VRI II areas (Fig. 2). Likewise, it is inaccurate to describe in Table 2-15 (top of p. 2-52) the additional NSO lands included in Alternative C as " ... the viewshed on the northern side of Arches National Park that is outside the VRI Class II areas ... ," since these NSO lands represent only a limited portion of the park's viewshed that is outside the VRI II areas (Fig. 2). We suggest that BLM consider rewording the descriptions of Alternatives A, B, C,	***1) Text has been added to Chapter 3 (Section 3.18) to acknowledge the importance of Park Service viewsheds.*** 2) Alternative D was developed to provide for mineral leasing and development while protecting visual resources, including those seen from the National Parks; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for visual resources than does Alternative D. ***Text has been added to Chapter 3 (Section 3.18.1, Visual Resources) to state: "A visual resource inventory was conducted in 2011 for the BLM Moab Field Office. This inventory included an assessment of viewsheds from Arches National Park. The area adjoining the Park on both the northern and eastern side of the Park was rated as VRI Class II based on scenic quality, the amount of use, and distance zones. The land beyond the VRI Class II area was rated low for scenery and sensitivity (amount of use and distance). The ratings were determined from key observation points within Arches National Park."*** Therefore, the 34,243 acres not rated as VRI Class II is not managed with a NSO stipulation in Alternative D. The immediate viewshed (VRM Class II and VRI Class II) from Arches National Park is shown on Map 2-60-D and the entire viewshed from the Park is shown on Map 2-60-C. The National Park Service's Organic Act is applicable only to National Park Service lands. It does not govern the use of land administered by the Bureau of Land Management. 3) See response to 2), above. In addition, Chapter 4 (Section 4.19.6, Visual Resources, Impacts from Alternative D) of the EIS states, "However, the viewshed north of Arches National Park, beyond the VRI class II areas, would not be managed with an NSO stipulation in Alternative D. Therefore, Alternative D affords less protection for the viewsheds around Arches National Park than does Alternative C, but more than Alternatives A and B." The MLP/DEIS thus acknowledges that the full viewshed of Arches is not protected in Alternative D.	552

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	and D in Table 2-15 and on Maps 2-60-B, C, and D to describe the VRM Class II and VRI Class II areas, as well as the additional areas included as NSO under Alternative C, as representing portions of the viewshed observed from Arches National Park. In addition, we ask that BLM consider revisions to Alternatives C and D based on the extent of the park viewshed illustrated in Figure 2, which was modeled and delineated on the basis of the 13 key observation points listed and shown in Figure 2. For Alternative C, we recommend that BLM consider revising the extent of the NSO stipulation to coincide with the full spatial extent of viewshed that extends beyond the VRM Class II and VRI Class II areas that are proposed to be closed to mineral leasing under Alternatives C and D. Thus revised, we ask that BLM select this version of Alternative C as the Preferred Alternative in the Final EIS to more fully protect the scenic resources and values of Arches National Park from future impacts attributable to oil and gas development activities. 3) For Alternative D in addition to the closed VRM Class II and VRI Class II areas, we ask that BLM consider an NSO stipulation for areas beyond the closed VRM II and VRI II lands that coincide with the modeled viewsheds for Delicate Arch, Double O Arch, and the Devils Garden Campground (Fig. 3). We identify these three as particularly important viewpoints for the following reasons. Delicate Arch is the single most iconic viewpoint in Arches National Park, and its viewshed is not fully protected by the Preferred Alternative identified in the DEIS. Double O Arch is a key observation point accessible by trail from the Devils Garden parking lot. We suggest that scenic views from this viewpoint warrant full protection from impacts attributable to future oil and gas development. Finally, the Devils Garden Campground is the site from which most overnight visitors to the park view the surrounding scenic landscape. We suggest that scenic views from the campground warrant full protection from impacts attributable to future oil and gas development. • Analysis and disclosure of environmental consequences for viewsheds of Arches and Canyonlands National Parks, Chapter 4: We suggest that BLM consider including one or more map figures (e.g., similar to Fig. 2) to illustrate and disclose the consequences of alternative mineral leasing decisions and stipulations for the viewsheds of Arches and Canyonlands National Parks. In these map figures, we recommend that park viewsheds be delineated on the basis of NPS viewshed models rather than on the basis of VRM Class II and VRI Class II areas delineated by BLM.		

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National Park Service, Southeast Utah Group	Naturally Dark Night Skies 1) New information - Canyonlands National Park Named International Dark Sky Park: In August 2015, the International Dark-Sky Association granted Gold-Tier International Dark Sky Park (IDSP) status to Canyon lands National Park, an honor reserved for the darkest of dark skies and the most stunning of starscapes. We ask that this and additional information about existing night-sky resources and conditions be incorporated in Section 3.18.1 (p. 3-117+). Accordingly, we recommend that the following be inserted under a separate subheading entitled Naturally Dark Night Skies immediately preceding the Natural Soundscapes subsection. - Naturally Dark Night Skies: In addition to the high quality of daytime scenic views, the Planning Area and adjoining areas including Canyonlands National Park, Arches National Park, and Deadhorse Point State Park also are renowned for nighttime opportunities to view naturally dark night skies that are among the most unspoiled and spectacular remaining in the continental United States. In NPS management documents, naturally dark night skies are identified as important resources both in Canyonlands and Arches National Parks. In August 2015, the International Dark-Sky Association granted Gold-Tier International Dark Sky Park status to Canyonlands National Park, an honor reserved for the darkest of dark skies and the most stunning of starscapes. Opportunities to view and enjoy naturally dark night skies have become increasingly important to the recreational experiences of those who visit Canyonlands, Arches, Deadhorse Point State Park, the MLP Planning Area, and other adjoining lands including BLM-administered wilderness study areas. 2) Nighttime flaring of gas and artificial lighting that is unshielded, directed upwards, and/or excessively bright has the potential to pollute and degrade night sky quality. Despite the recognized high quality of night skies in the Planning Area, industrial light sources from oil and gas development activities north of Canyon lands National Park are readily visible in nighttime satellite imagery. Data collected in June 2015 by the NPS Natural Sounds and Night Skies Division (NPS NSNSD) determined that industrial light pollution attributable to the Hunter Power Plant near Castle Dale was visible from more than 85 miles away at a monitoring site near Balanced Rock in Arches National Park (NPS NSNSD, unpublished data). Lighting from oil and gas development north of Canyonlands National Park also was visible from the Balanced Rock site during the same monitoring event (NPS NSNSD, unpublished data). In addition to adverse impacts of light pollution on visitors' experience of night sky conditions, there is increasing evidence for significant	***1) Text has been added to Chapter 3 (Section 3.18.1) to emphasize the importance of night skies in visual resource management.*** 2) The BLM acknowledges that dark night skies are a recognized resource throughout the Colorado Plateau. However the extent of the impact to dark night skies from mineral operations in the Planning Area has not been clearly identified. Because of the evolving nature of this resource and all of the potential mitigation measures, BMPs provide a flexible mechanism for addressing night skies. Therefore, in Alternative D, BMPs were developed for reducing impacts from mineral operations to night skies (Appendix B, Night Skies). These BMPs would be applied as conditions of approval to site-specific mineral operations throughout the Planning Area. BMPs may be updated or added to stay current with the latest technology which is continually evolving with regard to lighting. For more information, see Appendix B (Best Management Practices, Introduction). Furthermore, the greater flexibility provided by BMPs would provide an effective method for managing night skies in the Planning Area because of 1) the relatively low level of ongoing and projected mineral development, 2) the temporary nature of drilling and completion operations, and 3) the lack of permanent lighting on most production facilities. ***A BMP has been added to Appendix B requiring the development of a Lightscape Management Plan where an extensive amount of long term permanent lighting is proposed.*** Another major factor for consideration is that drilling operations are temporary (typically up to 6 weeks), and drilling rigs, which are subcontracted, are not under complete control of the lessee. The capability of a drilling rig to safely perform the proposed operation (including the capability of drilling over 1-mile laterally) under challenging subsurface conditions must remain the principal rig selection criteria. 3) a. The BLM's management objective is to minimize natural gas flaring consistent with the governing regulations. Oil and gas production is a continuous process that does not lend itself to a prescribed diurnal production schedule, and there is no practical mechanism to store natural gas that is produced during the night so that it can then be flared during daylight hours. Combustion chambers function at specific pressure and fuel rate conditions. Associated natural gas that is flared from	553

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	adverse impacts of light pollution on natural biological and ecological processes (Gaston et al. 2013). Table 2-15, leasing stipulations/or protection of naturally dark night skies (p. 2-53): We acknowledge the importance of artificial lighting to ensure safe working conditions. However, we also note that progress has been made elsewhere to upgrade drill-rig lighting systems to protect dark night skies while ensuring safe conditions for workers, and that a CSU stipulation designed to protect dark night skies recently has been developed and included by BLM in the final approved Oil and Gas Development Resource Management Plan Amendment for the White River Field Office in Colorado. Therefore to establish stronger protections for spectacular night skies above the MLP Planning Area and adjoining lands, we recommend that Alternative D (Preferred) for visual resources and night skies (first row in DEIS Table 2-15 at the top of p. 2-53, and in Table A-1) be revised to read as follows - Throughout the Planning Area, apply BMPs from Appendix B for reducing potential impacts to visual resources, including naturally dark night skies. In addition, throughout the Planning Area apply a CSU stipulation that requires the operator to submit to BLM prior to initiating construction operations a site-specific Lighting Plan as a component of the Application for Permit to Drill. The lighting plan must demonstrate to the BLM Authorized Officer's satisfaction how the operator will meet the objective of minimizing adverse impacts of artificial lighting (including gas flaring) on naturally dark night sky conditions. The Lighting Plan should specify the following - a. Number of lights and lumen output of each (minimum number of lights and the lowest luminosity consistent with safe and secure operation of the facility); b. Alternatives to lighting (retro-reflective or luminescent markers in lieu of permanent lighting where feasible); c. Fixture design (lights of the proper design to minimize night-sky impacts, shielded to eliminate uplight, placed and directed to eliminate light spill and trespass to offsite locations); d. Lamp color temperature (lights of proper color to minimize night-sky impacts); e. Standard operating procedures (minimization of unnecessary lighting use through alternatives to permanent lighting, such as restricting lighting usage to certain time periods); f. Alternatives to nighttime gas flaring (restricting flaring to daylight hours, use of a combustion chamber to reduce or eliminate glare, or	producing oil wells in the Planning Area does not conform to a uniform pressure and production rate regime, but rather, tends to surge. Such production conditions are not appropriate for chambered combustion and would likely result in very poor combustion efficiency. b., c., d., and e. These proposed CSU measures are already listed in Chapter 2 (Table 2-15, Visual Resource Management, Alternative C). f. The object to which a lighting fixture is attached has no bearing on illumination. g. Nighttime illumination is for the singular purpose of enabling the safe performance work in an industrial setting, and therefore, any prescribed lighting limitation must defer to that need. The BLM will not stipulate a lighting standard that could interfere with varied safety protocols. h. The proposed stipulation measure provides more specificity than is necessary in choosing lighting color in order to minimize impacts to night skies. The proposed measure also reduces flexibility for achieving the desired mitigation. The existing stipulation measure in Chapter 2 (Table 2-15, Visual Resource Management, Alternative C) states: "Reduce lamp brightness and select lights that are not broad spectrum or bluish in color." Alternative D would preclude intensive mineral activity, and therefore, would preclude intensive use of lighting. Nonetheless, this comment offers suggestions, rather than measurable performance standards which are enforceable, in apparent attempt to resolve a condition that has not been identified. Nighttime lighting is impermanent. It is used "as needed" and that use is occasional. Because we do not anticipate broad use of night lighting, we believe that the resource benefits that would result from stipulating the suggested subtle lighting nuances are not warranted. With regard to potash production facilities, a BMP has been added in Appendix B that would require a Lightscape Management Plan where an extensive amount of long-term lighting is proposed. 4) a. The BLM's management objective is to minimize natural gas flaring consistent with the governing regulations. Oil and gas production is a continuous process that does not lend itself to a prescribed diurnal production schedule, and there is no practical mechanism to store natural gas that is produced during the night so that it can then be flared during daylight	

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	elimination of flaring where possible through use of gas pipelines to transfer gas offsite); g. Identification of other activities that can be restricted to avoid night-sky impacts; and h. A process for promptly addressing and mitigating complaints about potential lighting and/or flaring impacts. We also suggest that the wording of the stipulation specified under Alternative C for night skies (first row in DEIS Table 2-15 at the top of p. 2-53, and in Table A-1) be revised for consistency with our recommended changes (below) to the night sky BMPs listed in Appendix B. We recommend that the revised language read as follows - 3) Apply a CSU stipulation to the entire Planning Area that requires the following - a. Minimize flaring of gas and restrict to daytime hours when possible. When flaring is necessary at night, use a combustion chamber to reduce or eliminate glare. b. Limit the use of artificial lighting during nighttime operations to only those lights that are determined necessary for safety. c. Use shielding and aiming techniques as well as limiting the height of light poles to reduce glare and avoid light shining above horizons. d. Direct lights downward onto the task area. The bottom surface of the light fixture should be level, or if unable to be fully level, point it as close to straight down as possible or shield it to avoid light being projected horizontally. e. Use motion sensors, timers, or manual switching for areas that require illumination but are seldom occupied. f. Use vehicle-mounted lights for nighttime maintenance activities instead of permanent lighting structures. g. Reduce lamp brightness to the minimum necessary. Often visibility can be as good or sometimes better with a reduction to 1/4 of the original output. h. Select the right color of lighting. Broad spectrum or bluish lighting has a greater environmental impact than equivalent lumens of yellow/amber lighting. Amber LED should be used if possible where color rendition is not critical to the task. For safety critical areas, lighting should be warm-white with a color temperature of no more than 3000 deg. Kelvin. 4) Appendix B, BMPs for protection of naturally dark night skies (p. B-5): We recommend that BMPs for protection of naturally dark	hours. Combustion chambers function at specific pressure and fuel rate conditions. Associated natural gas that is flared from producing oil wells in the Planning Area does not conform to a uniform pressure and production rate regime, but rather, tends to surge. Such production conditions are not appropriate for chambered combustion and would likely result in very poor combustion efficiency. b., c., and e. These proposed BMPs are already listed in Appendix B. d. The proposed BMP provides more specificity than is necessary to direct lighting in order to minimize impacts to night skies. The proposed BMP also reduces flexibility for achieving the desired mitigation. An existing BMP in Appendix B states, "Use lights only where needed, use light only when needed, and direct all lighting onsite." f. The object to which a lighting fixture is attached has no bearing on illumination. g. Nighttime illumination is for the singular purpose of enabling the safe performance work in an industrial setting, and therefore, any prescribed lighting limitation must defer to that need. The BLM will not stipulate a lighting standard that could interfere with varied safety protocols. h. The proposed BMP provides more specificity than is necessary in choosing lighting color in order to minimize impacts to night skies. The proposed BMP also reduces flexibility for achieving the desired mitigation. An existing BMP in Appendix B states: "Reduce lamp brightness and select lights that are not broad spectrum or bluish in color." Alternative D would preclude intensive mineral activity, and therefore, would preclude intensive use of lighting. Nonetheless, this comment offers suggestions, rather than measurable performance standards which are enforceable, in apparent attempt to resolve a condition that has not been identified. Nighttime lighting is impermanent. It is used "as needed" and that use is occasional. Because we do not anticipate broad use of night lighting, we believe that the resource benefits that would result from stipulating the suggested subtle lighting nuances are not warranted. With regard to potash production facilities a BMP has added in Appendix B that would require a Lightscape Management Plan where an extensive amount of long-term lighting is proposed.	

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	night skies be strengthened by replacing the existing BMPs on DEIS p. B-5 with the following - Naturally Dark Night Skies a. Minimize flaring of gas and restrict to daytime hours when possible. When flaring is necessary at night, use a combustion chamber to reduce or eliminate glare. b. Limit the use of artificial lighting during nighttime operations to only those lights that are determined necessary for safety. c. Use shielding and aiming techniques as well as limiting the height of light poles to reduce glare and avoid light shining above horizons. d. Direct lights downward onto the task area. The bottom surface of the light fixture should be level, or if unable to be fully level, point it as close to straight down as possible or shield it to avoid light being projected horizontally. e. Use motion sensors, timers, or manual switching for areas that require illumination but are seldom occupied. f. Use vehicle-mounted lights for nighttime maintenance activities instead of permanent lighting structures. g. Reduce lamp brightness to the minimum necessary. Often visibility can be as good or sometimes better with a reduction to 1/4 of the original output. h. Select the right color of lighting. Broad spectrum or bluish lighting has a greater environmental impact than equivalent lumens of yellow/amber lighting. Amber LED should be used if possible where color rendition is not critical to the task. For safety critical areas, lighting should be warm-white with a color temperature of no more than 3000 deg. Kelvin.		
National Park Service, Southeast Utah Group	1) Overview of Natural Soundscape resources, Sec. 3.18.J (p. 3-17+): We suggest that the DEIS overview of natural soundscape resources be revised to include additional information about the importance of this resource to Canyonlands and Arches National Parks, as well as information about the availability and use of modeled data that characterize existing ambient sound conditions. We recommend that the following be used to replace the current text in the DEIS - Natural Soundscapes The natural soundscape is a resource that consists of the natural sounds that occur in a particular environmental setting, as well as the physical capacity for transmitting those natural sounds and their interrelationships with one another. The natural soundscape is a significant component of the recreational experience enjoyed by visitors to the Planning Area	1) Much of the information provided by the commenter is found in Chapter 3 (Section 3.18.1, Visual Resource Management, Natural Soundscapes). ***Some of the additional suggested information has been added to Chapter 3 (Section 3.18.1, Visual Resource Management, Natural Soundscapes).*** 2) Drilling rig selection is based on a number of technical attributes that are deemed necessary to safely and effectively drill the well as planned. The sound produced from a well site during drilling operations is often a composite of several different pieces of equipment--some of which are not part of the drilling rig, but are contracted independently—which change throughout the drilling process. Your suggested mitigation could produce the unintended consequence of making decibel	554

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	and adjacent lands, and is a particularly important element of the solitude that visitors seek in areas managed for wilderness values. Like airsheds, viewsheds, and watersheds, soundscapes transcend management boundaries and are among the resource values that are shared between the Planning Area and surrounding landscapes. NPS management documents identify the natural soundscape as an important resource in Canyonlands and Arches National Parks, both of which are managed to protect solitude and other wilderness values. Natural soundscapes in the Planning Area and adjacent lands can be impacted by noise generated by motorized recreation, mineral exploration and development, as well as other human activities. In addition to impacts of noise on visitors' experience of solitude, there is an extensive and growing body of research concerning adverse impacts of noise on wildlife (Shannon et al. 2015). The NPS has developed geospatial grids of modeled ambient sound level data for the entire United States. A subset of these data was used noise propagation modeling performed by NPS in 2014 to determine the potential impacts of mineral operations on NPS soundscapes (Stanley and Miller 2016). 2) Table 1-15, leasing stipulations for protection of natural soundscapes (p. 2-53+): In the first row under Auditory Management (Soundscapes), Alternatives C and D, we note and appreciate that BLM applies a CSU stipulation within 6.1 miles of Arches and Canyonlands National Parks that requires noise mitigation to protect natural soundscape conditions in the parks. The 6.1-mi distance, which we proposed in our May 2014 comments on BLM's preliminary alternatives, was derived from noise propagation modeling and the predicted distance for noise attenuation to zero audibility, using published values for unmitigated drilling rig sound power levels (Stanley and Miller 2016). Yet in the DEIS, the proposed requirement for noise mitigation is applied only to production, and excludes drilling in spite of the fact that existing information indicates that typical noise levels generated by drilling are greater than those generated by other phases of development. (Data are lacking for typical noise levels associated with potash processing, but it seems reasonable to assume that they generally do not exceed noise levels generated by drilling.) The proposed exclusion of drilling operations from noise-mitigation requirements may be based on the proposition that drilling is a temporary activity with a much shorter overall duration relative to production, and thus that noise generated by drilling would represent a relatively minor intrusion and impact on natural soundscape conditions. But we argue that the cumulative intrusive impact of drilling noise on soundscape conditions experienced at the location of a sensitive receptor (i.e., a visitor seeking solitude in an area managed for	level the principal rig selection criterion over safety and performance based attributes. For these reasons, the BLM has determined that it is not reasonable to impose a decibel standard for drilling operations. The CSU stipulation has been changed as follows: “Noise mitigation efforts would be implemented with a maximum level of 55 decibels for production (measured at 350 feet from the source). 3) In Alternative D, closed areas, as well as NSO stipulations, have been applied around Arches and Canyonlands National Parks (see Map 2-15-D, Oil and Gas Leasing Stipulations). These proposed leasing decisions provide a wide auditory buffer around these Parks as shown on Map 2-15-D. 4) A BMP is already in Appendix B (Noise) regarding the minimization of noise that is very similar to the one suggested. ***The wording of this BMP has been changed to substitute "quiet design mufflers" for "hospital grade sound reducing mufflers.”*** A BMP on locating drill pads, roads, and facilities below ridgelines, etc. is already included in Appendix B. In Alternative D, the Parks are surrounded by areas that are either closed to leasing or managed with a NSO stipulation (see Map 2-15-D) The CSU stipulation has been changed as follows: “Noise mitigation efforts would be implemented with a maximum level of 55 decibels for production (measured at 350 feet from the source). A BMP requiring a qualified sound expert for all lands within the Planning Area is not necessary given level of protection already imposed for the Park. The suggested BMP providing examples of specific noise reduction measures is unnecessary because a BMP for minimizing noise using best available technology is already listed in Appendix B and meets the same objective.	

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	wilderness values) is very significant when one considers that multiple wells may be drilled from one pad, that drilling is required for the development and periodic maintenance of production wells in addition to exploration, and that the total potential number of drilling operations within the acoustical range of a sensitive receptor is large over the 15-year span of the MLP. Although any one particular drilling operation certainly would be temporary, it is reasonable to conclude from a cumulative analysis that some type of drilling operation could be occurring somewhere within the acoustical range of a sensitive receptor during much (perhaps most) of the 15-year time span. Therefore, we ask that BLM revise Alternatives C and D to ensure adequate protections for natural soundscape conditions in Arches and Canyonlands National Parks by applying the noise-mitigation requirement to all phases of mineral operations, including drilling. We recommend the following language for use in Table 2-15 and Table A-1 - Throughout the entire Planning Area, apply BMPs to mitigate noise associated with all phases of mineral operations. Apply a CSU stipulation within 6.1 miles (9800 meters) of Arches and Canyon lands National Parks that requires the following measures: Noise mitigation efforts will be implemented to achieve a maximum equivalent-continuous sound level of 51 A-weighted decibels (51 dBA) during all phases of potash, oil, and gas operations (including but not restricted to activities associated with construction, well drilling and maintenance, well stimulation, production, and processing) at all sites and facilities (measured at 350 feet from the source). This sound level could be achieved by upgraded replacement engine exhaust silencers (mufflers), noise barriers, and other noise control measures. Information found in publicly available FERC Resource Reports and other published papers (e.g., Burge and Kiteck 2009, Bennett 1985) indicates that application of this noise-mitigation requirement to drilling is technically feasible and can be cost-effective. 3) If BLM is unable to revise the proposed stipulation and apply the noise-mitigation requirement to drilling in addition to other phases of mineral operations, then we ask that 20 BLM instead apply an NSO stipulation to all areas located within 6.1 miles of Arches and Canyonlands National Park to ensure adequate protections for natural soundscape conditions. 4) Appendix B, BMPs/or protection of natural soundscapes (p. B-5): We suggest that BMPs for protection of natural soundscapes be strengthened to better address the variety of noise sources expected in association with the many phases of potash, oil, and		

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	gas development. Because low frequency noise from improperly maintained mufflers can propagate for large distances with very little atmospheric attenuation and can be audible in otherwise quiet park environments, we ask that potential low frequency noise problems be addressed appropriately. We recommend that the existing BMPs on DEIS p. B-5 be replaced with the following - - Minimize noise by using best available technology, such as installation of multi-cylinder pumps, quiet design mufflers, and placement of exhaust systems to direct noise away from sensitive receptors. All mufflers shall be properly installed and maintained in proper working order. - Locate drill pads, roads, and facilities below ridgelines or behind topographic features to minimize auditory effects. - If low frequency noise impacts are identified, they will be investigated by a qualified sound expert and mitigated as appropriate to prevent audibility within Arches and Canyonlands National Parks. (See ANSI Sl2.9/Part 4 Annex D for a description of low frequency analysis techniques.) - In areas where noise mitigation is required by a CSU stipulation, a combination of noise reduction measures will be identified and applied to meet the mitigation requirement. Such noise-reduction measures might include use of buildings or other enclosures to house noisy gas compression equipment, installation of a noise barrier with interior facing sound-absorptive material around perimeter of drilling operation, use of "lownoise" generators (designed with factory acoustical enclosures, or with appropriately engineered aftermarket enclosures and upgraded mufflers), and use of additional partial noise barriers or hoods for particularly noisy items (Burge and Kiteck 2009, Bennett 1985).		
Individual	Stipulations need to be included for all development phases. Understanding the need for safety in drilling operations especially, the drilling site can be well lighted and still not be lighting the entire horizon.	Appendix B--Best Management Practices includes management for night skies and lighting. The BMPs state that during drilling operations, more lighting will be needed due to safety requirements.	558
Agapito Associates, Inc.	There is no need to establish visual buffers to the Parks. The boundary of the Parks should be the boundary of the Parks.	The commenter's desire for no visual buffers to the Parks is noted.	649
The Wilderness Society	The Preferred Alternative would close VRM Class II and VRI Class II areas around Arches as well as VRM Class II areas on the northern boundary of Canyonlands and a three mile buffer along the eastern boundary of Canyonlands to mineral leasing. We support the BLM's decision to close these areas and recommend that the viewsheds from the northern boundaries of Canyonlands and	In Alternative D, the BLM has closed the VRM and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the parks. Going beyond these	674

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	Arches that fall outside of the VRM Class II areas as well as the eastern side of Arches also be closed to mineral leasing.	closed areas would not meet the objective in Alternative D of providing mineral leasing and development outside of these high value areas.	
The Wilderness Society	The Draft MLP should provide an explanation, with citation to data or information, to support the assumption made in the MLP that the proposed one mile NSO setback from the rims along the Colorado and Green Rivers is adequate to protect their "internationally recognized" and "world-famous" scenic values. Draft MLP at 3-117; id. at 2-52 (Alternative D adopts a slightly modified version of Alternative B which establishes a 1-mile setback). The proposed one mile setback is intended "to protect the visual resources along the rims of the Colorado and Green Rivers." Id. at 2-52. The canyon rims along the Colorado and Green Rivers and one mile setback there from are visible to visitors in numerous "high" or "very high" use recreation sites throughout the Planning Area and thus, does not protect the region's world renown visual resources for these visitors. See, e.g., id. at 3-120, Fig. 3-6; id. at 3-121, Fig. 3-7. To the extent that the setback is intended to protect visual resources for only visitors to areas below the canyon rims (e.g., boaters floating the relevant rivers), the Draft MLP does not offer any qualitative or quantitative analysis or data to demonstrate that a one mile buffer is sufficient. See generally id. 4-191 to -202 (providing only a comparison between the various considered alternatives). For example, BLM should more fully assess if a one mile setback is appropriate when compared to the two mile setback proposed in Alternative C, or some larger setback. See id. 2-52. Similarly, BLM should explain how the proposed exceptions to the NSO setback will affect visual resources for visitors above and below relevant canyon rims.	Alternative D was developed to provide for mineral development while protecting high use recreation and scenic quality; Alternative C emphasizes resource protection over mineral leasing. The BLM recognizes that Alternative C provides more protection for recreation and scenic quality than does Alternative D. The intent of the stipulation protecting the rims of the Colorado and Green Rivers is to protect the view of the rivers, both from the rivers themselves and from the rims. The BLM's experience with viewsheds from river level indicates that very little setback is required in order for structures to not be visible from the river. The intent of the stipulation is also to protect the view of the rivers from the rim and not the general view of the landscape beyond the rims. BLM experience indicates that a 1-mile distance is sufficient to reduce visual impacts within the foreground view, especially given the topography of the Planning Area. The exception to the NSO stipulation states: "The Authorized Officer may grant an exception if a viewshed analysis indicates no impairment of the visual resources of the rims from either the rims or from the rivers." This exception could not be achieved if the structure were visible within the 1-mile setback from the rim.	678
Individual	Adjacent extraction should be far enough removed from park boundaries as to not to impose light pollution on the protected area.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the Park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the Parks. Alternative D also imposes a 2.5-mile NSO area around Arches	720

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		and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. Appendix B--Best Management Practices includes management for night skies and lighting to protect the dark night skies adjacent to the parks.	
Individual	I urge you to write the final regulation not just in terms of what actions are allowed or not allowed, but rather to include specific language regarding measurable outcomes. For example in addition to saying "no gas flares within 10 miles," say "no man-made light greater than 10 lumens visible from any point within a National Park." In addition to saying "no noisy activities" say "no man-made sound greater than 10 decibels detectible from any point within a National Park".	The BLM acknowledges that dark night skies are a recognized resource throughout the Colorado Plateau. However, the extent of the impact to dark night skies from mineral operations in the Planning Area has not been clearly identified. Because of the evolving nature of this resource and all of the potential mitigation measures, BMPs provide a flexible mechanism for addressing night skies. Therefore, in Alternative D, BMPs were developed for reducing impacts from mineral operations to night skies (Appendix B, Night Skies). These BMPs would be applied as conditions of approval to site-specific mineral operations throughout the Planning Area. BMPs may be updated or added to stay current with the latest technology which is continually evolving with regard to lighting. For more information, see Appendix B (Best Management Practices, Introduction). Furthermore, the greater flexibility provided by BMPs would provide an effective method for managing night skies in the Planning Area because of 1) the relatively low level of ongoing and projected mineral development, 2) the temporary nature of drilling and completion operations, and 3) the lack of permanent lighting on most production facilities. ***A BMP has been added to Appendix B requiring the development of a Lightscape Management Plan where an extensive amount of long term permanent lighting is proposed.*** Another major factor for consideration is that drilling operations are temporary (typically up to 6 weeks), and drilling rigs, which are subcontracted, are not under complete control of the lessee. The capability of a drilling rig to safely perform the proposed operation (including the capability of drilling over 1-mile laterally) under challenging subsurface conditions must remain the principal rig selection criteria. The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM	723

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		Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the Park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the Parks. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. Appendix B--Best Management Practices includes management for night skies.	
Individual	Parks should be a place of renewal of spirit for all who visit. Everything is important: the scenic views, the stillness, the undisturbed land and water. Light pollution is everywhere; it does not belong in national parks, those sacred places where we go to repair our spirit. And while we are at it, let's make sure there are no loopholes, ways to somehow bypass the rules because of unclear language.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the Park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the Parks. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. Appendix B--Best Management Practices includes management for night skies. Nearly all lease stipulations should have exception, waiver, and modification criteria documented in the land use plan and on the lease. In limited circumstances it may be possible to identify, for example, waiver criteria that are appropriate, but due to the nature of the resource that is being protected, not exception or modification criteria. In other cases there may be general exception, waiver, or modification criteria developed in the land use plan that applies commonly to all or most lease stipulations and does not need to be repeated individually for each lease stipulation identified in the plan (BLM Washington Office Instruction Memorandum 2008-032).	740

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		Exceptions to a lease stipulation are applied at the site-specific proposal level, such as an APD, through the NEPA process, and, as a result, is subject to all consultation requirements as well as public comment. This is stated in BLM Washington Office IM 2008-032: "The criteria for approval of exceptions, waivers, and modifications should be supported by National Environmental Policy Act (NEPA) analysis, either through the land use planning process or site-specific environmental review."	
Individual	Please consider the use of parkland and adjacent areas as a whole. I'm an avid backpacker, myself, and I can tell you with great certainty that I would not want to see our most beautiful natural places marred for the sake of short-term gain by the oil and gas industry, with increased traffic, air, light and noise pollution, and ruined vistas.	The BLM worked closely with the National Park Service when drafting the management for the MLP/DEIS for the most important or sensitive resources on BLM lands adjacent to the National Parks. For example, in Alternative D, the BLM has closed the VRM Class II and VRI Class II areas surrounding Arches National Park. Additionally, the BLM closed the VRM Class II acres on the north side of Canyonlands. The VRM Class II and VRI Class II areas included park viewsheds in the inventory process for these visual classifications. The areas along the eastern boundary of Canyonlands National Park are closed in Alternative D in order to protect high quality scenic values in the foreground viewshed of the Park. As a result, Alternative D precludes mineral leasing and development in the areas with the highest scenic quality surrounding the Parks. Alternative D also imposes a 2.5-mile NSO area around Arches and Canyonlands National Park to reduce noise production; this area is, for the most part, subsumed within the area managed as closed for visual resources. Appendix B--Best Management Practices includes management for night skies.	749
Water Resources			
Individual	As a side note, the draft document are insufficient to fully evaluate the extent of the Three Rivers Withdrawal. While the acreage is stated [23,441 acres], the reader is unable to determine the width of the withdrawal. Is it constant, or does it vary with the terrain adjacent to the rivers?	Map 2-4-A/B/D in the MLP/DEIS displays the extent of the Three Rivers Withdrawal (NSO). The width varies depending on topography and land ownership.	8
EPA, Director of NEPA Compliance and Review Program	Regarding groundwater aquifers, we recommend that the Final EIS identify which aquifers are potential Underground Sources of Drinking Water (USDWs) based on existing information. USDWs are defined to include aquifers with a concentration of Total Dissolved Solids (TDS) less than 10,000 mg/L and with a quantity of water sufficient to supply a public water system. Aquifers are presumed to be USDWs unless they have been specifically exempted or if they have been shown to fall outside the definition of	***The definition of USDWs has been added to Chapter 3 (Soil and Water, Groundwater Resources).***	18

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	USDW (e.g., over 10,000 mg/L TDS). Please note that the definition of USDW is different from the definition of groundwater "suitable for drinking water" provided in the Draft EIS, which states "Groundwater is considered suitable for drinking water with 3,000 mg/L or less of total dissolved solids and that do not exceed State and Federal groundwater-quality and health standards."		
EPA, Director of NEPA Compliance and Review Program	We note that the Total Maximum Daily Load (TMDL) for the Colorado River was approved in June 2014, and is no longer in Draft form as stated in the document.	***The text in Chapter 3 (Soil and Water, Impaired Waters/TMDL) was revised to reflect that the Total Maximum Daily Load was approved in June 2014.***	19
EPA, Director of NEPA Compliance and Review Program	According to the Draft EIS, there are two Sole Source Aquifers (SSA) located adjacent or close to the Planning Area. The Castle Valley SSA is the source of drinking water for the Town of Castle Valley, and the Glen Canyon SSA is the source of drinking water for the City of Moab and Spanish Valley. Although the SSAs do not overlap the Planning Area, decisions made through the MLP process may indirectly affect water quality in the aquifers. Due to their critical importance as drinking water supplies, we recommend that the Final EIS discuss potential impacts to the SSAs from mineral leasing activities within the Planning Area, and discuss how resource protection measures included in the MLP will protect those sensitive resources. From the maps provided, it appears that many of the areas surrounding the SSA will be closed for leasing or managed as No Surface Occupancy (NSO) under the Preferred Alternative, which will afford additional protection.	***Text has been added to Chapter 4 (4.13.2, Water Resources) discussing how resource protection measures will protect the Castle Valley and Glen Canyon Sole Source Aquifer for all alternatives.***	20
EPA, Director of NEPA Compliance and Review Program	The Draft EIS discusses water resource impacts common to all alternatives and provides greater detail regarding impacts specific to each alternative. It is sometimes difficult to tell from the discussion of the individual alternatives what potential adverse effects to water resources, including quality and quantity, are expected, because much of the discussion is presented in a comparative format (e.g., whether decisions specific to each alternative increase or decrease potential impacts relative to other alternatives). The EPA recommends that possible effects to surface and groundwater quality and quantity for the alternatives be more clearly discussed.	***Additional information has been added to Chapter 4 (4.13.2, Water Resources) concerning the effects to surface and groundwater quantity and quality for all alternatives.***	21
EPA, Director of NEPA Compliance and Review Program	The discussion of impacts to water quantity focuses on impacts of potash development, and provides no quantitative information regarding potential impacts from oil and gas development. While oil and gas development is expected to have less impact than potash, the EPA recommends water needs and potential sources (e.g., surface water, groundwater and/or produced water) for each	***Text has been added to the analysis in Chapter 4 (4.13.2, Water Resources) providing a quantification of water use for oil and gas operations, as well as comparisons of total water use for mineral development and their corresponding impacts for all alternatives.***	22

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	alternative should be clearly discussed for both potash and oil and gas exploration and production.		
EPA, Director of NEPA Compliance and Review Program	We recommend that the Final EIS discuss potential impacts from leaks or spills as well as how various alternatives mitigate these impacts. Spills from drilling and production, pipelines, and potash production all have potential to significantly impact surface and groundwater resources, especially when in close proximity to a waterbody, including ephemeral and intermittent streams and wetlands, or over unconfined aquifers. This includes spills and leaks of brines as well as petroleum.	***Text has been added under all alternatives in Chapter 4 (4.13.2, Water Resources) to address the impacts of leaks and spills by alternative. Spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation.***	23
EPA, Director of NEPA Compliance and Review Program	While general impacts to surface water quality are discussed, the Draft EIS does not consider how impaired waterbodies may be impacted by possible increases in the pollutant of concern. We recommend that the Final EIS identify the specific impairment for water bodies in the Planning Area (e.g., selenium for aquatic life) and discuss whether MLP activities are anticipated to result in increases of these constituents.	The specific pollutant of concern for each of the impaired waterbodies is identified in Chapter 3 (Soil and Water, Impaired Waters/TMDL Reports). ***Language has been added to Chapter 4 (4.13.2, Water Resources) to assess the impacts of proposed mineral leasing stipulations on impaired water bodies by alternative.***	24
EPA, Director of NEPA Compliance and Review Program	The EPA recommends the Final EIS identify and summarize the extent of knowledge that exists, including a list of any specific closure and/or plugging records for permanently and temporary plugged and abandoned wells. The EPA also recommends, based on the existing extent of knowledge, adding an assessment and potential impact summary in the Final EIS of how effective past closures have been to protect ground water resources from any potential migration of contaminants within and/or to formations that abandoned and plugged wells are located in.	There is no evidence that past closures of oil and gas wells have resulted in impairments to groundwater. The BLM is aware of one historic (1950's-60's) plugging failure that resulted in salt water reaching the surface from inside the production casing. There was no indication, direct or implied, of groundwater having been affected. Because the operator that plugged the well no longer existed, the BLM required that operator's successor to re-enter the well, drill out the salt and failed cement plugs, and re-plug the well. ***Text has been added to Chapter 3 (3.7.1, Minerals: Oil and Gas, Historical Drilling Activity) summarizing the extent of this knowledge. In addition, an analysis assumption has been added to Chapter 4 (4.8.1, Minerals, Oil and Gas, Assumptions) explaining that BLM drilling experience has shown that plugging and closure procedures have proven successful in protecting groundwater resources.***	25
EPA, Director of NEPA Compliance and Review Program	As noted in the Draft EIS, salinity in the Upper Colorado Basin is largely attributed to nonpoint source runoff from surface disturbance of Mancos Shale derived soils. Further, the TMDL for the Colorado River was approved in June 2014 and cites the Mancos shale derived soils as a naturally occurring source of selenium, i.e., the pollutant causing the impairment for this water body. We are concerned that the proposed timing limitations would not be sufficient to prevent these soils from contributing additional salinity to surface waters once they are disturbed. A Timing Limitation is proposed that specifies no surface disturbing activities from	The BLM would apply the TL stipulation to preclude surface disturbing activities from December 1 to May 31 in order to prevent erosion during the wet season. For the remainder of the year the BLM would impose best management practices in order to minimize the impacts from mineral activities.	26

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	December 1 to May 31 to minimize watershed damage such as topsoil loss during the traditionally wet season. However, thunderstorms and other rain events in the summer and fall months could still result in erosion and sediment runoff. Due to the sensitive nature of the soils, we recommend that surface disturbance associated with activities in these areas during June through November be minimized. Further, we recommend that best management practices be required in these areas to protect from storm events and reduce sediment runoff.		
EPA, Director of NEPA Compliance and Review Program	The EPA continues to support the NSO stipulation proposed for Alternative C to protect the valuable groundwater recharge area in the Courthouse Wash Watershed and recommend that this stipulation be incorporated into Alternative D. We appreciate that a Controlled Surface Use (CSU) stipulation has been incorporated into Alternatives Band D that provides some protection for the sensitive water resource by requiring the use of closed loop drilling, use of tanks for produced water, and a water monitoring plan. If the BLM does not protect the area with NSO, we recommend that this CSU also include downhole protections such as well integrity tests.	***The CSU stipulation in Chapter 2 (Table 2-11) and Appendix A (Table A-1) to protect groundwater recharge in Courthouse Wash Watershed in Alternative D has been modified so that the authorized officer can require the operator to conduct reasonable tests which will demonstrate the mechanical integrity of the down hole equipment.***	27
EPA, Director of NEPA Compliance and Review Program	Despite the 500 foot buffer around the springs themselves, impacts to the hydrologic structure of the area could still affect the quantity or quality of water in the springs. If the supporting hydrology is impacted, springs could not be restored to their prior condition. For this reason, the EPA supports the NSO stipulation included in Alternative C for the spring areas as more appropriately protective than the CSU stipulation proposed under Alternative D because it may be difficult or impossible to develop a drilling plan that "demonstrates how water resources would be protected," as proposed in the CSU.	The BLM asserts that the CSU stipulation is adequate to protect spring areas. This stipulation goes beyond what was imposed in the approved RMPs (Alternative A). The primary focus of BLM during the approval of drilling operations is to protect water resources through casing and cement. In addition, there is a multitude of BMPs addressing the protection of water resources including springs.	28
Red Ant Works, Inc.	Protect all watersheds—please protect the watersheds in this arid landscape. Millions of people and animals are downstream.	In Alternative D, the recommendations of the EPA were followed concerning protection of water resources. Under Alternative D, an NSO stipulation precludes mineral activities within public water reserves, 100-year floodplains and within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs will add greater protection to water resources.	312
Individual	Particular emphasis on NO DISTURBANCE of surface hydro features like Courthouse and Salt Washes, both of which drain straight into Arches National Park is needed (Alt. C, A-30). There should be no waiving or exceptions of stipulations where there is any potential for desert water resources to be compromised. Please adopt Alternative C as the agency preferred alternative, which allows oil and gas development while regulating the details of	The commenter's preference for Alternative C is noted.	380, 559, 703

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	implementation in a way that makes the most sense from an aesthetic and resource perspective, but which also prohibits potash leasing to protect water resources in the master plan area and its surroundings.		
Individual	Water resources -- page 4-131 the draft MLP states: Potential impacts on groundwater resources from fluid mineral extraction activities, including hydraulic fracturing (HF), could include the following scenarios: • Contamination of aquifers during drilling through the introduction of drilling fluids. • In the unlikely event that casing fails, extended fracture growth may allow fracking fluid migration into source water zones or drinking water supplies. • Cross-contamination of aquifers from the introduction of drilling fluids into one aquifer that travels upward into shallower units due to improperly sealed well casings. • In the unlikely event that casing strings fail, progressive contamination of deep confined, shallow confined, and unconfined aquifers may be possible. • Contamination of shallow aquifers and surface water by improperly managed or closed reserve pits. A generalized discussion follows in the MPL, including adherence to various regulations on water quality. However there is the very real possibility of casing failures and other avenues of potentially devastating damage to water resources. Listing constraints which may or may not actually be functional in oil and gas operations is off the point. This is where a risk analysis would be appropriate. The Plan is absent a risk analysis or even general disclosure of likelihoods of failure, both absolute and relative to other extractive activities (e.g. traditional oil extractions, non-slickwater gas extractions, mineral extractions, etc.) and thus the document fails its disclosure function. The higher risk and less regulated nature of today's fracking is not discussed in the Plan, although possible improved future regulation is mentioned as a safeguard. No specifics are given to gauge likelihood or timeframes of such improved regulations. There is adequate literature on the relative risks of fracking with slickwater relative to other extraction of gas, oil, minerals. There is also adequate literature on the lack of EPA oversight on natural gas extraction at this time. The Plan should portray this in comparison to certain other resource extractions practices and risks. The discussion of aquifers and possible extent of impacts does not tie these to meaningful social endpoints, such as explanation of how this could adversely affect local supplies of drinking water, NPS ecosystems, etc... The possible effects to the human environment, in terms meaningful to lay people, should be given. You can find statistics revealing that the risk of failures and water resource damage are much higher with fracking than other procedures because of the current lack of required EPA accountability. However, the plan does	Hydraulic Fracturing: The following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Horizontal drilling involving advanced HF techniques have only been conducted within the Planning Area on a limited basis over the last few years. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells. The oil utilized in HF operations is recovered along with produced hydrocarbons and placed in production tanks and, therefore, the need for the storage of waste fluids is eliminated. In the future, the trend for using oil as HF fluid for initially unsuccessful wells is likely to continue. HF could be utilized for other target formations in the future, but the extent is unknown at this time. Within the Planning Area the Paradox Formation is generally 4,000 to 5,000 feet thick and is comprised mainly of salt, layered with thinner sedimentary zones, such as the Cane Creek Shale zone which is the principal producing target within the Planning Area and which occurs near the bottom of the Paradox Formation. The thick sequence of bedded salts is not only an effective confining zone, but is also a deterrent to aggressive HF design. In addition, the following discussion is from Chapter 3 (Section 3.7.1, Minerals: Oil and Gas, Hydraulic Fracturing): Areas with the greatest oil and gas development interest within the Planning Area generally have Entrada and Glen Canyon Aquifers exposed at the surface and extending to a depth of approximately 1,000 feet. To ensure the effective isolation of these sensitive formations, a continuous string of steel pipe (or "casing") known as the "surface" casing is placed in the well, extending from the surface to at least 50 feet below the bottom of the aquifer. The entire length of that casing string is then cemented into place. The casing is then pressure tested to ensure there are no leaks before deeper drilling resumes. After drilling to the top of the Paradox Formation at a depth of approximately 4,500 to 5,500 feet, a second continuous string	428

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	not include such discussion, which would disclose a sense of relative risk of the proposed action. A discussion of what could be lost in a contamination scenario should also be explicitly discussed, because extremely valuable resources are potentially involved, including NPS resources, potable water supplies, and damage to lands which are to remain unimpaired. A failure resulting in water contamination could have broad reaching economic and biological effects, potentially into the foreseeable future. This risk should be used to evaluate the appropriateness of the proposed action (MLP alternatives). In a local area such as SE Utah, where the community has shown notable concern over fracking, it needs to be addressed explicitly. One wonders, "Why is the BLM not postponing the possible leasing for fracking until technology improves and EPA oversight is in a more 'normal' mode, rather than the current free for all?"	of steel is placed inside the first, from the surface to the bottom of the hole. This casing string, known as "intermediate" casing, is then cemented into place with the goal of again cementing the entire length of casing. The intermediate casing string also serves to isolate water flows that may be present in the Cutler Formation. If the cement does not circulate all the way to surface, a cement bond log (CBL) or cement evaluation tool (CET) is run in the well to evaluate the effectiveness of cement placement. This casing string is then pressure tested and the well is drilled to the target formation and to the final well depth. As drilling continues to the target formation which contains oil and gas, the oil, gas, and drilling fluids are contained within the casing. At this point in the procedure aquifers are separated from the fluids by two layers of steel casing and two layers of cement. When the final well depth has been reached, another steel casing string, known as "production" casing is then set inside the intermediate casing from the bottom of the well to the surface usually, but always to at least 200 feet above the bottom of the intermediate casing. This casing is then cemented from the bottom of the well to at least 200 feet above the bottom of the intermediate casing, and a CBL or CET is run to evaluate the cement on this casing string also.	
National Parks Conservation Association	The Draft Preferred Alternative makes a good effort to protect many of the important water resources within the planning area. However, because these systems are so critical to overall ecosystem health within this portion of the Colorado Plateau, the Final MLP needs to include the strongest possible protections for all water resources. The Final MLP must include maximum distances of NSO around all water resources as applied in Alternative C, with no exceptions, modifications, and waivers.	The water buffers applied in Alternative D are those recommended by the Environmental Protection Agency, the agency with jurisdictional authority and expertise in these matters.	443
National Parks Conservation Association	The preferred management is as follows: NSO within the Courthouse Wash and Salt Wash Watersheds adjacent to Arches National Park. BLM acknowledges the importance of these watersheds when describing the purpose for the NSO stipulation in Alternative C as "to protect Courthouse Wash watershed (an important recharge area for the unique ecological system within Arches National Park) and the Salt Wash watershed (an important watershed which drains through Arches National Park)." The stipulation should also include the requirement "where horizontal and directional drilling is conducted from areas adjacent to these watersheds, drilling operations would not penetrate the associated groundwater" (A-30).	The commenter's desire for Alternative C regarding a NSO stipulation for Courthouse Wash and Salt Wash watersheds is noted. Alternative D was developed to provide for mineral leasing and development while protecting resources; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for the watersheds than does Alternative D. The Baseline CSU stipulation has been applied in Alternative D to the Courthouse Wash ***and Salt Wash*** watersheds in order to limit the amount of drilling that could potentially occur. In addition, a CSU stipulation has been applied in Alternative D to the Courthouse Wash and Salt Wash watersheds which requires the use of closed loop drilling, the use of tanks for	444

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		produced and backflow water, a water monitoring plan, and well integrity tests. The purpose of this CSU stipulation is to ensure containment of fluids associated with oil and gas operations and to protect the Courthouse Wash and Salt Wash watersheds. ***Text has been added to Chapters 2 (Table 2-11, Soil and Water), Appendix A (Table A-1), and the analysis in Chapter 4 (Water Resources and Riparian Resources) regarding the application of this CSU stipulation to the Salt Wash watershed.*** In addition, in Alternative D, the streams (perennial, intermittent, and ephemeral) and springs within the watersheds are protected with a NSO stipulation. The NSO stipulations requested by the commenter are included in Alternative C.	
National Parks Conservation Association	The preferred management is as follows: NSO within public water reserves, 100-year floodplains, and within 660 ft. of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs to protect those water resources (A-28)	The commenter's desire for Alternative C regarding a NSO stipulation within 660 feet of public water reserves, 100 year floodplains, etc. is noted. Alternative D was developed to provide for mineral leasing and development while protecting resources; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for water resources than does Alternative D. Alternative D applies a NSO stipulation for the subject water resources requiring a 500 foot buffer. A 500 foot buffer was recommended by the EPA.	445
National Parks Conservation Association	The preferred management is as follows: NSO within 200 ft. from ephemeral streams to protect the major river systems in the Planning Area (A-29)	The commenter's desire for Alternative C regarding a NSO stipulation within 200 feet from ephemeral streams is noted. Alternative D was developed to provide for mineral leasing and development while protecting resources; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative C provides more protection for ephemeral streams than does Alternative D. Alternative D applies a NSO stipulation within 100 feet from ephemeral streams. A 100 foot buffer was recommended by the EPA.	446
National Parks Conservation Association	The preferred management is as follows: NSO within 1,000 ft. of the Colorado River and Fisher Creek to protect impaired water bodies that are not meeting Utah water quality standards (A-29)	The commenter's desire for Alternative C regarding a NSO stipulation within 1,000 feet of the Colorado River and Fisher Creek is noted. Alternative D was developed to provide for mineral leasing and development while protecting resources; Alternative C emphasizes resource protection over mineral leasing and development. The BLM recognizes that Alternative	447

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		C provides more protection for the Colorado River and Fisher Creek than does Alternative D. Alternative D applies a NSO stipulation within 750 feet from the Colorado River and Fisher Creek. A 750 foot buffer was recommended by the EPA.	
National Park Service, Southeast Utah Group	1) New information - Arches National Park Water Rights Agreement: In May 2015, NPS and the State of Utah finalized a water-rights agreement that protects water resources for administrative uses and in situ uses in Arches National Park. As described in the Agreement, "Such in situ uses include but are not limited to providing water for riparian and wetland MLP vegetation and ecosystems; hanging gardens; planning geomorphologic processes; wildlife habitat and watering; and other uses that shall satisfy and promote the scenic, conservation, preservation, protection, recreational, and other purposes for which the Park was established." According to the Agreement, "Utah hereby recognizes and establishes a protection zone (the "Protection Zone") to protect the flow of perennial, intermittent, and ephemeral streams, seeps, springs, and other naturally occurring water within the Park whose source is surface water or groundwater from the Entrada aquifer. For purposes of this Agreement, the "Entrada aquifer" is defined as the Slick Rock Member of the Entrada Sandstone, the Moab Member of the Curtis formation, and all other rock units lying above the Moab Member of the Curtis Formation to and including the ground surface. Geologic units below the Entrada aquifer are not included in the Protection Zone." The Protection Zone is comprised of the area from the ground surface to the base of the Entrada aquifer in portions of the Courthouse Wash, Sevenmile Canyon, and Salt Wash drainage basins (Fig. I). We recommend that this new information be used to update pertinent portions of Section 3.12.2, including the description of springs found in the Courthouse Wash and Sevenmile Canyon watersheds on p. 3-76. 2) Chapter 3, Rivers (p. 3-71+): We ask that the description of river-related resources in Chapter 3 be revised to indicate explicitly that the Green and Colorado Rivers both flow through Canyonlands National Park downstream of the MLP planning area, and thus that activities associated with oil, gas, and potash development in the planning area have the potential to impact riverine riparian and aquatic resources in the park. Notably, the May 2014 spill incident near Ruby Ranch resulted in the discharge of well fluids into the Green River and downstream through Canyon lands. 3) Chapter 3, Streams (p. 3-72+): We also ask that this section be revised to indicate explicitly that surface waters in the Courthouse	1) Chapter 3 (Section 3.12.2, Spring Areas) has been updated to include information from the water rights agreement between Arches National Park and the State of Utah. ***2) Text has been added in Chapter 3 (Section 3.12.2, Water Resources, Surface Water Resources) to show the relationship between the rivers and the Park boundaries.*** ***3) Text has been added in Section 3.12.2 (Water Resources: Surface Water Resources) to state: "Streams within the Courthouse Wash and Salt Wash watersheds flow immediately into Arches National Park and then downstream to the Colorado River." Analysis has been added to Chapter 4 (Section 4.13.2, Water Resources, Impacts from Alternative A) to acknowledge the impacts from unintended leaks and spills to water resources.*** 4) The stream flow gauge at Mineral Bottom is displayed on Map 3-80. ***Information has been added to Chapter 3 (Section 3.12.2, Water Resources, Surface Water Quality) to acknowledge the existence of the monitoring station at the potash plant on private land.*** 5) The Baseline CSU stipulation has been applied in Alternative D to the Courthouse Wash ***and Salt Wash*** watersheds in order to limit the amount of drilling that could potentially occur. In addition, a CSU stipulation has been applied in Alternative D to the Courthouse Wash and Salt Wash watersheds which requires the use of closed loop drilling, the use of tanks for produced and backflow water, a water monitoring plan, and well integrity tests. The purpose of this CSU stipulation is to ensure containment of fluids associated with oil and gas operations and to protect the Courthouse Wash and Salt Wash watersheds. ***Text has been added to Chapters 2 (Table 2-11, Soil and Water), Appendix A (Table A-1), and the analysis in Chapter 4 (Water Resources and Riparian Resources) regarding the application of this CSU stipulation to the Salt Wash watershed.***	551

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	Wash and Salt Wash watersheds drain through Arches National Park downstream to the Colorado River, and thus that activities associated with oil, gas, and potash development in those watersheds have the potential to impact riparian and aquatic resources in the park. 4) Chapter 3, stream flow and sediment monitoring: We recommend that text on p. 3-80 and Map 3-37 be updated to indicate that new stream flow and sediment gauges have been installed on the Colorado River at Potash in addition to those installed on the Green River at Mineral Bottom upstream of Canyon lands National Park. 5) Table 2-11, leasing stipulations for the Courthouse Wash and Salt Wash watersheds (p. 2-42): We acknowledge that the baseline CSU stipulation, the closed-loop drilling stipulation, and existing BLM and State of Utah drilling regulations provide significant protections for park resources. But the May 2014 spill incident near Ruby Ranch indicates that accidents do occur, and that response and clean-up efforts can be complicated by unexpected weather conditions and logistical challenges. Accordingly, to establish stronger protections for water resources and associated riparian and aquatic ecosystems in the Courthouse Wash watershed in Arches National Park, we recommend that Alternative D (Preferred) for the Courthouse Wash watershed be revised to read as follows in Table 2- 11 and Table A- I – Apply an NSO stipulation to the portion of the Courthouse Wash watershed that lies east of the Moab Fault and coincides with the Protection Zone established by the State of Utah to protect waters in Arches National Park. This stipulation would include a requirement for not penetrating the Entrada aquifer within the Protection Zone where horizontal and directional drilling is conducted from areas adjacent to the NSO. Elsewhere in the Courthouse Wash watershed west of the Moab Fault, apply the Baseline CSU stipulation to limit the amount of drilling in this watershed that drains through Arches National Park. Also in the Courthouse Wash watershed west of the Moab Fault, apply an additional CSU stipulation that requires the use of closed loop drilling, the use of tanks for produced water or backflow water, and a water monitoring plan. Monitoring will occur prior to, during, and after anticipated mineral development to detect impacts on both surface water and groundwater resources. To establish stronger protections for water resources and associated riparian and aquatic ecosystems in the Salt Wash watershed in Arches National Park, we recommend that Alternative	In addition, in Alternative D, the streams (perennial, intermittent, and ephemeral) and springs within the watersheds are protected with a NSO stipulation. The NSO stipulations requested by the commenter are included in Alternative C.	

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	D (Preferred) for the Salt Wash watershed be revised to read as follows in Table 2-11 and Table A-1 – Apply an NSO stipulation to the portion of the Salt Wash watershed that coincides with the Protection Zone established by the State of Utah to protect waters in Arches National Park. This stipulation would include a requirement for not penetrating the Entrada aquifer within the Protection Zone where horizontal and directional drilling is conducted from areas adjacent to the NSO. Elsewhere in the Salt Wash watershed, apply the Baseline CSU stipulation to limit the amount of drilling in this watershed that drains through Arches National Park.		
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	While undisturbed land can retain greater amounts of water through plants and pervious soil, land that has been disturbed or developed may be unable to retain as much water, thereby increasing the volume of runoff. The area of land that is able to retain water will be significantly decreased if unconventional oil and gas extraction methods are permitted to expand. Water from precipitation and snowmelt can serve as an avenue through which contaminants travel from an operation site to sensitive areas, including population centers. Contaminated water runoff may seep into residential areas, polluting streets, sidewalks, soil, and vegetation, adversely affecting human health. Thus, not only do these oil and gas activities create pollution, they create greater conduits for storm water runoff to carry those pollutants from the operation site, into areas in which significant harm can be caused. Rapid runoff, even without contaminants, can harm the environment by changing water flow patterns and causing erosion, habitat loss, and flooding. Greater runoff volumes may also increase the amount of sediment that is carried to lakes and streams, affecting the turbidity and chemical content of surface waters. Because a National Pollutant Discharge Elimination System permit is not required for oil and gas operations, it is particularly important that the impact of runoff is considered as part of the NEPA process.	Runoff was considered in many of the impact analyses in Chapter 4, including Riparian Resources, Soil and Water, Special Designations, and Vegetation, to name a few. Because this is a landscape-scale planning document, analysis for specific chemicals or specific locations was not conducted. More specific analysis will be conducted during the site-specific NEPA analysis for an oil/gas or potash lease.	592
The Wilderness Society	The Preferred Alternative prohibits surface occupancy within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs; within 100 feet of ephemeral streams and within 750 feet of the Colorado River and Fishers Creek. In order to prevent the degradation of these water sources and ensure the long-term success of any developed well pads, we recommend that surface occupancy be prohibited within 660 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs, within 200 feet of ephemeral streams and	In Alternative D, the recommendations of the EPA were followed concerning protection of water resources. While a greater buffer provides more protection as specified in Alternative C, the goal of Alternative D is to provide for mineral development while protecting water resources.	671

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	within 1,000 feet of the Colorado River and Fishers Creek. As stated in Chapter 4.11.5 "Increasing the NSO stipulation for the Colorado River and Fishers Creek "could also prevent the infestation and spread of invasive, nonnative plant species, provide protection to nearby riparian vegetation, and support overall functioning condition." Similar benefits would be seen by increasing the NSO stipulations for other water sources as described above. If BLM agrees that this resource is of significant value, applying these stipulations as described in Alternative C is a common sense solution. See infra for additional information on protecting water resources. Additionally, the Three Rivers Mineral Withdrawal Area must be closed to leasing to protect riparian resources. The Preferred Alternative manages this area as NSO with no exceptions, modifications or waivers. However, given the location of the withdrawal area, the potential for significant negative impact, and the already stringent disturbance limitations, BLM should go one step further and close the area to development entirely. The Courthouse Wash Watershed is the recharge area for the springs in Arches National Park and the Salt Wash Watershed is an important watershed that drains through Arches. An easy way to mitigate such impacts is to manage the Courthouse Wash and Salt Wash Watersheds as NSO. Lastly, all BLM-identified Wild and Scenic River segments of the Green and Colorado Rivers should be closed to development.		
The Wilderness Society	BLM should revise Alternative D to expressly provide for an adaptive response to biennial changes to the state of Utah's "303(d)" list of impaired waters, beginning with the soon-to-be-completed 2012-2104 list. Currently, Alternative D precludes surface disturbing activities from mineral development within seven hundred and fifty feet of waters appearing on the State's 2010 approved 303(d) list. See Draft MLP at 2-41 to -42. As it now stands, the MLP would place these restriction only on new leases adjacent to the Colorado River and Fisher Creek because, according to BLM, those are "the only water bodies in the Planning Area that [are listed on the State's 303(d) list of impaired waters]. See id. at 3-71. That list, however, is set to change in the very near future. On March 27, 2015, the Utah Department of Environmental Quality, Division of Water Quality ("DWQ"), submitted its revised 2012-2014 "Integrated Report" to EPA for final approval or disapproval. If approved, numerous waters including Kane Spring Wash, Mill Canyon Wash, and North Cottonwood Creek, will be listed as impaired and as a result, will warrant further protections such as those provided to waters currently listed on the State's 303(d) list. In addition, the MLP mistakenly omitted the Dolores River and its tributaries which are also listed on the State's 2010	Chapter 3 of the MLP/DEIS states the following: "Currently the Colorado River and Fisher Creek (tributary to the Dolores River) are the only water bodies in the Planning Area that have been determined by UDWQ to be impaired and not meeting State water quality standards. However, three additional water bodies have been added to UDWQ's 2014 303(d) list of impaired waters: Kane Springs Wash, Mill Canyon Wash (tributary of Courthouse Wash), and North Cottonwood Creek. EPA has not yet made a final decision on UDWQ's recommendation." Fisher Creek is the only tributary of the Dolores River that is within the Planning Area. In addition, Appendix A of the MLP/DEIS provides for a modification to the NSO stipulation for impaired water bodies that states: "The Authorized Officer may modify the list of impaired water bodies protected by this stipulation when water bodies are added or deleted from the List of Impaired Waters."	676

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	approved 303(d) list due to high level of total dissolved solids and overlaps with the MLP Planning Area. The NSO stipulation that is proposed to be attached to new leases issued adjacent to the Colorado River and Fisher Creek should also be attached to leases issued adjacent to the relevant segments of the Dolores River and its tributaries.		
The Wilderness Society	As currently drafted, the MLP does not explain how or provide data or analysis to support the determination that proposed buffers are sufficient to protect water quality resources and their associated resource values. For example, the MLP does not make clear why a one hundred foot buffer is appropriate to protect ephemeral or intermittent streams rather than a two hundred foot (or larger) buffer. See, e.g., Draft MLP at 2-41 (compare Alternatives C and D). Similarly, no explanation is provided for why a seven hundred and fifty foot buffer is appropriate to protect 303(d) listed waters rather than a one thousand foot (or larger) buffer. Id. at 2-41 to -42 (compare Alternatives C and D). The best management practices related to mineral development near waterways also provides no explanation or justification regarding the adequacy (or inadequacy) of the selected buffer distances. See generally Draft MLP, Appendix B – Best Management Practices. We urge BLM to adopt the protective buffers proposed in Alternative C. See, e.g., Draft MLP at 3-71 ("Surface water resources are important in this arid region."); id. ("The 100-year floodplains of all perennial, intermittent, and ephemeral drainages are important components of the surface water system."); id. at 3-73 ("Springs and seeps are important sources of water in isolated areas, providing water for wildlife, grazing, and recreationists as well as supporting riparian vegetation and wildlife habitats.").	The buffers specified in Alternative D to protect water resources were provided by the Environmental Protection Agency (EPA). The recommendations provided by the EPA are as follows: 1) 100 foot buffer on ephemeral streams, 2) 750 foot buffer on impaired waters, and 3) 500 foot buffer on intermittent streams.	677
Individual	Plus water can be scarce in such a place and its supply also needs to be protected.	In Alternative D, the recommendations of the EPA were followed concerning protection of water resources. Under Alternative D, an NSO stipulation precludes mineral activities within public water reserves, 100-year floodplains and within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs will add greater protection to water resources.	794
Wildlife and Fisheries			
U.S. Fish and Wildlife Service	Page 2-46, Table 2-13 - The table identifies the migratory bird nesting season as May 1 - July 30. Migratory bird nesting season spans January I-August 31 with the majority of birds nesting between March 15 - July 31. We recommend that you incorporate these dates into your plan for nesting bird surveys and avoidance and minimization measures.	The nesting season for raptors, including eagles, has been specified as January 1 - August 31 in Table 2-13. For migratory birds other than raptors, eagles and ESA bird species, the nesting season has been changed to April 1 - July 31, as per email from the USFWS to the BLM (January 30, 2013). Through the application of lease notices for migratory	71

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		birds, ESA species, raptors and eagles, all migratory bird species have been addressed. ***Text has been changed in Chapters 2 (Table 2-13, Special Status Species) and 4 (4.3.3), as well as in Appendix A (Table A-2, Migratory Birds) to reflect the April 1 - July 31 timeframe.***	
Utah Dine Bikeyah	In addition to analysis of big game species, UDB would like to see assessments of impacts on cultural wildlife species such as jackrabbits, prairie dogs, reptiles and other animals that also play a critical role in Native American spiritual and physical well-being. These animals are inter-related to species that are included in this study and in some cases may be more immediately imperiled than species higher up the food chain.	As explained in Chapter 4 (Section 4.20.1, Wildlife and Fisheries Assumptions), actions impacting one species have similar impacts on other species using the same habitats or areas. Therefore, the analysis of big game habitat also covers the other animals that live within the same habitat.	403
Sportsmen for Responsible Energy Development/ National Wildlife Federation	Of particular concern to SFRED, big game herds in the region are already struggling. Mule deer are at less than half current population objectives established by the Utah Division of Wildlife Resources (UDWR). Trends for all mule deer herds found within the MLP area are declining. Pronghorn herds are also way below population objectives and declining. This area contains the only remaining native herds of Desert bighorn sheep in Utah. These herds are an important source for reintroductions of native bighorns elsewhere in the state. However, bighorn herds stand at less than a quarter of population objectives and native herds are declining. Given this alarming trend, SFRED urges BLM to take all available measures to ensure that development impacts on these herds are avoided wherever possible and minimized and mitigated where leases or other development authorizations have already been issued. With respect to these significant wildlife resources, SFRED urges BLM to implement fully the recent directive from the Secretary of the Interior requiring its bureaus, including BLM, to prevent any loss of scarce, sensitive or important natural resources.	The BLM worked closely with the UDWR, the agency with jurisdictional authority, regarding big game habitat and appropriate leasing stipulations. The wildlife stipulations in the MLP/DEIS are consistent throughout the BLM in Utah and are also similar to those found in most western states. Chapter 2 (Table 2-16) of the MLP/DEIS displays these stipulations. Chapter 4 (Table 4-67) of the MLP/DEIS displays the acres of habitat which have CSU and NSO stipulations or are closed to oil and gas leasing.	473
Sportsmen for Responsible Energy Development/ National Wildlife Federation	Even under the provisions of the proposed CSUs, vital habitats will be impacted and may lose productivity. We urge BLM to consider phased leasing of important big game habitats in order to monitor the effectiveness of CSU provisions in conserving wildlife values and ensure full restoration of habitat functions before additional lands are developed. We also support adoption of the No Action Alternative for all Desert Bighorn sheep lambing/rutting habitat. This would preserve the existing No Surface Occupancy stipulation and prevent construction of roads and pipelines within these areas.	In Alternative D, a timing limitation stipulation is applied to pronghorn habitat during the fawning period. A CSU stipulation is applied to bighorn sheep habitat which precludes drilling and permanent facilities, but allows for temporary activities outside of lambing and rutting periods. A timing limitation stipulation is applied to deer and elk habitat for fawning and calving and crucial winter habitat. In addition, a CSU stipulation is applied to all big game habitats where well pads are spaced 2-miles apart in order to minimize impacts to wildlife habitat. The purpose of these stipulations is to ensure that habitat functions are maintained. Based on the mitigation applied to big game	476

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		species and the projected level of mineral development, the phased leasing suggested by the commenter is not warranted.	
Sportsmen for Responsible Energy Development/ National Wildlife Federation	BLM's Preferred Alternative D proposes to confine certain infrastructure associated with potash extraction within Potash Processing Facility Areas (PPFAs) with the purpose of locating such facilities in "areas with fewer sensitive resources." SFRED supports this goal. However, the proposed PPFAs include both pronghorn fawning habitat and lambing/rutting habitat for Desert bighorn sheep. We urge BLM to redraw the boundaries of these PPFAs to exclude this habitat.	In Alternative D, PPFAs are located in areas that have a minimal potential for resource conflicts. PPFAs would be identified based on the following criteria: 1. Located outside an SRMA with the exception of the Dee Pass Motorized Focus area within the Labyrinth Rims/Gemini Bridges SRMA and the Canyon Rims SRMA. 2. Located outside of VRI II And VRM Class II areas along Highway 191. 3. Located only in VRM Class III or IV areas. 4. Located outside of desert bighorn lambing, rutting, and migration habitat. 5. Located outside of deer or elk crucial habitat. 6. Located in lands that have low levels of ecological intactness. 7. Located in areas within reasonable proximity to PLAs. As stated above, PPFAs do not include lambing, rutting, and migration habitat for desert bighorn sheep. Although the criteria listed above result in minimizing resource conflicts, they do not avoid all resource conflicts. Since PPFAs need to be located within reasonable proximity to PLAs, pronghorn fawning habitat could not be entirely avoided. A CSU stipulation applied to PPFAs requires offsite mitigation for all pronghorn habitat that is disturbed or removed within the PPFAs. This mitigation could eventually provide new habitat, habitat improvements, or water developments for pronghorn.	477
Sportsmen for Responsible Energy Development/ National Wildlife Federation	A landscape-level, "no net loss" approach to mitigation should always begin with avoidance and then minimization of any potential adverse impact. Because of learned behavioral use patterns passed on from one generation to the next, big game often migrate to the same areas every year, regardless of forage availability or condition. Off-site or "compensatory mitigation" should be a last rather than a first resort. Any compensatory mitigation required to ensure "no net loss" of vital wildlife habitats should be well underway prior to authorization of any surface disturbance. There have been too many examples where such mitigation fails while projects go forward. Mitigation must also be "value for value." While "water developments" or guzzlers, for example, might be useful to address drought conditions in the area, but they cannot generate new habitat to replace lands lost to development.	A CSU stipulation requiring compensatory mitigation outside the area of impact would be used when onsite mitigation alone may not be sufficient to adequately mitigate impacts. Additionally, Appendix B includes a compilation of best management practices (BMPs) including compensatory mitigation outside the area of impact. These BMPs would be utilized as conditions of approval on a site-specific basis. The BMPs include components of the mitigation implementation specified in the Department of the Interior's mitigation policy such as the priority for mitigating impacts, types of mitigation, long-term durability, and monitoring. The MLP/DEIS proposes many broad management prescriptions to protect wildlife and their habitats. The specific issues raised by the commenter will be taken into consideration	478

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		at the lease development stage. Planning is a tiered process, with the MLP setting the broad general guidelines. Site-specific NEPA analyses develop the mitigations that are to be imposed upon the specific project.	
Sportsmen for Responsible Energy Development/ National Wildlife Federation	Finally, under the Preferred Alternative, BLM would apply an NSO stipulation to preclude mineral activities within public water reserves, 100 year floodplains and within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs. While this stipulation may not be waived unless water resources "are not present on the entire leasehold," exceptions may be granted to access roads and pipelines if "the impacts could be fully mitigated." SFRED notes that mitigation is only achieved where there is no net loss of these resource values. Water resources are especially scarce in these area and vital for all fish and wildlife. Under the Conservation Alternative C, the NSO would extend to 660 feet for intermittent and perennial streams. SFRED normally would like to see larger riparian setbacks of up to ¼-mile for perennial streams.	In Alternative D, the recommendations of the EPA were followed concerning protection of water resources. While a greater buffer provides more protection as specified in Alternative C, the goal of Alternative D is to provide for mineral development while protecting water and riparian resources.	479
Western Energy Alliance/ American Petroleum Institute	The State of Utah currently regulates the impacts of oil and natural gas development on wildlife via the Utah Comprehensive Wildlife Conservation Strategy (UCWCS). The UCWCS provides reasonable, appropriate, and extensive protections for wildlife resources. BLM should defer to the state's rules and not impose any duplicative or burdensome mechanism for wildlife protection.	The State of Utah (UDWR) manages wildlife species and the BLM manages wildlife habitat on BLM lands. UDWR has no regulatory authority for oil and gas leasing and development. The BLM has the regulatory authority for managing both oil and gas operations and wildlife habitat on BLM lands. UDWR makes recommendations to the BLM based on its knowledge of wildlife species. UDWR may use the Wildlife Action Plan (formerly known as UCWCS) as a guideline in making recommendations, but the Wildlife Action Plan is not a regulatory document.	508
National Park Service, Southeast Utah Group	Population trends for desert bighorn sheep, pp. 3-130-3-131: The text above Table 3-45 indicates that trends for herd populations within the Planning Area are either stable or increasing, although data presented in Table 3-46 indicate that population trends in five of six management units are decreasing. We suggest revising the text to resolve the discrepancy.	***The text has been corrected in Chapter 3 (Section 3.19.1, Desert Bighorn Sheep) to say that the herd populations are either stable or decreasing.***	555
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Utah's wildlife already suffer innumerable harms from urban development, grazing, agriculture, water impoundments, climate change, invasive species, hunting, roads, logging, and industrial development, which new oil and gas leasing and unconventional well stimulation methods in the planning area will only exacerbate. Depending on the area and the species, wildlife can be affected from oil and gas activity in a variety of ways. The expansion of oil and gas development activities will harm wildlife through habitat destruction and fragmentation, stress and displacement caused by	The purpose of the MLP/DEIS is to identify and address potential resource conflicts and environmental impacts and thereby develop mitigation strategy through leasing stipulations and best management practices. The BLM determined that a no leasing alternative for oil and gas would be unnecessarily restrictive in order to resolve the potential resource conflicts identified. A no leasing alternative for oil and gas would not meet the purpose and need of the planning effort. Also, as stated in	605

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	development-related activities (e.g., construction and operation activities, truck traffic, noise and light pollution), surface water depletion leading to low stream flows, water and air contamination, introduction of invasive species, and climate change. These harms can result in negative health effects and population declines. Studies and reports of observed impacts to wildlife from unconventional oil and gas extraction activities are summarized in Appendix A. Because the allowance of destructive oil and gas extraction runs contrary to BLM's policy of managing resources in a manner that will "protect the quality of…ecological…values" and "provide…habitat for wildlife," a no-leasing-no-fracking alternative minimizing industrial development and its harmful effects on wildlife must be considered.	Chapter 3 of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. The impacts of projected mineral operations to wildlife and associated habitats are addressed in Chapter 4 (Section 4.20).	
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	The indirect effects from unconventional oil and gas development can often be far greater than the direct disturbances to habitat. The impacts from the well site—including noise, light, and pollution--extend beyond the borders of the operation site and will consequently render even greater areas uninhabitable for some wildlife. Species dependent on having an "interior" habitat will lose their habitat as operation sites or other infrastructure fragment previously buffered and secluded areas. These and other indirect effects can be far greater than the direct disturbances to land. While individual well sites may cause some disturbance and destruction, the cumulative impacts of oil and gas production using unconventional methods must receive attention as well. While the actual well pads may only occupy a small proportion of a particular habitat, their impact can be much greater when their aggregate impact is considered. As discussed above, interior habitats will be destroyed by removing the buffer between the interior habitat and the operation site.	The BLM acknowledges the importance of preventing habitat fragmentation for wildlife species and has included management in the MLP/DEIS to retain "interior habitat" as much as possible. The Baseline CSU stipulation would be applied to wildlife habitat in Alternative D which requires well pad spacing of 2-miles, multiple wells per pad, co-location of facilities, limiting unreclaimed surface disturbance, extensive interim reclamation, and compensatory mitigation where necessary. BMPs may also be applied to oil/gas and potash leases to protect sensitive habitat. In Chapter 4 (Sections 4.20 and 4.21) the impacts of mineral operations on displacing wildlife from habitats and habitat fragmentation are addressed. More detailed analysis of these impacts would be conducted for site-specific mineral proposals.	606
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Water depletion can also affect species whose habitats are far removed from the actual well site. Because of the high volume of water required for even a single well that uses unconventional extraction methods, the cumulative water depletion could have a significant impact on species that rely on water sources that serve to supply oil and gas operations. In addition, water depletion can adversely impact water temperature and chemistry, as well as amplify the effects of harmful pollutants on wildlife that would otherwise be diluted without the depletion.	As stated in Chapter 3 (Section 3.7.1) of the MLP/DEIS," hydraulic fracturing (HF) has only been conducted on a limited basis over the last few years," and future use of HF is predicted to be limited as well. The amount of HF fluid utilized for HF in the Planning Area has amounted to less than 200,000 gallons per well. This is substantially different from North Dakota style HF operations. In the Planning Area, the industry has found that the primary target formation conditions are not conducive to water-based HF methods and have proven detrimental to the recovery of oil and gas. HF utilizing oil (about 80,000 gallons per well) has recently proven more beneficial when applied to initially unsuccessful wells.	607

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Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Accidental spills or intentional dumping of wastewater can contaminate surface water and cause large-scale harm to wildlife. Numerous incidents of wastewater contamination from pipelines, equipment blowouts, and trucks accidents have been reported, and have resulted in kills of fish, aquatic invertebrates, and trees and shrubs, as well as negative health effects for wildlife and domestic animals. Contamination incidents have occurred that demonstrate that wildlife harm from contamination is a real, not just theoretical, impact that must be considered. In addition, open air pits that store waste fluid pose risks for wildlife that may come into contact with the chemicals stored in the pits. Already, there have been several documented cases of animal mortality resulting from contact with pits. A field inspection of open pits in Wyoming found 269 bird carcasses, the likely cause of death being exposure to toxic chemicals stored in the open pits. Open pits can also serve as breeding grounds for mosquitoes, which serve as a vector for West Nile virus, a threat to humans and animals alike. In Wyoming, an increase of ponds led to an increase of West Nile virus among greater sage-grouse populations. Recently, new information has come to light that operators in California have been dumping wastewater into hundreds of unpermitted open pits. The EIS must take into account the impact of both unpermitted, illegal waste pits as well as those that are regulated.	The BLM recognizes in the MLP/FEIS in Chapter 4 (Section 4.13.2) the likelihood of inadvertent spills from mineral operations on surface and groundwater resources. Furthermore, spills resulting in contamination of surface and groundwater could also adversely impact other associated resources such as wildlife and vegetation. The BLM contends that the analysis for leaks and spills on surface and ground water resources in Chapter 4 is adequate for decisions at the land use planning level. Until site-specific mineral operations are proposed, impacts from potential mineral related spills on other resources would be speculative. The MLP/DEIS includes BMPs for the management of fluids pits for the protection of wildlife and their habitat. Illegal activity is not addressed in the MLP/DEIS.	608
Center for Biological Diversity, Living Rivers, Colorado Riverkeeper, and Holiday River Expeditions	Oil and gas development has been linked to population-level impacts on wildlife, including lower reproductive success of sage grouse and declines in the abundance of songbirds and aquatic species. For example, young greater-sage grouse avoided mating near infrastructure of natural-gas fields, and those that were reared near infrastructure had lower annual survival rates and were less successful at establishing breeding territories compared to those reared away from infrastructure. In Wyoming, an increasing density of wells was associated with decreased numbers of Brewer's sparrows, sage sparrows, and vesper sparrows. In the Fayetteville Shale of central Arkansas, the proportional abundance of sensitive aquatic taxa, including darters, was negatively correlated with gas well density. Recent studies indicate that grassland bird species avoid habitat as much as 350 meters from fracked oil and gas wells and roads. The EIS must consider the population-level impacts that oil and gas development may have on wildlife in Utah.	Impacts to wildlife populations from the management alternatives in the MLP/DEIS is included in Chapter 4, in both Special Status Species (Section 4.17) and Wildlife and Fisheries (Section 4.20). In Alternative D, the density of development would be reduced in wildlife habitat by applying a CSU stipulation that requires 2-mile spacing of well pads.	611