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RE: Comments on the Draft Supplemental Environmental Impact Statement "For The Leasing and Underground Mining of the Greens Hollow Federal Coal Lease Tract UTU-84102"

Dear Mr. Rowley and Mr. Rigby:

WildEarth Guardians, the Grand Canyon Trust, the Sierra Club, and the Center for Biodiversity appreciate this opportunity to submit comments in response to the Draft Supplemental Environmental Impact Statement (DSEIS) "For the Leasing and Underground Mining of the Greens Hollow Federal Coal Lease Tract UTU-84102." Each of our organizations has been and continues to be an interested party that concerns, recommendations, objections, and specific written comments relating to the proposed action and the supporting DSEIS. We thank you for taking time to make sure that we are each maintained on all of the interested party, contact, and all such related contact lists and mailing lists for this, as well as all related proposed actions and plans.

The DSEIS analyzes the impacts of the Bureau of Land Management's (BLM's) proposal to offer for sale and issuance the Greens Hollow coal lease by application (hereafter "Greens Hollow lease") and the U.S Forest Service's (USFS's) proposal to consent to that lease being issued underneath lands on the Fishlake and Manti-La Sal National Forests in Utah. The lease would expand the SUFCO coal mine, which is the largest in Utah. The lease would expand the mine area by 6,175 acres and add 56.6 million tons of new coal to the mine. Coal is mined for one reason, to be burned, and estimates suggest that burning the Greens Hollow coal lease may produce more than 120 million tons of carbon dioxide, as much as is released by nearly 23 million passenger vehicles annually.

The lease applicant was Ark Land Co., a subsidiary of Arch Coal Company. Arch Coal, however, sold the SUFCO mine, as well as its other Utah coal mines, to Bowie Resources, LLC in 2013. Bowie Resources has clearly stated it intend to export coal produced from its mines in Utah.

We object to the proposed coal lease for a number of reasons, as will be explained in more detail below. We are exceedingly concerned that the USFS has failed to ensure sufficient protection of wildlife, waters, and roadless lands in the proposed lease area, and that the BLM is rushing to lease when it is completely unclear whether it is even in the public interest, especially in light of disclosures that coal from the SUFCO mine is likely to be exported.

Our organizations have all previously submitted comments on the proposed Greens Hollow coal lease to the USFS and BLM. For purposes of these comments, we incorporate by reference any and all previously submitted comments and hereby submit that it appears the Agencies have not sufficiently addressed our prior comments and therefore we request that our prior comments be given full review and consideration in the context of the current DSEIS. To this end, we attach our previous comments as follows:

- Our March 28, 2008 scoping comments on the Greens Hollow coal lease, which were submitted on behalf of Utah Environmental Congress (now WildEarth Guardians) and Grand Canyon Trust, are hereby attached as Exhibit 1;
- Our June 1, 2009 comments on the previous Draft EIS for the coal lease, which were submitted by Utah Environmental Congress, Grand Canyon Trust, Center for Biological Diversity, Defenders of Wildlife, Sierra Club, and the Utah Chapter of the Sierra Club, are hereby attached as Exhibit 2; and
- Our February 13, 2012 administrative appeal of the USFS's previous ROD for the Greens Hollow coal lease, which was submitted by Utah Environmental Congress, Grand Canyon Trust, Center for Biological Diversity, and subsequently led to the reversal of the previous ROD, is hereby attached as Exhibit 3.

The concerns raised in our prior comments, as well as additional information raised in our 2012 administrative appeal, provided detailed scrutiny of the adequacy of the previous EIS's analysis and assessment of impacts to wildlife, water quality and quantity, groundwater, and roadless areas, as well as raised a number of other related concerns. We do not feel that these comments

have been sufficiently addressed in the current DSEIS. We therefore request that the USFS and BLM address these prior comments in the context of the current DSEIS.

Below, we further detail our concerns:

I. <u>Timeline and Background for this EIS Process and Related Concerns</u>

Below, we first provide a brief timeline and insight as to the process around the Greens Hollow coal lease to date.

<u>In September 2006</u> Ark Land Company filed a competitive coal lease application. The BLM accepted the application and prepared a tract delineation report the following year.

<u>In February 2008</u> the notice of intent (NOI) to prepare an EIS was published, initiating the sole EIS scoping period for this proposed Greens Hollow coal lease tract. DSEIS, p. 17 (DSEIS Appendix C contains all the relevant Federal Register notices.) The action alternatives studied in the FEIS and present DSEIS were already described in the 2008 NOI starting scoping. (Alternative 1: no action. Alternative 2: BLM proposed action without modifications. (Alternative 3: BLM proposed action with modifications made in light of USFS land and resource management plan (LRMP) stipulations.) Guardians and Grand Canyon Trust submitted scoping comments in light of that purpose and need and the three alternatives. It included a detailed "Sustainable Multiple Use Alternative" that we requested be analyzed in detail in the EIS as a 4th alternative.

In March 2009 the 45-day DEIS comment period was initiated. The purpose and need statement remained the same. No additional alternative development was done in light of the scoping comment period. We submitted exceptionally detailed comments on the DEIS. It provided measurably greater degrees of site-specific disclosure and analysis of resource conditions said to be addressed in detail in the present DSEIS.

In December 2011 the Manti-La Sal and Fishlake National Forest Supervisor(s) issued an ROD based on the BLM and Forest Service's joint 2011 FEIS. Alternative 3 was selected. No public comment period was held at that time, nor did we submit comments at that time. This is noted because (pages 18 and 19 of) the DSEIS incorrectly state that comments were received on the EIS and ROD at that time; this includes statements that comments were submitted by the organizations submitting these comments. We comment now that the DSEIS is incorrect. We did not submit comments after a ROD had been signed. Rather, an administrative appeal was submitted under 36 CFR 215, consistent with direction issued in the Federal Register notices issued for the one 2008 scoping period and the 2009 DEIS comment period as well as the 2011 USFS ROD.

<u>In February 2012</u> the Forest Service ROD was appealed. Page 19 of the DSEIS states, "An appeal of the FS ROD was filed with the Regional Forester on February 13, 2012 by the Utah Environmental Congress, Grand Canyon Trust, and Center for Biological Diversity. The USFS

withdrew the ROD for the Greens Hollow tract on March 20, 2012. Concerns raised in the appeal were further addressed in this Draft SEIS."

We submit that our post-decisional administrative appeal was not a comment letter, although it did elaborate on our previously voiced concerns. Assuming, *arguendo*, that post-decisional appeals of RODs are the same thing or synonymous with EIS comments, the DSEIS still systematically fails to disclose or add meaningful new environmental analysis concerning any of the arguments put forth in the appeal. Therefore, and to the extent that post decisional appeals of RODs are now EIS comments (as presented in chapter 1 of the DSEIS), our appeal points need to be submitted now as a part of these Draft Environmental Document comments.

<u>In October 2012</u> the BLM and USFS issued an NOI to prepare a Supplemental EIS in the Federal Register. It states, "[j]oint lead agencies announce their intent to prepare a supplemental Environmental Impact Statement (EIS) and Record of Decision to the 2011 Final EIS for the Leasing and Underground Mining of the Greens Hollow Federal Coal Least Tract UTU-84102. Supplemental analyses are required to correct deficiencies in the Final EIS."

This NOI to prepare a Supplemental EIS included a decision to not conduct additional scoping. The same (single) purpose and need statement was provided, along with a SEIS purpose and need "to comply with current direction regarding management of Inventoried Roadless Areas and unroaded/undeveloped areas, address key resource concerns, and update analysis for aquatic management indicator species and sage-grouse." Federal Register Vol. 22, No. 202, P. 64098.

We comment that the DSEIS fails to do exactly that. In fact, on every account, it actually includes a disclosure and analysis of site specific impacts of IRA, URUD, aquatic MIS, and sage grouse that is not as meaningful and is not as site-specific as the admittedly inadequate environmental analysis in the FEIS that this document is supposed to supplement. This is a systemic problem with the DSEIS. The DSEIS fails to provide the more meaningful, site-specific, more current, and more relevant environmental analysis of the exact list of resource conditions that the NOI stating the need to create such SEIS lists as its reason for being written.

March 2014. The DSEIS is released for the first public comment period on the NEPA process since March 2009.

II. Concerns Over Inadequate Scoping

From 2008 scoping through the 2012 NOI to prepare a Supplemental EIS there was one purpose and need statement, which did not change. Now, the DSEIS does not just have a new purpose and need statement, it has two new purpose and need statements. Having two distinct purpose and need statements for an EIS does not trigger a conflict under NEPA, per se. However, such significant changes in the purpose and need statement (e.g. creating two new distinct purpose and need statements) made 6 years after the last scoping period while not re-scoping the project does raise a problem. The project needs to be rescoped in light of the two new distinct purposes and need statements, as well as the fact that the scoping conducted 6 years ago is stale and inadequate.

III. Concerns over BLM Leasing Process

We have a number of concerns over the BLM's leasing process around Greens Hollow. In particular, it appears that the Agency is not adhering to its competitive coal leasing handbook and otherwise not ensuring compliance with its lease by application regulations and other applicable guidance. There are a number of discrepancies and questions around whether the BLM is proceeding legitimately and in the public interest. Our specific concerns are as follows.

A. Failure to Address the Fact that the Original Applicant No longer Owns the SUFCO Mine

We are first concerned that the original applicant for the Greens Hollow coal lease, Ark Land Co., a subsidiary of Arch Coal, no longer owns the SUFCO mine and clearly no longer has an interest in pursuing the Greens Hollow lease (or, for that matter, even an interest in mining operations at SUFCO). In 2013, the company, Bowie Resources Partners, LLC, acquired SUFCO. The DSEIS does not acknowledge this change in ownership and interest, but rather continues to assert and assume that Ark Land Co. is the current applicant. Although this raises serious questions over the informational integrity of the DSEIS, it also raises critical questions over whether the BLM has properly taken this change in ownership into account in its review of the lease by application.

Indeed, we question why the BLM would even attempt to process a lease application from a company that no longer is interested in the lease. Although the new owner may have an interest in the lease (it is unclear at this point), the BLM is not allowed under its lease by application rules to process applications on the presumption that another company would be interested in the lease.

Although the BLM's lease by application regulations at 43 C.F.R. § 3425 do not speak to situations involving a change in ownership, interest, and/or a change in applicant while a lease application is pending, the regulations are clear that an applicant must provide specific information regarding their qualifications before an application can be processed by the BLM. Among other things, an applicant must:

- Meet the qualifications required of a lessee as specified in 43 C.F.R. § 3472. See 43 C.F.R. § 3425.1-3.
- If the applicant is a corporation, submit statements showing, among other things, "[t]he names of officers authorized to act on behalf of the corporation," "[t]he percentage of the corporation's voting stock and all of the stock owned by aliens or those having addresses outside of the United States," and "[t]he name, address, citizenship and acreage holdings of any stockholder owning or controlling 10 percent or more of the corporate stock of any class." 43 C.F.R. § 3472.2-2(c).
- Sign the application. 43 C.F.R. § 3472.2-3(a).

Here, although Ark Land Co. may have submitted all necessary qualification information to the BLM, Bowie Resources has not. Thus, although BLM may have a sufficient application from Ark Land Co., Ark is no longer a genuine applicant. In essence, the current application is vestigial, it no longer serves a purpose (or at least the purpose as stated by the applicant) and it is unclear under what authority the BLM is empowered to process it. The BLM cannot simply process this vestigial application and comply with its rules, which require specific disclosures from applicants to justify the Agency even processing an application.

Certainly, Bowie Resources may have an interest in the Greens Hollow lease, but the correct course of action would be to require the company to submit a new application. This is particularly true where, as here, Ark Land Co. is, for all intents and purposes, a sham applicant.

B. There is no Assessment as to Whether the Lease Application Remains Valid Since it was Submitted 8 Years Ago

We are further troubled by how dated the Greens Hollow lease by application is. According to the DSEIS, the application was submitted in 2006, nearly eight years ago. Under the BLM's leasing rules, applicants must provide "preliminary data," including, but not limited to, "[t]he method of mining anticipated, including the best estimate of the mining sequence and production rate to be followed," "[t]he relationship between the mining operations anticipated on the lands applied for and existing or planned mining operations, or support facilities on adjacent Federal or non-Federal lands," and "[a] statement which describes the intended use of the coal covered by the emergency application." 43 C.F.R. § 3425.1-7(b). Given the time that has elapsed, as well as other significant changes, including the ownership of the SUFCO mine, there appears to be little support for processing the current, eight year-old application. We are particularly concerned that, since 2006, the mining sequence and production rate may have changed, and the intended use of the coal may have changed. On the latter point, we are concerned that Bowie's intended use may be to profit through the coal export market, rather than provide coal for domestic consumption.

The fact that the current lease application is so dated further underscores the need for BLM to request a new application from Bowie Resources before proceeding with further analysis.

C. The BLM Has not Provided Sufficient Notice and Opportunity for Comment on the Proposed Coal Lease in Accordance with its Coal Leasing Handbook

The BLM's lease by application regulations and competitive coal leasing handbook both state that prior to holding any lease sale, a public hearing must be held on "the [] environmental impact statement, the proposed sale and the fair market value and maximum economic recovery on the proposed lease tract." 43 C.F.R. § 3425.4(a)(1). The Agency's handbook elaborates, stating that when a coal lease by application is being proposed, a public hearing must be scheduled "on the draft environmental analysis and on fair market value/maximum economic recovery." See BLM Competitive Coal Leasing Handbook, H-3420-1, Chapter 3, Section D.3. The Handbook further states that, "A notice of the public hearing must be published in the

Federal Register" and that "[t]he notice must also appear once a week for 2 consecutive weeks before the hearing in a newspaper(s) of general circulation in the county in which the proposed lease lands are located." <u>Id</u>.

Here, the BLM has not yet scheduled a public hearing on the DSEIS, nor on any assessment of fair market value and maximum economic recovery. Furthermore, the BLM has not published a notice of any public hearing in the Federal Register and a hearing has not appeared once a week for two consecutive weeks before the hearing in a newspaper of general circulation. Although such a hearing may be scheduled, we are concerned that since the DSEIS is currently out for comment right, that the BLM may not intend to schedule such a hearing and provide proper public notice of the opportunity to scrutinize the DSEIS and fair market value and maximum economic recovery assessments.

Although the BLM did hold a public hearing on the previous Draft EIS prepared for the Greens Hollow coal lease, this hearing was held in May of 2009, nearly five years ago. Since that time, a number of changes have occurred that are of material relevance to the environmental and economic implications of the coal lease, including, but not limited to, that the sage grouse is now a candidate for listing under the Endangered Species Act, that coal exports are now a much more significant public concern, that the SUFCO mine is under new ownership, and that new ambient air quality standards have been adopted by the EPA. Not only that, but as the DSEIS expressly states, that Draft EIS, as well as the Final EIS that followed, has now been "replace[d]" by the current DSEIS. DSEIS at S-1. In other words, the current DSEIS is an entirely new NEPA document that analyzes the impacts of the Greens Hollow coal lease and is not even meant to be a supplement to, modification of, or otherwise an addendum to the previous EISs prepared for the coal lease. Thus, the BLM cannot reasonably rely on any past public hearing related to the Greens Hollow coal lease to meet its current duty to ensure that the public has an appropriate opportunity to provide comment on the DSEIS and any and all relevant environmental and economic considerations.

To this end, if the BLM wishes to continue to consider offering the Greens Hollow coal lease for sale and issuance, the Agency must schedule a public hearing and seek public comment on the DSEIS and fair market value/maximum economic recovery assessment. Accordingly, the BLM must provide adequate notice of this public hearing in the Federal Register and ensure that notice is provided in a newspaper of general circulation.

D. The BLM has not Demonstrated the Proposed Lease is in the Public Interest

We further wish to emphasize that the BLM is under no obligation to process or approve the proposed lease. Under the Mineral Leasing Act, as Amended (including the Federal Coal Leasing Act Amendments), the Interior Department is simply authorized to issue coal leases, but not obligated to approve a coal lease, particularly a lease by application. See 30 U.S.C. § 207(a). Furthermore, the BLM is duty-bound to reject a lease by application that, for environmental or other sufficient reasons, is contrary to the public interest. See 43 C.F.R. § 3425.1-8(a)(3). Indeed, as federal courts have noted, Congress' intent in authorizing the leasing of federal coal through the Federal Coal Leasing Act Amendments of 1976:

"to provide for a more orderly procedure for the leasing and development" of coal the United States owns, while ensuring its development "in a manner compatible with the public interest."...Congress's underlying substantive policy concern was to develop the coal resources in an environmentally sound manner. This purpose lays as much stress on the developing [of] the coal resources as it does on the environmental effects of development.

<u>See</u> Northern Cheyenne Tribe v. Hodel, 851 F.2d 1152, 1156 (9th Cir. 1988) (citation omitted). Taken together, the BLM cannot simply rubberstamp the proposed lease application. If the proposed lease is not in the public interest based on environmental or other sufficient reasons, the BLM must reject it.

To this end, we submit that it does not appear the proposed lease is in the public interest for environmental or other reasons. Particularly, it is unclear how leasing coal to Bowie Resources, the presumptive high bidder, to further the company's coal export ambitions serves the public both from an economic and environmental standpoint. Although certainly, royalties and rentals would be collected from the proposed coal lease, nothing in the Mineral Leasing Act or the BLM's regulations indicate that such economic considerations take overriding precedent over environmental concerns, or that such royalties or rentals are even necessary to provide financial security to the government (or, more importantly, fairly compensate the government for the irreplaceable loss of public coal resources). The public benefit of exported coal is further limited because it will yield no benefit to the American public in terms of domestic energy production.

Regardless, the BLM must objectively assess whether the proposed coal lease is in the public interest. The current Draft SEIS does not provide such an assessment, or even mention the public interest for that matter. This is a critical omission, especially given that the EIS makes no mention of Bowie's export plans. The DSEIS actually asserts that the BLM's purpose and need for the proposed lease is to facilitate "coal energy development" for our "nation's energy independence." DSEIS at S-2 3. As will be explained later in these comments, however, coal from the SUFCO Mine has been exported in the past and, given Bowie Resources' expressly stated plans to increase the amount of coal the company exports, there appears little doubt that a large amount of the proposed coal lease will end up overseas.¹ It's notable that in 2013 alone, it appears that 800,000 tons of coal was exported from the SUFCO Mine.

In light of these significant shortcomings, we have serous doubts that the Agency has thus far objectively analyzed whether the Greens Hollow coal lease is in the public interest for environmental or other reasons.

Emphasizing our concerns are the findings of recent oversight reports. Notably, a recent Government Accountability Office report criticized BLM's failure in many cases to properly appraise the fair market value of coal lease tracts. General Accounting Office, <u>Coal Leasing</u>:

¹ This is particularly true in light of the fact that several of SUFCO's current customers, including the Reid Gardner power plant in Nevada and the Intermountain Power Plant in Delta County, Utah, are likely to significantly curtail their coal use in the near-future. Reid Gardner, for example, will largely be retired by the end of 2014. <u>See</u> Robison, V., "NV Energy Proposes Early Retirement for Reid Gardner," *Moapa Valley Progress* (April 10, 2013).

<u>BLM Could Enhance Appraisal Process, More Explicitly Consider Coal Exports, and Provide</u> <u>More Public Information, GAO-14-140 (Dec 18, 2013), available at</u> <u>http://www.gao.gov/assets/660/659801.pdf</u> (last accessed April 28, 2014). For example, it found that Utah BLM officials failed to address the potential for coal to be exported, and thus to fetch higher sale prices, in setting the "fair market value" for coal leased here. <u>Id.</u> at 38-39 ("Two states in particular—Colorado and Utah—have coal exports from mines on federal leases, but they generally use . . . [evaluation measures that do] not explicitly reflect the potential impact of coal exports").² Given that mines in Utah, including the SUFCO mine, appear to currently be exporting coal to foreign markets, BLM must fully address the environmental and economic implications of exporting coal from the Greens Hollow coal lease in any subsequently prepared NEPA document for the lease. The failure to do so will demonstrate a clear failure to ensure the proposed lease is in the public interest.

IV. <u>The DSEIS Fails to Adequately Analyze and Assess the Direct, Indirect, and</u> <u>Cumulative Climate Impacts of Coal Mining, Transport, and Combustion</u>

NEPA is our "basic national charter for the protection of the environment." 40 C.F.R. § 1500.1. Congress passed NEPA in 1969, casting the statute as a landmark national effort to "encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation." 42 U.S.C. § 4321.

To accomplish these goals, federal agencies must assess the environmental impacts of their proposals before taking any action to implement them. The preparation of an EIS lies at the heart of NEPA, and must provide a "full and fair discussion" of impacts like greenhouse gas emissions and global warming implications, fully informing "decisionmakers and the public of the reasonable alternatives which would avoid or minimize" these impacts. 40 C.F.R. § 1502.1.

Unfortunately, as described in detail below, the DSEIS for the Greens Hollow lease fails to adequately describe climate disruption as part of the environmental setting and does not adequately disclose or analyze the direct, indirect and cumulative impacts to climate disruption that will occur from the mining, transportation, and combustion of Greens Hollow coal.

² An Interior Department Inspector General's report reached a similar conclusion in 2013:

BLM does not fully account for export potential in developing the FMVs [fair market values]. The export of public coal has been growing in recent years, especially to Asian markets. The U.S. Energy Information Administration reported 125 million tons of coal exports for calendar year 2012, over twice the export levels of 2007. Likewise, the price of exported coal has more than doubled from 2007 through 2011.... Accordingly, BLM should reflect the export potential in its FMV calculations to ensure the Government receives proper value for lease sales.

Office of Inspector General, Department of the Interior, Coal Management Program (June 11, 2013) at 7, available at <u>http://www.doi.gov/oig/reports/upload/CR-EV-BLM-0001-2012Public.pdf</u> (last accessed April 28, 2014).

Under NEPA, an EIS must consider direct effects, indirect effects, and cumulative effects. "Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. § 1508.8. The direct effects of an action are those effects "which are caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a). The indirect effects of an action are those effects "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." 40 C.F.R. § 1508.8(b).

The purpose of the NEPA review process is two-fold: "First, it places upon [the action] agency the obligation to consider every significant aspect of the environmental impact of a proposed action. Second, it ensures that the agency will inform the public that it has indeed considered environmental concerns in its decisionmaking process." Kern v. United States Bureau of Land Management, 284 F.3d 1062, 1066 (9th Cir. 2002); see also Columbia Basin Protection Ass'n v. Schlesinger, 643 F.2d 585, 592 (9th Cir. 1981) ("the preparation of an EIS ensures that other officials, Congress and the public can evaluate the environmental consequences independently.").

The USFS and BLM have failed both purposes here. The DSEIS fails to fully consider significant impacts associated with climate harms that will result from the proposed lease, nor has the agency disclosed those impacts to the public. An EIS does not satisfy NEPA unless "its form, content, and preparation substantially (1) provide decision-makers with an environmental disclosure sufficiently detailed to aid in the substantive decision whether to proceed with the project in light of its environmental consequences, and (2) make available to the public, information of the proposed project's environmental impacts and encourage participation in the development of that information." <u>Trout Unlimited v. Morton</u>, 509 F.2d 1276, 1283 (9th Cir. 1974).

The problem of climate disruption is not new. As early as 2009, the U.S. Environmetnal Protection Agency (EPA) recognized that concentrations of carbon dioxide (CO2) in the atmosphere "are projected to continue increasing unless the major emitters take action to reduce emissions." Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,539 (Dec. 15, 2009). EPA further noted the cumulative nature of both the climate change problem and the strategies needed to combat it:

[N]o single greenhouse gas source category dominates on the global scale, and many (if not all) individual greenhouse gas source categories could appear small in comparison to the total, when, in fact, they could be very important contributors in terms of both absolute emissions or in comparison to other source categories, globally or within the United States. If the United States and the rest of the world are to combat the risks associated with global climate change, contributors must do their part even if their contributions to the global problem, measured in terms of percentage, are smaller than typically encountered when tackling solely regional or local environmental issues. <u>Id.</u> at 66,543.

Consistent with this finding, the Ninth Circuit has rejected the argument that individual actions represent too minor of a contribution to the global problem to merit consideration under NEPA: "The impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires agencies to conduct. Any given rule setting a [vehicle fuel-efficiency] standard might have an 'individually minor' effect on the environment, but these rules are 'collectively significant actions taking place over a period of time." <u>Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.</u>, 538 F.3d 1172, 1217 (9th Cir. 2008) (internal citations omitted).

A. The DSEIS fails to correct flaws in the agency's climate analysis previously identified in comments on the previous draft EIS.

The June 1, 2009 comment letter on the Greens Hollow coal lease draft EIS, submitted by Utah Environmental Congress and several other conservation organizations, identified important ways in which BLM's draft EIS failed to adequately address and disclose the proposed Greens Hollow mining operation's impacts on climate disruption. Those comments are incorporated by reference and attached as Exhibit 2. See pp. 35-59 for discussion of climate impacts and analysis. Unfortunately, those deficiencies have not been corrected in the DSEIS. Rather than repeat those failings at length, we note here the many legal deficiencies previously identified with respect to the analysis of climate impacts that have not been corrected.

Among other things, the Greens Hollow draft EIS failed to adequately disclose and analyze greenhouse gas emissions and climate impacts by:

- Failing to describe global warming as part of the environmental stetting (<u>Id.</u> at 35-42);
- Failing to take a hard look at the environmental consequences of the proposed Greens Hollow coal lease, including:
 - Failing to analyze the combined impact of global warming and the Project's impacts on affected resources (id. at 43-46);
 - Failing to account for all greenhouse gas emissions resulting from the proposed mining (<u>id.</u> at 46-49);
 - Failing to analyze the impact of the Project on efforts to reduce greenhouse gas emissions (<u>id.</u> at 49-51);
 - Failing to account for impacts of the Project resulting from combustion by-products such as black carbon (<u>id.</u> at 51);
 - Failing to analyze clean energy alternatives and failure to fully explore the "No Action" alternative (<u>id.</u> at 52);

- Failing to address the impact of the Project on species that are threatened by climate disruption (<u>id.</u> at 52-59).

B. The DSEIS fails to disclose and analyze direct, indirect, and cumulative impacts to climate.

In addition to the significant information gaps in the analysis noted above, the DSEIS further fails to adequately analyze and disclose the direct, indirect, and cumulative climate impacts of the proposed Project, as described in detail below.

1. Direct climate impacts from coal mining.

The DSEIS appears to fail to fully disclose, analyze, and assess the direct impacts to climate, particularly in terms of greenhouse gas emissions from direct mining activities.

In the analysis, the DSEIS asserts that current CO2 emissions will simply stay the same as disclosed in the Affected Environment discussion, but be extended for another eight years. <u>See</u> DSEIS at 268. However, the disclosure of current CO2 emissions does not appear accurate. Furthermore, it fails to shed any light on the impacts of mining the Greens Hollow coal lease.

We are first troubled that, although the DSEIS discloses methane emissions associated with mine ventilation on page 130, it fails to disclose methane emissions from coal handling activities. According to a report by the EPA, methane emitting activities associated with coal handling at underground coal mines include "crushing, separation of impurities, size classification, drying, transportation, and storage." Exhibit 4, Kirchgessner, D.A., et al., "An improved inventory of methane emissions from coal mining in the United States" at 6, Paper Available at http://www.epa.gov/ttn/chief/ap42/ch14/related/mine.pdf (last accessed April 28, 2014). The report further explains, "Different types of coals desorb methane at different rates, but since coal is usually removed from a mine within hours or days of being mined, some methane remains and is liberated from the coal during handling. The DSEIS must analyze these emissions and estimate their total quantities to ensure an accurate disclosure of methane emissions associated with the Greens Hollow lease.

The disclosure of methane emissions also fails to explain what these emissions mean in terms of CO2 equivalency (i.e., global warming potential). In a final rule published in November of 2013, the EPA identified the global warming potential of methane as "25," meaning that it is 25 times more potent than CO2 as a greenhouse gas. See 78 Fed. Reg. 71904, 71909 (Nov. 29, 2013). The DSEIS indicates that total methane emissions are 1,950 tons per year, which would equal 48,750 tons of CO2 equivalent based on the EPA's global warming potential. However, it is important to note that the Intergovernmental Panel on Climate Change's Fifth Assessment Report, released in September 2013, estimates that methane has 34 times the global warming potential of CO₂ over a 100 year time frame and at least 86 times the global warming potential of CO₂ over a 20-year time frame. Intergovernmental Panel on Climate Change (IPCC), Climate Change 2013, p. 714, available at https://www.ipcc.ch/report/ar5/wg1/#.Uxs205zpiqY_(last accessed April 28, 2014). Based on the IPCC's climate science, total CO2 emissions associated with methane venting could be as much as 167,700 tons annually. The USFS and BLM must

address this global warming potential issue and address the scientific findings of the IPCC in order to ensure the full global warming potential of methane emissions are disclosed.

We are further concerned that the estimate of CO2 emissions associated with equipment operations appears to be based entirely on underground activities and related venting of gases. The analysis does not take into account surface activities, including truck traffic (including emissions from truck idling during coal loading) and emissions from above-ground engines, including generators, conveyor engines, etc.

The DSEIS further fails to disclose CO2 emissions associated with construction activities that will be necessary to allow development of the Greens Hollow coal lease. For example, there is no disclosure of CO2 emissions associated with heavy equipment that will be required to construct roads, the new ventilation shaft, new fan shaft, and the new transmission line. The DSEIS's assertion that emissions will simply stay the same as they always have been appears belied by this lack of disclosure of construction-related emissions.

We are finally concerned that the DSEIS does not disclose the total CO2 emissions that will occur for the entire life of the Greens Hollow coal lease. The DSEIS indicates that total CO2 emissions will be 58,549 tons annually just associated with mine ventilation. See DSEIS at 130. Does this then mean that total lifetime CO2 emissions associated with mine ventilation will be more than 515,231 tons over the 8.8-year life of the lease? And taken together with ventilation methane emissions, which would equal 48,750 tons annually, does this mean that total CO2 emissions over the life of the lease will be nearly one million tons? If so, the failure of the DSEIS to disclose this is a major oversight. The DSEIS must disclose total, project-life CO2 emissions to ensure that the direct impacts of the Greens Hollow coal lease are fully disclosed, analyzed, assessed, and considered by the decisionmaker.

2. Indirect climate impacts from transportation and combustion of Greens Hollow coal.

The DSEIS fails to adequately disclose and analyze the climate impacts of the proposed Project, in particular the greenhouse gas emissions that will result from indirect activities. Although the DSEIS acknowledges that 56.6 million tons of federal coal will be mined from the lease (DSEIS, p. 28.), shipped, and burned in coal-fired power plants as a result of its decision, neither the USFS nor the BLM have made any attempt to disclose or analyze the carbon dioxide emissions that will result from transporting and burning more than 56 million tons Greens Hollow coal.

A. Impacts of Coal Combustion.

i. Indirect emissions from coal combustion.

The DSEIS attempts to dodge any obligation to analyze the climate impacts of burning the federal coal it authorizes for leasing based on the untenable assertion that "[t]here is no reliable methodology to assess the relationship between plan decisions [the lease authorization analyzed in this DSEIS] and the consumption of the resources produced as a result of the plan decisions." DSEIS, p. 271. Basically, the BLM and USFS are attempting to avoid analyzing reasonable foreseeable impacts by pretending that cannot predict what will happen to the Greens Hollow

coal once it is mined. NEPA does not allow such a "head in the sand" approach to analyzing impacts from federal projects that have a significant impact on the environment.

Because of this supposed inability to discern the end use of coal, BLM concludes that any attempt to quantify or analyze greenhouse gas emissions from burning the coal leased at Greens Hollow would be a "highly speculative exercise," and admits that the DSEIS "does not include quantitative analysis of the consumption of resources produced." <u>Id.</u>

The reality is that it is at least reasonably foreseeable that the coal leased from Greens Hollow will be burned in coal-fired power plants. Once burned, this coal will release CO2 that will increase atmospheric greenhouse gas concentrations and further exacerbate impacts from climate disruption that are already being felt across the U.S.

In order to comply with NEPA BLM must make this connection clear to the public and decisionmakers. It cannot legally hide behind the fiction that it cannot determine the end use of federal coal. Indeed, on the same page of the DSEIS where BLM asserts there is no way to tell whether the mined Greens Hollow coal would be burned, the agency admits that "the burning of the coal is an indirect impact that is a reasonable progression of the mining activity." DSEIS, p. 271. We are unaware of any commercial use for federal coal besides combustion, and BLM does not attempt to identify one in the DSEIS.

Because burning coal is the only logical result of BLM's coal leasing decision, and because burning coal results in massive emissions of carbon dioxide, the quantity and impact of those emissions must be disclosed and analyzed in order for BLM to comply with NEPA. BLM has quantified CO2 emissions from combustion of coal from other federal coal leases by using a conversion factor that takes into account the composition of the specific coal seam to be mined in order to calculate how much CO2 will be released per ton of coal burned from that source. See, e.g., BLM's EIS for the Wright Area Coal Mines in Wyoming and its EIS on the West Elk Coal Mine in Colorado.³ Although that sort of back-of-the-envelope math alone would be insufficient to comply with NEPA obligations, the USFS and BLM here oddly refuse to go even that far, arguing instead that they cannot predict the composition of the coal that will be mined in the proposed expansion of Greens Hollow (even though the mine is currently producing coal), and thus cannot determine the amount of CO2 that will be released during combustion. DSEIS at 272. The Agencies provide no explanation as to why the current Greens Hollow coal would be so different from the coal in the proposed expansion area that it would require a different conversion factor, nor have the Agencies identified the relevant steps necessary to secure such information.

The failure to even attempt to disclose CO2 emissions associated with coal combustion is especially disconcerting because it is possible to reasonably predict where coal from the Sufco mine will be burned. Indeed, fuel receipt data from the Energy Information Administration indicates that the bulk of coal mined from Sufco is combusted in power plants in Utah and

³ The U.S. Energy Information Administration also reports CO2 emission factor for coal. <u>See Hong</u>, B.D. and E.R. Slatick, "Carbon Dioxide Emission Factors for Coal," report available online at

http://www.eia.gov/coal/production/quarterly/co2_article/co2.html (last accessed April 28, 2014). For bituminous coal from Utah, the report indicates CO2 emissions of 204.1 pounds per million Btu of coal burned.

Nevada. This data is attached as Exhibit 5. The table below summarizes this data and demonstrates that the majority of coal mined from Sufco was burned in the nearby Hunter power plant, with large amounts also combusted at the Intermountain Power Station and at the Reid Gardner power plant in southern Nevada.

Power Plant	Location (State)	Total Tons of Sufco Coal Consumed-2013	Contract Expiration
Hunter	UT	2,286,266 ⁵	Dec. 2020
Huntington	UT	118,462	Dec. 2020
Intermountain Power	UT	2,068,543	Not reported
Kennecott Power Plant	UT	212,093	
North Valmy	NV	35,785	Dec. 2013
Reid Gardner	NV	433,939	Dec. 2013
		TOTAL: 5,155,089 ⁶	

Sufco Mine Customers, 2013, Total Coal Consumed, and Contract Details.⁴

Importantly, however, this data indicates that coal from Sufco will continue to be burned in the Huntington and Hunter power plants throughout the foreseeable future. In addition to coal consumption data, the Energy Information Administration's report also presents contract information and indicates that Sufco is contracted to provide coal to Hunter and Huntington until at least December of 2020. This data indicates that the DSEIS is significantly flawed because it asserts that it is not possible to determine where coal from Sufco will be consumed.

Again, the USFS and BLM cannot feign ignorance of key factors that play a large role in fully evaluating the impacts of the proposed Project. Those factors must be disclosed and analyzed under NEPA.

ii. The coal market response to the No Action alternative.

The USFS and BLM have an obligation under NEPA to disclose to the public and decisionmakers the climate impacts of coal leasing decisions related to coal markets and coal combustion. The agencies cannot reasonably assume, as they have here, that if the "no action" alternative is selected, other coal mines would increase production to completely replace the

⁴ This data is readily available from the U.S. Energy Information Administration's webs Form 923 reports, which are available online at <u>http://www.eia.gov/electricity/data/eia923/</u> (last accessed April 28, 2014).

⁵ This represents more than half of the total amount of coal consumed at the Hunter power pant in 2013.

⁶ According to the Utah Division of Oil, Gas and Mining, the Sufco mine produced 5,959,000 tons of coal in 2013. <u>See</u> Utah Division of Oil, Gas and Mining, "Coal Production and Recoverable Reserves in Utah by Coal Mine, 2001-2013," table available online at <u>http://geology.utah.gov/emp/energydata/statistics/coal2.0/pdf/T2.8.pdf</u> (last accessed April 28, 2014). This means that approximately 800,000 tons of coal was sold to customers other than coal-fired power plants. In all likelihood, most, if not all, of this amount was exported overseas through West Coast ports.

Greens Hollow coal in the U.S. energy market. The reality is that changes in the supply of a commodity such as coal change the price and use of that commodity.⁷

Nor can the Agencies assume, as they have here, that the overall level of greenhouse gas emissions from coal mining and burning would remain unchanged based on selection of proposed action vs. the no action alternative. Rather than conduct any analysis of the market response to the No Action alternative advocated for in these comments, the DSEIS simply assumes that coal mining and coal consumption levels would remain unchanged. <u>See DSEIS</u>, p. 271 ("[R]egional GHG and black carbon emissions . . . would not change appreciably as a result of the Proposed Action because the annual coal production rates is not expected to increase."); <u>id.</u> at 272 ("The Hunter Point Power Plant or other users of the coal . . . would likely continued as one end user of coal either from the proposed Greens Hollow tract or from another source.").

The Agencies' decisions to authorize or reject the proposed Greens Hollow coal lease, however, are not carbon neutral. The result of approving the project would be more coal mined, more coal burned, more carbon dioxide emitted, and more methane released into the atmosphere. That difference must be quantified and disclosed before the Agencies can lawfully proceed with approving the proposed lease.

Mining the 56.6 million tons of coal in the proposed Greens Hollow lease area will result in release of an as-yet unquantified CO2 when this coal is burned to generate electricity. DSEIS, p. 28. In order to fully analyze the climate impacts of proposed coal mine, and give decisionmakers the information necessary to evaluate whether to approve the project, the USFS and BLM must analyze and disclose all of these emissions, as well as the overall change in both CO_2 and methane that will result from a decision to approve the project compared to the No Action alternative.

The U.S. Supreme Court has called the disclosure of impacts the "key requirement of NEPA" and held that agencies must "consider and disclose the actual environmental effects" of a proposed project in a way that "brings those effects to bear on [an agency's] decisions." Baltimore Gas & Elec. Co. v. NRDC, 462 U.S. 87, 96 (1983). NEPA regulations require agencies to provide "a clear basis for choice among options by the decisionmaker and the public." 40 C.F.R. § 1502.14. The only way for the USFS and BLM to comply with these obligations is to fully evaluate the market response to the "no action" and action alternatives and present those findings to the public.

⁷ This is especially true in the case of the Greens Hollow coal lease. As explained earlier, Sufco is contractually obligated to provide coal to the Hunter and Huntington power plants until at least December 2020 (and likely has long-term contracts with other facilities). According to the Utah Division of Oil, Gas, and Mining, the SUFCO mine currently has 32,600,000 tons of coal reserves. <u>See</u>

http://geology.utah.gov/emp/energydata/statistics/coal2.0/pdf/T2.8.pdf (last accessed April 28, 2014). Given that SUFCO currently produces around 6 million tons annually, this would mean the mine has a current life of roughly 5 years, or until 2018 (although the DSEIS indicates the mine is permitted to produce up to 10 million tons annually, meaning its life may only be a little more than three years). Thus, denying the Greens Hollow coal lease would prevent SUFCO from supplying Hunter and Huntington beyond 2018. Conceivably Hunter and Huntington could acquire coal from elsewhere of SUFCO is unable to provide contractually obligated coal, but given that both plants consume coal only from Utah and given that the SUFCO mine is the largest supplier of coal for both plants, this would appear to pose significant costs and present substantial uncertainty for both plants.

In <u>Border Plant Working Grp. v. Dep't of Energy</u>, 260 F. Supp. 2d 997 (S.D. Cal. 2003), a federal district court invalidated a decision to approve transmission lines that would connect proposed power plants in Mexico to the U.S. power grid because indirect effects were not considered. The Court found that the decision violated NEPA because decision-makers failed to consider the impacts of the operation of the Mexican power plants—including impacts on air quality and climate—that were closely linked to the transmission lines. The Court found that the operation of the power plants were an "indirect effect" of the transmission line project because the two were causally linked. The Court specifically struck down the agency's decision that the project's impacts were too minimal to require preparation of an EIS. Id.

Here, if the USFS were to deny consent and/or the BLM were to reject the proposed Greens Hollow lease, it is likely that some of the coal would be replaced on the U.S. energy market from other coal mines outside of Utah increasing production. If this were to happen, the overall greenhouse emissions from mining and combustion could likely decrease because coal mines in other regions emit far less methane. Conversely, emissions could increase if transportation distances are increased substantially, meaning that more rail and more trucking would be required. Moreover, a reduction of 56 million tons of coal supply would likely cause an increase in coal price and a reduction in overall coal demand and coal consumption in the U.S. If this were to happen, and some other source of electricity generation such as natural gas, wind, solar, or geothermal were to increase its market share as a result of the "no action" alternative, overall greenhouse gas emissions from the U.S. electricity sector would decrease.

The DSEIS cannot ignore these basic principles of economic supply and demand, nor the effect of these principles on overall greenhouse gas emissions. The Eighth Circuit has recognized, for instance, that approval of a rail line that would increase coal supply would similarly increase coal demand and long-term U.S. coal consumption. <u>Mid States Coal. for Progress v. Surface Transp.</u> <u>Bd.</u>, 345 F.3d 520, 549 (8th Cir. 2003). The Eighth Circuit reasoned that the increased availability would make coal "a more attractive option to future entrants into the utilities market when compared with other potential fuel sources, such as nuclear power, solar power, or natural gas" and that increased availability of a cheaper and more plentiful supply of coal would "most assuredly affect the nation's long-term demand for coal." <u>Id.</u>

The Department of Energy has a computer model that could undertake precisely the kind of analysis that would be useful to decision-makers here. DOE's Energy Information Administration has a National Energy Modeling System ("NEMS") that can be used to project future energy production, consumption, and price and can be used to predict project-specific results. Other models also exist that may be more appropriate to use. At least one federal court has recognized the value of using NEMS in order to give decision makers the necessary information to evaluate the impacts of a proposed project under NEPA. After the Eighth Circuit rejected the Surface Transportation Board's ("STB's") market impact analysis and accompanying railroad decision in <u>Mid States</u>, on remand the STB used the NEMS model in order to forecast the effects of the proposed project on overall U.S. coal consumption. <u>Mayo Found. v. Surface Transp. Bd.</u>, 472 F.3d 545, 555 (8th Cir. 2006). Unlike the approach of simply assuming that there would be no market impact, the Eighth Circuit held that this revised approach, and the market impact it documented, satisfied NEPA. <u>Id.</u> at 556. We urge the USFS and BLM to take a lawful approach and disclose the market response to all action alternatives as well as no action.

B. Impacts of Domestic Coal Transportation.

In addition, coal mined from the Greens Hollow lease will need to be transported to a remote destination for the coal combustion to occur. Coal transport via trucks or rail, both of which are used to transport Greens Hollow Coal (DSEIS, p 271), for hundreds and perhaps thousands of miles, will result in coal dust escaping train cars and being distributed over wide areas, including in streams, and will result in the combustion of diesel fuel (with attendant air pollution) to move the coal. Various computer models exist to evaluate likely impacts of coal dust during transport. See, e.g., Puget Sound Clear Air Agency, The Kent, Seattle, and Tacoma, WA Second 10-year Limited Maintenance Plan for PM-10 (Nov. 4, 2013) at C-16, available at http://www.ecy.wa.gov/programs/air/sips/pdfs/Seattle_Kent_Tacoma_Limited_Maintenance_Plan for PM10.pdf (last accessed April 28, 2014).

The DSEIS provides scant information on the impacts of coal transport. Aside from acknowledging that coal is transported, the DESEIS makes no effort to actually quantify the number of truck and/or rail trips that would be required as part of mining Greens Hollow and makes no effort to quantify the mileage that would be traveled by these trucks and/or rail carriers. To this end, the DSEIS does not even attempt to analyze, even qualitatively, whether the coal is loaded on trains and if so, what the impacts might be.⁸ Not surprisingly, the DSEIS also fails to provide any estimate of greenhouse gas emissions associated with trucking (indeed, the DSEIS only attempts to address CO2 emissions associated with coal combustion). This is particularly of concern given that trucking is not only an indirect impact, but would appear to be a "connected action" under NEPA. See 40 C.F.R. § 1508.25(a)(1). EISs must fully analyze the direct, indirect, and cumulative impacts of all "connected actions," not simply address them as indirect impacts.

C. Impacts of Coal Export.

The DSEIS acknowledges that some of the coal currently being produced at the Greens Hollow Mine is exported, DSEIS, p. 131, yet it provides no analysis of the potentially significant environmental impacts associated with the export of coal from the proposed expansion at Greens Hollow. This is a significant flaw, especially given that coal industry websites tout that the mine has exported coal to Japan in the past. See, e.g., www.mining-technology.com/projects/sufco (stating that the mine was previously owned by "Japanese interests" and that the mine currently "exports steam coal through the port of Los Angeles to customers in Japan.") (last accessed April 28, 2014). Furthermore, Bowie Resources, the new owner of Sufco, has signaled a clear intent to export coal from its mines in Utah. In recent news coverage around Bowie's acquisition of Canyon Fuels, the Arch Coal subsidiary that previously owned the Sufco mine, the company reported that Sufco and its other mines would "make an extraordinary acquisition" given, among other things, the company's "recent development of significant West Coal export throughput capacity." See "Galena Private Equity Resource Fund JV With Bowie Resources," website available at http://www.trafigura.com/media-centre/latest-news/galena-co-invests-with-bowie-resources/#.U12IZ5TF0qY (last accessed April 28, 2014).

⁸ According to the Union Pacific Railroad, coal from SUFCO is trucked to a coal loading facility at Sharp, near Levan, Utah. <u>See https://www.uprr.com/customers/energy/coal/utah/sufco.shtml</u> (last accessed April 28, 2014).

The impacts of exporting Greens Hollow coal must be addressed in order to comply with NEPA. Here, the USFS and BLM must, at a minimum, address the following impacts associated with coal export:

- Port-related impacts: The impacts of unloading coal from trains, loading coal onto barges and/or ships, constructing and/or maintaining port facilities, and the impacts of port operations, including ship, locomotive, and/or truck operations must be analyzed and assessed. The impacts that must be addressed include, but are not limited to, the air quality impacts of port operations, including ship, locomotive, and truck emissions, water quality impacts (including wetland impacts), and fish and wildlife impacts. Here, it is clear that Bowie Resources has port capacity in the West Coast, meaning that port impacts are not speculative, but are reasonably foreseeable and must be addressed in any final EIS.
- Shipping impacts: The impacts of shipping coal, both within the U.S. and through international waters must be addressed. The impacts that must be analyzed and assessed include air quality impacts, impacts to water quality (particularly through discharge from ships), and impacts to river and ocean species, especially species listed as threatened or endangered under the Endangered Species Act. Each trip of a fully loaded container ship to Asia, for example, uses around 500 tons of bunker fuel per trip, generating both significant CO2 emissions in its own right as well as a N2O, NOx, SO2, sulfuric acid mist and a variety of other toxic and harmful air emissions, including diesel particulates that are highly damaging to human health, as well as black carbon, one of the most potent greenhouse pollutants in existence. T.C. Bond *et al., Bounding the role of black carbon in the climate system: A scientific assessment*, Journal of Geophysical Research: Atmospheres. Available at: http://onlinelibrary.wiley.com/doi/10.1002/jgrd.50171/pdf. Attached as Exhibit 6.
- Coal unloading impacts at ports abroad: Just as coal unloading and loading at the Port of Los Angeles must be addressed, the impacts of unloading coal from ships and loading coal onto trains and/or trucks at Japanese ports must be analyzed and assessed.
- Coal transport after unloading: The impacts of transporting coal from foreign ports to facilities must be analyzed and assessed. Such an analysis must analyze and assess whether the coal is hauled by rail or by truck, and analyze and assess the attendant impacts.
- Coal combustion abroad: Finally, the impacts of combusting coal from the Greens Hollow lease abroad must be analyzed and assessed. Such an analysis must include, but not be limited to, an analysis of the air quality impacts of coal combustion (including greenhouse gas emission impacts), water quality impacts, coal ash disposal impacts, fish and wildlife impacts, and impacts to lands.

• Domestic air quality impacts of combustion abroad: Exporting coal may also increase the air-quality impacts associated with its combustion.

When coal is burned domestically, we can be reasonably certain of the pollutioncontrol regulations to which it will be subject. However, there is no guarantee that equivalent regulations will be in place in the Asian countries where the exported coal will be sold and burned. As a result, the air pollution impacts of exporting U.S. coal may be greater than if the coal were to be burned domestically. Yet these impacts will not stay in Asia. Airborne transport of soot, sulfur compounds, mercury, ozone, and other byproducts of coal combustion can travel across the Pacific Ocean and affect the health of western states' ecosystems and residents. *See* Eric de Place, Northwest Coal Exports: Some common questions about economics, health, and pollution (Nov. 2011) at 7. *Available at* http://www.sightline.org/wpcontent/uploads/downloads/2012/11/coal-FAQ-November-12.pdf (last accessed April 28, 2014). Attached as Exhibit 7.

V. <u>The DSEIS Fails to Adequately Analyze and Assess Impacts to Sage Grouse and</u> <u>Fails to Demonstrate that the USFS and BLM Will Protect Sage Grouse in</u> <u>Accordance With Applicable Legal Requirements</u>

The DSEIS fails to adequately analyze and assess impacts to sage grouse and in turn fails to demonstrate that this species will be protected in accordance with applicable requirements, including, but not limited to, the land and resource management plans for the Manti-La Sal and Fishlake National Forests, the U.S. Forest Service's sensitive species handbook (FSH 2670), the BLM's special status species handbook (BLM Handbook 6840.06.2), and other relevant guidance.⁹ This raises significant concerns over the viability of the sage grouse in the area, the status of which is already precarious. The DSEIS notes that declines of grouse and habitat have already occurred extensively in the area, and that "great care should be taken to protect this habitat." DSEIS at 80. Our specific concerns are as follows:

A. The USFS and BLM Fail to Address Discrepancies in Assessments of Sage Grouse Impacts Between the Previous EIS and the Current DSEIS

In 2012 in the previous Final EIS prepared for the Greens Hollow coal lease, the USFS and BLM found that development of the proposed lease "may adversely impact individual [sage grouse] and is likely to result in a loss of viability in the planning area, and/or cause a trend toward Federal listing." See 2012 Greens Hollow Final EIS at 208-209. This assessment was made based on the impacts of fan construction and operation and other surface disturbances, including noise from fan operation. Furthermore, based on this assessment, it was clear that the USFS and the BLM both were prohibited from approving the Greens Hollow lease based on their duties to

⁹ For instance, the Fishlake National Forest Land and Resource Management Plan not only requires that habitat be managed to ensure viable populations of all native vertebrate wildlife species, but also requires the USFS to maintain habitat for each species on the forest by "protecting at least 40 percent of the ecosystems for existing species." Fishlake National Forest Land and Resource Management Plan, Wildlife and Fish Resource Management (C01) #1 at IV-18.

ensure that species do not trend toward listing under the Endangered Species Act and that their viability be maintained.

Now, in 2014, the USFS and BLM assert that the Greens Hollow coal lease, despite posing the same impacts to the sage grouse, would continue to adversely impact the sage grouse, but apparently would not result in a loss of viability or cause a trend toward Federal listing.

It is completely unclear why the Agencies' assessment shifted. The DSEIS indicates the potentially significant impacts to the sage grouse are the same as what were analyzed in the previous Final EIS and nothing suggests that the impacts would be less severe or otherwise more protective of the grouse than before. With regards to noise in particular, the analysis on pages 199-200 in the DSEIS is virtually identical to the analysis in the Final EIS. This appears to be nothing more than arbitrary backtracking. Unfortunately, it seems to be a purposeful attempt to gloss over the significance of the impacts of the Greens Hollow coal lease to the sage grouse.

Confusingly, the DSEIS asserts that the proposed Greens Hollow lease would not "jeopardize the continued existence" of the sage grouse or "adversely modify" its critical habitat. This is confusing for two reasons. First, an assessment of whether a project may jeopardize a species' existence or adversely modify its critical habitat is only required for species listed under the Endangered Species Act. The sage grouse is not currently listed. Second, such an assessment must be supported by a biological assessment and formal consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act. This has not happened with regards to the sage grouse, meaning there is absolutely no support for the assertion that the proposed lease will not jeopardize the species or adversely modify critical habitat.

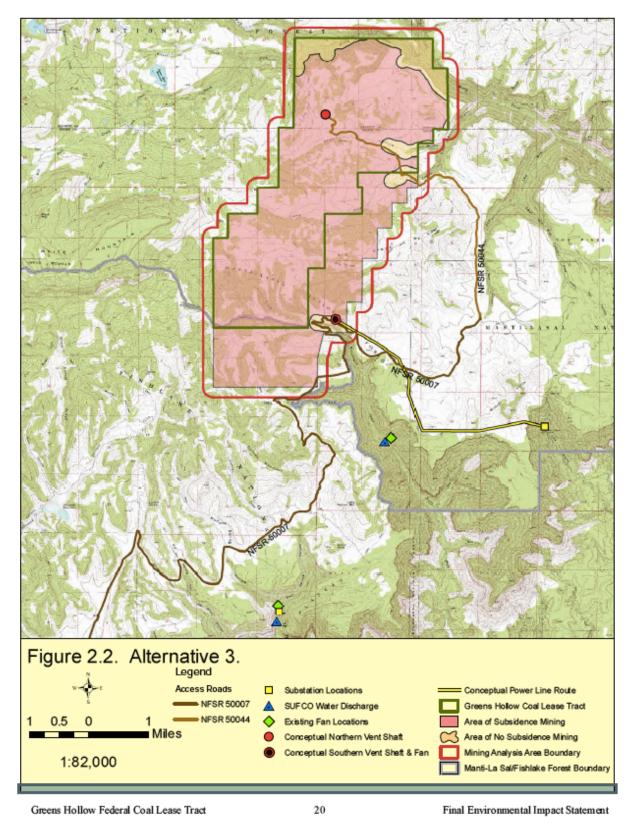
Ultimately, both the BLM and USFS appear to be backtracking on previous assessments of the impacts of the Greens Hollow coal lease to the sage grouse. This appears to be an attempt to avoid having to disapprove the proposed lease due to sage grouse impacts. In any case, the Agencies must explain why their assessment of sage grouse impacts, despite being the same now as in 2012, have changed so significantly.

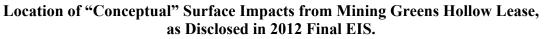
B. The DSEIS Fails to Analyze and Assess Reasonably Foreseeable Impacts to Sage Grouse

We are further concerned that the current DSEIS appears to fail to address a number of potentially significant reasonably foreseeable impacts, particularly surface impacts associated with mining the Greens Hollow coal lease. While the DSEIS addresses potentially significant subsidence impacts to sage grouse (albeit inadequately), the DSEIS makes no effort to analyze or assess reasonably foreseeable surface impacts associated with mining, including ventilation shaft construction, fan construction, transmission line construction, and any road construction and reconstruction that will occur. Notably, while the DSEIS asserts that many surface impacts associated with issuing the proposed coal lease are not known (see e.g. DSEIS at 192 ("[i]t is unknown where [vent shaft construction] would occur"), the USFS and BLM have both previously disclosed the reasonably foreseeable surface impacts of the proposed lease to the sage grouse.

In the 2012 Final EIS for the Greens Hollow lease, the Agencies disclosed the likely location of proposed surface facilities, including a "conceptual northern vent shaft," a "conceptual southern vent shaft and fan," and a "conceptual power line route." The map below, taken from page 20 of the Final EIS, displays the locations of these impacts. This map is significant because it indicates that the proposed vent shaft, vent shaft and fan, and power line route will directly impact priority sage grouse habitat and, it appears, the Wildcat Knoll lek.

Although these impacts were based on a "conceptual" plan, they reinforce the fact that the impacts of vent shaft construction, fan construction, and power line construction are reasonably foreseeable. Simply because these activities may occur in a slightly different location once the Greens Hollow lease is approved does not give the USFS and BLM license to refuse to analyze and assess the impacts to sage grouse associated with these surface activities. This is especially true where, as here, surface developments will be necessary to mine the Greens Hollow lease. To assert that such impacts are "unknown" or otherwise speculative is completely baseless. The DSEIS must be revised or supplemented to fully analyze and assess the potentially significant impacts of surface activities to sage grouse.





Despite the DSEIS's failure to disclose the location and impacts of reasonably foreseeable surface developments, the USFS and BLM somehow are able to assert that the impacts associated with fan construction will be either nonexistent or otherwise sufficiently protective of the grouse. For instance, the DSEIS asserts that "there is no potential for cumulative effects of habitat loss through construction of a vent shaft." DSEIS at 192. This is not only unsupported, it's contradicted by the DSEIS, which indicates that 10 acres of vegetation would be removed. Our review of the "conceptual" map in the 2012 Final EIS, as well as the map in the DSEIS showing the location of the proposed ventilation shaft and fan, indicates the fan will be constructed within or very near priority sage grouse habitat and will otherwise adversely impact general sage grouse habitat mapped by the Utah Division of Wildlife Resources.

The DSEIS also asserts that any mining activities will comply with "current direction," as required by Stipulation #14, and therefore that impacts will either be nonexistent or insignificant. See e.g. DSEIS at 196 (stating that grouse will be protected from "surface use activities" because they would comply with "current FS and BLM direction for management of sage-grouse habitat"). There is no analysis in the DSEIS to support this assertion. Stipulation #14 provides no specific standards of protection, but rather simply requires that the operator comply with whatever sage grouse direction may be in place. This is disturbing because, if anything, current guidance is wholly inadequate, as evidenced by the fact that the USFS and BLM are revising their management plans to ensure adequate protection of sage grouse. Any reliance on "current direction" would seem to indicate that the sage grouse and its habitat will be insufficiently protected. To the extent that the Agencies rely on future, yet-to-be adopted "direction," reliance on such speculative measures cannot serve to justify the assessment that the proposed Greens Hollow coal lease will not jeopardize the viability of the sage grouse or otherwise hasten the trend toward listing under the Endangered Species Act.

The lack of any analysis of surface impacts is especially disconcerting in light of scientific findings indicating that sage grouse priority habitat, as well as general habitat outside of priority habitat areas, should receive utmost protection from surface disturbing activities associated with mineral development. We refer specifically to the BLM's Sage-grouse National Technical Team report on sage grouse conservation measures, which was released in 2011 and is referenced in the DSEIS as Morales, et al. (2011) (hereafter referred to as the "Technical Team Report"). The Technical Team Report provided "the latest science and best biological judgment to assist in making management decisions" regarding the conservation of the sage grouse.

While directed toward BLM land management actions, the Technical Team Recommendations provide conservation direction based on specific "resource programs," such as coal management. Thus, the recommendations are equally applicable to other resource management agencies sharing similar oversight responsibilities.

As clearly stated in the Technical Team Report, the overall objective of sage grouse conservation is "to protect priority sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse." Technical Team Report at 7. The report explains that "priority" habitats are "areas that have the highest conservation value to maintaining or increasing sage-grouse populations." *Id.* The recommendations also make clear that

conservation "sub-objectives [] must be met in general sage-grouse habitat." *Id.* at 9. "General" habitat is described as occupied habitat outside of priority habitat. *Id.*

Within priority habitats, the Technical Team provided specific recommendations for protecting sage grouse from coal mining. With regards to surface mining, the Team recommended that priority habitats on lands managed by the BLM be found "unsuitable" for mining under 43 C.F.R. § 3461.5, in other words that surface mining be disallowed. Technical Team Report at 24. For underground mining, the Team recommended that all surface disturbances be "placed outside of the priority sage-grouse habitat area." Id. Outside of priority habitats, or in general habitat, the Team recommended that surface disturbing activities related to coal mining be minimized "to reduce the impacts of human activities on important seasonal sage-grouse habitats." Id.

While the Technical Team's recommendations were, in large part, based on whether or not the coal at issue was leased or otherwise under regulatory control by the BLM, whether or not coal is leased or under BLM control is not a scientific distinction, but rather an administrative distinction. To this end, the Technical Team Recommendations make clear that, wherever possible, surface mining and surface impacts related to underground coal mining should not occur within priority habitats. As the Technical Team states, "[W]e believe the conservation strategy most likely to meet the objective of maintaining or increasing sage-grouse distribution and abundance is to exclude energy development and other large scale disturbances from priority habitats[.]" Technical Team Report at 21.

Beyond priority habitats, the Team also noted that to effectively protect sage grouse lek sites, no disturbance buffers of at least four miles would be necessary, although they note that recent scientific studies support buffers up to eight miles or more may be necessary and that in priority habitat, complete avoidance of disturbance should be utilized instead of buffers. National Technical Team Report at 20-21. The Technical Team Report states, "Even a 4-mile NSO [no surface occupancy] buffer would not be large enough to offset all the impacts reviewed above." Id. at 21. In fact, scientific studies relied upon by the Technical Team firmly support the need for greater than four mile buffers to protect lek sites and associated habitats. For example, Holloran (2005), which is relied upon extensively by the Technical Team, reports that to effectively protect an important majority of nesting habitat, buffers of 8.5 kilometers (5.3 miles) are likely necessary.

In analyzing impacts to sage grouse and sage grouse habitat, the DSEIS makes no mention of the Technical Team Report and its firm recommendations. Some glaring examples of this include a complete failure to analyze impacts to sage grouse general habitat in the area, a complete failure to analyze the impacts of surface disturbance in sage grouse priority habitat, a complete failure to analyze the impacts of surface disturbance within four miles of the Wildcat Knoll lek site, and a complete failure to assess the significance of impacts in the context of the Technical Team Report's recommendations. This not only raises serious concerns over the scientific integrity of the analysis and assessment of impacts, but indicates that the USFS and BLM have grossly underestimated the potentially significant impacts and its conclusions regarding their ability to ensure adequate protection of the sage grouse. The fact that surface disturbing activities appear

slated to occur within four miles of the Wildcat Knoll lek site strongly indicates that the Agencies have not adequately analyzed and assessed impacts.

Overall, the DSEIS makes no attempt to actually analyze and assess the impacts of surface activities to sage grouse its habitat and certainly no attempt to analyze and assess impacts in light of the findings of the National Technical Team Report. There is no analysis to demonstrate that surface activities will sufficiently protect the sage grouse.

C. The DSEIS Fails to Address the Fact that Current Sage Grouse Protections are Inadequate to Conserve the Grouse

The DSEIS asserts that, despite impacts from surface disturbance associated with development of the Greens Hollow coal lease, the sage grouse will be adequately protected based on the adoption of some future, yet-to-be adopted protections. The DSEIS states, for example, that the lease would be required to comply with the "Utah Greater Sage-Grouse Land Use Plan Amendment and Environmental Impact Statement, once finalized." DSEIS at 187. While reliance on speculative, yet-to-be adopted protection standards does not serve to ensure a sufficient analysis and assessment of impacts under NEPA, we are concerned that these yet-to-be adopted standards are woefully inadequate.

WildEarth Guardians and others submitted comments on the BLM's and USFS's proposed sage grouse protection plans, which would modify the Manti-La Sal and Fishlake land and resource management plans and the Price Resource Management Plan, detailing their shortcomings and inabilities to conserve the sage grouse. These comments are attached as Exhibit 8. Among them:

- The preferred alternative plan fails to ensure that surface disturbance associated with underground mining is prohibited in priority habitats. <u>See</u> Comments at 50.
- The proposed plan would allow transmission lines to be located within one mile of lek sites. <u>See</u> Comments at 50.
- The proposed plan fails to provide sufficient protection from noise. <u>See</u> Comments at 34-35.
- The proposed plan fails to impose at least four-mile buffers around lek sites in priority habitat only for fluid mineral development, but not for other types of mineral development, including coal mining. The proposed plan also fails to impose at least four miles buffers around lek sites in general habitat, consistent with National Technical Team Recommendations. See Comments at 31-32.
- The proposed plan contains no provisions to limit surface disturbance related to underground coal mining on lands that are already leased, even though the USFS, BLM, and Office of Surface Mining have authority to limit such impacts in order to protect the sage grouse.

On the latter point, it is important to note that the Office of Surface Mining has yet to step up to adopt any standards to protect the sage grouse and its habitat from the impacts of surface and underground mining. In fact, in late February, WildEarth Guardians petitioned the Office of Surface Mining to adopt standards consistent with the National Technical Team Report and consistent with the steps being taken by the USFS and BLM to conserve the sage grouse in accordance with the Surface Mining Control and Reclamation Act, 30 U.S.C. §§ 1265(b)(24) 1266(b)(11), which requires that wildlife be protected using the best technology available. This petition is attached as Exhibit 9. The Agency has yet to respond to this petition and has otherwise taken steps to ensure that the sage grouse is adequately protected under the Surface Mining Control and Reclamation Act. This raises further concerns that reliance on speculative "future direction" is misplaced in the context of analyzing and assessing the impacts of the Greens Hollow coal lease.

In light of these inadequacies, it is all the more inappropriate for the USFS and BLM to rely on the yet-to-be adopted sage grouse plan to conclude that the species and its habitat will be insufficiently protected. The Agencies must analyze and assess impacts in light of the findings of the National Technical Team Report and WildEarth Guardians' rulemaking petition to the Office of Surface Mining. Absent such an analysis and assessment, the Agencies findings are merely arm-waving and do not serve to justify the conclusions in the DSEIS.¹⁰

D. The DSEIS Fails to Demonstrate that Sage Grouse Will be Protected in Accordance with Applicable Requirements

In light of the aforementioned flaws in the DSEIS, as well as certain disclosures in the DSEIS, we are concerned that the USFS and BLM are failing to protect the sage grouse in accordance with its substantive wildlife protection obligations. Of particular concern is that the USFS is failing to ensure compliance with its relevant land and resource management plans, as required by the National Forest Management Act, 16 U.S.C. § 1604(i), and that the BLM is failing to comply with the Federal Land Policy and Management Act, 43 U.S.C. § 1712. These obligations include:

• The USFS's Sensitive Species Manual, FSM 2670, which requires that the Agency "[d]evelop and implement management practices to ensure that species do not become threatened or endangered because of Forest Service actions," to "[m]aintain viable populations of all native and desired nonnative wildlife, fish, and plant species in habitats distributed throughout their geographic range on National Forest System lands," and to "[a]void or minimize impacts to species whose viability has been identified as a concern." FSM 2670.22 and 2670.32. Here, there is no indication that

¹⁰ Furthermore, absent such an analysis and assessment, we are greatly concerned that USFS and BLM approval of the Greens Hollow coal lease would represent a commitment of resources that would prejudice the selection of alternatives under the final Utah Greater Sage Grouse Land Use Plan Amendments, in violation of NEPA, 40 C.F.R. § 1502.2(f). Approval of Greens Hollow appears poised to lead to the destruction and degradation of priority habitat and the construction of facilities, including transmission lines, ventilations shafts, and fans, within four miles of the Wildcat Knoll lek. This would prejudice the Agencies' ability to adopt an alternative under the Utah Greater Sage Grouse Land Use Plan Amendments that ensures sufficient protection of the sage grouse in the Greens Hollow lease area.

the USFS, in proposing to approve the Greens Hollow lease, will ensure that the sage grouse is not listed under the Endangered Species Act, will maintain viable sage grouse populations, or that impacts to sage grouse will be avoided or minimized.

- The Manti-La Sal National Forest Land and Resource Management Plan, which requires that the USFS "[m]anage habitat of sensitive species to keep them from becoming threatened or endangered" and comply with the Agency's Sensitive Species Manual at FSM 2670. Manti-La Sal Land and Resource Management Plan at III-21. Here, there is no indication that the USFS will comply with the Plan's requirement that viable populations be maintained or will fully comply with the Sensitive Species Manual.
- The Fishlake National Forest Land and Resource management Plan, which requires that habitat be managed to ensure viable populations of all native vertebrate wildlife species and also requires the USFS to maintain habitat for each species on the forest by "protecting at least 40 percent of the ecosystems for existing species." Fishlake National Forest Land and Resource Management Plan, Wildlife and Fish Resource Management (C01) #1 at IV-18. Here, there is no indication that 40 percent of the ecosystems for sage grouse are currently being protected or will be protected as a result of approving the Greens Hollow coal lease.
- The BLM's Special Status Species Management Handbook, which requires that BLM activities affecting sensitive species are "carried out in a way that is consistent with its objectives for managing those species and their habitats at the appropriate scale" and that "[i]n the absence of conservation strategies, incorporate best management practices, standard operating procedures, conservation measures, and design criteria to mitigate specific threatens to Bureau sensitive species during the planning of activities and projects." BLM Handbook 6840.06.2.C.2 and C.8. Here, approval of the Greens Hollow coal lease would appear to contravene objectives for protecting the sage grouse and its habitat and would appear to not ensure that appropriate measures are implemented to mitigate threats to the sage grouse and its habitat.
- The BLM's Price Field Office Resource Management Plan, which requires that habitat be managed for sensitive species to ensure that actions "do not contribute to the need for the species to become listed" and that surface disturbing activities be "prohibited within ½ mile of greater sage-grouse leks on a year-round basis." Price RMP, Management Decisions SSS-1 and SSS-7.¹¹ Here, it appears that approval of the Greens Hollow coal lease would contribute to the need to list the species under the Endangered Species Act and would fail to adequately protect the Wildcat Knoll lek in accordance with the RMP.

In light of these substantive shortcomings, it appears that the USFS and BLM cannot approve the Greens Hollow coal lease as proposed. Unless and until the Agencies address the aforementioned flaws in the DSEIS and otherwise ensure that the sage grouse and its habitat will

¹¹ Although the ½ mile buffer in the RMP is completely inadequate, nevertheless it is an applicable requirement.

be protected in accordance with scientific recommendations, there is no basis for concluding that approval of the lease will ensure compliance with the National Forest Management Act, Federal Land Policy and Management Act, and other applicable conservation obligations.

VI. <u>The DSEIS Fails to Adequately Analyze and Assess Impacts to Other Species and/or</u> <u>Fails to Demonstrate that Other Species Will be Protected in Accordance with</u> <u>Applicable Direction</u>

A. Boreal Toad

Boreal toads are sensitive species on the Fishlake and Manti-La Sal National Forests and and have been petitioned for listing. They could be in the ponds/wetlands lost (DSEIS at 179):

However, there are numerous natural and stock ponds located within the projected subsidence zone of the analysis area as well as springs and cattle troughs that would be undermined (Cirrus 2013c). An in-depth discussion of areas where this could potentially happen can be found in Section 4.1.1. If cracks occurred in these ponds, it is expected that surface flow could be temporarily reduced or eliminated, thus eliminating potential amphibian breeding habitat for the duration of the effect. Furthermore, it is possible that the effect could become permanent as discussed above and habitat lost completely. However, as stated above a special coal lease stipulation (Appendix B), has been put in place to replace in quantity and quality any water lost due to mining operations (Stipulation #17). [Emphases added.]

The above excerpt says water quantity and quality would be replaced if lost, but this would serve cattle and some guzzler-using wildlife, but would not provide breeding and associated wintering habitat for boreal toads.

In Table 4.2 (DSEIS at 185), the rationale for a No Impacts determination for boreal toad is 5:

Species occur[s] outside of the analysis area, and elements of the conceptual project would not affect the species.

However, at 88, the DSEIS indicates potentially suitable habitat for boreal toads was found **within** the analysis area in a 2013 survey. And then for some reason at 76-7, the DSEIS cites a 2001 (13-year old survey) where boreal toads were found in only one place outside the analysis area. And on p. 194, a 10-year old study is cited to say they are outside the analysis area. The Table on p. E-3 leaves blank the cell as to the status of boreal toad in the analysis area.

A No Impacts determination appears unwarranted.

B. Aquatic Management Indicator Species

Aquatic Macroinvertebrates are well known as an excellent indicator to measure condition and trends to specific aquatic communities due to management. It makes sense that this is an aquatic

MIS on both National Forests involved in this project. Impacts to water related resources and the aquatic communities in both the Muddy Creek and Quitchumpah Creek watersheds is a central concern that is said to be central to the EIS and SEIS analyses. The DSEIS treatment of aquatic MIS in both watersheds and on both National Forests is not adequate under NEPA and fails to meet the intent of and requirements for aquatic MIS found in both Forest Plans and the NFMA regulations they explicitly incorporate. This was an inadequacy raised in DEIS comments, and at the appeal stage. It is good to see that the DSEIS includes impacts to aquatic MIS on both forests as inside its scope of issues supposed to be studied in detail. Used as intended, the aquatic MIS on both Forests are a very good indicator of existing conditions and how that aquatic community conditions change as a result of management alternatives approved.

Aquatic macroinvertebrates are an MIS selected for both the Manti-La Sal and Fishlake Forest Plans. There are known impacts from the project to a number of aquatic communities. This is from dewatering of specific streams for 12 month construction periods (e.g. for the vent fan facility construction). North Fork Quitchumpah creek on the Fishlake, for example, will suffer from water diversion for extended periods.

The Muddy Creek and associated streams to the north will experience water loss from a number of causes. This includes anticipated defacto permanent trans-basin diversion of water from Muddy Creek to another watershed. DSEIS, p. 175. "It is likely that aquatic macroinvertebrate habitat would be lost or degraded. This would lead to lost individuals, lowered population numbers, and decreased breeding success in the general analysis area. This in turn would impact the prey base for aquatic predators in the basin." Id. In spite of this, no aquatic macroinvertebrates MIS population monitoring has been done. DSEIS, p. 85 Not surprisingly, the DSEIS notes there has been a failure on behalf of the Manti-La Sal to collect and maintain requisite quantities population data for this MIS. DSEIS, p. 187. This needs to be resolved in light of aquatic macroinvertebrates MIS population sampling sufficient to determine population and trend status of this MIS, and the results then will need to be used to determine if alternatives may result in failures to meet LRMP and NFMA aquatic community population viability duties.

Aquatic macroinvertebrates are the key "ecological indicator aquatic MIS" for "Streams (water quality)" in the Fishlake LRMP that applies to this project. LRMP, p. II-29. The FEIS failed to so much as admit this MIS' presence. The DSEIS takes a step in the right direction by claiming to add sections that are supposed to disclose and study this aquatic MIS and its quantitative population and trend status. However there is no actual presentation of the quantitative population status for aquatic macroinvertebrates in streams affected in association with the Fishlake NF. This is not acceptable under the LRMP, NFMA or NEPA. Similarly, there is no analysis of potential effects to the unspecified population status for this MIS. This needs to be rectified by summarizing results of aquatic macroinvertebrates sampling in Quitchumpah and north fork Quitchumpah creeks because they both will be impacted directly by dewatering and/or pollution from the mine if either action alternative is approved. The results need to be presented and then used in the actual EIS to support the corresponding analysis section.

North Fork Quitchumpah creek is a good example to emphasize. The Forest Service knows from past aquatic macroinvertebrates sampling such as for the Quitchumpah creek road EIS that unique and important aquatic macroinvertebrate communities exist in both forks of the stream,

and both are at risk of being at or already below LRMP minimum standards. Additionally, the North Fork Quitchumpah creek was found in that project record to have unique endemic species of aquatic macroinvertebrate. To repeat: there is an endemic aquatic macroinvertebrate species relying on water flow in North Fork Quitchumpah creek that exists nowhere else in the world. Now consider that page 190-191 of the DSEIS actually discloses that "Water would need to be diverted from the North Fork of the Quitchupah Creek" for at least a 14 month construction phase for one of the vent shafts. The stream is small, with a daily flow of only 3.4 acre-feet. The exact amount diverted may sound small as presented on page 192 of the DSEIS, but it actually will amount to a diversion of almost 20% of the total flow (18.4%). This in and of itself may constitute a catastrophic event to the aquatic (MIS) community in North Fork Quitchumpah creek, as well as the main stem below. However no population data is presented or studied in the EIS as required by the LRMP, NFMA and NEPA. We hope the next version of the EIS, supplement or otherwise, will remedy this issue.

C. Northern Goshawk

Goshawk is a MIS for mature and later successional forest communities in the Fishlake and Manti-La Sal Forest Plans. It is also a USFS Sensitive species, meaning it has or is projected to experience population and habitat viability concerns, as determined by the Regional Forester. So in addition to being an MIS on both National Forest with corresponding duties for quantitative population monitoring and minimum population viability duties, there are Forest Plan standards specific to USFS Sensitive species that afford additional protections that ensure no actions implementing either Forest Plan may negatively impact the goshawk population in this area.

This matters because there is clear nexus of goshawk MIS presence on the surface coupled with predicted impacts from construction and subsequent operations of new surface facilities required to subsidence mine the coal underground. Additionally, the impacts from subsidence itself is known to result in negative and even detrimental impacts to goshawks and their habitats that are different from but in addition to those resulting from construction/operation of new surface infrastructure (e.g. vent fans and portals, power lines, upgraded roads and corresponding increases in road use and access). In light of these things we find the disclosures of population status and trend for the Sensitive and MIS goshawk to be inadequate in the DSEIS. Corresponding meaningful impacts analysis is generally missing from the DSEIS. When present, it is not adequate. One such case example is the disclosure and direct/indirect/cumulative impacts analysis summarized on DSEIS page 191. Here, the DSEIS discloses that goshawk nesting areas are located near one or more of the necessary 10 acre vent fan facilities that would need to be built. While the SDEIS never even site-specifically discloses where this may or may not be, that there is an admitted geographic nexus underlines the relevance of the ensuing analysis one would expect. But there is no such ensuing analysis ... that is other than unsubstantiated claim that while the year-round drilling is expected to cause goshawk abandonment of nests and the area, at least they are assumed likely to return later and be inexplicably acclimated to the never ending noise and and harassment that would occur through the 8+ year lifespan of the 10 acre multistory fan facility. This is exemplary of the inadequate and unsupported nature of analysis and disclosure concerning the USFS Sensitive and MIS Goshawk.

Also worth note and comment is the fact that the facility construction and goshawk harassment summarized above (and found in the DSEIS, such as at page 191) constitutes failures to comply with duties, standards, and guidelines imposed by the 2000 Goshawk Amendment as well as all supporting best available science on the matter.

D. Colorado River Cutthroat Trout

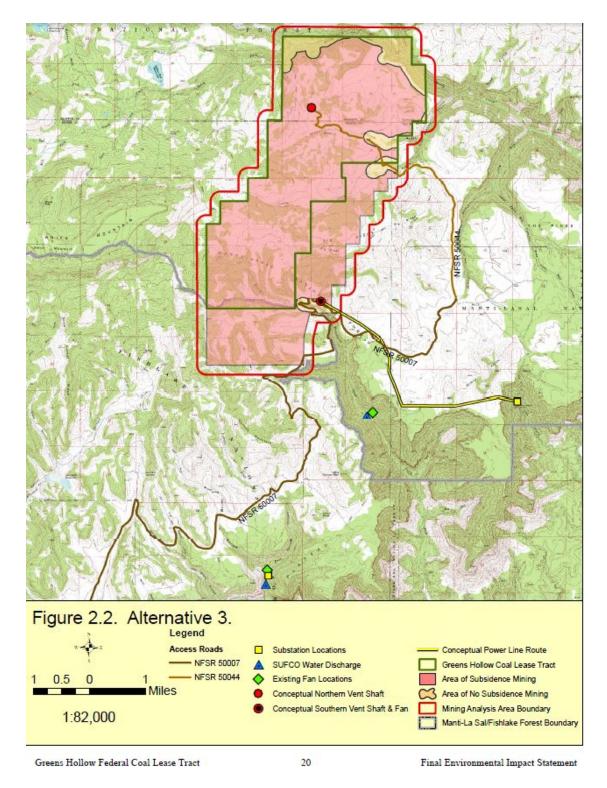
We are concerned that the DSEIS indicates the viability of the Colorado River cutthroat trout will not be maintained and/or that the Greens Hollow coal lease will push the species toward listing under the Endangered Species Act. <u>See</u> DSEIS at 186. This outcome appears contrary to the Manti-La Sal and Fishlake National Forest LRMPs, which both require that species viability be maintained. In light of this requirement, as well as other specific requirements related to species viability (<u>see supra pages 27-28</u>), the USFS does not appear to have any choice other than to withhold its consent of the coal lease. If the Agency does offer its consent, then absent additional safeguards that actually protect the viability of the cutthroat trout and prevent its trend toward listing, such consent would be in violation of applicable LRMPs and, in turn, the National Forest Management Act.

VII. <u>The DSEIS Fails to Adequately Analyze and Assess Impacts to Roadless Areas</u>

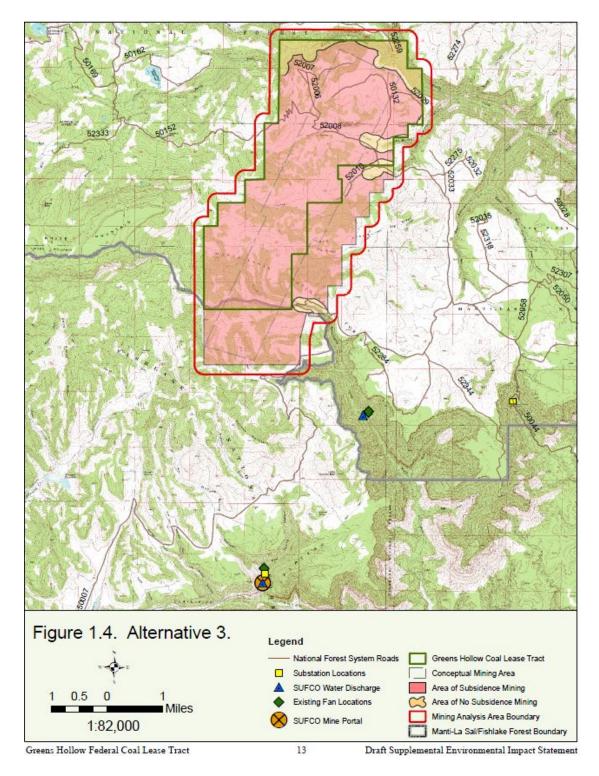
A. Differences Between the DSEIS and Prior EISs Raise Concerns that the Analysis is Flawed

When one compares the FEIS and the DSEIS side-by-side or paragraph by paragraph, it becomes apparent that the DSEIS is a shortened and edited new iteration of the original EIS. Its analysis of impacts to surface resources is less site-specific than that found in the FEIS. It's a step in the wrong direction. A good example of how this happens is apparent in chapter 2 and the description of the Conceptual Mine Plan and Surface Use Scenario. This starts at section 2.5 of the FEIS, and section 2.6 of the DSEIS. There is no new site-specific disclosure of information in this part of the DSEIS. Instead, it reads as if it has been edited to remove the meaningful and important site-specific disclosures of what surface facilities would be required, and types of surface occupancy and access would be necessary to subsidence mine the area.

An easy way to see the nature of the omissions is by comparing the corresponding maps in the FEIS and the DSEIS for either action alternative, both of which are based on the same Conceptual Mine Plan. FEIS Chapter 2 has standard maps for both action alternatives, including the conceptual surface facilities that would be required, such as the 2 new vent fans and the new power line needed to power the huge fan needed for the southern vent fan. Chapter 2 of the DSEIS discloses that two vent fans would be required, and that one of them would need to have a huge fan that would need a new power line, but all attempts to disclose where the infrastructure would need to be located has been deleted. Consistent with this, Chapter 2 of the DSEIS has no maps for either action alternative. Instead, the maps for the action alternatives were scrubbed of site specific surface facilities and put in Chapter 1 of the DSEIS. Below, the FEIS alternative 3 map is compared with this scrubbed alternative 3 map from the DSEIS:



Note the site specific disclosure of the reasonably foreseeable new vent fans and the power line needed for the southern fan. The FEIS does not portend to propose approving these facilities, but correctly treats them as so obviously connected to and even triggered by either action alternative that they need to be analyzed site specifically now, in the EIS. Now, look to the DSEIS Chapter 1 map of the same action alternative:



Note there is absolutely no meaningful or site-specific disclosure of the vent fans or the power line that are so intricately connected to either action alternative. Indeed, the DSEIS concedes repeatedly that such surface facilities would be necessary to subsidence mine the area, as evidenced by DEIS Chapter 2.6 treatment of the shafts and new power line as known reasonably foreseeable developments that would be triggered by approval of either action alternative. If one

is to review the DSEIS in a vacuum by itself one is led to the impression that it's simply not known where they may or may not be located. But they are known, and their site-specific location and proximity to resources studied in detail in the EIS is absolutely critical to the majority of the biggest impacts and resource conflicts central to this EIS process.

This is an example of the larger problem we find in the DSEIS: the pattern of omitting or obfuscating site-specific disclosure concerning resource conditions and issues most central to the EIS. The result of this is that, when compared to the equivalent disclosure and impacts analysis for most of the key issues and resources studied in detail, the disclosure and impact analysis (direct, indirect, and cumulative) in the DSEIS is less meaningful than the original found in the FEIS. This is so for key issues including impacts to IRA, inventoried potential wilderness areas, and all TES and Candidate species, including Sage grouse. The DSEIS does not include better or more meaningful or more detailed analysis of any of these key issues and resources. Given most of these are included in the list of items needing more detailed study found in the very NOI that admitted a need to prepare the Supplemental EIS (included in DSEIS Appendix C). The unavoidable result of scrubbing from the DSEIS site-specific disclosure of the location and access requirements/routes for admittedly connected and foreseeable surface facilities is that the SEIS contains disclosure and analysis of key impacts and issues that is less useful, even though its explicit purpose is to provide more detailed and meaningful study of each.

This is particularly true when it comes to the quality of the disclosure and analysis of impacts to IRA, potential wilderness areas, terrestrial and aquatic wildlife (including TES species), vegetation resources, heritage resources, paleontological resources, and recreation resources. The site-specificity and quality of environmental impact analysis for each is generally not as good and not as detailed in the DSEIS when compared to that found in the FEIS. Consistently, this is because these resources are largely, and at times exclusively, impacted by the requisite surface developments such as the vent fans and the new power lines that are no longer site-specifically disclosed (in the DSEIS).

Perhaps most problematic and obvious of all of these is the southern vent fan, so it serves as a clear example: One can learn from the FEIS that due to engineering limits it can only be constructed at one spot and it must include a tremendously large vent fan, and it will require a new power line, as well as upgraded year-round road access. Unfortunately the power line and location for the southern vent fan are both located near a critically important sage grouse lek, and the construction of these things may require (temporary) road construction inside IRA. The FEIS also discloses in Chapter 2.5.3 that the access road to the 10 acre southern vent fan facility would need to be upgraded for year round access (average one maintenance visit via truck per week for life of fan operation), triggering need for winter snow removal. This and similar basic site-specific disclosure of important aspects of the proposal under consideration that are found in the FEIS have been deleted from the DSEIS.

Our prior comments and appeal were based on analysis that was more meaningful and more detailed than what is found in the DSEIS for the very issues the DEIS was supposed to provide a new and more rigorous analysis. This renders the DEIS inadequate. Ironically, in these instances we have already commented on a more detailed site-specific analysis than that before us now.

This underlines the importance of our earlier comments and appeal, and why we believe it important that they be incorporated into and enclosed with these comments.

B. Impacts to Inventoried Roadless Areas and Potential Wilderness Areas are not Adequately Addressed

Our DEIS comments already raised inadequacies in the analysis to IRA and potential wilderness areas (often named unroaded undeveloped areas or URUD in the DSEIS). Our 2012 administrative appeal and its detailed map could not have been more explicit. Indeed, need to have a higher quality impacts analysis for effects to both IRA and potential wilderness areas is explicitly named in the NOI for this SEIS as two of the significant issues needing more detailed analysis.

Ironically, the analysis of impacts to both IRA and potential wilderness areas (URUD) in the Supplemental EIS is substantially less useful than the FEIS analysis that it was supposed to support with a more rigorous study. The largest source of impact to IRA and URUD will be from construction of surface infrastructure required to subsidence mine the lease. The site specific locations inside and near IRA and URUD are well known, yet one has no clue where they are from reading the DSEIS.

One literally cannot engage in any analysis of what acres of URUD will be disgualified from future wilderness consideration due to a power line being built without disclosure of the overlap, for example. What specific acres and what special features and values will be eliminated and/or cut out of future consideration as a potential wilderness area? One can't start to know that from the DSEIS. The same goes for acres of IRA what will incur damage and degraded roadless area attributes due to power line, road use and construction, and due to degree of proximity to large ugly and noisy coal mine vent fan facilities. This was all mapped and studied to some degree in the FEIS. It was appealed as inadequate. Please do re-read appeal arguments 1 and 2. They concern this issue. They prove that the treatment of IRA and URUD in the FEIS was inadequate to meet standards imposed under the NEPA as well as protections guaranteed by the 2001 Roadless Rule (RACR). They also demonstrate how analysis and treatment should have been conducted to be consistent with the more recent NFMA rules and regulations pertaining to the inherent values of, how to properly consider possible impacts to, and what protection might be afforded to IRA and potential wilderness areas (URUD). None of these inadequacies are resolved by what we find in the DSEIS. DEIS Chapter 3.12 "Roadless Resources" includes functionally no more than summary of laws and policies relating to USFS treatment of roadless areas and potential wilderness areas. Even irrelevant and inapplicable policy found in the late 1970s RARE II EIS that was thrown out by the 9th Circuit Court of Appeals is summarized before a listing of LRMP management designations. Moving on to the so-called analysis of direct, indirect, and cumulative impacts to IRA and URUD in DSEIS Chapter 4.12 one finds a 100% non-site specific (and therefore meaningless) narrative generically describing how different kinds of management activities and different construction projects affect IRA and URUD.

VIII. The DSEIS Fails to Adequately Study and Protect Cultural & Heritage Resources.

Insufficient treatment or analysis of impacts to cultural and heritage resources is explicitly named in the NOI to prepare this Supplemental EIS as one of the reasons triggering need for a Supplement to the EIS. However the disclosure and analysis of potential direct, indirect, and cumulative impacts in the DSEIS is less site-specific and less rigorous than that already found in the FEIS. As such the DEIS does not rectify this shortcoming.

The Forest Service and BLM must comply with the National Historic Preservation Act ("NHPA") regarding protection of cultural, historic, and heritage resources prior to approving leasing and mining of the Greens Hollow Tract. The NHPA accomplishes its purposes by "requir[ing] each federal agency to take responsibility for the impact that its activities may have upon historic resources". City of Grapevine v. Dep't of Transp., 17 F.3d 1502, 1508 (D.C. Cir. 1994). Specifically, pursuant to section 106 of the Act, a federal agency "shall, prior to the approval of ... any license ... take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register." An undertaking is any "project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency, including ... those requiring a federal permit, license or approval." 36 C.F.R. § 800.16(y). Section 106 also requires that the agency afford the Advisory Council on Historic Preservation ("Advisory Council") "a reasonable opportunity to comment" on the undertaking. Id. The Advisory Council has promulgated regulations setting forth how federal agencies must comply with section 106. See, 36 C.F.R. 800. First, an agency official "shall make a reasonable and good faith effort" to identify historic properties¹² that may be affected by the undertaking, and evaluate whether these properties are eligible for the National Register. 36 C.F.R. § 800.4(b) & (c); see 36 C.F.R. § 60.4 (criteria for assessing eligibility). The agency will next assess the possible effects of the undertaking on any eligible historic properties found, 36 C.F.R. §§ 800.4(d), 800.5(a), and determine whether any effects will be adverse. 36 C.F.R. § 800.5. "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register." 36 C.F.R. § 800.5(a)(1) (emphasis added).¹³ If the agency finds potential adverse effects, it must seek ways to avoid or mitigate those adverse effects. 36 C.F.R. § 800.6. If the agency is unable to resolve the adverse effects of the undertaking, it must obtain comments by the Advisory Council and consider these in any decision to approve the undertaking. 36 C.F.R. § 800.7.

At each step, section 106 requires consultation and communication among agency officials, the relevant State Historic Preservation Officer ("SHPO"), affected tribes and other interested persons, including the public.¹⁴ See C.F.R. § 800.2; see also City of Alexandria, 198 F.3d at

¹² Historic properties are defined as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior." 36 C.F.R. § 800.16(1)(1).

 $^{^{13}}$ "Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." 36 C.F.R. § 800.5(a)(1).

¹⁴ As the regulations make clear, "[t]he views of the public are essential to informed Federal decision-making in the section 106 process. The agency official shall seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effect on historic properties." 36 C.F.R. § 800.2(d)(1). In addition,

124; <u>Southern Utah Wilderness All. v. Norton</u>, 326 F.Supp.2d. 102, 108 (D.D.C 2004).¹⁵ The purpose of this consultation is to involve agency officials and other interested parties together in the identification of "historic properties potentially affected by the undertaking, assess[ment of] its effects and [the] seek[ing of] ways to avoid, minimize or mitigate any adverse effects on historic properties." 36 C.F.R. § 800.1(a); see also SUWA v. Norton, 326 F.Supp.2d. at 108.

Neither action alternative presented by the Forest Service and BLM in the DSEIS provides adequate protection for cultural resources near or within the site of the proposed mine. The agencies, having inventoried heritage resources in and near the proposed mine site, acknowledge that 21 archaeological sites have been identified there, 8 of which are eligible for inclusion in the National Register. DSEIS Chapter 3.6.2.1.

The DEIS confirms the potential adverse and destructive effects of the proposed mining on these ancient and "important" sites and the artifacts they contain. "If the Proposed Action were to be authorized, then subsidence associated with the subsurface long wall mining could affect the eight eligible sites." DSEIS at p. 222-223. Effects may include: collapsing bedrock, buckling near and along canyon walls and escarpments, surface cracking throughout the area, and shifting and in-filling of surface and sub-surface deposits. See id. Because 5 of the sites are within or along canyon edges, and 2 have rock shelters associated with them, these sites are particularly vulnerable to subsidence and cracking. See id. If Alternative 3 were to be authorized, it likewise could affect at least three sites through subsidence, as well as bedrock collapse, suckling, and surface cracking.

While the Forest Service and BLM cursorily set forth mitigation measures that could be implemented to purportedly make up for the damage to or even complete destruction of these unique and priceless heritage sites, such measures, even if scrupulously detailed and meticulously followed, fail to provide adequate protection for resources which "have yielded, or may be likely to yield, information important in prehistory or history." Complete avoidance of these sites, including by adopting the no-action alternative and prohibiting mining, road-building, and construction, is the only way to ensure the protection of these sites for future study.

When it comes to <u>paleontological resources</u> the DSEIS is more lacking. "Surveys have not been conducted." DSEIS at 103. As nothing is known in a specific sense the analysis is not meaningful and consists primarily of a summary of policies and what this resource is in a general sense. There is a corresponding lack of clear commitment in either action alternative to guarantee protection and preservation of this important resource condition.

[&]quot;[t]he agency official must . . . provide the public with information about an undertaking and its effect on historic properties and seek public comment and input." 36 C.F.R. § 800.2(d)(2).

¹⁵ The Advisory Council regulations require consultation at every step of the section 106 process, including, for example, the scope of identification efforts, 800.4(a)(3), the identification of historic properties, 800.4(b); the evaluation whether a property is eligible for listing, 800.4(c), a finding of non historic properties effected, 800.4(d), 800.5(c), the application of the criteria of adverse effect, 800.5(a)(1), and the resolution of adverse effects. 800.6(a).

IX. <u>The DSEIS Fails to Analyze in Detail an Alternative that Involves Entirely Non-</u> subsidence Mining

An EIS is required to "rigorously explore and objectively evaluate all reasonable alternatives" (CEQ Regulations, Sec. 1502.14). Despite describing the potential and even likelihood of the permanent loss of creeks, springs and wetlands in the analysis area, the DSEIS fails to analyze an alternative of room-and-pillar (non-subsidence) mining throughout all areas where such irreparable loss might occur. Instead, Alternative 3 proposes room-and-pillar mining only in the far northern strip of the project area, and only to protect only "certain critical surface resources" (DSEIS S-6 and 29):

Areas considered for specific protection include perennial streams where surface flow could be lost to subsidence-induced cracking of Castlegate Sandstone or where escarpments could fail.

Under Alternative 3, some springs could be lost (DSEIS at 162):

Potential impacts of subsidence to springs under Alternative 3 would include the springs mentioned above under Alternative 2 with the exception of spring M_SP87

And DSEIS at 164:

This alternative **would reduce the likely number of springs and their dependent ecosystems adversely affected by subsidence** by considering high value springs during development of the mine plan and incorporating panel layouts that reduce risk to high value springs [emphasis added]

Alternative 3 does not prevent all potential subsidence mining effects on surface water resources (DSEIS at 165:

The risk of water loss from perennial or intermittent streams is low for segments upgradient of the stream protection buffer. However, there could be a temporary displacement of water from some segments of the channel beyond the stream protection buffer until the surface tensile fractures heal. All tensile fractures should heal in areas outside of the buffer zone, although the rate of healing would vary with the crack width and the clay content of the alluvial materials.

In summary, Alternative 3 does not eliminate all potential effects on surface water resources. Rather, it minimizes the risk for a permanent loss of water from the perennial stream segments of Muddy Creek, Greens Hollow, and Cowboy Creek within the Greens Hollow tract.

Alternative 3 does not prevent effects to channel gradient due to subsidence mining (DSEIS at 165-166)

Alternative 3 does not prevent potential changes in channel gradient due to differential subsidence along undermined stream segments. . . Thus, the highest risk for potential impact from subsidence on surface water resources occurs along the edges of panels, which are mine plan specific.

Alternative 3 does not prevent loss of some wetlands (DSEIS at 215):

Under Alternative 3, sensitive areas and escarpments would be protected from subsidence as shown on Figure 4.9. Three wetlands (9, 16, and 17) fall in the area that would not be mined. Otherwise, the impacts to wetlands would be the same as under Alternative 2.

The DSEIS at 209 describes those impacts to Alternative 2 wetlands that would be similar within Alternative 3 subsidence mining areas:

Under the Proposed Action, 80 wetlands that occur within the Greens Hollow tract boundary (Figure 4.7), totaling approximately 11.7 acres, could be subsided as a result of mining, as detailed in Table 4.8. In the larger Proposed Action analysis area, there are an additional 15 wetlands, totaling approximately 3.2 acres that could be subsided due to mining. The 900-foot extended subsidence zone adds an additional 43 wetlands within the area potentially affected by subsidence, totaling approximately 7.2 acres.

The Utah Environmental Congress and Grand Canyon Trust scoping comments of 2008 (at p. 10) proposed non-subsidence mining in all areas subject to potential loss of springs, creeks, and wetlands Sustainable Multiple Use Alternative:

- Gen. Obj.1: The following areas will be **closed to subsidence coal mining** disturbance:
 - ... springs, riparian areas, wetlands, meadows, streams (including a 660 foot butter [emphasis added]

The DSEIS describes "non-subsidence mining" as "room-and-pillar" mining (p. 31) or "full support" mining (p. 12). The DSEIS has not considered or analyzed an alternative that would require room-and-pillar or full support mining, although it is clearly a mining industry technique and it was proposed as an alternative in 2008 scoping comments.

The comparison of potentially irretrievably lost wetlands, springs, and other surface water with eight years of mining should have prompted the BLM and/or Forest Service to fully analyze the consequences of an alternative that requires full support/room-and-pillar mining throughout all areas subject to potentially permanent loss of surface water.

According to the 1897 Organic Act, the intention of the forest reservations [i.e., national forests] was "to improve and protect the forest within the reservation,... securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States."

It violates NEPA regulations to fail to consider the coal mining method that would most fully secure favorable conditions of water flows, particularly in this semi-arid area that has already experienced irreparable losses of springs and wetlands due to subsidence mining in the same mine.

X. <u>The DSEIS Fails to Acknowledge Major Flaws in Stipulations</u>

We are concerned that the analysis in the DSEIS relies on stipulations that appear to be voluntary or otherwise do not provide sufficient guarantees of resource protection. Reliance on these stipulations to assert that impacts will be mitigated or otherwise sufficiently addressed under applicable legal requirements is therefore unfounded.

A. Stipulation #17 Fails to Address Springs or Wetlands Loss

Stipulation #17 is repeatedly cited in the DSEIS as the response to lost water sources. However, Stipulation #17 does not begin to deal with mitigation of lost springs or wetlands, because these are essentially irreplaceable.

It is notable that Stipulation #17 mentions neither springs nor wetlands, because they cannot be replaced once lost. The national track record for restoration of wetlands is dismal because wetlands are biodiverse communities adapted to the site, soil, and location at which they have developed There is no way to replace a lost spring, which could be a thousands-year old community of plants and wildlife, not merely a guzzler or trough of water.

In Utah, wildlife are not considered a beneficial use, and the DSEIS is silent on which wildlife would be provided with water from an alternate source.

B. Stipulation #7 Fails to Provide Accountability

Stipulation #7 purportedly requires a monitoring system to track the changes due to the subsidence and non-subsidence mining. However, the nature of what that monitoring system will be is completely unclear due to the DSEIS repeated use of "could" as to the features of the monitoring. The upshot is that essentially no monitoring may take place.

Ostensibly the DSEIS uses "could" because apparently the agencies have no idea of the exact sites and impacts of mine works (and thus neither does the public). The reality is, however, that every time "could" is used, the meaning is simultaneously "might NOT".

Following are a few examples. Many more exist.

Example #1: The DSEIS at p. 167 says certain critical design criteria might not be required by the Foreest Service:

Some of the more critical design criteria that **could** be required by the FS are discussed below....

The FS/DOGM reserves the right to finalize the list of required mitigation and monitoring measures during review of the mine permit application. This is due to the need to review specific mine plan features associated with the permit and potential implications to water resources

1. Identify high value springs.

The initial value assigned to springs in Chapter 3 **could** be verified as part of the monitoring identified in Stipulation #7, and refined if necessary, prior to mine plan development. This **could** include the field verification of ecological value and development status of each spring. [Emphases added.]

This means that the initial value assigned to springs in Chapter 3 [might not] be verified as part of the monitoring identified in Stipulation #7, and refined if necessary, prior to mine plan development. This [might not] include the field verification of ecological value and development status of each spring.

Example #2: At 168, the DSEIS indicates that prior to and following undermining of springs, inspection of the spring and locations downslopes will not necessarily be required:

4. Evaluate diversion zone surrounding springs.

As part of Stipulation #7, prior to and immediately following undermining any of the identified springs, an inspection of the spring and locations in a 70-foot elevation zone downslope of the spring **could** be performed. The 70 foot elevation zone was developed to include a surface tensile crack of up to 50-feet plus a sand interval of up to 20-feet. If a spring is impacted by surface tensile fractures, the water is not lost but may reappear lower on the slope. [Emphasis added.]

Thus:

As part of Stipulation #7, prior to and immediately following undermining any of the identified springs, an inspection of the spring and locations in a 70-foot elevation zone downslope of the spring **[might not]** be performed.

Example #3: At 170, the DSEIS indicates that documentation of ponds and wetlands prior to undermining ponds might not be performed and any remediation might not be implemented, and if they were, and failed, additional efforts at remediation might not be required:

13. Ponds and wetlands.

As part of Stipulation #7, prior to undermining any of the ponds and wetlands, an inspection of the pond and wetland and photo documentation of its condition **could** be performed. The inspection and photo documentation **could** be repeated after the subsidence wave has passed. In the event that there is water loss to or from an impoundment, one of the following remediation measures **could** be implemented to replace/repair structures and replace water in quality and quantity:

. . .

Additional efforts **could** be required if water could not be restored following implementation of these strategies. [Emphases added.]

Thus:

13. Ponds and wetlands.

As part of Stipulation #7, prior to undermining any of the ponds and wetlands, an inspection of the pond and wetland and photo documentation of its condition [might not] be performed. The inspection and photo documentation [might not] be repeated after the subsidence wave has passed. In the event that there is water loss to or from an impoundment, one of the following remediation measures [might not] be implemented to replace/repair structures and replace water in quality and quantity:...

Additional efforts [might not] be required if water could not be restored following implementation of these strategies.

Example #4: "Would" does exist in the lexicon of the DSEIS! Interestingly, at 247, the DSEIS reveals that "would" rather than "could" is a possible word to use, perhaps because it deals with water for livestock grazing:

4.11.4 SPECIAL STIPULATIONS AND DESIGN CRITERIA

 \cdot Stipulation #7 would require that flow at springs, including M_SP08, be monitored to detect changes during and after mining.

The lack of the use of "would" at numerous points within the DSEIS where Stipulation #7 is invoked provides for no accountability to the public and leaves the Forest Service at the mercy of mining company resistance to Forest Service calls for monitoring and mitigation the mining company doesn't want to do.

Thank you for the opportunity to comment.

Sincerely,

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