August 18, 2008

Director (210)
Attention: Brenda Williams
P.O. Box 66538
Washington, D.C. 20035

Sent via U.S. Post, Certified Mail with Return Return Receipt Requested

Re: Protest of the Kanab Field Office Proposed Resource Management Plan and Final Environmental Impact Statement, released July 2008

To Ms. Williams:

Please accept this timely protest of the Bureau of Land Management's Kanab Field Office Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP). This protest is submitted by the following protestants:

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Grand Canyon Trust
HC 64 Box 1801
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Sierra Club – Utah Chapter
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Responsibility (PEER) – Southwest Chapter
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SUWA and TWS have a long-standing interest in the management of Bureau of Land Management (BLM) lands in Utah and often participate in the decision-making process for project proposals and actions that could potentially affect lands included in the Utah Wilderness Coalition's wilderness proposal—America's Red Rock Wilderness Act (ARRWA). SUWA members and staff enjoy a myriad of recreation on BLM-managed public lands, including hiking, biking, nature-viewing, photography, and the quiet contemplation in the solitude offered

by wild places. SUWA and TWS has and will continue to participate in the planning process for the Kanab PRMP. *See, e.g.*, SUWA's comments to the Draft RMP (attached as Exhibit A[1]). The additional co-protestants also have interests in BLM's management of the Kanab area and have also participated in the planning process for the Kanab PRMP.

We are protesting several different issues and aspects of the PRMP; these issues are listed below along with the location of these discussions in this document. Our discussion of each of these issues concisely states why we believe the State Director's decisions are wrong and the corresponding portions of the PRMP at issue.

[1] The attachments and exhibits to SUWA's comments to the Draft RMP are not attached here, but were submitted along with SUWA's comments to the Draft RMP on January 10, 2008.

I. Applicable Legal Standards

The following is a brief synopsis of the legal standards which apply to the claims brought forward in this protest. Detailed descriptions of individual violations follow and will refer to and/or rely upon the information set out below.

A. National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 *et seq*., requires, among other things, agencies to conduct environmental analysis of the direct, indirect, and cumulative impacts of proposed actions, as well as mitigation measures, consider a range of reasonable alternatives (including an alternative that minimizes environmental impacts), and solicit and respond to public comments.

1. Reasonable Range of Alternatives Must Be Considered

The range of alternatives is "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. NEPA requires BLM to "rigorously explore and objectively evaluate" a range of alternatives to proposed federal actions. *See* 40 C.F.R. §§ 1502.14(a) and 1508.25(c). "An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action." *Northwest Envtl Defense Center v. Bonneville Power Admin*., 117 F.3d 1520, 1538 (9th Cir. 1997). An agency violates NEPA by failing to "rigorously explore and objectively evaluate all reasonable alternatives" to the proposed action. *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1310 (9th Cir. 1990) (quoting 40 C.F.R. § 1502.14). This evaluation extends to considering more environmentally protective alternatives and mitigation measures. *See, e.g., Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094,1122–23 (9th Cir. 2002) (and cases cited therein). For this PRMP, the consideration of more environmentally protective alternatives is also consistent with FLPMA's requirement that BLM "minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved." 43 U.S.C. §1732(d)(2)(a).

NEPA requires that an actual "range" of alternatives is considered, such that the Act will "preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant's proposed project)." *Colorado Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999), citing *Simmons v. U.S. Corps of Engineers*, 120 F.3d 664, 669 (7th Cir. 1997). This requirement prevents the environmental impact statement (EIS) from becoming "a foreordained formality." *City of New York v. Dept. of Transp.*, 715 F.2d 732, 743 (2nd Cir. 1983). *See also Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002).

2. Hard Look Must Be Appropriate to Proposed Action and Include Direct, Indirect, and Cumulative Impacts

NEPA dictates that BLM take a "hard look" at the environmental consequences of a proposed action and the requisite environmental analysis "must be appropriate to the action in question." *Metcalf v. Daley*, 214 F.3d 1135, 1151 (9th Cir. 2000); *Robertson v. Methow Valley Citizens*

Council, 490 U.S. 332, 348 (1989). In order to take the "hard look" required by NEPA, BLM is required to assess impacts and effects that include: "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, **whether direct, indirect, or cumulative**." 40 C.F.R. § 1508.8. (emphasis added). The NEPA regulations define "cumulative impact" as:

> the impact on the environment which results from the **incremental impact of the action when added to other past, present, and reasonably foreseeable future actions** regardless of what agency (Federal or non-Federal) or person undertakes such other actions. **Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time**.

40 C.F.R. § 1508.7 (emphasis added).

To satisfy NEPA's hard look requirement, the cumulative impacts assessment must do two things. First, BLM must catalogue the past, present, and reasonably foreseeable projects in the area that might impact the environment. *Muckleshoot Indian Tribe v. U.S. Forest Service*, 177 F.3d 800, 809–10 (9th Cir. 1999). Second, BLM must analyze these impacts in light of the proposed action. *Id.* If BLM determines that certain actions are not relevant to the cumulative impacts analysis, it must "demonstrat[e] the scientific basis for this assertion." *Sierra Club v. Bosworth*, 199 F.Supp.2d 971, 983 (N.D. Ca. 2002). A failure to include a cumulative impact analysis of actions within a larger region will render NEPA analysis insufficient. *See, e.g.*, Kern v. U.S. Bureau of Land Management, 284 F.3d 1062, 1078 (9th Cir. 2002) (analysis of root fungus on cedar timber sales was necessary for an entire area).

3. Baseline Information Must Be Sufficient to Permit Analysis of Impacts

Importantly, 40 C.F.R. § 1502.15 requires agencies to "describe the environment of the areas to be affected or created by the alternatives under consideration." Establishment of baseline conditions is a requirement of NEPA. In *Half Moon Bay Fisherman's Marketing Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988), the Ninth Circuit states that "without establishing . . . baseline conditions . . . there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." The court further held that "[t]he concept of a baseline against which to compare predictions of the effects of the proposed action and reasonable alternatives is critical to the NEPA process."

4. Mitigation Measures Must Be Described with Specificity and Must Include Commitments for Action

NEPA requires that BLM discuss mitigation measures in an EIS. 40 C.F.R. §§ 1502.14, 1502.16. Also, under NEPA, BLM's Finding of No Significant Impact (FONSI) is lawful only if "BLM has made a convincing case that no significant impact will result therefrom or that any such impact will be reduced to insignificance by the adoption of appropriate mitigation measures." *Defenders of Wildlife*, 152 IBLA 1, 6 (2000) (citations omitted). In general, in order to show that mitigation will reduce environmental impacts to an insignificant level, BLM must discuss the mitigation measures "in sufficient detail to ensure that environmental consequences

have been fairly evaluated…" *Communities, Inc. v. Busey*, 956 F.2d 619, 626 (6th Cir. 1992). Simply identifying mitigation measures, without analyzing the effectiveness of the measures, violates NEPA. Agencies must "analyze the mitigation measures in detail [and] explain how effective the measures would be . . . A mere listing of mitigation measures is insufficient to qualify as the reasoned discussion required by NEPA." *Northwest Indian Cemetery Protective Ass'n v. Peterson*, 764 F.2d 581, 588 (9th Cir. 1985), *rev'd on other grounds*, 485 U.S. 439 (1988). NEPA also directs that the "possibility of mitigation" should not be relied upon as a means to avoid further environmental analysis. *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*; *Davis v. Mineta*, 302 F.3d 1104, 1125 (10th Cir. 2002).

Further, general statements that BLM will conduct monitoring are also not an appropriate form of mitigation. Simply monitoring for expected damage does not actually reduce or alleviate any impacts.

5. BLM Must Assess Alternatives Using Quality Data and Scientifically Acceptable Methods of Analysis, Which Are Disclosed to the Public for Comment

The BLM cannot evaluate consequences to the environment, determine avoidable or excessive degradation, and assess how best to designate and protect Areas of Critical Environmental Concern (ACECs) without adequate data and analysis. NEPA's hard look at environmental consequences must be based on "accurate scientific information" of "high quality." 40 C.F.R. § 1500.1(b). Essentially, NEPA "ensures that the agency, in reaching its decision, will have available and will carefully consider detailed information concerning significant environmental impacts." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). The Data Quality Act and BLM's interpreting guidance expand on this obligation, requiring that influential scientific information use "best available science and supporting studies conducted in accordance with sound and objective scientific practices."[2]

BLM's internal guidance also recognizes the importance of accumulation and proper analysis of data. The agency's Land Use Planning Handbook emphasizes the importance of using sufficient, high quality data and analytical methods, and making those available to the public. Appendix H of the Land Use Planning Handbook also directs: "The data and resultant information for a land use plan must be carefully managed, documented, and applied to withstand public, scientific, and legal scrutiny." Appendix F-1 of the Handbook emphasizes the importance of providing a clear explanation of how analysis was conducted, stating: "Regardless of its source, sufficient metadata (data about data) should be provided to clearly determine the quality of the data, along with any limitations associated with its use." In other words, appropriate analysis of data is as important as the accumulation of sufficient data.

Further, both data and analyses must be disclosed to the public, in order to permit the "public scrutiny" that is considered "essential to implementing NEPA." 40 C.F.R. § 1500.1(b). BLM's

[2] Treasury and General Government Appropriations Act for Fiscal Year 2001, Pub.L.No. 106-554, § 515. *See also* Bureau of Land Management, Information Quality Guidelines, *available at* http://www.blm.gov/nhp/efoia /data_quality/guidelines.pdf.

guidelines for implementing the Data Quality Act also reiterate that making data and methods available to the public permits independent reanalysis by qualified member of the public. In this regard, NEPA "guarantees that the relevant information will be made available to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision." *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 349. NEPA not only requires that BLM have detailed information on significant environmental impacts, but also requires that the agency make this information available to the public for comment. *Inland Empire Public Lands Council v. U.S. Forest Service*, 88 F.3d 754, 757 (9th Cir. 1996).

BLM must provide the public with an explanation of both the data used in analyzing the potential effects of management alternatives and the methods used to conduct the analysis, as well as an opportunity to provide comments and propose corrections or improvements.

6. BLM Must Respond to Public Comments

Under Council for Environmental Quality (CEQ) regulations implementing NEPA, BLM must respond to substantive comments made during the public comment period for the EIS. 40 C.F.R. § 1503.4. An agency preparing a final environmental impact statement shall assess and consider comments both individually and collectively, and shall respond by one or more of the means listed below, stating its response in the final statement. Possible responses are to:

1. Modify alternatives including the proposed action.
2. Develop and evaluate alternatives not previously given serious consideration by the agency.
3. Supplement, improve, or modify its analyses.
4. Make factual corrections.
5. Explain why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support the agency's position and, if appropriate, indicate those circumstances which would trigger agency reappraisal or further response.

40 C.F.R. § 1503.4(a). Importantly, while agencies must attach comments considered "substantive" to the EIS (40 C.F.R. § 1503.4(b)), a comment need not be substantive to trigger the agency's response requirement.

B. Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1701 *et seq.*, is BLM's organic act and guides the agency in managing public lands, drafting land use plans, and ensuring that the public has been involved in such decisions.

1. Duty to Inventory and Land Use Planning Requirements

FLPMA imposes a duty on BLM to identify and protect the many natural resources found in the public. FLPMA requires BLM to inventory its lands and their resource and values, "including outdoor recreation and scenic values." 43 U.S.C. § 1711(a). FLPMA also obligates BLM to

take this inventory into account when preparing land use plans, using and observing the principles of multiple use and sustained yield. *See* 43 U.S.C. § 1712(c)(4), (1). Through management plans, BLM can and should protect wildlife, scenic values, recreation opportunities, and wilderness character in the public lands through various management decisions, including by excluding or limiting certain uses of the public lands. *See* 43 U.S.C. § 1712(e). This is necessary and consistent with FLPMA's definition of multiple use, which identifies the importance of various aspects of wilderness characteristics (such as recreation, wildlife, and natural scenic values) and requires BLM's consideration of the relative values of these resources but "not necessarily to the combination of uses that will give the greatest economic return." 43 U.S.C. § 1702(c).

BLM's obligations in developing a land use plan include: applying principles of multiple use and sustained yield, prioritizing designation and protection for ACECs, considering the relative scarcity of values involved and the availability of alternative means and sites for realization of those values, weighing long-term benefits against short-term benefits to the public, and complying with pollution control laws.

2. Unnecessary or Undue Degradation Standard

FLPMA requires that: "In managing the public lands the [Secretary of Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. §1732(b). In this context, because the imperative language "shall" is used, "Congress [leaves] the Secretary no discretion" in how to administer FLPMA. *Natural Resources Def. Council v. Jamison*, 815 F.Supp. 454, 468 (D.D.C. 1992). BLM's duty to prevent unnecessary or undue degradation (UUD) under FLPMA is mandatory, and BLM must, at a minimum, demonstrate compliance with the UUD standard. *See Sierra Club v. Hodel*, 848 F.2d 1068, 1075 (10th Cir. 1988) (the UUD standards provides the "law to apply" and "imposes a definite standard on the BLM").

C. Off-Road Vehicle Regulations/Executive Orders

BLM must ensure that it is in compliance with Executive Orders and agency regulations implementing these Orders in relation to off-road vehicle (ORV) use on public lands. Executive Order 11644 (1972) as amended by Executive Order 11989 (1977) and BLM's regulations (43 C.F.R. § 8342.1) require BLM to ensure that areas and trails for off-road vehicle use are located:

- to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability;
- to minimize harassment of wildlife or significant disruption of wildlife habitats, and especially for protection of endangered or threatened species and their habitats;
- to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands; and
- outside officially designated wilderness areas or primitive areas and in natural areas only if the agency determines that off-road vehicle use will not adversely affect their natural, aesthetic, scenic, or other values for which such areas are established.

These Executive Orders put the burden of proof on BLM to ensure that sensitive and protected conservation lands are not harmed by ORV use. Under these directives, BLM should start from the position of evaluating all uses of lands that may harm or conflict with the values mentioned above as closed to ORV use. The next step is to take a hard look at a reasonable range of alternatives under NEPA with adequate consideration of public input. BLM should provide ample evidence to show how they have located ORV areas and trails to minimize harm, or otherwise keep these areas closed to ORV use. Only after such deliberation has occurred can the agency sufficiently state that they have complied with their legal obligations in deciding how to designate certain ORV management areas.

D. National Historic Preservation Act

BLM has special stewardship responsibilities with respect to cultural resources on land that is under the agency's "jurisdiction or control" under the National Historic Preservation Act (NHPA), 16 U.S.C. § 470 *et seq*. A federal "undertaking" triggers the Section 106 process under NHPA, which requires the lead agency to identify historic properties affected by the action and to develop measures to avoid, minimize, or mitigate any adverse effects on historic properties. 16 U.S.C. § 470f; 36 C.F.R. §§ 800.4, 800.6. Because the drafting of a land use plan is an "undertaking," Section 106 review must occur prior to approving the plan in the record of decision.

The NHPA stipulates that consultation among agency official(s) and other parties with an interest in the effects of the undertaking on historic properties commence at the early stages of project planning, focusing on the opportunity to consider a broad range of alternatives. 36 C.F.R. § 800.1(c). Compliance with Section 106 is applicable "at *any stage* where the Federal agency has authority . . . to provide meaningful review of . . . historic preservation goals." *Morris County Trust for Historic Preservation v. Pierce*, 714 F.2d 271, 280 (3d Cir. 1983) (emphasis added); *Vieux Carre Property Owners v. Brown*, 948 F.2d 1436, 1444–45 (5th Cir. 1991). Therefore, the agencies cannot rely on later review process as a justification for refusing to comply with the NHPA.

To satisfy the Section 106 compliance requirement, the Responsible Agency Official must consult with the State Historic Preservation Officer(s) (SHPO), and appropriate Tribes and/or Tribal Historic Preservation Officer(s) (THPO). In addition, Section 106 regulations require BLM to "make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey." 36 C.F.R. § 800.4(b)(1). As part of this duty, BLM must account for information communicated to it by parties expressing an interest in historic properties affected by the undertaking. *Pueblo of Sandia v. United States*, 50 F.3d 856, 860–61 (10th Cir. 1995).

Section 110 of the NHPA obligates agencies to identify sites that may be eligible for listing on the National Register. BLM should analyze the information obtained to identify eligible sites and commit to or require commitments for further inventory and submissions of proposals for listing. BLM should maximize the opportunity to obtain and use information on cultural

resources to fulfill its obligations under the NHPA and increase our knowledge and protection of our cultural heritage.

E. Endangered Species Act

Congress enacted the Endangered Species Act (ESA) as "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b). As the Supreme Court observed, the statute "afford[s] endangered species the highest of priorities." *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 194 (1978). To achieve its objectives, Congress directed the U.S. Fish and Wildlife Service (FWS) to list species that are "threatened" or "endangered," as defined by the ESA. 16 U.S.C. § 1533; § 1532(6), (20).

Once a species is listed, Section 7 of the ESA mandates that every federal agency "consult" with FWS or the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (collectively referred to as FWS) when taking any action that "may affect" listed species." 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). *See also Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 422 F.3d 782, 790 (9th Cir. 2005). The purpose of the Section 7 consultation process is to insure that no agency actions "jeopardize the continued existence" of a listed species. *Id.* To facilitate the consultation process, the "action agency" prepares a "biological assessment," which identifies the listed species in the action area and evaluates the proposed action's effect on the species. 16 U.S.C. § 1536(c); 50 C.F.R. §§ 402.02, 402.12. The ESA defines agency action broadly. 16 U.S.C. § 1536(a)(2). *See also Lane County Audubon Soc'y v. Jamison*, 958 F.2d 290, 294 (9th Cir. 1992). It includes "*all* activities or programs *of any kind* authorized, funded, or carried out, in whole or in part, by Federal agencies." 50 C.F.R. § 402.02 (emphasis added). Agency actions include those "actions directly or indirectly causing modifications to the land, water, or air." 50 C.F.R. § 402.02.

Through a biological assessment, the agency determines whether formal or informal consultation is necessary. 50 C.F.R. § 402.13(a). When formal consultation is necessary, FWS prepares a "biological opinion" that determines whether the agency's action will result in jeopardy to the species. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(g). If there is jeopardy, FWS sets forth "reasonable and prudent alternatives" aimed at avoiding jeopardy. 16 U.S.C. § 1536(b)(3)(A). If there is no jeopardy, FWS identifies the reasonable and prudent mitigation measures. 16 U.S.C. § 1536(b)(4).

Moreover, all federal agencies are obligated to conserve listed species by "carrying out programs for the conservation of endangered species and threatened species." 16 U.S.C. § 1536(a)(1). Under the ESA, "conserve" is defined as recovering a species. Therefore, the agencies are not only obligated to avoid jeopardizing the survival and recovery of listed species, but are also required to take steps within its purview to recover these species. 16 U.S.C. § 1532(3) (definition of "conserve").

F. Clean Air Act and Clean Water Act

FLPMA and its implementing regulations—along with the applicable land use plans—require that BLM comply with all federal, state, and local environmental laws. *See* 43 U.S.C. §

1712(c)(8); 43 C.F.R. §§ 1610.3-2, 2920.7(b)(3). BLM is obligated, by FLPMA, to comply with the environmental standards established in the Clean Air Act, 42 U.S.C. §§ 7401, *et seq*., and the Clean Water Act, 33 U.S.C. §§ 1251, *et seq*. This means, for example, that BLM may not permit development that will result in exceedances of national ambient air quality standards, prevention of significant deterioration increment limits, air quality related values, and standards for hazardous air pollutants. BLM must conduct a full-scale quantitative analysis of the air quality impacts in the planning area and model these impacts. BLM must also model impacts to water quality and ensure that national and state standards will not be exceeded.

II. Air Quality

The Kanab PRMP fails to model the impacts of the activities that it permits on air quality in the planning area. Both NEPA and FLPMA require that BLM prepare such analysis. Without preparing near-field, far-field, and cumulative air quality analyses, BLM will not understand the effects of the pollutants that it has attempted to partially inventory in the Kanab PRMP, thereby violating NEPA and its requirement that BLM understand the environmental impacts of the activities it is permitting. In addition, BLM must model pollution concentrations in order to understand if this plan will comply with federal and state air quality standards, as required by FLPMA.

FLPMA, and the Kanab PRMP, require that BLM manage the planning area according to federal and state air quality standards. *See* Kanab PRMP at 2–3; 43 C.F.R. § 2920.7(b)(3) (requiring that BLM "land use authorizations shall contain terms and conditions which shall . . . [r]equire compliance with *air . . . quality standards* established pursuant to applicable Federal or State law") (emphasis added). *See also* 43 U.S.C. § 1712(c)(8) (requiring BLM in land use plans—which would therefore require implementation in daily management—to "provide for compliance with applicable pollution control laws, including State and Federal air . . . pollution standards or implementation plans"). These air quality standards include both the national ambient air quality standards (NAAQS) and the prevention of significant deterioration (PSD) increment limits. Both the State and Federal standards are based on ambient concentrations of various air pollutants. For this reason, the Kanab PRMP has failed to satisfy its FLPMA obligation: it permits activities (e.g. oil and gas development, route designation, vehicle travel on designated routes, mining) without modeling the effect that these activities will have on ambient *concentrations* of NAAQS and PSD pollutants. The Kanab PRMP has also failed to consider hazardous air pollutants (HAPs) that may be generated by activities approved in this plan; HAPs are also subject to regulation under the Clean Air Act.

Not only has BLM prepared an incomplete emissions inventory for the Kanab PRMP, but it has also failed to conduct modeling that analyzes the likely concentrations of pollutants that will result. *See, e.g.*, PRMP at 4-9 to -15 (predicting likely quantities in tons per year—not ambient concentrations—of various pollutants that will result from plan implementation). As discussed below, the Kanab PRMP emissions inventory suffers from a number of flaws that have led to underestimates for various pollutants. With such flaws the emissions inventory cannot be used to accurately quantify and model pollutant concentrations in the planning area.

Furthermore, even if the emissions inventory were accurate, it does not inform BLM and the public as to what the resulting pollution concentrations will be for the pollutants relevant to NAAQS and the PSD increments. The emissions inventory does not include any inventories or modeling for NAAQS criteria pollutants lead, sulfur dioxide, or ozone and it has failed to differentiate between the two sizes of particulate matter that are regulated—particles 2.5 microns in diameter and smaller ($PM_{2.5}$) along with particles ten microns in diameter and smaller (PM_{10})—a critical differentiation since the health impacts of $PM_{2.5}$ are so severe. *See* Environmental Protection Agency, National Ambient Air Quality Standards (NAAQS), http://www.epa.gov/air/criteria.html (listing NAAQS criteria pollutants along with air quality standards based on ambient concentrations); National Ambient Air Quality Standards for

Particulate Matter, 71 Fed. Reg. 61,144 (Oct. 17, 2006) (discussing deleterious health effects of $PM_{2.5}$ pollution).

Notably, BLM has prepared inventories for all NAAQS criteria pollutants and precursors in its Richfield Field Office Proposed Resource Management Plan and Final Environmental Impact Statement (August 2008) (Richfield PRMP). *See, e.g.*, Richfield PRMP at 4-7 to -10. The Moab Field Office Proposed Resource Management Plan and Final Environmental Impact Statement (August 2008) (Moab PRMP) includes inventories for HAPs, NAAQS criteria pollutants, and precursors likely to be generated by activities in the planning area. *See, e.g.*, Moab PRMP at 4-22 to -23. In addition, the Kanab PRMP and its inventory do not discuss or examine PSD increment limits (particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide). These federal air quality standards are also the State of Utah's air quality standards. Thus, there is no evidence, certainty, or indication that the Kanab PRMP will comply with federal and state air quality standards as NEPA and FLPMA require.

NEPA also requires that BLM model the impacts from the various activities—and fully inventory the pollutants generated by these activities—permitted by the Kanab PRMP. "NEPA 'prescribes the necessary process' by which federal agencies must 'take a "hard look" at the environmental consequences' of the proposed courses of action." *Pennaco Energy, Inc. v. U.S. Dept. of the Interior*, 377 F.3d 1147, 1150 (10th Cir. 2004) (quoting *Utahns for Better Transp. v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1162–63 (10th Cir. 2002)) (internal citation omitted). The fundamental objective of NEPA is to ensure that an "agency will not act on incomplete information only to regret its decision after it is too late to correct." *Marsh v. Or. Natural Resources Council*, 490 U.S. 360, 371 (1990) (citation omitted). Without preparing modeling to determine what the ambient concentrations of relevant pollutants will be, BLM cannot understand or disclose the impacts of these pollutants on humans, wildlife, vegetation, water bodies, or the climate. Since it is actual ambient concentrations that will impact these various components of the ecosystem, BLM must model concentrations to understand these impacts. BLM's deficient emissions inventory does not satisfy NEPA's hard look requirement.

The emissions inventory prepared for the Kanab PRMP suffers from numerous deficiencies. SUWA detailed the important contributors to air pollution likely to result from the activities authorized in the PRMP, the proper methodology for quantifying those emissions, and the necessary modeling to fully understand the impacts of those emissions in its January 10, 2008 comments on the Draft RMP; in its May 22, 2008 supplemental comments; and its June 18, 2008 supplemental comments.

Among other things, BLM has failed to inventory the particulate matter pollution, differentiated for $PM_{2.5}$ and for PM_{10}, which will be generated by fugitive dust. The existence of designated routes and travel of automobiles and ORVs on designated routes and in open cross-country travel areas will generate significant amounts of fugitive dust which will negatively affect air quality in the region. The Kanab PRMP and its air quality emissions inventory have completely failed to consider such emissions. The Richfield PRMP acknowledges that ORVs are significant contributors of fugitive dust. *See, e.g.*, Richfield PRMP at 4-6, 4-9, 4-11. SUWA alerted BLM to the importance of such quantification and modeling in its January 10, 2008 comments. To further guide BLM in how such quantification and modeling could be conducted, SUWA sent a

letter on June 18, 2008 with examples of air quality modeling for fugitive dust from vehicular travel on unpaved roads. This modeling was conducted for the West Tavaputs Plateau Natural Gas Full Field Development Plan, Draft Environmental Impact Statement, UT-070-05-055 (Feb. 2008) (West Tavaputs DEIS), and the Enduring Resources' Saddletree Draw Leasing and Rock House Development Proposal, Final Environmental Assessment UT-080-07-671 (Dec. 2007) (Rock House EA). In both cases, BLM itself attempted to estimate fugitive dust emissions from the passage of vehicles on unpaved roads. Furthermore, it then modeled these emissions to arrive at predicted ambient concentrations of various pollutants. The Kanab PRMP contains no such analysis; this quantification and modeling must be conducted in order to understand where BLM's plans will comply with federal and state air quality standards and to know what impact they may have on human health, wildlife, vegetation, water bodies, and the climate.

The models for these other projects demonstrate that fugitive dust from vehicular travel on unpaved roads can create significant levels of ambient pollution. As SUWA explained in its June 18, 2008 comments, the levels of $PM_{2.5}$ predicted in the Rock House EA were so high that they exceeded NAAQS. It is likely that most of the predicted $PM_{2.5}$ was the result of fugitive dust generated by vehicular traffic. Furthermore, dirt roads and ORV routes may generate fugitive dust even when not being traveled by vehicles (e.g., by wind blown dust). Thus, it is vital that the Kanab PRMP quantify all of the routes that it is designating, estimate the rate at which they will generate fugitive dust when not being traveled by vehicles, estimate the number of vehicles that will use each route, and the likely fugitive dust generation rate, and then model those figures to understand the true impacts of fugitive dust emissions.

These necessary preparations highlight the inadequacies of the Kanab PRMP's emissions inventory as presently constituted. Aside from failing to analyze the fugitive dust generated by routes and ORVs and other vehicles that will travel on the routes identified in this plan, the Kanab PRMP has failed to inventory sulfur dioxide or ozone precursors that will be generated by these machines. This, in turn, means that these pollutants cannot be modeled. The Kanab PRMP improperly attempts to quantify select ORV emissions by simply extrapolating what the percentage of ORVs traveling in the planning area might be based on national ORV-use figures multiplied by the fraction of the nation's population living in Utah further multiplied by the planning area's acreage compared to the acreage of the state as a whole. This methodology is deeply flawed because it does not account for the actual estimated ORV-usage figures for the planning area and the mathematical function relationship between the number of routes designated and the number of miles traveled by ORVs and other vehicles. *See* BLM, Recreation Management Information System, Report #21, Visitor Days and Participants by Activity Group and State, Fiscal Year Range Oct 01, 2006 – Sep 30, 2007 (Aug. 6, 2008) (attached as Exhibit B); BLM, Recreation Management and Information System, Report # 20, Visitor Days and Participants by Activity Group and Office, Fiscal Year Range Oct 01, 2006 – Sep 30, 2007 (Aug. 6, 2008) (attached as Exhibit C). It is necessary that BLM actually estimate the number of vehicles that will travel these routes and the number and mileage of routes that will be open so that it can correctly inventory the fugitive dust that is likely to result from vehicle use *and* the mere existence of routes due to disturbed soils. Clearly, if every unpaved route identified in the Kanab PRMP were closed, and subsequently the soil stabilized, there would be much less fugitive dust than is now likely to result from the plan. Fugitive dust levels are related to mileage of routes open, for this reason the air quality modeling in the Rock House EA and the

West Tavaputs DEIS calculate particulate matter pollution from fugitive dust as a function of miles traveled on unpaved roads. Simple, proportional calculations based on population comparisons does not account for such variances and are less likely to accurately inform BLM as to what the true levels of pollution will be from these activities. Thus, BLM must improve the Kanab PRMP methodology for estimating pollution caused by ORVs and other vehicles.

Furthermore, this improved methodology for inventorying dust generation could be applied to any activity that will cause fugitive dust (e.g. mining, oil and gas development, grazing) in order to estimate total dust emissions. This information is necessary for understanding the likely contributions to regional climate change caused by this plan from eolian dust deposition and its tendency to cause premature snowpack melt.

The Kanab PRMP suggests that air quality modeling and full quantification analyses are not practical at this stage because BLM does not have adequate information to conduct such analyses. *See* Kanab PRMP Response to Public Comments at 106. The fact that the implementation of the PRMP will result in air pollution (e.g., through approval of motorized use on designated routes and in the Moquith Mountain WSA and sand dunes) requires that such modeling and quantification be undertaken. *See* PRMP at 3-11 (admitting that various activities, including oil and gas development and ORV use, generate CO_2 and methane, as well as fugitive dust). The routes identified in this plan that will be open to vehicular travel will never face further analysis whereby better estimates might be developed. Now is the time to conduct such analysis. Besides, as SUWA pointed out, BLM has prepared models and more comprehensive emissions inventories in its Farmington, New Mexico; Vernal, Utah; and Roan Plateau, Colorado RMPs. This reality directly refutes the Kanab PRMP's insistence that such efforts would be too difficult at this time. Finally, as part of the "hard look" requirement, NEPA demands that BLM determine baseline conditions so that it, and the public, can fully understand the implications of proposed activities. BLM has failed to do this here.

Furthermore, recent monitoring from Zion National Park underscores the fact that the planning area likely has poor air quality and may currently be in violation of NAAQS. In 2005, an air monitor in Zion National Park recorded ozone levels of 91 parts per billion as a fourth highest value. National Park Service, Annual Data Summary 2005: Gaseous Pollutant Monitoring Program Ozone, Sulfur Dioxide, Particulate Matter, Meteorological Observations, 3-3, http://www.nature.nps.gov/air/pubs/pdf/ads/2005/gpmp-xx.pdf. The current NAAQS standard for ozone is 75 parts per billion. *See* National Ambient Air Quality Standards for Ozone, 73 Fed. Reg. 16,436, 16,436 (Mar. 27, 2008). Thus, the Zion National Park monitor shows that the area has already experienced ozone levels well above the current standards for that pollutant. For this reason it is critical that BLM monitor air quality in the planning area and then prepare comprehensive inventories as well as accurate models to assess the impact of the activities envisioned and permitted in these plans.

In summary, the Kanab PRMP does not adequately analyze the impacts to air quality that will result from the area and route designations, and activities planned and permitted in this document. These failures are contrary to both FLPMA, which requires that BLM observe air quality standards, and NEPA, which requires that BLM disclose the impacts of the activities it is analyzing. BLM must prepare a comprehensive emissions inventory, which includes fugitive

dust emissions, and then model these figures in near-field, far-field, and cumulative analyses. Without doing so, BLM cannot know what impact these activities will have and whether it is complying with federal and state air quality standards.

III. Climate Change

Because BLM chose to treat this issue with such a superficial and abbreviated discussion, important information about the effects of climate change, and the management options available to BLM in this changing environment, are missing from the plan and EIS. The PRMP provides no estimate of how much temperatures will increase in the Kanab Resource Area, or even in the Colorado Plateau generally, or how that increase may affect other resources such as water, vegetation, wildlife, or any other resource managed by BLM. It is reasonable to expect, given that the area will get even hotter under credible climate predictions, that water will become more scarce, native plant and animal life will suffer, and wildfire will become more prevalent. And in light of those consequences, BLM should have provided management alternatives which address these predicted impacts.

The PRMP addresses climate change for the first time—the draft resource management plan did not discuss climate change or its impacts on the public lands within the Kanab Resource Area at all. However, the extent of the discussion of this important issue in the PRMP is superficial at best. In a total of just four paragraphs, the PRMP simply provides a generalized description of the phenomenon and notes that the Intergovernmental Panel on Climate Change predicted global increases of 1 to 4.5 degrees Fahrenheit over the next 50 years. *See* 3-11. The PRMP explains that "there are uncertainties regarding how climate change may affect different regions," *id.*, but makes no attempt to utilize existing studies as the basis for any further information about how climate change—with expected warmer weather—may affect the resource areas. The PRMP also generally identifies just three activities that relate in some unspecified way to climate change: 1) the generation of "climate changing pollutants" from "oil and gas development, large fires," and motorized recreation; 2) fugitive dust generated by "disturbed areas" which could settle on snow packs and glacial surfaces, "resulting in faster snowmelt;" and 3) the potential of using unspecified vegetation treatments to crease "carbon sinks." *Id.*

SUWA provided BLM with comments on the draft RMP and EIS that highlighted BLM's utter failure to even mention the effects of climate change and we included studies with specific information about the impacts of climate change on the Colorado Plateau—which includes the Kanab Resource Area. These impacts are described more fully below, but include shrinking water resources, dust-covered snowpack with earlier, faster snowmelt, invasion of more flammable, non-native plant species, soil erosion, loss of wildlife habitat, and larger, hotter wildfires. BLM completely ignored these studies in the PRMP.

Since the deadline for public comments on the draft Kanab plan, but before the release of the PRMP, several federal agencies have published additional studies that confirm and reinforce the impacts discussed in SUWA's comments on the draft and the studies cited in those comments. These newer studies include: 1) U.S. Climate Change Science Program Final Report, Synthesis and Assessment Product 4.4, Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources (June 2008), *available at* http://www.epa.gov/ord/npd/pdfs/gcrp-factsheet_SAP-4-4.pdf; 2) Committee on Environment and Natural Resources, National Science and Technology Council, Scientific Assessment of the Effects of Global Change on the United States (May 2008), *available at* http://www.climatescience.gov/Library/scientific-assessment/; and 3) U.S. Climate Change Science Program, Synthesis and Assessment Product 5.2, Best

Practice Approaches for Characterizing, Communicating and Incorporating Scientific Uncertainty in Climate Decision Making, (April 2008), *available at* http://www.climatescience.gov/Library/sap/sap5-2/public-review-draft/default.htm. These studies provide significant new information about the impacts of climate change on lands like those in the Kanab Resource Area, as well as emerging new best management practices to employ in the face of climate change. The June 2008 report, prepared by the Environmental Protection Agency, specifically "identifies strategies to address management challenges posed by climate change for a subset of federally protected lands and waters. These strategies can also be broadly applied to other lands and waters managed by governmental or nongovernmental entities." This information, together with the reports and information SUWA submitted with its comments on the draft plan, should have formed the basis for alternatives that addressed climate change.

A. Failure to Take a Hard Look

As the U.S. Geological Survey explains, "understanding interactions of landscape with changing environmental conditions, and their relative influence on the severity of drought, are important for natural resources planning and land use sustainability." U.S. Geological Society, Drought Conditions, 1996 to 2006, http://geomaps.wr.usgs.gov/navajo/drought.html. Yet, despite the brief acknowledgment in the PRMP that the existence of climate change is no longer a matter of debate but a matter of scientific consensus, the PRMP does not take the logical—and required—next step and analyze the effects of climate change to the Kanab Resource Area.

This is an important step. A description of the effects of climate change on existing conditions such as the prevalence of exotic plant species, the availability of water, the health of riparian areas, zones of soil erosion or vulnerability to erosion, all provide critical baseline information necessary to BLM's ability to determine whether the resources can withstand any of the proposed alternatives. Without this basic foundational information about the existing health of the land, it is impossible to make any informed decision about the level, location, and kind of activities it can support in the future. The Intergovernmental Panel on Climate Change noted in 2001 that

> [f]or the future of rangelands, it is important to reduce the vulnerability of these systems to climate change. This is likely too be achieved by considering social and economic factors that determine land use by human populations. Soil stability and thus maintenance of water and nutrient cycles are essential in reducing the risk of desertification. Any changes in these processes could make rangelands particularly vulnerable to climate change.

Intergovernmental Panel on Climate Change, Climate Change 2001: Working Group II: Impacts, Adaptation and Vulnerability, *available at* http://www.grida.no/climate/ipcc_tar/wg2/241.htm (internal citations omitted).

In SUWA's comments on the draft RMP and EIS, we provided specific information about federal studies that had been recently published about the impacts of climate change on public lands and grasslands like those in the Kanab Resource Area. For example, the U.S. Climate Change Science Program working group published a report on September 11, 2007 which

predicts and elaborates on the widespread impact of climate change on public lands in areas like the cold deserts of the Colorado Plateau. *See* U.S. Climate Change Science Program, The effects of climate change on agriculture, land resources, water resources, and biodiversity, *available at* http://www.climatescience.gov/Library/sap/sap4-3/default.php. That report notes that "the climate changes that we can expect are very likely to continue to have significant effects on the ecosystems of the United States." *Id.* at 3. These impacts include:

- Climate effects on disturbances such as fire, insect outbreaks and wind and ice storms are very likely important in shaping ecosystem structure and function;
- Grasslands will transform into woody shrublands with reduced capacity for water absorption and greater vulnerability to channelization and erosion;
- Droughts early in the 21st Century are likely to increase rates of perennial plant mortality in arid lands, accelerate rates of erosion and create opportunities for exotic plant invasions;
- Proliferation of non-native annual and perennial grasses are virtually certain to predispose sites to fire. The climate-driven dynamics of the fire cycle is likely to become the single most important feature controlling future plant distribution in U.S. arid lands;
- Climate change is likely to result in shrinking water resources and place increasing pressure on montane water sources to arid land rivers, and increase competition among all major water depletions in arid land river and riparian ecosystems;
- Major disturbances like floods and droughts that structure arid land river corridors are likely to increase in number and intensity (with associated increases in erosion and native plant loss);
- Land use change, increased nutrient availability, increasing human water demand and continued pressure from exotic species will act synergistically with climate warming to *restructure* the rivers and riparian zones of arid lands;
- Climate change will increase the erosive impact of precipitation and wind;
- Surface soils will become more erodible;
- Increases in wind speed and gustiness will likely increase wind erosion.

The report also notes that

> [g]iven that many organisms in arid lands are near their physiological limits for temperature and water stress tolerance, slight changes in temperature and precipitation . . . that affect water availability and water requirements could have substantial ramifications for species composition and abundance, as well as the ecosystem goods and services these lands can provide for humans.

Id. at 9. While these findings are dramatic, the report further notes that "[i]t is likely that these changes will increase over the next several decades in both frequency and magnitude, and it is possible that they will accelerate." *Id.* at 23.

BLM should have discussed all of these predicted effects of climate change in the PRMP's Chapter 3 assessment of existing conditions and in the Chapter 4 discussion of the impacts of the various alternatives.

At a minimum, a description of the effects of climate change on existing conditions such as the prevalence of exotic plant species, the availability of water and the health of riparian areas, zones of soil erosion or vulnerability to erosion, all provide critical baseline information necessary to BLM's ability to determine whether public land resources can withstand any of the proposed management alternatives which include new ORV routes and roads and new mining and oil and gas development. Without this basic foundational information about the existing impacts of climate change on the land, and future expected impacts, it is impossible to make informed decisions about the level, location, and kind of activities it can support in the future.

This omission is a significant oversight given that federal departments and agencies including the Department of Interior, the Environmental Protection Agency, and U.S. Geologic Survey have all published stories and/or provided public statements and even congressional testimony acknowledging the impacts of climate change on public lands resources. All of this information was readily accessible by BLM. Together with the failure to incorporate the newer studies cited above, this oversight amounts to a failure to take the necessary "hard look" at the challenge of resource management and an important aspect of that challenge.

Importantly, leaders of both the Department of Interior and BLM have gone further than simply acknowledging that climate change is a well-accepted phenomenon. On April 26, 2007, over a year before BLM released the PRMP, Department of Interior Deputy Secretary Lynn Scarlet testified before the House Interior Appropriations Subcommittee that global climate change could dramatically reshape America's public lands with increased species extinctions and wildfire. As she put it, "On the ground, we're seeing a lot of changes . . . some of them dramatic." Dan Berman, *'Dramatic' effects of rising temps being seen on public lands*, earthnews, http://www.earthportal.org/news/?p=93. Ron Huntsinger, BLM's own science coordinator, said,

> [w]e can anticipate further reductions in the level of allowable uses on public lands due to the loss of productivity and capacity . . . . The results are more fragile ecosystems, a greater susceptibility to the outbreaks of attacks by parasites and disease, increased vulnerability to wildland fire and erosion and an overall reduction in the carrying capacity of the land.

Id.

Clearly, information about the impacts of climate change and the need to make adjustments in land use plans to address climate change were circulating in the Department of Interior and available to BLM at the same time it was developing the Kanab PRMP. Failure to incorporate this information in the PRMP amounts to a failure to take a hard look at a crucial aspect of the land use plan.

BLM's bare statement regarding the presence of a level of uncertainty about the precise degree of future change in climate conditions in the Kanab Resource Area does not excuse this failure. First, some degree of uncertainty does not justify a wholesale failure to address an issue. As the EPA report explained:

> It is not possible to *predict* the changes that will occur, but managers can get an indication of the *range* of changes possible. By working with a range of possible changes rather than a single projection, managers can focus on developing the most appropriate responses based on that range rather than on a 'most likely' outcome.

U.S. Climate Change Science Program Final Report, Synthesis and Assessment Product 4.4, Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources 9-14 (June 2008), *available at* http://www.epa.gov/ord/npd/pdfs/gcrp-factsheet_SAP-4-4.pdf.

Additionally, NEPA contains specific requirements governing the treatment of uncertain conditions and imposes an obligation to state that existing evidence is inconclusive and to summarize the conclusions of that evidence. With respect to incomplete or unavailable information, 42 C.F.R. § 1502.22 provides in full:

> When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.
>
> (a) If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.
>
> (b) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the environmental impact statement:
>
> 1. A statement that such information is incomplete or unavailable;
>
> 2. a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment;
>
> 3. a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment, and
>
> 4. the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, "reasonably foreseeable" includes impacts which have catastrophic consequences, even if their probability of occurrence is low, provided

> that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.

Given these regulations, BLM cannot rely on the so-called "uncertainties" relating to the impacts of climate change on the area to end the analysis with a simple acknowledgement of the phenomenon and a reference to unquantified emissions from a few sources. BLM must do more, even where information is uncertain (and in this case, SUWA emphasizes that the information, with the detailed studies cited above, is not particularly uncertain).

NEPA regulations also require that NEPA documents address not only the direct effects of federal proposals, but also "reasonably foreseeable" indirect effects. These are defined as:

> Indirect effects, which are caused by the action and are later in time or farther removed in distance, *but are still reasonably foreseeable*. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

40 C.F.R. § 1508.8(b).[3]

Again, the impacts of climate change were simply not discussed; such an omission violates NEPA regulations. Thus, it is clear that BLM has failed to take a hard look—or virtually any look—at the impacts of climate change on the public lands resources in the Kanab Resource Area.

We have noted elsewhere that the PRMP has not discussed the cumulative effects of various uses like ORV recreation and grazing on important components of the area's native ecosystems, such as riparian areas. These cumulative effects should be considered in the context of climate change and how these uses act synergistically to impact the resources of the Kanab Field Office.

B. Failure to Include an Alternative that Captures Mitigation Options for Climate Change

An understanding of the predicted impact of climate change should, in turn, shape in important ways the various alternatives under consideration by BLM. For example, given that so many of the predicted outcomes of climate change center on increased soil erosion, dust storms, shrinking

[3] This regulation provides:

> Effects include . . . Direct effects, which are caused by the action and occur at the same time and place. . . . Effects and impacts as used in these regulations are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative.

water resources, drier riparian areas, invasion of exotic plants, and the spread of hotter, larger wildfires, it is entirely reasonable to expect BLM to design alternatives that minimize soil disturbance as much as possible. Further, given that ORVs are associated with both the ignition of wildfires and the spread of exotic weeds, it is likewise reasonable to expect that BLM would design—and even designate as preferable—an alternative with far fewer than the numerous backcountry ORV routes that the RPMP contains. As noted above, BLM's own science coordinator noted that the effects of climate change should result in a reduction in the allowed use of certain activities on BLM lands—yet such an option was not presented in the management plan options.

Instead, without the information of about the effects of climate change in the area, the PRMP proposes a mix of exactly the kinds of actions that would *compound* the deleterious effects of a warming climate. This is most notable in BLM's overly-expansive network of roads and ORV trails, which was adopted without analysis after county officials and ORV groups presented the agency with trail map "wish lists." Yet experts note that the "response of arid lands to climate change will be strongly influenced by interactions with non-climatic factors at local scales" including pressure related to the use of motorized off-road vehicles and grazing. *See* Ryan, MG "Land Resources" Section of the Climate Change working group report at 8 (attached to SUWA's comments on the Draft RMP). *See also id.* at 35 (noting that grazing may reinforce and accentuate the effects of climate change, a result that is probably true for ORV use as well).

In this regard, BLM's failure to consult the scientific literature, and in particular EPA's report, resulted in a fatally flawed document with none of the required options for managing a significant impact that will likely have systemic impacts throughout the Kanab Field Office. BLM should have drawn on EPA's own research and consulted with EPA staff whose report "provides information on how existing practices could be adjusted, or new strategies developed, to address the effects of climate change on natural resources." EPA, Global Change Research Program, Science in Action: Building a Scientific Foundation for Sound Environmental Decisions, *Assessment Provides Strategies for Managing Natural Resources in a Changing Climate: Findings of the U.S. Climate Change Science Program Synthesis and Assessment Product 4.4* at 2, *available at* http://www.epa.gov/ord/npd/pdfs/gcrp-factsheet_SAP-4-4.pdf. According to the report itself, these strategies involve increasing the resilience of ecological systems to climate change. Specific strategies include:

- Identifying and protecting key ecosystem features;
- Reducing anthropogenic stresses like developments which affect native vegetation and cause erosion;
- Protecting a "portfolio" of several slightly different species or ecosystems, which increases these chances that one or more will be suited to the new climate conditions;
- Protecting more than one example of a particular kind of ecosystem, which increases the chance of survival of that type if one or more others are lost in a catastrophic event;
- Restoring key intact ecosystems with important functions, like wetlands or riparian areas which confer resilience to flooding and provide necessary habitat for most native plants and wildlife;

- Identifying refugia where key species and ecosystem types have the highest likelihood of survival of climate change.

U.S. Climate Change Science Program Final Report, Synthesis and Assessment Product 4.4, Preliminary Review of Adaptation Options for Climate-Sensitive Ecosystems and Resources 9-18 to -21 (June 2008), *available at* http://www.epa.gov/ord/npd/pdfs/gcrp-factsheet_SAP-4-4.pdf.

Importantly, the first option, reducing human-caused stressors, was judged to be the most effective strategy for increasing resilience to climate change among the three types of terrestrial ecosystems studied in the report. *Id.* at 9-61. This is also a defining aspect of the PRMP's purpose—to manage human impact on the resources in the Kanab Field Office. Thus, BLM has abdicated an important part of its responsibilities by failing to present valid management options that can, over the long term, best ensure the sustainability of the full range of resources in the Kanab Field Office.

C. Violation of Secretarial Order 3226

Secretarial Order No. 3226 specifically requires BLM

> *to consider and analyze potential climate change impacts when undertaking long-range planning exercises*, when setting priorities for scientific research and investigations, when developing multi-year management plans, and/or when making major decisions regarding the potential utilization of resources under the Department's purview.[4]

Section 3 of Secretarial Order No. 3226 is comprehensive and includes every type of land management activity under the Interior Department's jurisdiction. In addition to the provision cited above, the order defines the activities that will trigger a climate change analysis:

> Departmental activities covered by the Order include, but are not limited to, programmatic and long-term environmental reviews undertaken by the Department, *management plans and activities developed for public lands*, planning and management activities associated with oil, gas and mineral development on public lands, and planning and management activities for water projects and water resources.

Id. (emphasis added).

As noted above, no analysis of potential climate change impacts was provided in the PRMP. BLM simply ignored the Secretarial Order.

[4] *See* http://elips.doi.gov/app_so/act_getfiles.cfm?order_number=3226 (emphasis added). By its terms the "Order is effective immediately and will remain in effect until its provisions are converted to the Departmental Manual or until it is amended, superseded or revoked, whichever comes first." *Id*. at Section 4. The Order has not been amended, superseded, or revoked.

D. BLM Must Prepare a Supplemental Draft Which Addresses the Issue of Climate Change and its Impacts on the Kanab Resource Area

As noted above, BLM briefly discussed climate change in the FEIS, but entirely failed to mention it in the DEIS. PRMP at Appendix 11-1. But 40 C.F.R. § 1502.9(c)(1) requires BLM to prepare a Supplemental EIS (SEIS) if "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impact." The new climate change information should warrant an SEIS because it meets the threshold for "significant" new information, as outlined in 40 C.F.R. § 1508.27.

Whether new information is significant is a function of both context and intensity. 40 C.F.R. § 1508.27. Context means that:

> the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

40 C.F.R. § 1508.27(a).

Intensity refers to "the severity of impact," and should take into account several factors:

> (1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
>
> (2) The degree to which the proposed action affects public health or safety.
>
> (3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
>
> (4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.
>
> (5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
>
> (6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
>
> (7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to

> anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
>
> (8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
>
> (9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
>
> (10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

40 C.F.R. § 1508.27(b).

In a recent Ninth Circuit case, *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508, 555 (9th Cir. 2007), involving an NHTSA rule for corporate average fuel economy standards for light trucks, the court found that climate change satisfied several of the "intensity" factors in 40 C.F.R. § 5108.27(b). First, the court found that although the NHTSA rule at issue may have an "individually insignificant" effect on climate change, it may nonetheless have a "cumulatively significant" impact, thereby satisfying 40 C.F.R. § 1508.27(b)(7). In addition, the court found that climate change will affect public health and safety, satisfying 40 C.F.R. § 1508.27(b)(2).

Caselaw underscores the importance of agency disclosure and public participation in an agency's decision-making process. *See, e.g.*, *Wilderness Watch and Public Employees for Environmental Responsibility v. Mainella*, 375 F.3d 1085, 1094 (11th Cir. 2004); *American Iron and Steel Institute v. U.S. Environmental. Protection Agency*, 568 F.2d 284, 291 (3d Cir. 1977) (emphasizing that public participation "enables the agency . . . to educate itself before establishing rules which have a substantial impact on those regulated"); *Big Hole Ranchers Association, Inc. v. U.S. Forest Service*, 686 F. Supp. 256, 260 (D. Mont. 1988); *North Buckhead Civic Association v. Skinner*, 903 F.2d 1533, 1540 (11th Cir. 1990). If a proposed action does not fully undergo the NEPA process, NEPA's purpose is undermined and the agency decision is insulated because final NEPA documents are not subject to a comment period. *California v. Block*, 690 F.2d 753, 771 (9th Cir. 1982).

Here, BLM introduced an important issue concerning the future management of the Kanab Field Office for the very first time in the PRMP. The public, interested parties, and those with expertise in climate change had no opportunity to review the information before the release of the PRMP and provide input to BLM about its accuracy or completeness. This is a violation of NEPA's objective to educate both the public and the decision maker, and as a result, the climate information should be improved and released for public comment in a draft plan and EIS. *See Westlands Water Dist. v. U.S. Dept. of Interior*, 275 F. Supp. 2d 1157 (E.D. Cal. 2002) (NEPA process "broke down" where agency's discussion of impact was not presented until after closure

of comment period on draft EIS); *see also* 40 C.F.R. §§ 1500.2(d), 1503.1(a)(4), 1506.6 (2007) (all requiring public notice and availability of environmental documents so that interested persons and the agencies can be informed); *Anderson v. Evans*, 371 F.3d 475, 487 (9th 2004) (CEQ regulations require that the "public must be given an opportunity to comment on draft EAs and EISs, and public hearings are encouraged to facilitate input on the evaluation of proposed actions").

IV. Riparian Resources

As noted in SUWA's comments to the Draft RMP, we incorporated the comments that ECOS Consulting submitted for the DRMP into SUWA's DRMP comments. Again, SUWA incorporates the protest submitted by ECOS Consulting into our protest, and we also discuss our further concerns below.

The important role riparian and wetland areas occupy in the health and integrity of ecosystems throughout Utah and the West is provided special protection by several Executive Orders and the Utah BLM Riparian Management Policy. As the Utah BLM Riparian Policy explains, "Riparian areas comprise less than one percent . . . of public lands . . . in Utah . . . these small but unique areas are among the most important, productive, and diverse ecosystems in the state." Utah BLM Riparian Management Policy, Instruction Memorandum No. UT 2005-091 at 1. The Utah BLM Riparian Policy continues:

> The objective of the policy is to establish an aggressive riparian area management program that *will identify, maintain, restore, and/or improve riparian values* to achieve a healthy and productive ecological condition . . . .

Id. (emphasis added).

To meet this objective, field offices are responsible for "ensuring that all new or revised management plans contain objectives and management actions to maintain or improve riparian resources," and to the extent possible, "[m]aintain and/or improve riparian areas to Proper Functioning Condition (PFC) by incorporating riparian resource needs in Resource Management Plans (RMPs)." Utah BLM Riparian Policy at 2–3. This policy is binding on the BLM Kanab Field Office and provides the framework for the RMP process. Further, Executive Order 11990 mandates that "[e]ach agency provide leadership and shall take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities." Exec. Order No. 11,990, 42 Fed. Reg. 26,961 (May 24, 1977).

Despite clear BLM policy to protect riparian and wetland areas and assertions throughout the PRMP that BLM intends on implementing this policy, the Kanab PRMP still misses the mark. For example, the PRMP claims that "[i]mpacts on water resources from cross-country ORV use would nearly be eliminated because only 1,000 acres would be open to use" and existing vegetation and soil resources will be "maintained" because "ORV use would be limited to 1,403 miles of designated routes . . . focusing impacts on existing linear disturbances that have already been affected." PRMP at 4-19. The PRMP does not mention whether any of the 1,000 acres open to ORV use or any of the 1,403 miles of designated routes are located in riparian areas—which is likely, given that riding in riparian areas is a common practice in southern Utah. The Utah Riparian Policy and the PRMP both disallow "new surface disturbing activities within 330 feet of riparian/wetland areas unless it could be shown that (1) there are no practical alternatives, (2) all long-term impacts could be fully mitigated, or (3) the activity would benefit and enhance the riparian area." PRMP at 2-8. The PRMP, however, does not discuss whether any of the areas or designated routes open to ORV use are within 330 feet of a riparian area and if so,

whether the ORV use meets one of the three criteria that would allow such an intrusion into the protected riparian zone.

Inclusion of such information in the PRMP, including the exact location and function status of each riparian area, is required by statute, the Utah BLM Riparian Policy, and judicial review standards against agency action that is arbitrary, capricious, and contrary to law. FLPMA, 43 U.S.C. §§ 1701–1785, § 1701(a)(2) (2000), declares that "the national interest will be best realized if the public lands and their resources are periodically and systematically inventoried." The Utah BLM Riparian Policy explains that each field office is "responsible for . . . mapping and inventorying all riparian areas in [its] jurisdiction" and "will, to the extent possible . . . [i]nventory and map riparian areas within each office." Utah BLM Riparian Policy at 3. The policy further explains that this responsibility

> will normally be completed during the Resource Management Planning (RMP) process. In order to be useful, the RMP, at a minimum will:
>
> - Contain the Field Office riparian area priority list.
> - Identify key riparian areas using PFC inventory and determine whether or not they are properly functioning systems.
> - Identify riparian areas for possible acquisition.
> - Identify riparian areas which meet policy tests for disposal or exchange.
> - Identify easement acquisition which will improve Bureau management of existing riparian areas.
> - Identify riparian areas with outstanding qualities to be considered for special designation or management.
> - Contain planning and monitoring objectives for riparian area management.

Utah BLM Riparian Policy at 7–8. This required information, however, is noticeably absent from the PRMP.

Notwithstanding the informational requirements under BLM's own policy, the PRMP lacks the information necessary to understand the relationship between riparian areas and the areas the PRMP designates for ORV use. The PRMP provides a table summarizing the total number of miles and acres of riparian areas in the decision area that are non functioning, functioning at risk, or in proper functioning condition. PRMP at 3-35, Table 3-9: Decision Area Riparian Condition. This overall snapshot of the status of riparian areas in the entire decision area is helpful, but this table begs the question of exactly which riparian areas are classified as fitting within each functional status category. While Map 27 marks each riparian area on a map of the entire

decision area and indicates its status, it also fails to provide the specific information that would help the reader determine each riparian area's exact location. Presumably BLM created a list of each riparian area and its status when gathering the information presented in the table and Map; this information should have been included in the PRMP.

Also troublesome is the PRMP's designation of ORV routes on areas that "have already been affected." PRMP at 4-19. ORV users have been known to ride in streambeds, sometimes unknowingly mistaking them for trails. This trend would render some riparian areas to "have already been affected." The PRMP does not discuss this possibility. Furthermore, the fact that an area has already been affected does not necessarily justify subjecting it to further disturbance.

The aggressively protective management approach urged by the Utah BLM Riparian Policy and Executive Order 11990 precludes allowing ORV use in riparian areas. Without discussion of whether areas or designated trails open to ORV use include or cross riparian areas, or information of the exact location and status of riparian areas located in the decision area, it is impossible to determine whether the PRMP implements the objectives of the Executive Orders and BLM policy to which it is bound. The absence of this and other information required by the Utah BLM Riparian Policy illustrates the PRMP's failure to adequately address riparian and wetland areas.

V. Water Quality

The Kanab PRMP fails to analyze and model the impacts of the activities that it permits on water quality in the planning area. Both FLPMA and NEPA require that BLM prepare such analysis. BLM must analyze and model pollutant concentrations in order to understand if the RMP complies with federal and state water quality standards, as required by FLPMA. Likewise, without conducting water quality analyses and modeling, BLM will not understand the effects of the pollutants generated from activities authorized by the RMP, and will thereby violate NEPA and its requirement that BLM understand the environmental impacts of the activities it is permitting.

A. BLM's Failure to Analyze and Model Water Quality Violates FLPMA

FLPMA and the Kanab RMP require that BLM manage the planning area according to federal and state water quality standards. *See* Kanab PRMP at 2-8; 43 C.F.R. § 2920.7(b)(3) (requiring that every BLM "land use authorization shall contain terms and conditions which shall . . . [r]equire compliance with . . . *water quality standards* established pursuant to applicable Federal or State law") (emphasis added); *see also* 43 U.S.C. § 1712(c)(8) (requiring BLM in land use plans—which would therefore require implementation in daily management—to "provide for compliance with applicable pollution control laws, including State and Federal . . . *water* . . . *pollution standards* or implementation plans") (emphasis added).

The above-mentioned water quality standards and water pollution standards include the Clean Water Act's (CWA's) water quality standards (WQS) and accompanying Total Maximum Daily Loads (TMDL) limits for waters that do not meet water quality standards, as well as anti-degradation requirements for waters that do meet water quality standards. WQS are based on ambient water concentrations of various pollutants. Because the PRMP permits activities (e.g. oil and gas development, vehicle travel on designated routes, mining) without modeling the effect that these activities will have on ambient concentrations of pollutants in water, the PRMP fails to satisfy its FLPMA obligations.

In order to comply with FLPMA, the PRMP should provide a summary of water quality analyses for the water bodies in the planning area. This summary should provide monitoring of water quality indicators, including temperature, alkalinity, specific conductance, pH, dissolved oxygen, turbidity, hardness, dissolved solids, and suspended solids, as required by the CWA. The PRMP should state what the current baseline water quality is, as measured by these indicators, for each water body in the planning area. Knowing the baseline water quality is essential to understanding whether the activities permitted in the PRMP will violate WQS. *See* 43 C.F.R. § 2920.7(b)(3); 43 U.S.C. § 1712(c)(8).

The PRMP also fails to quantify the various pollutant levels (e.g. phosphorus, dissolved oxygen, aluminum, nitrate, chloride, ammonia, etc.), as identified in the CWA, which will result from the decisions made in the RMP. Likewise, the PRMP fails to quantify contaminant levels to be expected from cumulative impacts in the area. After determining the baseline pollutant concentrations, BLM must model the effects on water quality that will result from the activities authorized in the PRMP. These results should then be compared to the CWA standards for

protection of WQS. Only then can BLM determine whether it is complying with federal and state water quality standards, as FLPMA requires. BLM must continue to monitor water quality throughout the life of the RMP. If any exceedances occur, BLM should prohibit the exceedance-causing activities until compliance with the CWA and other federal and state water quality standards is met and maintained.

Furthermore, BLM failed to discuss the impact of erosion and dust on water resources. By designating more than 1,400 miles of routes—95% of which are open to ORVs—BLM invites huge amounts of sand and dust into the water bodies in the planning areas, as well as additional run-off and erosion impacts. BLM must address how these impacts would be managed to maintain compliance with the CWA.

In addition, BLM must disclose whether any public drinking water systems currently violate Federal Drinking Quality Standards, Primary Maximum Contaminant Level and Federal Drinking Quality Secondary Standards, as well as the accompanying Utah Drinking Water Standards. *See* Safe Drinking Water Act (SDWA), 42 U.S.C. § 300(f), *et seq*.; Utah Admin. Code R309-200, *et seq*. BLM inadequately addresses public drinking water concerns and fails to ensure that drinking water supplies will not be contaminated by activities permitted in the PRMP. BLM states only that it will improve and protect the "culinary water supply for Fredonia, Arizona, by limiting . . . OHV use," and similarly that it will apply "moderate constraints" to protect culinary water for certain existing Kanab City wells. PRMP at 2-5. BLM fails to provide any quantitative analysis demonstrating how it will comply with safe drinking water standards. By opening 1,400 miles of designated routes to OHV traffic, BLM will increase various water contaminants in the planning area that will exceed CWA and SDWA standards. To comply with the CWA and the SDWA, BLM must analyze and disclose the baseline drinking water quality for every public drinking water system and model the anticipated impacts from the activities provided for in the PRMP.

Furthermore, BLM must disclose the TMDL limit for the Sevier River and then determine whether the activities proposed in the PRMP will lead to violations of those standards. The PRMP states only that the Sevier River will be managed in accordance with the TMDL and Upper Sevier River Watershed Management Plan (USRWMP). However, a sizable number of the open designated routes are located within the Upper Sevier River Watershed. BLM must not open these routes until it provides analysis and modeling that ensure compliance with FLPMA and the CWA.

The PRMP must also disclose that segments of the Sevier River are on the State of Utah's "Section 303(d)" impaired waters list, under the CWA. Accordingly, BLM must analyze and model how activities provided for by the PRMP will affect the impaired waters, and then limit the activities in the PRMP accordingly. *See* PRMP at 2-6. In particular, BLM must limit habitat alteration, as required by the USRWMP. The USRWMP indicates that recreational activities are one of the main sources of habitat alteration, that roads cause increased surface disturbance, and that mass erosion rates and recreation in riparian areas increases erosion of banks. Nevertheless, BLM has designated hundreds of miles of routes for recreational activities in the Upper Sevier Watershed, thereby violating the CWA, FLPMA, and EPA-approved directives in the USRWMP. USRWMP at 14, 18.

In addition, the PRMP should disclose what river segments, in addition to the Upper Sevier River, have approved TMDLs, and should disclose the TMDL limits for each pollutant. BLM must monitor and analyze water quality in these river segments to ensure that activities do not violate the TMDLs for the river, particularly for phosphorus, dissolved oxygen, dissolved solids, temperature, selenium, and other pollutants mentioned in the approved TMDLs.

The PRMP must also disclose which segments of the water bodies in the planning area are on the state 303(d) list. Likewise, BLM should disclose the rivers on Utah's 2006 303(d) list that require the development of a TMDL (including segments of the Escalante River, river segments in the Upper Virgin Watershed, and segments of the Paria River), but do not yet have a TMDL. BLM should take into account how the various activities allowed under the PRMP will affect the water quality of these segments.

In addition to failing to address TMDLs, the PRMP also fails to discuss or examine anti-degradation limits for water bodies that meet water quality standards, including Kanab Creek, parts of the East Fork of the Virgin River, and other river segments.

Because BLM failed to analyze water quality baselines and similarly failed to model the water-quality effects of activities allowed under the PRMP, there is no evidence, certainty, or indication that the Kanab PRMP will comply with federal and state water quality standards, as required by FLPMA.

B. BLM's Failure to Analyze and Model Water Quality Violates NEPA

NEPA requires that BLM model the impacts and fully inventory the pollutants generated from the various activities permitted by the Kanab PRMP. "NEPA prescribes the necessary process by which federal agencies must take a hard look at the environmental consequences of the proposed courses of action." *Pennaco Energy, Inc. v. U.S. Dept. of the Interior*, 377 F.3d 1147, 1150 (10th Cir. 2004) (quoting *Utahns for Better Transp. v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1162–63 (10th Cir. 2002)) (internal citation and quotations omitted). The fundamental objective of NEPA is to ensure that that an "agency will not act on incomplete information only to regret its decision after it is too late to correct." *Marsh v. Or. Natural Resources Council*, 490 U.S. 360, 371 (1990) (citation omitted). Without analyzing baseline concentrations and preparing modeling to determine what the baseline concentrations of relevant pollutants will be, BLM cannot understand or disclose the impacts of these pollutants on water quality. BLM's lack of water quality analysis does not satisfy NEPA's hard look requirement. BLM must analyze and model water quality to understand these impacts. BLM's failure to comply with FLPMA, as discussed above, also constitute NEPA failures on the part of the BLM because it does not understand the impacts of those activities it is permitting on water and water quality standards.

Among other things, BLM has failed to discuss the impacts of fugitive dust, run-off, and erosion from increased travel of ORVs on thousands of miles of new designated routes. The Kanab PRMP and its water quality analysis have completely failed to consider such pollutants and their impact on the local water bodies and safe drinking water. Because dust, run-off, and erosion can all contribute to exceedances of total dissolved and suspended solids counts, it is vital that BLM quantify all of the routes that it designates in the PRMP, estimate the rate at which they will

generate fugitive dust and run-off when not being traveled by vehicles, estimate the number of vehicles that will use each route and the likely fugitive dust generation and erosion rate, and then model those figures to understand the true impacts of fugitive dust emissions, run-off, and erosion on water quality. Quantitative analysis and modeling must be conducted in order to understand whether the PRMP will comply with federal and state water quality standards and to know what impact travel on designated routes may have on water quality and associated uses.

The PRMP improperly attempts to quantify select ORV emissions by simply extrapolating what the percentage of ORVs traveling in the planning area might be based on national ORV-use figures multiplied by the fraction of the nation's population living in Utah further multiplied by the planning area's acreage compared to the acreage of the state as a whole. This methodology is deeply flawed because it does not account for the actual estimated ORV-usage figures for the planning area and the mathematical function relationship between the number of routes designated and the number of miles traveled by ORVs and other vehicles. *See* BLM, Recreation Management Information System, Report #21, Visitor Days and Participants by Activity Group and State, Fiscal Year Range Oct 01, 2006 – Sep 30, 2007 (Aug. 6, 2008) (attached as Exhibit B); BLM, Recreation Management and Information System, Report # 20, Visitor Days and Participants by Activity Group and Office, Fiscal Year Range Oct 01, 2006 – Sep 30, 2007 (Aug. 6, 2008) (attached as Exhibit C). It is necessary that BLM actually estimate the number of vehicles that will travel these routes and the number and mileage of routes that will be open so that it can correctly inventory the dust, run-off, erosion, and the accompanying impact on water quality, as measured in part by total dissolved and suspended solids, that is likely to result. Clearly, if every unpaved route identified in the PRMP was closed, and subsequently the soil stabilized, there would be much less fugitive dust and erosion than is now going to result from the plan. Fugitive dust, run-off, and erosion must be calculated as a function of miles traveled on unpaved roads. Simple, proportional calculations based on population comparisons do not account for such variances and are less likely to accurately inform BLM as to what the true levels of pollution will be from these activities. Thus, BLM must disclose the baseline water pollutant concentrations and water quality parameters including dissolved and suspended solids counts, and model the effects of increased pollutants from designated routes.

Furthermore, a similar analysis should be applied to any activity that will cause fugitive dust, run-off, and erosion (e.g. mining, oil and gas development, grazing) in order to estimate total dust emissions and run-off and erosion concentrations that reach water. This information is also necessary for understanding the likely contributions to regional climate change caused by this plan from eolian dust deposition and its tendency to cause premature snowpack melt.

The PRMP also fails to quantify the water pollution that will result from such activities as mining and oil and gas development. Even though both of these activities can contaminate water supplies, BLM has not discussed this or quantified these impacts.

Because the implementation of the PRMP will result in water pollution, modeling and quantification must be undertaken to ensure compliance with NEPA and the CWA. BLM must prepare a comprehensive pollutant analysis, which includes fugitive dust, run-off, and erosion rates that will impact water, and then model these figures to determine how water quality will be impacted. Without doing so BLM cannot know what impact these activities will have and

whether it is complying with federal and state water quality standards. For these reasons, BLM violated NEPA by failing to take a hard look at how its activities will impact water quality.

In summary, the Kanab PRMP does not adequately analyze the impacts to water quality that will result from the activities planned for in this document. These failures are contrary to both FLPMA, which requires that BLM observe water quality standards, and NEPA, which requires that BLM disclose the impacts of the activities it is analyzing.

VI. Wildlife Habitat

The PRMP fails to acknowledge and utilize the abundant scientific work revealing the direct, indirect, and cumulative impacts of roads, particularly habitat fragmentation on wildlife, and incorporate this information into relevant sections of the RPMP; probably in part due to this omission, the current travel network will result in unacceptably significant impacts to wildlife species. Roads and ORV routes are now widely recognized in the scientific community as having a range of direct, indirect, and cumulative harmful effects on wildlife and their habitats. Trombulak and Frissell 2000, Wisdom 2004. Effects range from direct removal of habitat to long-term displacement of species from preferred habitat. The indirect and cumulative effects are increasingly studied through analysis of habitat fragmentation.

Habitat fragmentation has been defined as the "creation of a complex mosaic of spatial and successional habitats from formerly contiguous habitat." Lehmkuhl and Ruggiero 1991. Habitat fragmentation alters the distribution of wildlife species across the landscape and affects many life functions such as feeding, courtship, breeding, and migration. Transportation networks are one of the most significant causes of habitat fragmentation and negatively impact wildlife well beyond the surface area disturbed by an actual road or motorized trail. In fact, habitat fragmentation from roads and other human infrastructure has been identified as one of the greatest threats to biological diversity worldwide. Wilcove 1987.

The adverse effects of routes on wildlife have been well documented in several extensive literature reviews. Trombulak and Frissell 2000; Gucinski et al. 2001; Gaines et al. 2003; Wyoming Game and Fish Department 2004; New Mexico Department of Game and Fish 2005; Confluence Consulting 2005; Richard T.T. Forman, et al., Road Ecology: Science and Solutions (2003). The hundreds of scientific papers in these literature reviews illustrate the preponderance of evidence that routes ranging from narrow dirt tracks to paved roads can and do cause adverse affects on wildlife. This volume of compelling, credible science simply cannot be ignored in a major land management planning effort such as this PRMP (or any travel management planning effort). Yet that is exactly what BLM did.

Examples of direct, indirect, and cumulative impacts of roads on wildlife and their habitats identified in the biological literature include (Trombulak and Frissell 2000; New Mexico Department of Game and Fish 2005):

- **Fragmentation of connected habitats** including the loss of core habitat areas and habitat connectivity for wildlife movements and dispersal
- **Adverse genetic effects** such as reducing genetic diversity by isolating populations
- **Increased potential for extirpation of localized populations** or extinction of narrowly distributed species from catastrophic events
- **Modifications of animal behavior** through reductions in habitat use due to human activity and interference with wildlife functions such as courtship, nesting, and migration
- **Disruption of the physical environment** in many ways including direct removal of habitat due to route construction, reduction of cover and habitat security, increasing dust and erosion

- **Alteration of the chemical environment** through vehicle emissions and herbicides
- **Changes in habitat composition** by direct loss of vegetation from road construction and changes in microclimates in road edge habitats potentially resulting in changes in type and quality of food base and reduction in habitat cover
- **Spread of exotic species** that may lead to competition with preferred forage species
- **Degradation of aquatic habitats** through alteration of stream banks and increased sediment loads
- **Changes to flows of energy and nutrients** such as changes in temperatures in microclimates created at road edges
- **Increased alteration and use of habitats by humans** through activities including increased unethical hunting practices and increased dispersion of recreation impacts, particularly by off-road vehicles due to a proliferation of roads
- **Mortality from construction of roads**
- **Mortality from collisions with vehicles**

As documented by the comprehensive literature reviews cited above, the existence of motorized routes can result in habitat fragmentation and, depending on the use of the route, have impacts extending well into surrounding habitats. Such fragmentation from transportation networks is immediate and can lead to a range of risks to the survival of wildlife. Sound science and spatial analysis must be used to evaluate impacts from any network of travel routes before its adoption through a planning process. There are many ways to measure habitat fragmentation to determine where and how corrective action should be taken.

Three of the most useful metrics for their ease in calculation and direct connection to biological field research on wildlife impacts are road density, number and size of core areas, and distance to a road. *Road density* can be calculated by measuring the length of road divided by the area in a given region and reported as miles of road per square mile (mi/mi^2). *Core areas* are defined as the area of land beyond a given distance, or road effect zone, from transportation routes. Forman, 1999. The number and sizes of core areas can be measured, as can the *total amount of core area beyond a given distance or effect zone from road*s. Because wildlife species respond at varying distances to road disturbances (and depending on the road type and activity level), it is important to determine measures of core area for a range of effect zone widths associated with disturbances for specific species (e.g., of 100 ft., 500 ft., and 1320 ft.). Measuring the *amount of land within a given distance to a road or within an effect zone* is the inverse of measuring the acreage of core areas, and represents a measure of the affected habitat.

In our comments on the Draft RMP, we provided specific substantive recommendations for how BLM should analyze the impacts of fragmentation in its NEPA analysis, including citations to many scientific resources on the topic. BLM's reply to each of these recommendations is the same one-sentence, boilerplate response:

> Based on reasonably foreseeable level of development for oil and gas, as well as for other potential land uses and proposed alternatives, the level of analysis for

fragmentation contained the Draft RMP/EIS in sections 4.2.5 and 4.2.6 is sufficient to describe the anticipated impacts.

This is simply non-responsive to the comments we provided the BLM. The sections of the PRMP referenced above (4.2.5 and 4.2.5) both define fragmentation and briefly discuss fragmentation impacts from oil and gas exploration and development. However, despite the accepted and readily available scientific study and methods, the PRMP contains no sufficiently detailed analysis of the impacts from fragmentation from any other surface disturbing uses, such as ORV use. This impairs the consideration of impacts of the various alternatives and prevents an informed comparison. This also shows how BLM has failed to respond to our comment that the "analysis [of habitat fragmentation] should include the impacts of ORVs and motorized routes, as well as roads." *See* SUWA's Comments on the Draft RMP at 101. BLM must remedy these NEPA violations before the issuance of the Record of Decision for the PRMP.

A. References to Materials on Habitat Fragmentation

The following discussion provides BLM with an annotated list of available and current scientific literature directly related to the topic of habitat fragmentation.

Wildlife literature includes field studies for specific species measuring the effects of particular road densities, the size requirements for core areas, and the widths of road effect zones. NMGF 2005; WGFD 2004; Gucinski et al. 2001; and Gains et al. 2003. For instance, field monitoring of bighorn sheep response to vehicle and mountain bike activity on roads by Papouchis et al. (2001) found that, on average, bighorn alerted at a distance of 1190 feet and fled at 433 feet from the disturbances on roads. Route densities were used in an elk field study by Lyon (1983), whose work suggests that road densities of 1 mile per square mile in forested landscapes reduce elk habitat effectiveness by 25 %. An ongoing study by Sawyer et al. (2005, 2004, 2001) of GPS collared deer on the Pinedale Anticline observed that deer utilized habitat progressively further from roads and well pads over three years of increasing gas development and showed no evidence of acclimating to energy-related infrastructure. Similar data is also summarized in the reports prepared by the NMGF and WGFD, and the literature cited in those reports.

The available literature is not limited to the effects of paved roads, but also specifically discusses the impacts of ORVs and unpaved roads, as should the PRMP. A book by Havlick (2002) devoted to roads and motorized recreation on public lands describes that numerous species of wildlife including birds, reptiles, and large and small mammals are disturbed by ORV traffic and show a variety of physiological effects including accelerated heart rate and metabolic function, increased stress, and reproductive failure.

A literature review by Taylor (2006) addresses many of the impacts on wildlife and their habitat such as how sounds generated by ORVs "present danger to the well being of the natural wildlife of the arid regions." Taylor ends his paper with a discussion of the rapidly growing pressures form ORVs and the difficulty of restoring arid landscapes from the impacts of ORVs, concluding, "[t]he effect this demand has on our natural resources needs to be carefully considered and strategic plans developed to cope with conflicts, which will certainly arise in the

future." These conflicts are already present in the Kanab Field Office; BLM should acknowledge its full extent.

One recent study that is particularly relevant to the Kanab Field Office is Brooks and Lair (2005) that specifically addresses ecological impacts of a range or route type from ORV routes to highways in the Mojave Desert. This study looks at the effects of the different route types on soils, vegetation, and wildlife with an appendix reviewing literature on the Mojave. In addition, Wisdom et al. (2004) found that ORV use on public lands caused substantially higher movement rates and probabilities of flight response in mule deer when compared to control periods of no motorized activity. This finding came out of a study at a long-term research site which looked at many issues including the effects of ORVs on wildlife in open sagebrush landscapes in eastern Oregon. Many studies discussed in these comments include studies on low use, unpaved roads, and ORV routes.

The data that we have previously provided and highlighted shows not only that there is a substantial, established body of literature supporting the need to address habitat fragmentation from routes but also that the level of fragmentation in the PRMP will result in unacceptably high impacts on wildlife habitat for the species that the agencies are required to protect, such as under the Endangered Species Act, FLPMA, and BLM's ORV regulations. BLM should utilize this data both to evaluate potential impacts of proposed routes and to design an acceptable travel network, which provides sufficient core areas and suitable route densities to protect wildlife habitat.

B. Requested Remedy

In order to comply with the requirements of NEPA to conduct a thorough analysis of impacts of the management alternatives and to facilitate meaningful public participation and review of the RMP, BLM must thoroughly analyze the specific impacts of habitat fragmentation on affected species and provide a comparison of the management alternatives. This analysis should include the impacts of ORVs and motorized routes, as well as roads. Further, BLM should apply the guidelines for sage-grouse management set out in *A Blueprint for Sage-grouse Conservation and Recovery*. Clait E. Braun, Ph.D., A Blueprint for Sage-grouse Conservation and Recovery (2006), *available at* http://www.voiceforthewild.org/SageGrouseStudies/Braunblueprint2006 .pdf. The public should be provided with an opportunity to review and comment on a compliant analysis of habitat fragmentation *before* the PRMP is adopted by BLM.

BLM must use the latest available scientific literature and spatial analysis of habitat fragmentation on the impacts of ORVs and roads on wildlife to craft road network alternatives and to evaluate the direct, indirect, and cumulative impacts of road networks. BLM should act based on the best available information to fulfill their obligations to protect wildlife habitat.

The PRMP should not only fully analyze the impacts of habitat fragmentation but also consider and adopt a management alternative that substantially reduces the levels of fragmentation in the planning area; the public should be provided with an opportunity to review and comment on a compliant range of alternatives *before* the PRMP is adopted.

References:

Brooks, M.L. and B. Lair. 2005. Ecological Effects of Vehicular routes in a Desert Ecosystem. U.S. Geological Survey, Western Ecological Research Center, Las Vegas Field Station, Henderson, Nevada, 23 p.

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VII. Cultural Resources

As noted in SUWA's DRMP comments, we incorporated the comments that the Colorado Plateau Archaeological Alliance (CPAA) submitted for the DRMP into SUWA's DRMP comments. Based on CPAA's comments and the management decisions in the PRMP (which did not change from the DRMP) and BLM's responses to CPAA's comments (the vast majority of CPAA's comments were ignored), SUWA has the following concerns regarding cultural resources management as proposed in the PRMP.

A. Federal Law

FLPMA obligates BLM to protect cultural, geologic, and paleontological resource values, 43 U.S.C. §§ 1701(a)(8) 1702(c) and the National Historic Preservation Act of 1966 (NHPA), 16 U.S.C. § 470 *et seq*., provides for enhanced consideration of potential impacts to these resources through a cooperative federal-state program for the protection of historic and cultural resources. In particular, Section 106, 16 U.S.C. § 470f, obligates BLM to consider the effects of management actions on historic and cultural resources listed or eligible for listing to the National Register of Historic Places, as provided under NHPA. Section 110 of the NHPA requires BLM to assume responsibility for the preservation of historic properties it owns or controls, 16 U.S.C. § 470h-2(a)(1), and to manage and maintain those resources in a way that gives "special consideration" to preserving their historic, archaeological, and cultural values. Section 110 also requires BLM to ensure that all historic properties under the jurisdiction or control of the agency are *identified*, evaluated, and nominated to the National Register of Historic Places. *Id.* § 470h-2(a)(2)(A).

B. Review of Deficiencies in the PRMP

The PRMP's treatment of cultural resource management suffers from major deficiencies, both in terms of general theoretical assumptions applied throughout the document, as well as specific strategies identified for addressing cultural resource concerns. As was noted in CPAA's comments on the DRMP, general concerns include the absence of a meaningful and representative statistical sample of inventoried lands within the Kanab Field Office whereby the density, diversity, and distribution of cultural resources could be adequately considered during the planning process and the failure of the agency to adequately consider the indirect and cumulative effects of various activities on the integrity of historic properties.

Among the more specific concerns are the absence of a clearly stated intent to initiate Section 106 compliance prior to the designation of off-road vehicle (ORV) routes; the designation of ORV routes in areas known to have high archaeological site densities but little or no baseline inventory data; the failure of BLM to acknowledge that Areas of Potential Effect are much greater than a narrow road corridor or area of surface disturbance; and the failure of the agency to aggressively embrace its Section 110 responsibilities to evaluate and nominate properties under its management jurisdiction to the National Register of Historic Places.

C. The PRMP did not rectify CPAA's concerns

1. Inadequate Statistical Sample

As stated in Section 3.2.9, Cultural Resources, "previous cultural resource inventories have not led to the investigation of the variety of environmental and ecological ranges present, thereby under-representing known current cultural resource sites." PRMP 3-67. Specifically, Class III inventories have been conducted on approximately 57,000 acres, or 10%, of the KFO area. *Id.* It must be concluded that BLM has little or no data as to the nature, diversity, or distribution of cultural resources on roughly 90% of the lands it manages, and that entire environmental and ecological ranges remain unexamined. Thus, the cultural resource data on which the PRMP decisions are based do not comprise a meaningful and statistically valid sample for the entirety of the KFO. Rather, these investigations were driven by the location of extraction projects and other site-specific uses of federal lands that did not result in the investigation of all environmental and ecological ranges where cultural resources are likely to occur. Hence, the data used by BLM staff are actually a reflection of the amount of Section 106 compliance in a particular area but they may not reflect actual site densities. The paucity of baseline data makes it difficult, if not impossible, to implement strategies where impacts to cultural resources could be avoided, minimized, or mitigated.

BLM proposes to designate official OHV routes in many areas that have never been subjected to Class III inventories to determine the nature, diversity, or distribution of cultural resources that could be impacted by vehicular access. BLM cannot properly manage cultural resources it does not know exist, and hence the absence of a statistically valid sample militates against adequate consideration of potential impacts to unknown cultural resources. In effect, the database is little more than a *de facto* corroboration of the failure of BLM over the past two decades to take seriously its Section 110 responsibilities to implement a proactive preservation program for the identification, evaluation, and National Register nomination of historic properties under its jurisdiction or control.

CPAA raised these issues in its comments on the DRMP. BLM did not respond to these concerns, and did not modify the PRMP to remedy the problems. To remedy this situation, BLM must conduct Class III inventories of ORV routes before implementing the route designations. In addition, the PRMP must be revised to include a commitment to a meaningful and statistically valid inventory of representative lands within the KFO whereby the diversity, distribution, and density of cultural resources can be properly considered in future land management decisions.

2. Cultural Landscapes

The PRMP precludes surface-disturbing activities within 0.25 miles or within the visual horizon, "whichever is closer," of cultural sites where landscape association contributes to NRHP eligibility. PRMP at 4-54. As CPAA stated in its comments on the DRMP, the theoretical premise of this decision is fundamentally flawed in that a "one size fits all" delineation of a 0.25-mile *or* visual horizon standard is contradictory to the concept of culturally significant landscapes. Landscapes of cultural significance may include small clusters of significant archaeological sites that are spatially restricted by the nature of the local topography (e.g.,

narrow canyon corridors). Or they may include hundreds of sites across a much broader landscape wherein "visual horizons" are irrelevant to the cultural significance of the cultural landscape. Ideally, the protection of cultural sites where landscape association contributes to eligibility should be a function of the individual nature and significance of that landscape, not a function of arbitrary boundaries (e.g., 0.25 miles) or "visual horizons" that may or may not be relevant to cultural significance.

CPAA raised these issues in its comments on the DRMP; BLM did not respond to these concerns, and did not modify the PRMP to remedy the problems. To remedy this situation, BLM must modified the PRMP to better protect those landscapes of cultural significance based on examination of the data relevant to the actual spatial extent of the landscape considered to be significant. These may be greater or less than the boundaries proposed in the PRMP.

3. Indirect and Cumulative Impacts

The PRMP seems to infer through the repeated use of the words "mitigate" and "mitigation" that mitigation of damage to cultural sites, as defined in 36 C.F.R. § 800, is a preferred strategy, with little mention of site avoidance and minimizing damage as possible or preferred strategies. *See* PRMP 4-54 to -63. It is emphasized that data recovery (mitigation) may be an appropriate strategy, but it is one that should be considered within a broader context of site avoidance and minimization of impacts to cultural resources. The PRMP fails to recognize that data recovery is itself a destructive activity that constitutes an adverse effect as defined in 36 C.F.R. §800. *See* King 2000a, 2000b.

There is a near absence of any discussion or recognition of indirect impacts to historic properties in the PRMP. 36 C.F.R. § 800.5(1) that states

> 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 in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. Consideration shall be give to *all* qualifying characteristics of a historic property . . . .

36 C.F.R. § 800.5(1) (emphasis added). Further, 65 Fed. Reg. 77698, 77720 (Dec. 12, 2000) clearly states that federal agencies shall consider the indirect effects of undertakings on eligible properties. Re-routing or relocating ground-disturbing activities to avoid direct impacts to known historic properties visible on the surface may not avoid, minimize, or mitigate the indirect effects of such undertakings. We emphasize that damage to *and* mitigation of damage to such sites is an adverse effect that must be fully considered within the context of Section 106 and 36 C.F.R. § 800. Cultural resources can be adversely impacted through the course of non-regulated surface-disturbing activities such as cross-country OHV travel, wildfires, collection of artifacts, vandalism, and pedestrian impacts that are *not* typically considered through Section 106 reviews. However, such adverse impacts to cultural resources are, in many instances, the indirect consequence of regulated surface-disturbing activities that are considered during the Section 106

review process (e.g., road access to accommodate development that subsequently provides access to looters and vandals).

CPAA recommended in its comments on the DRMP that the PRMP should clearly acknowledge all of the effects of undertakings on historic properties, specifically including the indirect adverse effects, and that it include a clear strategy with measurable benchmarks to avoid, minimize, or mitigate those indirect effects through the Section 106 review process. BLM's response to CPAA's comment is unresponsive. The agency merely states that the "over-arching assumption" in the PRMP is that "public land users would comply with the decisions and allocations contained in the alternatives." PRMP, Response to Comments at 16, sorted by category. This does not address the PRMP's failure to acknowledge the effects of mitigation and other indirect effects.

The PRMP curiously fails to include a discussion of the potential cumulative impacts to cultural resources. CPAA's comments on the DRMP noted that the DRMP failed to properly consider cumulative impacts. DEIS 4-280 to -281. The PRMP likewise omits any discussion of cumulative impacts. The draft RMPs and EISs prepared for Moab and Monticello at least recognize "the potential impacts from the continually increasing recreational visitation" and that "the substantial increase in OHV ownership and recreational use will continue to subject cultural resources in the region to heightened risk of damage, vandalism and/or looting." Moab DEIS 4-502. CPAA concurred with the assessment in the Moab DEIS, and recommended, in its DMRP comments that the PRMP be modified to acknowledge and fully analyze the potential impacts of ORV use on such a massive scale that could result in cumulative effects to site setting and integrity, even if the historic properties themselves are not directly impacted. *See* 36 C.F.R. § 800.5(a)(2)(v). The designation of more than 1,400 miles of ORV routes within the Kanab Field Office has significant potential to create cumulative adverse effects that are not anticipated or analyzed by the RPMP.

CPAA recommended in its comments on the DRMP that the PRMP clearly acknowledge all of the effects of undertakings on historic properties, specifically including the cumulative adverse effects, and that it include a clear strategy with measurable benchmarks to avoid, minimize, or mitigate those cumulative effects through the Section 106 review process. BLM's response is that the "over-arching assumption" in the PRMP is that "public land users would comply with the decisions and allocations contained in the alternatives." PRMP Response to Comments at 16, sorted by category. BLM's response to this comment is unresponsive, and does not address the PRMP's failure to acknowledge and assess the cumulative effects of the designation of a network of ORV routes throughout the Field Office area, and does not address the cumulative impacts to cultural resources of BLM's other management decisions.

4. Hell Dive Canyon

SUWA strongly recommends that the Hell Dive Canyon cultural site not be managed for public visitation and/or education. Between the DRMP and the PRMP, this site was added to the short list of sites managed for public visitation, educational, research, and other values. *See* PRMP at 2-26. It appears that this site was added due to comments from local Kane County residents. *See* PRMP Response to Comments at 94, sorted by category. This is a very remote site, with

significant and sensitive archaeological artifacts. Monitoring the site and maintaining an enforcement presence would be difficult, at best. As noted in the PRMP, sites that remain in excellent or good condition are "no doubt related to the remoteness and rugged terrain that limit access." Designation of the trail to the site will certainly encourage increased ORV access to the Hell Dive Canyon site, thus increasing the risk of intentional and inadvertent damage to not only that site, but to other nearby, yet unsurveyed sites. There are many other cultural sites that are more appropriate to manage with an emphasis on public visitation and/or education. BLM must take appropriate management actions to protect the Hell Dive Canyon site from increased access and visitation, which has been shown to lead to increased damage.

5. Off-Road Vehicle Designations and Transportation

Although the PRMP designates ORV areas and trails, the mere designation of trails does not ameliorate the potential adverse effects to archaeological sites and historic properties, most of which remain undocumented. The PRMP does not explicitly state that Section 106 compliance (e.g., Class III inventories) will be required prior to designation of routes currently in use.

As CPAA noted in its comments on the DRMP, the OHV area and trail designations and the Travel Plan are fundamentally flawed on two important points: 1) the failure of BLM to conduct adequate analysis in the past related to OHV impacts along routes currently being used by motorized vehicles was and still remains an abrogation of the agency's Section 106 responsibilities, and the failure of the agency to recognize or correct this deficiency in the new Travel Plan appears to validate and perpetuate the agency's failure to comply with Section 106 requirements in the past; and 2) the failure to require Class III inventories along routes prior to designation suggests the agency official has already made a determination, as per 36 C.F.R. § 800.3(a), that travel route designations in such instances are not an undertaking as defined in 36 C.F.R. § 800.16(y).

CPAA's comments on the DRMP make it clear that with any determination that designation of existing routes is a federal undertaking. Section 36 C.F.R. § 800.16(y) clearly states that an undertaking is "a project, *activity* or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency" (emphasis added). As noted in CPAA's comments, ORV route designation is an activity managed by BLM and that BLM resources are being expended to plan for ORV route designation and use areas to enforce ORV travel restrictions. As such, it is an activity funded in whole or in part under the direct jurisdiction of a federal agency and clearly meets the definition of an undertaking. As such, the agency official has a responsibility to determine whether this activity has the potential to cause effects on historic properties, 36 C.F.R. § 800(a), and to initiate the Section 106 process.

BLM's response to CPAA's concern, *see* PRMP Response to Comments at 16, sorted by category, merely states that the agency will follow the guidelines in an internal memorandum (IM), BLM IM-2007-030, and that according to the IM, a Class III inventory is not required prior to route designations on "existing" routes. It is important to note that BLM's response and the IM are silent as to whether this guidance in the IM applies to all "existing routes" or only those that have been the subject of a Class III inventory for the project that created the route in the first place (i.e. seismic exploration, oil and gas development, etc). If the IM is interpreted the way

BLM is interpreting it, the IM would not comply with the mandates in the statutes and federal regulations, which require a Class III inventory for "undertakings." Route designations are certainly an undertaking, and if the individual routes have not been surveyed prior to the designation, then BLM must conduct a Class III inventory. And, according to federal court decisions, the Advisory Council on Historic Preservation (ACHP), the independent federal agency created by Congress to implement and enforce the NHPA, has exclusive authority to determine the methods for compliance with the NHPA's requirements, not BLM.

As with the DRMP, the PRMP makes little effort to address Areas of Potential Effect (APE) outside of designated corridors or to justify a 60-meter corridor as the APE. PRMP at 2-27. In fact, as noted in CPAA's comments on the DRMP, research elsewhere in Utah demonstrates a survey 30 meters on either side of centerline would be grossly insufficient and would fail to properly consider adverse effects to cultural resources in those areas adjacent to or accessible from the actual routes. Recent research in southeastern Utah has demonstrated that damage to archaeological sites by ORVs can be both direct (driving vehicles through archaeological deposits) and indirect (using ORVs to gain access to topographic locations where sites are located). Indirect impacts were considered to be more common in that archaeological sites were being impacted by pedestrians who used mechanized vehicles to arrive at or near site locations. Research also found that sites with the greatest evidence of adverse human impacts were those visible from an existing ORV route. Spangler 2006. BLM did not respond to CPAA's concerns regarding the APE.

The Draft EIS recognized that both legal and illegal OHV use are damaging resources and creating conflicts with other users, and that ORVs enhance the ability of users to penetrate the backcountry where patrols are difficult. This may lead to secondary impacts to cultural resources from increased vandalism and theft. There can be little dispute that ORVs have greatly enhanced the ability of the public to gain access to and enjoyment from cultural resources that have previously been protected by their isolation, lack of visibility, or distance from an improved road. Indeed, the PRMP notes that the cultural resources that are in "good" or "excellent" condition is due to "the remoteness and the rugged terrain that limit access to many areas."' PRMP at 3-69. There is also little dispute that some individuals have utilized ORVs to facilitate damage to cultural resources, whether directly or indirectly.

Given the thousands of miles of existing ORV trails currently being utilized within the Kanab Field Office, it is highly probable that significant impacts to historic properties have already occurred throughout the planning area, although there is little or no baseline data currently available to validate this assumption. Unlike permitted uses, no cultural resource inventories were conducted in association with the development of these existing ORV trails. Given that most of the BLM lands are currently open to cross-country travel, these activities have likely already impacted historic properties, although the extent of these impacts are not quantifiable due to the fact that most cultural resources remain unknown and undocumented.

As noted in CPAA's comments, the primary concern is that ORVs allow greater public access to archaeological sites, and this access facilitates adverse effects. This is acknowledged in the PRMP with the statement "[a]s access to an area increases, incidental damage of cultural resources adjacent to the access routes would increase. Impacts from incidental damage would

be reduced as distance from the access route increases." PRMP at 4-53. Data demonstrates a significant portion of OHV users do not remain on designated trails (Spangler and Boomgarden 2007), that vehicular routes facilitate greater pedestrian access to archaeological sites that are then subjected to direct and indirect impacts (Spangler 2006), and that archaeological sites within 200 meters of a vehicle route are far more likely to be vandalized (Spangler, Arnold, and Boomgarden 2006; see also Nickens et al. 1981 and Simms 1986). It must be considered probable that such damage has already occurred along existing routes and that damage to known and unknown sites will continue in the future. Hence, the limitation of OHV travel to existing or designated routes may not significantly reduce impacts to cultural resources along those routes. The PRMP did not address this concern.

In addition, these data stand in decided contrast to statements in the Draft EIS and the PRMP that the designation of routes "would result in minimal additional impacts on cultural resources due to existing use on these routes. Because the designated routes currently exist, the damage to them would also be minimal" (DEIS 2-119); ". . . limiting OHV use to designated routes . . . would increase protection to cultural resources . . . There would be no impacts from OHV use . . . in areas away from designated routes . . . ." PRMP at 4-55. The PRMP failed to make any management decision changes (from the DRMP) to reduce the impacts on cultural resources from ORV designations, such as reducing the number of miles of route available for OHV use in culturally sensitive areas. BLM omitted CPAA's comment in the Comment section of the PRMP, and thus, did not respond to CPAA's comments and concerns.

CPAA's comments on the DRMP also noted that there is no acknowledgement by BLM that future OHV use of designated trails through archaeological sites could result in accelerated erosion that would expose subsurface cultural deposits not evident when the site surface was initially damaged. The PRMP responds with an unsupported statement that limiting OHV use to designated routes would " . . . not increase erosion above natural rates in these areas. This would maintain existing levels of natural deterioration to cultural sites." PRMP at 4-55. The PRMP fails to include data to support this contention; making an unsupported counter statement is not responsive to CPAA's stated concern.

BLM did not respond to CPAA's concern that damage to historic properties along vehicle routes has, historically, not been well documented, and there has been little effort by the Kanab Field Office to identify sites along ORV routes that have been damaged or are vulnerable to damage. In effect, there is no baseline data to evaluate the nature and extent of that damage. BLM's ORV designations and the development of a major travel plan without basic information about the impacts of existing ORV use in these places puts the cart before the horse. It is difficult to see how BLM can meet its statutory duties with respect to cultural properties if it has no or little information about how one of the major uses it proposes to authorize would affect these sites.

This is particularly relevant for the proposed cross-country OHV travel areas encompassing 1,100 acres. Given that such vehicular travel could result in direct and indirect adverse effects to cultural resources, Class III inventories of all lands open to cross-country travel should be initiated, and specific strategies should be implemented to ensure such travel does not adversely effect historic properties and/or to recover all scientific data that would be lost. These could include prohibitions on vehicular travel on or around archaeological sites, fencing off vulnerable

sites and/or complete data recovery. These efforts to avoid, minimize, and mitigate adverse effects should be conducted with the assumption that cross-country travel will damage or destroy those sites, and that the damage is irreversible.

This recommendation is particularly relevant to the establishment of cross-country OHV play areas in dune areas near Coral Pink Sand Dunes. Throughout the greater Southwest, sand dunes have been found to contain large and important archaeological sites, primarily evidence of hunting and gathering during all periods of human occupancy of the region. Although the PRMP notes that there would be a "very low potential for impacts on cultural resources" due to previous Section 106 and 110 inventories, the nature of subsurface deposits in sand dunes is such that many archaeological sites may not be identified until after the ground surface has been altered, either through natural erosion or human factors. Hence, vehicular traffic may subsequently expose cultural materials that were not visible at the time a Class III inventory was conducted, enhancing the need for ongoing monitoring and future data recovery. BLM did not respond to CPAA's discussion of this concern in the PRMP.

CPAA also emphasized that any approach that limits vehicular access (e.g., in WSAs and in non-WSA lands with wilderness characteristics) is an effective management tool to further the long-term preservation and protection of archaeological sites. The paucity of existing roads in such areas has facilitated a much higher level of protection of cultural resources and a corresponding minimization of impacts to such resources. *See* PRMP at 3-69; *see also* Spangler et al. (2006); Spangler et al. (2007).

In light of the concerns discussed above, SUWA reiterates CPAA's concerns and comments that were not addressed and/or accommodated in the PRMP:

- Designation of all ORV routes must be based on full Section 106 reviews of all direct and indirect adverse effects resulting from increased availability of route maps, and the associated increased access to backcountry areas and increased use of travel corridors resulting from formal designations.
- The Class III inventory and site evaluations along designated routes should be expanded to include areas of indirect impacts, with specific focus on identifying cultural resources in adjacent topographic settings that could be impacted by increased vehicular access. This should include, but not be limited to, the identification of rockshelters with potentially intact cultural deposits that are visible from a designated route regardless of distance, and to all other localities within at least 200 meters of an existing route.
- Route or area closures are an appropriate and proven management tool to mitigate the adverse impacts of ORVs on and around archaeological sites. The plan should clearly specify such a management strategy.
- The PRMP should clearly state that Class III inventories, site assessments, and site mitigations will be completed prior to the designation of ORV routes, including existing routes and open ORV areas, and that cultural resource protection will be a fundamental goal of any transportation planning.

6. NHPA Section 110 Deficiencies

Section 110 of the National Historic Preservation Act unequivocally specifies the responsibilities of federal agencies to proactively identify, evaluate, and nominate National Register-eligible historic properties under their jurisdiction or control. Section 110(2)(a) specifically mandates the agency implement a program to ensure "that historic properties under the jurisdiction or control of the agency are identified, evaluated *and nominated* to the National Register" (emphasis added). Only one BLM locality within the Kanab Field Office (Cottonwood Canyon Cliff Dwelling, listed in 1980) has been listed on the National Register, despite the fact that 481 sites have been recommended or deemed eligible by the SHPO for listing on the National Register.

Many known archaeological sites are clearly eligible under Criterion A in that they are associated with broad patterns of human prehistory on the Colorado Plateau; are eligible under Criterion C in that they embody distinctive characteristics of type, period, or method of construction, or represent a significant and distinguishable entity, even if the individual sites lack distinction; and most importantly are eligible under Criterion D in that they have yielded or are likely to yield important information about the prehistory of the region. Euroamerican historic sites in the Kanab Field Office would also be eligible under these three criteria and potentially under Criterion B if they are associated with important individuals. Some of the most important sites in the history of Utah archaeological research are located within the boundaries of the Kanab Field Office.

The PRMP reflects an unwillingness on the part of the agency to fully embrace BLM's responsibilities under Section 110, as it does not identify those eligible properties the agency will nominate to the National Register, nor do they indicate the willingness of the agency to prioritize properties under its jurisdiction for National Register nominations. Given the federal agency's mandate to actually "nominate" properties to the register, the PRMP should reflect the commitment of BLM to nominate eligible sites and archaeological districts where the cultural resources have been determined eligible for National Register listing. CPAA's comments on the DRMP noted this concern, and BLM failed to respond.

In light of the concerns discussed above, SUWA reiterates CPAA's comments that were not addressed and/or accommodated in the PRMP:

- The PRMP should explicitly recognize that proactive cultural resource work is a critical need accentuated by increased ORV use. The level of proactive cultural resource program work should be determined annually and funding for such work should be prioritized within the Kanab Field Office budget.
- The PRMP should direct the Kanab Field Office to aggressively pursue the nomination to the National Register of historic properties under its jurisdiction, including archaeological sites and archaeological districts of local, regional, and national significance.
- BLM should aggressively seek public input regarding which sites should be prioritized for nomination. This could include discussions with interested Native American tribes, the Utah Professional Archaeological Council, local and

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Spangler, Jerry D., William Davis, Kristen Jensen , Kevin T. Jones, and Joel Boomgarden. 2007. *An Intuitive Survey and Site Condition Assessment in the Desolation Canyon National Historic Landmark, Carbon County, Utah.* Colorado Plateau Archaeological Alliance, Ogden, Utah.

VIII. Visual Resources

BLM is directed by federal statutes and BLM policies to protect visual resources. FLPMA directs BLM to prepare and maintain inventories of the visual values of all public lands, 43 U.S.C. § 1711(a), and manage public lands "in a manner that will protect the quality of . . . scenic . . . values," §1701(a)(8). NEPA further requires BLM to "assure for all Americans . . . esthetically . . . pleasing surroundings." 42 U.S.C. § 4331(b)(2). BLM has interpreted these mandates as a "stewardship responsibility" to "protect visual values on public lands" by managing all BLM-administered lands "in a manner which will protect the quality of the scenic (visual) values." BLM, BLM Manual 8400 – Visual Resource Management .02, .06(A).

BLM utilizes visual resource inventories during the RMP process to establish management objectives, organized into four classes. These objectives are as binding as any other resource objectives contained in the RMP. *See Southern Utah Wilderness Alliance et al.*, 144 IBLA 70, 84 (1998). As the PRMP explains, BLM may not permit any actions that fail to comply with these objectives. PRMP at 4-70.

These statutory and regulatory responsibilities are especially important to the areas managed by the Kanab Field Office, which includes lands with wilderness characteristics. BLM should have established Visual Resource Management (VRM) objectives that limit surface disturbance within these special viewsheds.

For example, all non-WSA lands with wilderness characteristics should be managed as Class I, similar to that proposed in Alternative C. The PRMP fails to protect these viewsheds by proposing to manage most non-WSA lands managed for protection of wilderness characteristics as Class II. Deviating from BLM policy and failing to appropriately protect non-WSA lands managed for wilderness characteristics, the PRMP proposes to manage only 12% of Orderville Canyon as Class I and the remainder of the non-WSA lands being managed for their wilderness characteristics as Class II. PRMP at 4-78 to -79. BLM guidelines for assigning VRM Classes clearly states that "Class I is assigned to those areas where a management decision has been made previously to maintain a natural landscape. This includes areas such as national wilderness areas . . . and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape." BLM, BLM Manual 8410 – Visual Resource Inventory at V(A)(1). Designating most non-WSA lands managed for wilderness characteristics as Class II is contrary to BLM's own internal policy.

The PRMP's designation of non-WSA lands with wilderness characteristics that are not managed to protect those characteristics as Classes II, III, and IV also inappropriately fails to protect majestic landscapes that are greatly valued by local Utah residents and visitors from across the country. The PRMP's classifications are contrary to these areas' high visual sensitivity levels. The PRMP classifies Canaan Mountain, Carcass Canyon, some of Moquith Mountain, Paria/Pine Hollow, most of Parunuweap Canyon, portions of Upper Kanab Creek, portions of the Vermillion Cliffs, and Wide Hollow as Classes III and IV, which will permit major changes to these undisturbed visual landscapes. PRMP at 4-79. Further, the PRMP fails to adequately protect other non-WSA lands that SUWA has identified as having wilderness characteristics, by

failing to classify areas such as Bunting Point, part of Canaan Mountain, Jolley Gulch, Heaps Canyon, Little Valley Canyon, and the Black Hills as Class I.

Another example of the PRMP's failure to adequately protect special viewsheds is its classification of the area southwest of U.S. Highway 89 between Kanab and Mt. Carmel Junction as Class III, just to "allow vegetation treatments to be implemented to a greater extent in this concentrated area of pinyon-jumpier woodland encroachment." PRMP at 4-71. In light of this singular purpose of classifying the area as Class III, BLM should ensure that this Class III status only allows the vegetation treatments and not any other visual disturbance other than what would normally be tolerable under a Class II designation.

Additionally, lands with popular and easily accessible vantage points from existing WSAs, Zion and Bryce Canyon National Parks, the National Mormon Pioneer Heritage Highway (State Highway 89), and state scenic byways should be managed for visual resources, such as VRM Class II, to "retain the existing character of the landscape," including clear provisions dealing with oil and gas development and other human disturbance. Indeed, the BLM guidelines for assigning VRM Classes discussed above requires protecting such areas "where decisions have been made to preserve a natural landscape" as Class I and includes distance zones as one of the three factors considered when assigning VRM Classes. BLM, BLM Manual 8410 – Visual Resource Inventory at V(A)(1).

ACECs and other special management designations and prescriptions should be used to protect scenic landscapes and viewpoints within the resource area with stipulations specifically addressing and managing human development impacts, including VRM Class I to "preserve the existing character of the landscape" or VRM Class II to "retain the existing character of the landscape" as appropriate. Without such classification assignments, the PRMP fails to protect the viewsheds in ACECs. For example, the PRMP designates portions of the potential Vermillion Cliffs ACEC as Classes III and IV and portions of the potential White Cliffs ACEC as Class III. PRMP at 4-114 to -115.

IX. Wilderness Study Areas and Lands with Wilderness Characteristics

A. Wilderness Study Areas

BLM makes two critical misstatements in its discussion of wilderness study areas (WSAs) that color its analysis of wilderness issues. First, BLM erroneously asserts that "[t]he Wilderness Act of 1964 established a national system of lands for the purpose of preserving a *representative sample* of ecosystems in a natural condition for the benefit of future generations." PRMP at 3-104. To the contrary, the Wilderness Act says nothing about limiting the designation of Wilderness to anything less than all the lands that deserve this special status: "it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." 16 U.S.C. § 1131. Second, BLM mistakenly states that WSAs "are managed according to the Interim Management Policy (IMP) (H-8550-1) to protect the area's identified wilderness characteristics until such time that Congress acts on *BLM's 1992 recommendations*." PRMP at 4-125. To the contrary, neither Congress nor the President—who forwards a recommendation from the Secretary of the Interior to Congress—is constrained in any way to consider only BLM's 1992 recommendations. *See* 43 U.S.C. § 1782(b).

BLM further makes a series of misstatements and errors in its discussion of how the agency must implement the IMP's non-impairment mandate. Specifically, BLM claims that it may permit impacts to WSAs that are less than what it deems significant from such activities as motorized vehicle use. PRMP at 4-125 ("Some uses that may be impairing to wilderness characteristics in a WSA may be permitted under IMP because they are only temporary uses that do not create *substantial surface disturbance*.") (emphasis added). To the contrary, in order for an activity to meet FLPMA's non-impairment mandate, and thus be permitted to proceed in a WSA, two criteria must be met. First, the activity must be temporary and not cause surface disturbance. H-8550-1.I.B.2. Thus, BLM's assertion that only "substantial surface disturbance" constitutes impairment and is thus prohibited is simply incorrect. *See* IMP H-8550-1.I.B.2 ("Surface disturbance is any new disruption of the soil or vegetation requiring reclamation within a WSA. Uses . . . necessitating reclamation (i.e., recontouring of the topography, replacement of topsoil, and/or restoration of native plant cover) are definitely surface disturbing and must be denied."). Second, after the activity ends, "the wilderness values must not have been degraded so far as to significantly constrain the Congress's prerogative regarding the area's suitability for preservation as wilderness." *Id.* Thus, the non-impairment test is not an "either/or" proposition and a proposed activity must meet *both* criteria to be permitted to take place. *Id.*

Given this framework, BLM's decision to continue permitting motorized use on so-called "inventoried ways" in WSAs is arbitrary. First, to the extent that BLM fully knows the location of inventoried ways in WSAs, SUWA disputes that BLM is taking the steps outlined in the PRMP to eliminate motorized vehicles when users leave existing ways. For example, Kanab BLM field staff reports prepared in the late 1990s confirmed that ORV users were frequently traveling cross-country and damaging soils and vegetation in the Parunuweap WSA. Though BLM issued a closure order in the Parunuweap WSA and other WSAs in 2000 pursuant to 43 C.F.R. § 8341.2, that illegal use has not entirely abated. The IMP requires that BLM prohibit motorized use outright in the Parunuweap WSA. Second, the IMP prohibits surface disturbing

activities such as permitting motorized use off of "existing ways;" that is, on ways that were not in existence, inventoried, and documented when the WSA was first established. *See, e.g.*, IMP H-8550-1.I.B.3. Here, BLM is proposing to permit motorized use on a portion of the so-called "Loop Route" in the Moquith Mountain WSA that was not in existence at the time of the initial wilderness inventory. *See id.* at Glossary of Terms (defining "way" and "existing way"). This decision violates FLPMA's non-impairment mandate as defined by the IMP.

BLM's decision to permit cross-country motorized use on vegetated sand dunes in the Moquith Mountain WSA is also contrary to the IMP and thus the PRMP must be changed to prohibit such activity. *See* PRMP at 4-127; SUWA Comments at 65–69. In its response to comments, BLM generally asserted that because it has permitted cross-country motorized use in the sand dunes since 1980 this use is permissible. *See* PRMP Response to Comments at 138. As noted above, the IMP strictly prohibits surface disturbance that requires activities such as "restoration of native plant cover." *See supra*. Though the IMP does permit BLM to designate open areas for motorized vehicles in sand dunes, H-8550-1.III.H.11, this activity must still comply with the IMP's explicit prohibition of surface disturbance. As BLM is well aware, the section of the Coral Pink Sand Dunes located within the Moquith Mountain WSA contains unique and important vegetated dunes. *See* PRMP at 3-30 (describing Coral Pink Sand Dunes as containing a myriad of native plant species); 3-41 to -42 (discussing Coral Pink Sand Dunes Tiger Beetle and Welsh's Milkweed). Despite BLM's repeated efforts for years to prohibit motorized users from traveling cross-country through the vegetated dunes, such use continues today in violation of the IMP. *See* photo of Moquith Mountain (attached as Exhibit D). BLM must thus close the Moquith Mountain WSA sand dunes area to motorized use.

B. Wilderness Character Areas

BLM made several critical errors in its review of significant new information provided by SUWA regarding previously unrecognized wilderness character areas. In addition, BLM arbitrarily reviewed and divided the proposed Vermillion Cliffs wilderness character unit into many smaller units that the agency then rejected from further consideration as containing wilderness character. Finally, BLM violated NEPA when it refused to even mention, let alone fully analyze, an alternative that would have designated new WSAs.

First, as SUWA explained in its comments on the Kanab DRMP, BLM's outright rejection of SUWA-nominated wilderness character areas that are contiguous with roadless Forest Service lands that, combined, total over 5,000 acres, is arbitrary. *See* SUWA DRMP Comments at 28–30. As we noted in our comments, the Wilderness Act does not preclude BLM from considering lands outside of its jurisdiction to arrive at a 5,000 acre unit. BLM admits as much. *See* PRMP at 3-75. In its response to comments, BLM nevertheless continues to insist that it will not consider these smaller areas if they are not contiguous with roadless lands that are administratively endorsed for wilderness by another agency: "[f]or lands to qualify for consideration, they need to be 5,000 acres in size or adjacent to areas administratively endorsed by another federal agency." PRMP Response to Comments at 112, sorted by commentor name. There is no basis whatsoever for this additional criterion either in the Wilderness Act or BLM policy. Importantly, BLM itself acknowledges in the PRMP that "[a]reas of less than 5,000 acres are *generally* not large enough to provide" outstanding opportunities for solitude and/or primitive

recreation," thus leaving the door open that in some cases units less than 5,000 acres may provide these opportunities. PRMP at 3-75 (emphasis added). *But see* PRMP Response to Comments at 112, sorted by commentor name (stating that units *must* either be 5,000 acres or adjacent to administratively endorsed wilderness from another federal agency). In sum, BLM's decision to not consider the proposed Black Hills, Heaps Canyon, and Little Valley Canyon proposed wilderness units on size criterion alone was arbitrary and must be reversed. *See, e.g.*, BLM, Wilderness Characteristics Review, Black Hills Unit (Northwest of Escalante) (Apr. 24, 2007) (attached as Exhibit E) (rejecting proposed Black Hills unit, on size alone, and failing to conduct "further analysis for naturalness and outstanding opportunities for solitude or primitive unconfined recreation"). BLM must revisit each of these three proposed wilderness units and consider whether standing alone they have the requisite attributes to be wilderness character areas of less than 5,000 acres and whether together with adjacent public lands—administratively endorsed for wilderness or not—they constitute 5,000 acres of wilderness quality lands.

Second, BLM's use of natural features such as cliff edges to make up arbitrary boundaries that allegedly disqualified thousands of acres in the Utah Wilderness Coalition's Vermillion Cliffs proposed wilderness unit from further consideration as a non-WSA area with wilderness characteristics was arbitrary and capricious. *See* SUWA DRMP Comments at 40–41; PRMP Response to Comments at 114, sorted by commentor name. In its DRMP Comments, SUWA responded to and rebutted BLM's contention that Vermillion Cliffs Unit 1 should be arbitrarily divided by natural features (such as cliff edges) rather than the area's few human disturbances. *See id.* BLM rejected SUWA's arguments, relying on a boilerplate statement used for several other comments that the agency is "confident of the high-standard approach used to inventory the public lands and stands by its findings, particularly the findings which involved wilderness characteristics inventory maintenance." PRMP Response to Comments at 114, sorted by commentor name.

In *Committee for Idaho's High Desert*, 85 IBLA 54, 57 (1985), the Interior Board of Land Appeals discussed the standard of review for challenges to factual BLM determinations regarding the wilderness qualities of inventory units (i.e. naturalness, solitude, opportunities for primitive and unconfined recreation):

> Suppose an appellant establishes that BLM failed to follow its guidelines, or otherwise creates doubt concerning the adequacy of BLM's assessment, and the record does not adequately support BLM's conclusions. In such a situation the BLM decision must be set aside and the case remanded for reassessment. We must point out that evidence of failure to follow guidelines alone is insufficient to require reassessment. An appellant must also point out how the errors affect the conclusions and show that a different determination might result from reassessment.

Id. (quoting *Utah Wilderness Ass'n.*, 72 IBLA 125, 129 (1983)) (internal citations omitted). SUWA meets this standard because it has demonstrated that not only did BLM arbitrarily draw *ad hoc* subunit boundaries using natural features, but these decisions also had a real and immediate effect on BLM's conclusion that over 13,300 acres of public lands proposed for wilderness designation in Vermillion Cliffs Unit 1 lack wilderness character. If remanded to the

Kanab Field Office, with instructions to reevaluate unit 1, it is likely BLM would determine that this area retains its wilderness character.

Finally, as discussed in SUWA's comments on the Kanab DRMP, BLM violated NEPA when it failed to even mention—let alone fully analyze—an alternative that would designate new wilderness study areas pursuant to the agency's broad authority under 43 U.S.C. § 1712. *See* SUWA DRMP Comments at 25–26.

X. Recreation

A. General Recreation Management

Recreation on public lands comes in a variety of forms, and over time, an increasing number of users seek to use these lands. On a limited quantity of terrain, only so many types of recreation can feasibly coexist without impairing the natural habitat and the qualities that attract users. The PRMP inadequately addresses recreational use within the Kanab Field Office. BLM fails to fully analyze impacts from ORV use and does not take into account how different uses impact the land and conflict with each other.

1. BLM has not adequately evaluated impacts from ORV use under NEPA

In the PRMP, BLM is relying on flawed data that inaccurately portrays the amount of recreational ORV use in violation of NEPA's requirement that decisions be based upon accurate, high quality data and analysis. This compromises BLM's ability to conduct a thorough analysis of direct, indirect, and cumulative environmental impacts from its recreation management decisions.

The recreation analysis in the PRMP focuses disproportionately on ORV use. Non-motorized use is described, but severely underemphasized in terms of importance. By leaving over 95% of total land area available to ORV use, BLM has ignored its own multiple-use mandate intended to benefit all stakeholders. Based upon BLM's own statistics, the number of non-motorized users exceeds the number of motorized recreational users. PRMP, Table 3-26. From these same statistics, the number of visitor days logged for non-motorized use also exceeds visitor days logged for motorized use. *Id*.

The percentage of non-motorized users compared to total users in Table 3-26 increases if flaws from the statistics are amended. For example, the number of motorized-recreational users was derived from the number of ATV permits in the area. It can be assumed that not every ATV permit holder uses his/her machine on public lands. In addition, the BLM makes no distinction between ATVs and registered passenger vehicles being used. This lack of categorical separation further overestimates the number of ORV users.

BLM has also not performed an adequate socio-economic analysis with respect to recreational uses. Different types of recreation have been examined to derive estimates of the economic value derived from a single user day. According to Kaval and Loomis (2003), the average value of a day of non-motorized recreation is worth more than twice the value derived from a day of motorized use. So, even if it is assumed that motorized and non-motorized recreational use is roughly equal, the economic value derived from traditional forms of recreation exceeds that of motorized-recreational users.

2. BLM has failed to minimize conflicts between ORV use and other uses

BLM's ORV regulations require the agency to designate areas and trails for ORV use "to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses

of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors," 43 C.F.R. § 8342(c), but the PRMP fails to take that into account.

Motorized users are affected minimally by non-motorized users. In contrast, non-motorized recreational users often feel displaced by motorized users. The physical impacts they leave are far more noticeable and the noise that ORVs produce severely disrupts the natural experience. These sentiments are described within several comments received by BLM on the Draft RMP and EIS. Kanab Draft RMP/EIS, Public Comments and Responses at 93, 98, 99, sorted by category name (July 2008).

As a result, many traditional recreational users avoid areas where ORV use is known to occur. In areas open to both motorized and non-motorized recreation, this can largely exclude the latter. Therefore, the potential benefits to traditional non-motorized recreationalists are reduced. For Special Recreation Management Areas designated in the PRMP, although areas specifically designated for non-motorized use exceeds those designated for motorized use (38,800 acres vs. 19,500 acres), the area for 'shared' use would push motorized recreation acreage up to 56,300 acres. Non-motorized recreation on these 'shared' lands would likely be limited at best; at any rate, BLM has failed to produce any data showing that traditional recreationists would not be displaced by ORVs.

The natural quality of the lands is what draws recreation. Non-motorized recreation is even more dependent on the maintenance of pristine land characteristics. The presence of ORVs and the noise and effluence they create adversely impact the natural experience for a non-motorized recreational user. In addition, ORV users are much more likely to degrade the physical quality of the land, if nothing else, due to the greater distances traveled in the same amount of time, the rugged tire tread, and the speed and weight of the vehicle. BLM acknowledges the existence of user-created trails, even where cross-country ORV use is prohibited.

3. BLM has failed to consider mitigation measures for impacts from ORV use

The agency is required to consider mitigation of environmental impacts and cannot rely on mitigation measures that do not have a reasonable likelihood of being successful and/or occurring.

Within the land management plan, BLM acknowledges user-created trails, even in areas where cross-country ORV use is prohibited. Despite this, in responses to comments BLM still makes "the assumption that [ORV] users will comply with the rules in effect." *Id.* at 138. This assumption directly contradicts BLM's own observations and existing studies and surveys which show rampant failure to follow the laws and trail designations,[5] and yet the agency still describes no method to deal with the problem, saying without explanation that "monitoring and

[5] *See, e.g.*, Jerry D. Spangler & Joe Boomgarden, Colorado Plateau Archeological Alliance, *Baseline Site Condition and Vandalism Assessments of Archeological Sites in Tenmile Canyon, Grand Country, Utah* (2007); Utah State University, *Off-Highway Vehicle Use and Owner Preference in Utah (Revised)* (2002) (attached to SUWA's comments to the Draft RMP at Attachment M).

enforcement are issues beyond the scope of this land use plan." Kanab Draft RMP/EIS, Public Comments and Responses at 175, sorted by category name (July 2008). Be that as it may, it is irresponsible to offer no insight towards reducing adverse impacts.

Another threat to recreation on public lands within the Kanab Field Office is oil and gas leasing. The proposed plan leaves almost 86% of the relevant land area open to leasing for oil and gas. This figure is almost identical with land open to leasing under both the No-Action and Pro-Development Alternatives of the Draft RMP and EIS. Even under the most protective alternative, almost 69% of the land is open to leasing for energy development. This is in direct conflict with recreation; the scope and visibility of the degradation caused by oil and gas development will certainly reduce demand for recreation of all types. However, BLM projects that visitation from all types of recreational users will increase. As such, it is clear that BLM has not considered an appropriate "range" of alternatives. This is confirmed by the lack of an option that truly protects the natural character of these public lands.

4. Requested Remedy

BLM should develop a broader range of alternatives that account for true disparities in recreational uses and consider in greater depth the impacts of different recreation types on one another, in addition to the land itself. Also, the statistics collected by the agency itself should be considered within the development and analysis of alternatives within the context of BLM's multiple-use mandate, as well as the directive to designate areas for motorized use that avoid conflict with other users of the public lands. The agency must also consider mitigation measures that meet NEPA's requirements of specificity and likelihood of success in order to protect primitive recreation opportunities. Alternatives should be examined fully to assess the tradeoffs between all economic values (both market and non-market) for all alternatives. The economic analysis should consider the net (rather than gross) benefits of a full range of management alternatives. BLM needs to refer to available literature on these economic impacts.

B. Special Recreation Management Areas (SRMAs)

Citing increasing recreation trends over the past two decades, BLM has designated a number of SRMAs within the Kanab Field Office planning area. However, the agency's designation process fails to adequately analyze the environmental, social, and economic consequences of these designations.

1. BLM has failed to conduct a thorough analysis of impacts from its designation of SRMAs

BLM is violating NEPA by not evaluating all reasonable direct, indirect, and cumulative environmental impacts from its designation of SRMAs. The agency underestimates the impacts of ORV use and does not conduct a sufficient analysis of the specific lands included within the designated SRMAs, even though this information is readily available.

First, BLM does not take the "hard look" at the environmental implications of their SRMA designations as required by NEPA. Some basic consequences were acknowledged; the

likelihood of soil compaction leading to surface runoff and cite-specific reduction of forage material for livestock were among the most highlighted. However, even these impacts were evaluated only superficially. There is no site-specific analysis of these impacts and the extent to which they would occur and adversely affect other recreational users, wildlife, or the quality of the habitat itself.

Second, due to the disproportionate levels of ORV use allowed within the management planning area, BLM is not maximizing the benefits that will be received by recreational users of all types. Studies have shown that the economic value of a day of non-motorized recreation is, on average, higher than the value for the same day of motorized recreation. *See* Kaval and Loomis (2003). In addition, BLM's own data, *see* PRMP, Table 3-26, shows that non-motorized users constitute the majority of user days within the Kanab Field Office. Although 38,800 acres of SRMAs are designated specifically for non-motorized use versus the 19,500 for motorized recreation, this does not tell the entire story. Non-motorized users are affected significantly by the presence of ORVs. The trails needed for motorized recreation are more established and motorized users create considerable noise and effluence. All of this detracts from the natural experience. On the other hand, non-motorized recreation has very little adverse effect on ORV use, if any. As a result, non-motorized users will actively seek out areas where ORVs are known not to go. Therefore, the additional 36,800 acres or SRMAs designated for 'shared' use (both motorized and non-motorized recreation) would primarily be used by ORVs. This actual area for ORV recreation up to 56,300 acres. Based upon the recreation trends and data collected by BLM,and BLM's own projection that both types of recreation will increase in coming years, the current management plan does not appropriately designate SRMAs for recreation purposes.

As mentioned above, a majority of the land area designated as SRMAs is sanctioned for ORV use of some kind. Once again, BLM seems to have ignored the ORV regulations as well as its own concept of multiple-use. From the statistics provided by the agency in Table 3-26, and accounting for their lack of accuracy cited in several public comments, there are at least as many non-motorized users as ORV users on land administered by the Kanab Field Office. This plan places a disproportionately high level of importance on motorized use, despite it being established that motorized recreation has lower economic value and far-greater environmental impacts in general.

2. The Proposed RMP does not present a reasonable range of alternatives

The range of alternatives promoted by the earlier Draft RMP and EIS was poorly developed and the PRMP does not fix this fatal flaw. A true range needs to represent the interests of all stakeholders for the specified lands, not just a limited demographic. Most areas for specialized recreation are targeted towards OHV use and only area designated for non-motorized use varies at all considerably. Furthermore, the removal of the Parunuweap SRMA from consideration only furthers to reduce the balance of this management plan. This SRMA would have provided significant opportunities for primitive non-motorized recreation on almost 31,000 acres of land. The only addition to any SRMA was 100 acres to the Moquith Mountain SRMA, which has been designated primarily for intensive OHV use. Even before the removal of the Parunuweap SRMA, this PRMP has lacked sufficient opportunities for non-motorized recreation; now it has become even more inequitable.

3. Requested Remedy

BLM should develop a reasonable range of alternatives. These alternatives should be examined fully to assess the tradeoffs between all economic values (both market and non-market) for all alternatives. The alternatives should consider in greater depth the impacts of different recreation types on one another, and especially to the land itself. Also, the statistics collected by the agency itself should be considered within the development and analysis of alternatives.

C. Special Recreation Permits (SRPs)

1. BLM can and should develop additional criteria for processing SRPs

In response to our comments on Special Recreation Permits (SRPs) in the Draft RMP, BLM states, "[t]he Federal regulations at 43 CFR 2930 and the BLM Handbook (H-2930-1) govern the issuance of SRPs. Permit durations are managed according to BLM Handbook H-2930-1, and are tailored to the specific proposed use." PRMP Response to Comments at 132, sorted by commentor name. While both statements are true, BLM has not responded to the issue at hand, which deals with what BLM should consider during the land use planning process per the BLM Handbook and regulations. We reiterate that BLM should provide more detailed criteria governing the issuance of SRPs for lands in the planning area due to concerns with the often intensive uses associated with these permits.

The Handbook (H-2930-1) states: "Field Offices are encouraged to develop thresholds through land use planning for when permits are required for organized groups and events for specific types of recreation activities, land areas, or resource settings." BLM Handbook (H-2930-1) at 13. The BLM Handbook provides only the maximum durations for certain types of permits and factors that should be considered in issuing an SRP, but does not provide specific directives for SRP issuance. Furthermore, the Handbook clearly states that field offices can and should develop these guidelines during the land use planning process.

On the issue of Special Area Permits, the Handbook states: "Applications for Special Area Permits issued to individuals are processed according to the area-specific land use and/or business plan, or guidelines approved by the State Director." *Id.* at 17. The Kanab Field Office therefore must provide clear guidelines for processing Special Area Permits, because in this situation the Handbook directs land managers to look for this guidance in the RMP.

The Price Field Office Draft RMP provides a good example of an approach to evaluating SRP applications and issuing such permits. It classifies SRPs into four distinct classes, ranging from least intensive to most intensive, based on specific factors such as the type of equipment, size of area used, number of participants, etc. Because the standards are very specific (for example, surface disturbance of 5-40 acres ranks as "medium intensity"), BLM can easily determine whether to issue an SRP and where, and can better estimate cumulative impacts from such permits.

a. Requested Remedy

As can be seen from the Handbook and RMPs for other field offices, BLM has the discretion to establish detailed criteria for SRPs during the land use process and, because the RMP will serve as the overriding authority on criteria, the Handbook encourages development of criteria for effective, responsible land management. Because these criteria will be used to process permits for at least two decades, this authority should translate into the most comprehensive and reasonable list of factors for SRPs in order to "consider present and potential uses of the public lands" as required under FLPMA, 43 U.S.C. § 1712, when developing land use plans.

BLM should provide clearer, more detailed guidelines for issuing SRPs in the RMP as this document will set out the criteria for issuing permits for the next two decades. BLM should use the Price RMP as a model for setting out standards for processing SRPs that can be included in the Kanab RMP.

2. BLM must seriously consider impacts from alternatives developed during the land use planning process

In response to our comments on the Draft RMP, BLM states that "[t]he effects of SRPs on various categories of land management are analyzed at the site specific level when issuing a SRP." PRMP Response to Comments at 132, sorted by commentor name. However, site-specific projects will tier to the NEPA analysis performed in the RMP and thus will never be fully analyzed. The possibility of future analysis does not justify BLM avoiding an assessment of the potential environmental consequences of the action that it is approving in the RMP. As a matter of NEPA policy, compliance with the Act must occur "before decisions are made and before actions are taken." 40 C.F.R. § 1500.1(b). For purposes of NEPA compliance, "it is not appropriate to defer consideration of cumulative impacts to a future date when meaningful consideration can be given now." *Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 1075 (9th Cir. 2002).

Because BLM will use the criteria in the RMP for processing SRPs at the site specific level, the RMP itself must provide meaningful analysis of the environmental impacts of SRPs. This should include all of the recommended criteria included in our comments on the Draft RMP.

a. Requested Remedy

BLM must fully and critically analyze impacts from SRPs at the RMP level. This means that BLM should take into consideration all comprehensive, reasonable, and specific criteria for issuing SRPs, including criteria included in our comments on the Draft RMP.

3. BLM has not taken a hard look at the impacts from the issuance of SRPs

BLM did not assess cumulative impacts stemming from the issuance of SRPs; this renders the analysis incomplete. BLM states that it intends to perform site-specific analysis for each SRP after possibly evaluating factors listed in the RMP. However, depending solely on site-specific

analysis does not allow for cumulative impact analysis as required by NEPA. As stated previously, the NEPA regulations define "cumulative impact" as:

> the impact on the environment which results from the *incremental impact of the action when added to other past, present, and reasonably foreseeable future actions* regardless of what agency (Federal or non-Federal) or person undertakes such other actions. *Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*

40 C.F.R. § 1508.7 (emphasis added). Failing to include a cumulative impact analysis of actions within a larger region will render NEPA analysis insufficient. *See, e.g., Kern v. U.S. Bureau of Land Management*, 284 F.3d 1062, 1078 (9th Cir. 2002) (analysis of root fungus on cedar timber sales was necessary for the entire area).

BLM failed to assess the impacts from reasonably foreseeable future actions, a necessary analysis because ORV use on public lands is increasing. In an opinion-editorial from the Utah BLM's website, Kanab Field Office Manager Harry Barber asserts, "[t]he combined effect of population increases in the West, explosive growth in the use of off-highway vehicles, and advances in technology have generated increased social conflicts and resource impacts on the public lands related to motorized recreation." Cumulative impact analysis must account for this trend in recreational uses and how the issuance of SRPs impacts this in order to satisfy NEPA.

a. Requested Remedy

BLM must assess cumulative impacts, including reasonably foreseeable future actions, stemming from issuance of SRPs and make adjustments in the criteria for issuance to ensure significant impacts are avoided. In this context, use of specific criteria for issuance of SRPs, as recommended in our comments on the Draft RMP, would support a more thorough analysis, as well as avoidance and/or mitigation of impacts.

References:

Kaval, P. and J.B. Loomis. 2003. *Updated Outdoor Recreation Use Values with Emphasis on National Park Recreation.* Final Report for Dr. Bruce Peacock, National Park Service, under Cooperative Agreement CA 1200-99-009, Project number IMDE-02-0070. Fort Collins, Colorado.

XI. ORV Area and Trail Designation, and Travel Plan

A. Federal law governing off-road vehicle management focuses on protection of resources

As SUWA noted in its comments on the DRMP, off-road vehicle (ORV) use on BLM lands is governed by FLPMA, its implementing regulations, and executive orders. Each of these governing authorities is based on concerns about the destructive effects of ORV routes and the use of ORVs, and the need to manage these impacts to protect the environment and other users of the public lands. *See, e.g.*, 43 C.F.R. § 8340.0-2 ("[t]he objectives of these regulations are to *protect* the resources of the public lands, to promote the safety of all users of those lands, and to minimize conflicts among the various users of those lands") (emphasis added) *Thus, the guiding principle of these authorities is built on the assumption that ORV use may only be approved under certain circumstances and based on specific analysis and findings.* Any presumption in favor of ORV use in a particular area, or the approval of ORV use without the requisite findings or analyses, violates the very foundation of these governing authorities.

Other laws and policies also come into play regarding BLM's management of off-road vehicles and the designation of ORV areas and trails, including NEPA, the National Historic Preservation Act, the Clean Air Act, the Clean Water Act, the Utah Riparian Management Policy, and the BLM's 2006 "Clarification Guidance" for the development of ORV areas and trails.

B. The Kanab PRMP fails to comply with FLPMA and its implementing regulations

FLPMA requires that "[i]n managing the public lands the [Secretary of Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 U.S.C. § 1732(b). BLM's duty to prevent unnecessary or undue degradation (UUD) under FLPMA is mandatory, and BLM must, at a minimum, demonstrate compliance with the UUD standard. *See Sierra Club v. Hodel*, 848 F.2d 1068, 1075 (10th Cir. 1988) (the UUD standards provides the "law to apply" and "imposes a definite standard on the BLM"). FLPMA also mandates that the public lands be managed "without permanent impairment of the productivity of the land or quality of the environment." 43 U.S.C. § 1702(c).

In addition, BLM's ORV regulations, which incorporate Executive Orders 11644 and 11989, state that the "objectives of these regulations are to *protect* the resources of the public lands . . . and to *minimize conflicts* among the various sues of those lands (emphasis added)." 43 C.F.R. § 8340.0-2. These regulations require BLM to ensure that areas and trails for ORV use are located "to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability." *Id.* § 8342.1(a). Areas and trails "shall be located to minimize harassment of wildlife . . . . Special attention will be given to protect endangered or threatened species and their habitats." *Id.* § 8341.2(b). Areas and trails "shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands . . . taking into account noise and other factors." *Id.* § 8342.1(c). Finally, BLM is also obligated to close routes to ORV use if ORVs are causing or will cause considerable adverse effects upon soil, vegetation, wildlife, wildlife habitat,

cultural resources, historical resources, threatened or endangered species, wilderness suitability . . . or other resources." *Id.* § 8341.2.

The Kanab PRMP travel plan and ORV area and trail designations fail FLPMA's UUD standard. The proposed travel plan and ORV designations will harm natural resources in a number of important ways, including: unnecessarily increasing fugitive dust and degrading air quality; unnecessarily fragmenting wildlife habitat; causing unnecessary damage to riparian areas, floodplains, and cultural resources; unnecessarily reducing naturalness in areas with identified wilderness characteristics; and impairing Wilderness Study Areas.

The Kanab PRMP ORV area designations, trail designations, and the travel plan fail to comply with the minimization requirements of the Executive Orders and FLPMA's implementing regulations. Specifically, the PRMP fails to minimize impacts to the following resources and values:

- *Riparian areas*. FLPMA, the ORV regulations, and the Utah Riparian Policy require BLM to protect riparian areas. Various riparian areas, including the East Fork of the Virgin River and Upper Kanab Creek, are in ORV use areas with routes designated directly in these riparian areas. The PRMP fails to disclose how these designation decisions will minimize impacts to these and other riparian areas, and it fails to analyze the impacts of ORV area and trail designations on riparian areas. As discussed in comments submitted by ECOS Consulting on the DRMP, routes and ORV use are broadly acknowledged among scientists and riparian experts to cause significant impacts to riparian areas. These impacts can be minimized and often avoided by prohibiting routes and ORV use in and near riparian areas.

- *Cultural resources*. The PRMP states that "[a]s access to an area increases, incidental damage of cultural resources adjacent to the access routes would increase. Impacts from incidental damage would be reduced as distance from the access route increases." PRMP at 4-53. The PRMP further states that "information on locations of all cultural sites in the decision area is incomplete." *Id.* The PRMP states that "impacts on cultural resources from OHV use on designated routes would be limited to 1,403 miles of designated routes" and concedes that "sites adjacent to routes could be damaged." *Id.* at 4-55, 4-62. Although these impacts might be less than the impacts to cultural resources under the current management strategy of generally unmitigated cross-country travel, merely decreasing these potential impacts is not synonymous with Executive Order 11644 and the FLPMA's ORV regulations' mandate to "minimize" impacts. Without first completing cultural resource surveys for each ORV area and trail that is designated in the PRMP, BLM cannot comply with the Executive Order and federal regulations' mandate to minimize impacts to these irreplaceable resources. In addition, BLM must complete its National Historic Preservation Act (NHPA) Section 106 consultations with the State Historic Preservation Officer (SHPO) and tribes before finalizing the ORV area and trail designations and

issuing the travel plan decision. The PRMP states that such consultation is "in progress." PRMP at 4-53.

- *Sensitive soils*. The PRMP states that precluding cross-country ORV use in fragile soil areas "would help minimize the risk of soil erosion." PRMP at 4-14. However, the PRMP also states that "there is insufficient soils data to Map (sic) these areas accurately . . ." *Id.* at 3-19. Thus, the PRMP does not assess the impacts of area and trail designations in the sensitive and fragile soil areas. And, although limiting cross-country use in fragile soil areas might be an improvement over the current management, the regulations require that area and trail designations "minimize" impacts to soils. *See* 43 C.F.R. § 8342.1. Since BLM lacks the data to map the sensitive and fragile soils accurately, it is impossible to know if the ORV area and trail designations and travel plan actually minimize impacts to this resource.

- *Air quality*. The PRMP states that the "major recreational impact on air quality would be from use of OHVs, including all-terrain vehicles (ATV) and off-highway motorcycles." PRMP at 4-9. Use of these vehicles "would cause fugitive PM dust emissions from traffic on unpaved trails and vehicular exhaust of PM, CO, NOx, and hydrocarbons." *Id.* Although decreasing the number of acres open to cross-country travel might produce less fugitive dust and reduce impacts to air quality, the PRMP does not explain or incorporate the agency's analysis of how designating a 1,000-acre open play area, and over 1,400 miles of dirt route on public lands (some of which are currently rarely used) minimizes the impacts to air quality, or minimizes fugitive dust.

- *Water quality*. The PRMP notes that impacts to water resources from cross-country ORV use would be "nearly eliminated" because cross-country travel will be limited to 1,000 acres, and that ORV use on designated routes "would maintain existing vegetation and soil resources by focusing impacts on existing linear disturbances that have already been affected." PRMP at 4-19. However, the PRMP fails to reference or incorporate BLM's analysis that supports this assertion. Given that BLM monitoring reports in the Kanab decision area, and other BLM offices across southern Utah, indicate that ORV users do not stay on marked and designated trails, and taking into account the results of a 2002 Utah State University ORV survey that found that the majority of ORV users prefer to ride "off trail" it is doubtful that existing vegetation and soil resources will be "maintained." *See* SUWA's DRMP Comments, Attachment M. The PRMP's discussion of water resources fails to include a determination or supporting analysis which shows that impacts (including increased sedimentation and other pollutants) from ORV area and trail designations will be minimized, as required by the ORV regulations.

- *Wildlife and wildlife habitat.* The PRMP admits "travel management activities that result in increased human presence would have localized impact on fish and wildlife species." PRMP at 4-43. The PRMP further notes that ORV use can

alter seasonal use patterns, increase displacement and increase stress during critical times, and degrade habitats; raptor sites, big game parturition areas, and winter habitats are of special concern. *See id.* Allowing ORV use in the proposed open area and on 1,400 miles of route "would result in displacement of wildlife through human presence and disruptive activities." *See id.* at 4-44. Although prescribing designated trail use rather than cross-country use for most of the decision area might be expected to decrease the impacts to wildlife and wildlife habitat, as noted at PRMP 4-44, there is no information or analysis in the PRMP that suggests that the designated ORV use areas and trails "minimize" the impacts to wildlife and wildlife habitat.

- *Other users*. The PRMP fails to minimize conflicts with other users of the public lands, specifically non-motorized recreationists. BLM admits that surveying ORV users is difficult, *see* PRMP at 3-92, and that its user survey data is incomplete and "based on estimates and do not reflect actual visitation occurring in any given year for specific activities in specific areas." *Id.* at 3-86. Thus, before issuing the PRMP, BLM should conduct a visitor survey, similar to the Moab National Visitor Use Monitoring survey and pay particular attention to the relative use of non-motorized versus motorized recreation. *See* SUWA's DRMP comments, Attachment GG, and http://www.suwa.org./site/DocServer/BLMNVUMsurveyMoab.pdf?docID+2821. This study shows that non-motorized recreation is utilized by vastly more visitors to the Moab BLM-managed lands than motorized (ORV-based) recreation. In fact, the Moab survey found that motorized use accounted for less than 7% of visitors' main activity. Having actual visitor information is essential to guide BLM's long-term recreation management decisions and ORV area and route designation decisions. The PRMP states "conflicts between recreationists involved in motorized and non-motorized activities will increase with increasing use of public lands." PRMP at 4-97. However, the PRMP does not include BLM's analysis for determining that its ORV area (such as the Moquith Mountain open area) and trail designations and travel plan minimize conflicts among users, as required by the ORV regulations.

- *Inventory of existing ways and routes*. PRMP Appendix 7 states that BLM conducted "a complete route inventory in 2005 and 2006 to develop a route baseline to use in the planning process." PRMP at A7-1. BLM concluded that there were 1,478 miles of route. *Id.* The PRMP notes that BLM considered several resource factors in conjunction with the inventory to arrive at route designations, including environmental sensitivity of the areas surrounding the route, including soil type/condition; riparian areas and their condition; wilderness study areas; weeds; wildlife habitat sensitivity of the areas surrounding the route; sensitive status species habitat; current and anticipated visitor use levels and travel and transportation needs and desires, management objectives for the area and the potential for user and resource conflicts; cultural resources and specific sites that require protection; how route designation could be used to reduce existing or anticipated conflict between user. *See id.* The decision factors and considerations listed in Appendix 7 "Travel Management/Route Designation

> Process" do not include BLM's ORV regulations mandate to "minimize" impacts to natural and cultural resources. BLM must not only "consider" riparian areas, soil, wildlife habitat, and the other factors listed above, BLM's area and route designations must minimize the impacts to these resources from its ORV area and route designations.

The PRMP's Goals and Objectives stated in the "Transportation" section misstate BLM's responsibilities regarding ORV management, and area and trail designations. The PRMP states that BLM's goals include "[m]aintain access" and "[p]rovide opportunities for OHV use on public lands," and "establishing a route system that contributes to protection of sensitive resources, accommodates a variety of uses, and minimizes user conflicts." PRMP at 2-42. The PRMP must be corrected to reflect the requirements of the federal ORV regulations that direct BLM "to *protect* the resources of the public lands . . . and to minimize conflicts among the various uses of those lands." 43 C.F.R. § 8340.0-2 (emphasis added). Specifically, BLM is required to locate ORV areas and trails "to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability . . . [and] to *minimize* conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands . . . taking into account noise and other factors." 43 C.F.R. § 8342.1(a), (c) (emphasis added). BLM's own 8340 manual explains that "minimizing" means that the agency should reduce impacts to the maximum extent feasible. *See* BLM Manual 8340 – Off-Road Vehicles (General) (1982).

In addition, the PRMP fails to include a provision in the Transportation sections for a "closed unless posted open" policy, to minimize adverse effects to resources in areas that are not open for ORV use. *See* PRMP at 1-10, 2-42. Although BLM might issue maps, the agency must ensure that its ORV management decisions are being observed on the ground. Implementing a "closed unless posted open" policy will assist BLM in enforcing its area and route designations, and contribute to BLM's mandate of minimizing impacts from ORV designations to natural and cultural resources.

For the reasons discussed above, the PRMP does not comply with the minimization requirements of Executive Order 11644, FLMPA, and BLM's ORV regulations. The PRMP, including Appendix 7 and the Response to Comments, fails to discuss and disclose BLM's analysis supporting a determination that each designated ORV area and trail and the travel plan minimizes impacts to natural and cultural resources, and minimizes conflicts among users. BLM must undertake this analysis and share it with the public before routes are designated and determined available for use.

C. The Kanab PRMP fails to comply with NEPA

1. Alternatives

"An agency must look at every reasonable alternative, with the range dictated by the nature and scope of the proposed action." *Northwest Envtl Defense Center v. Bonneville Power Admin.*, 117 F.3d 1520, 1538 (9th Cir. 1997). An agency violates NEPA by failing to "rigorously explore and objectively evaluate all reasonable alternatives" to the proposed action. *City of Tenakee Springs*

v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990) (quoting 40 C.F.R. § 1502.14). This evaluation extends to considering more environmentally protective alternatives and mitigation measures. *See, e.g., Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1122–23 (9th Cir. 2002) (and cases cited therein).

BLM should have fully considered and analyzed more environmentally protective alternatives consistent with FLPMA's requirement that BLM "minimize adverse impacts on the natural, environmental, scientific, cultural, and other resources and values (including fish and wildlife habitat) of the public lands involved." 43 U.S.C. §1732(d)(2)(A). Specifically, BLM should have fully analyzed the following three alternatives: the Vermilion Cliffs Heritage Proposal (VCHP) alternative to protect wilderness character areas and WSAs, submitted by SUWA during the public participation process; an alternative that would have minimized impacts to riparian areas by not designating routes or ORV use areas in or near riparian areas as requested by ECOS Consulting's DMRP comments; and an alternative that would have minimized impacts to cultural resources by not designating ORV use areas and trails before completing comprehensive surveys for cultural resources for the proposed ORV use areas and routes as requested by CPAA's DRMP comments.

NEPA requires that an actual "range" of alternatives is considered, such that the Act will "preclude agencies from defining the objectives of their actions in terms so unreasonably narrow that they can be accomplished by only one alternative (i.e. the applicant's proposed project)." *Colorado Envtl. Coal. v. Dombeck*, 185 F.3d 1162, 1174 (10th Cir. 1999) (citing *Simmons v. U.S. Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997)). This requirement prevents the EIS from becoming "a foreordained formality." *City of New York v. Dept. of Transp.*, 715 F.2d 732, 743 (2d Cir. 1983). *See also Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002). The ORV use area designations and the travel plan included in this EIS is a key example of the aforementioned citations, with each alternative posing significant resource harms and no alternative that effectively mitigated those harms (i.e. all alternatives designated ORV areas and routes in riparian areas, culturally significant areas, wilderness character areas, and WSAs).

BLM refused to assess the VCHP route designations, because the VCHP did "not meet the purpose and need for the PRMP revision because it does not address all resource values and uses that the BLM is required to manage on public lands." DRMP 2-32. *See also* BLM's Response to Comments at 116–17. Thus, rather than assess the full and complete route designation proposal that is the *core of the VCHP* as an alternative to the ORV area and trail designations and travel plan, BLM refused to do so based on the excuse that the VCHP was not a complete RMP proposal. Rather than searching for reasons to avoid assessing the VCHP, a reasonable alternative, BLM should have complied with NEPA's mandate to consider a true range of alternatives, by including the VCHP's route designations and travel plan in its alternative analysis.

2. Hard Look

NEPA requires that BLM take a "hard look" at the environmental consequences of a proposed action and the requisite environmental analysis "must be appropriate to the action in question." *Metcalf v. Daley*, 214 F.3d 1135, 1151 (9th Cir. 2000); *Robertson v. Methow Valley Citizens*

Council, 490 U.S. 332, 348 (1989). In order to take the required "hard look, BLM must assess impacts and effects that include: "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." 40 C.F.R. § 1508.8. (emphasis added). The NEPA regulations define "cumulative impact" as

> the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7.

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7. A failure to include a cumulative impact analysis of actions within a larger region will render NEPA analysis insufficient. *See, e.g., Kern v. BLM*, 284 F.3d 1062, 1078 (9th Cir. 2002). Indirect effects are those that are "caused by the action later in time or farther removed in the distance, but are still reasonably foreseeable," including related effects on air and water and other natural systems, and growth inducing effects (i.e. publishing and distributing route maps will encourage increased ORV use on these designated routes, designating routes and ORV use areas in remote areas that have not been inventoried for cultural resources could be expected to increase damage and vandalism of cultural resources). 40 C.F.R. § 1508.8.

In the context of the Kanab PRMP, the decisions made with regard to transportation and designation of ORV areas and trails fail to fully analyze all effects of those decisions and other planning decisions. Thus, the indirect, cumulative, and site specific environmental and social impacts of these decision are not adequately analyzed.

Specifically, the PRMP fails to take a hard look at the effects of the travel plan and ORV area and trail designations on the following resources:

- *Air quality*. The PRMP states that "[t]he major recreational impact on air quality would be from use of OHVs, including all-terrain vehicles (ATV) and off-highway motorcycles. Use of his popular recreational equipment would cause fugitive PM, dust emissions from traffic on unpaved trails and vehicular exhausts of PM, CO, NOx, and hydrocarbons." PRMP at 4-9. Although the PRMP acknowledges these impacts, it fails to include quantitative modeling to predict the impacts on air quality from fugitive dust and other air pollutants due to ORV use and the ORV area and trails designations. BLM must model the fugitive dust emissions from the designated routes, in order to assess the impacts of the ORV area and trail designations. Variables in such modeling would include wind movement data from the local region, and dust production data (gathered at incremental distances from the routes). Similar studies have been conducted on

public lands in the Mojave Desert. Thus, BLM does not have to invent the model, but merely gather the data to apply the model.

- Riparian areas. The PRMP fails to include a list of the decision area's riparian areas and fails to disclose the proper functioning condition assessments and trends for the riparian areas that will be impacted by the ORV area designations, trail designations, and the travel plan. In addition, the PRMP fails to disclose the number of miles of route designated in riparian areas. As discussed in comments submitted by ECOS Consulting on the DRMP, routes have significant impacts to riparian areas. Various riparian areas, including the E. Fork of the Virgin River and Upper Kanab Creek are in ORV use areas with designated routes in the riparian areas, yet the PRMP fails to disclose the potential direct, indirect and cumulative effects such decisions will have on the riparian areas. The PRMP merely notes that "additional efforts would be conducted to reclaim areas subject to surface disturbances and temporary roads. This would further reduce soil erosion and maintain or improve upland and riparian communities." PRMP at 4-25. This statement in not the equivalent of taking a hard look at the impacts to riparian areas from ORV area designations, trail designations, and the travel plan.

- *Cultural resources*. The PRMP states: "As access to an area increases, incidental damage of cultural resources adjacent to the access routes would increase. Impacts from incidental damage would be reduced as distance from the access route increases." PRMP at 4-53. The PRMP contends that "impacts on cultural resources from OHV use on designated routes would be limited to 1,403 miles of designated routes," but concedes "sites adjacent to routes could be damaged." *Id.* at 4-55, 4-62. These statement and observations do not meet NEPA's hard look requirement. The PRMP further states that "information on locations of all cultural sites in the decision area is incomplete . . ." *Id* at 4-53. Without first completing cultural resource surveys for each ORV area and trail that is designated in the PRMP, BLM cannot have adequate information on which to base ORV area and trail designation decision. In addition, BLM must complete its NHPA Section 106 consultations with the SHPO and tribes before finalizing the ORV area and trail designations and issuing the travel plan decision. The PRMP states that Section 106 consultations are "in progress." *Id.* at 4-53.

- *Water quality*. The PRMP notes that impacts to water resources from cross-country ORV use would be "nearly eliminated" because cross-country travel will be limited to 1,000 acres, and that ORV use on designated routes "would maintain existing vegetation and soil resources by focusing impacts on existing linear disturbances that have already been affected." PRMP at 4-19. However, the PRMP fails to reference or incorporate BLM's analysis that supports this assertion, and the PRMP fails to provide the public and decision-maker with any monitoring reports that discloses the effects on water quality due to ORV use in and near streams and creeks (including increased sedimentation and other pollutants). As BLM's area and route designations allow for ORV use in and near

water bodies, BLM must assess the impacts on water quality and provide this information in the PRMP.

- *Wilderness character*. The PRMP notes that several of the "non-WSA lands managed for wilderness characteristics" will have ORV routes designated inside their boundaries (Parunuweap Canyon, Upper Kanab Creek, Moquith Mountain, and Orderville Canyon); a total of 26.6 miles of designated ORV route in these wilderness character lands "purportedly" being managed to protect their wilderness character. PRMP 4-77 to 4-78. The PRMP notes that visitors would be impacted by the "occasional sound and presence of OHV users," however, the PRMP contains no data that indicates that disturbance from OHV users would be "occasional." Indeed, the PRMP notes that ORV use in increasing and is expected to continue to increase over the life of the plan. *Id.* at 4-97. The PRMP notes that designated routes within the WC areas would "minimize disturbance of adjacent lands" yet the PRMP fails to discuss enforcement strategy to keep ORV users on the "designated" routes, and also fails to analyze the impacts of designating routes within WC lands and managing the WC lands for motorized use. Arguably, the impacts to the WC lands would be minimized if managed for non-motorized use, rather than managed for motorized use on designated routes. The PRMP must analyze the impacts of ORV use within the WC areas and disclose this information to the public.

- *Other users*. As discussed above, BLM's user survey data is incomplete and "based on estimates and do not reflect actual visitation occurring in any given year for specific activities in specific areas." PRMP at 3-86. In addition, the PRMP states that "conflicts between recreationists involved in motorized and non-motorized activities will increase with increasing use of public lands." PRMP at 4-97. To comply with NEPA's hard look requirement, BLM should conduct a visitor survey to determine actual use by motorized and non-motorized visitors. This data collected can be used to analyze the impacts to non-motorized users of ORV area and route designations and travel plan decisions.

- *Wildlife and wildlife habitat*. As noted above, the PRMP suggests that wildlife and wildlife habitat will likely incur fewer impacts under the ORV use area and trail designations, than under the current management strategy of nearly unlimited cross-country travel. PRMP at 4-44. However, the PRMP fails to adequately analyze the potential impacts to wildlife and wildlife habitat from the ORV area designations, trail designations, and the travel plan. Stating that the ORV use area and trail designations "would reduce the overall effect of wildlife from OHV use," is not sufficient analysis under NEPA's hard look mandate.

- *Soils*. The PRMP states that "there is insufficient soils data to Map (sic) these areas [sensitive and fragile soils] accurately . . ." and that detailed soils surveys for the Kanab Field Office area are not available. PRMP at 3-19, 4-5. As this information is critical to assessing the impacts of designated open areas and ORV

routes in various soil types, the PRMP fails to take a hard look at the impacts of ORV area and trail designations with respect to the soil resource.

- *Inventory of existing ways and routes*. Appendix 7 states that BLM conducted "a complete route inventory in 2005 and 2006 to develop a route baseline to use in the planning process." PRMP at A7-1. After digitizing this data, BLM's inventory was compared with county and state route GIS data. *See id.* BLM "ground-truthed the existing routes/ways with global positioning system (GPS), using state and country route data . . . ." PRMP at 3-91. BLM concluded that there were 1,478 miles of route. The PRMP notes that BLM applied several resource factors to the route inventory to arrive at route designations, including the following: environmental sensitivity of the areas surrounding the route, including soil type/condition; riparian areas and their condition; wilderness study areas; weeds; wildlife habitat sensitivity of the areas surrounding the route, sensitive status species habitat; current and anticipated visitor use levels and travel and transportation needs and desires, management objectives for the area and the potential for user and resource conflicts; cultural resources and specific sites that require protection; how route designation could be used to reduce existing or anticipated conflict between user. *See id.* The PRMP fails to include the agency's analysis and application of these factors to the route inventory to arrive at the proposed ORV area and trail designations.[6] To ensure that the agency has taken the required hard look, this analysis must be provided for public review in the PRMP.[7]

The federal regulations address incomplete or unavailable information at 40 C.F.R. § 1502.22. The Kanab PRMP and DRMP's lack of information on air quality, soils, riparian areas, and cultural resources, and other users, cannot be used as an excuse by BLM for not providing analysis of the potential and expected impacts from its ORV area and trail designations. BLM must do more *before* it authorizes motorized use in designated areas and on designated trails.

For the reasons discussed above, BLM has failed to take the requisite "hard look" at the impacts of its ORV area and trail designations and travel plan on the natural and cultural resources it is entrusted to protect.

[6] To the extent that BLM adopted the county road plans, including alleged R.S. 2477 routes, this would violate the BLM's own non-binding determination (NBD) process, which requires that the counties submit evidence beyond mere GIS data to support and *prove* their road claims. BLM must follow its own NBD process.

[7] The PRMP states that approximately 450 miles of new roads would be developed to support energy development, and that "[a]pproximately 100 miles of new roads developed to access producing oil and gas wells would remain open for the life of the plan, but these would be open to recreation use on a case-by-case basis." PRMP at 4-98. These routes were presumably not included on the inventory that BLM conducted, and have not been assessed under the ORV regulations' "minimization" criteria. SUWA requests that the PRMP state clearly that any additional routes added to the transportation plan would undergo NEPA review and analysis, including soliciting input from the public and providing the agency's environmental analysis to the public before any new routes are designated open for ORV use and/or are added to the transportation plan.

D. The PRMP Does Not Describe the Existing Baseline Conditions and the Impacts of ORV Use in the Kanab Field Office

In order to evaluate the broad range of impacts required by a NEPA analysis, it is critical that BLM adequately and accurately describe the environment that will be affected by the proposed action under consideration—the "affected environment." 40 C.F.R. § 1502.15. The affected environment represents the baseline conditions against which impacts are assessed.

As SUWA noted in its comments on the DRMP, an accurate description of the baseline conditions of the Kanab Field Office is crucial to BLM's analysis and description of the environmental impacts from the proposed action and various alternatives. *See* SUWA DRMP Comments at 15. All management decisions and strategies flow from the description of the current conditions. And unless BLM has an accurate, well-informed understanding of the current conditions, it cannot possibly begin to plan for future resource demands and needs. BLM cannot objectively decide how much ORV use to allow in the future, and which areas and routes to designate, as BLM does not know how much and what kind of damage such use has caused in the past, and is causing right now.

One of the most obvious and consequential flaws in the PRMP is its failure to assess the ongoing impact of existing ORV use in the Kanab Field Office. Instead of analyzing the current impacts of ORV use, BLM simply presumes that existing ORV use will continue, and contends that such use will cause no damage over and above that which occurs now, the existing damage does not need to be studied. *In other words, BLM has concluded that current levels of ORV use and the existing trails are consistent with FLPMA, including the UUD and non-impairment standards, even though it does not know what the impacts are. See also* PRMP at 3-90. BLM'S response to SUWA's comment merely restates the number of miles of route to be designated, and notes that this is a change from the current management strategy. *See* PRMP Response to Comments at 117. In addition, BLM states that since the routes are "already in use . . . it is not reasonable to consider the impacts to vegetation [and soils] from these already disturbed linear surfaces." *Id.* at 118. BLM's response is non-responsive and a non-starter, as it does not address SUWA's concern regarding the lack of analysis of ORV impacts in the baseline, affected environment discussion.

E. Scientific Integrity and Public Scrutiny

The agency must "insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." 40 C.F.R. § 1502.24. Information regarding reasonably foreseeable significant adverse impacts that is essential to a reasoned choice among alternatives shall be included in an EIS if the costs of obtaining it are not exorbitant. *Id.* § 1502.22(a). In addition, NEPA requires that environmental information be made available to the public. "The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." *Id.* § 1500.1(b). This type of information and analysis is wholly lacking with regard to transportation and off-road vehicle use area designations in the PRMP.

BLM must include site-specific documentation of the agency's own analysis of the potential impacts associated with the *designation* and *use* of proposed ORV areas and trails, so the public can discern if BLM's decisions comply with the mandates of FLPMA, the ORV regulations, and Executive Orders which all require that BLM locate ORV areas and trails to *minimize* damage to riparian areas and floodplains, wildlife and wildlife habitat, cultural resources, air quality, and to *minimize* conflicts with other recreationists, as well as compliance with obligations under the Endangered Species Act and National Historic Preservation Act.

The DRMP did not present this information with respect to the various ORV use area designations, trail designations, and the travel plans under consideration and the PRMP did not correct these gross omissions. Without this information and data, the public has no way of discerning the basis for BLM's decisions regarding the specific area and trail designations, and cannot confirm that BLM has, in fact, ensured that these designations comply with the minimization requirements and other legal and policy obligations set out above. BLM's general response to SUWA's concern about how ORV areas and trails were designated, if and how the minimization criteria were applied, details about the resources analysis of each area and trail, assessment of the impacts from the ORV area and trail designations, is that the impacts are discussed in Chapter 4 of the DRMP, *see, e.g.*, PRMP Comments at 117, and/or that "the process used to designate routes is explained in Appendix K [sic]." *See, e.g.*, PRMP Comments at 117–30, sorted by commentor. Neither Chapter 4 nor Appendix 7 (referred to as Appendix K by BLM) provides responses to SUWA's questions and concerns.

To address these deficiencies, BLM must provide specific information on the purpose and need for the routes incorporated in each alternative, the justification for designating the area and route, the potential impacts on natural and cultural resources, the potential conflicts with other users, how those impacts can be mitigated or avoided, enforcement and monitoring requirements and schedules, and the manner in which designation of the areas and routes for the proposed use is consistent with the agency's obligations under FLPMA and BLM's ORV regulations and policy.

In order to provide "high quality" information for the pubic to review and asses, the PRMP's ORV area and route designation maps (PRMP Maps # 9 and #10) must be modified to display BLM's proposed areas and route designations with other resource inventories and/or management decisions, such as riparian areas, potential ACECs, wildlife habitat, wilderness character areas (*see* Kanab BLM Off-Road Vehicle Plan Map, attached as Exhibit F), wilderness character areas proposed to be managed to protect wilderness character attributes, and WSAs (*see* Kanab RMP Routes – Final vs. Draft Map, attached as Exhibit G). Otherwise, the public and decision-maker do not have adequate information on which to assess BLM's proposed ORV area and trail designations. BLM has this information at its disposal, it merely needs to combine various resource map layers with its proposed area and trail designation maps.

These maps must be modified and re-issued so that the public and decision-maker will have an opportunity to review this useful information and comment so that this input can be taken into account *before* issuance of a record of decision.

The PRMP lacks sufficient information for the public to determine if BLM has, in fact, minimized the impacts to the natural and cultural resources, and minimized user conflict with its

ORV use area and trail designations. The PRMP fails to adequately analyze and inform the public and the decision-maker as to the potential direct, indirect and cumulative impacts to the natural and cultural resources from the ORV use area and trail designations. BLM must supplement these sections of the PRMP and provide the public a chance to review and comment on the supplementary information before a decision is issued that could significantly affect the very resources BLM is entrusted to protect.

XII. Oil and Gas Development

A. BLM must analyze a "no leasing" alternative

BLM has failed to consider a no leasing alternative in the Kanab PRMP. As part of its analysis BLM must consider a no leasing alternative—in addition to a no action alternative. Federal courts have made clear that a no leasing alternative should be a vital component in ensuring that agencies have all reasonable approaches before them. *See, e.g.*, *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223, 1228 (9th Cir. 1988). The Kanab PRMP does not analyze the possibility of a no leasing alternative. The existing management plans, three different management framework plans, are not NEPA documents and thus do not constitute adequate pre-leasing analyses that considered a no leasing alternative. *Southern Utah Wilderness Alliance et al.*, 164 IBLA 118 (2004). Finally, the brief mention and rejection in the 1976 Oil and Gas Leasing Program, Kanab District, Environmental Analysis Report (EAR) of the no leasing alternative was facially insufficient and cannot be relied upon now for that necessary analysis. *See Southern Utah Wilderness Alliance v. Norton*, 457 F. Supp. 2d 1253, 1262–64 (D. Utah 2006) (concluding that Price and Richfield EARs failed to adequately analyze the no leasing alternative). Hence, the BLM has *never* had before it the possibility of totally abandoning oil and gas leasing in the Kanab planning area, something it is required to consider. *See Bob Marshall Alliance*, 852 F.2d at 1228.

The Kanab PRMP appears to ignore the difference between a no action alternative and a no leasing alternative. The no action alternative evaluated in the Kanab Draft RMP, Alternative A, would simply be a continuation of the existing management plans. Kanab Draft RMP at 2-2. The PRMP dismisses the no leasing alternative by mischaracterizing its implications and conflating it with the no action alternative. *See* Kanab PRMP at 2-62 to -63. The no-leasing alternative does not require BLM to buy back all existing leases. *See* Kanab PRMP at 2-62. It simply requires that BLM analyze a program in which no future leases are offered. This is not a useless exercise; it allows BLM to compare the difference in impacts between the no leasing alternative and the development alternatives. BLM must fully analyze the no leasing alternative. The present analysis is insufficient.

B. The RFD is inaccurate

BLM must also modify its reasonably foreseeable development (RFD) scenario figures in the Kanab PRMP to better reflect historical rates of development. As SUWA demonstrated in its comments on the Kanab Draft RMP, the RFD rate is improperly high. As discussed above, the agency is required to use high quality data and methods for analyses; the inaccurate RFD must be corrected. The PRMP now contends that this high rate is proper and that SUWA did not suggest an alternative method for analyzing development alternatives. *See, e.g.*, Kanab PRMP, Public Comments and Responses at 33, sorted by category name. However, this is incorrect. SUWA pointed out that BLM's RFD scenario was too high and then asked that BLM lower the RFD scenario to be in line with historic development rates. Part of the reason that this figure was too high resulted from BLM's total rejection of drilling activity in the planning area from the last twenty years. BLM must change the RFD scenario to better reflect historic rates of development.

C. BLM must thoroughly consider SUWA's proposed alternative to protect sensitive and important areas in light of the revised RFD

Changing the RFD scenario to a more historically accurate level would highlight the fact that BLM could easily close more areas to oil and gas leasing or impose non-waivable no surface occupancy (NSO) stipulations without limiting likely and realistic development. To this end, SUWA proposed a reasonable, feasible alternative that would have closed numerous sensitive areas or imposed non-waivable NSO stipulations on oil and gas leasing in the planning area. Analysis of this alternative is consistent with BLM's obligation to consider a reasonable range of alternatives and to thoroughly assess more environmentally protective alternatives. BLM did not fully analyze SUWA's proposed alternative. BLM must rectify this failure.

XIII. Areas of Critical Environmental Concern

FLPMA mandates that BLM "*give priority* to the designation and protection of areas of critical environmental concern." 43 U.S.C. § 1712(c)(3). Such areas, or ACECs, are areas "where special management is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes." 43 U.S.C. § 1702(a).

BLM's ACEC Manual (1613) provides additional detail on the criteria to be considered in ACEC designation, as discussed in the applicable regulations, as well. *See* Manual 1613, Section .1 (Characteristics of ACECs); 43 C.F.R. § 8200. An area must possess *relevance* (such that it has significant value(s) in historic, cultural or scenic values, fish and wildlife resources, other natural systems/processes, or natural hazards) and *importance* (such that it has special significance and distinctiveness by being more than locally significant or especially rare, fragile, or vulnerable). In addition, the area must require *special management attention* to protect the relevant and important values (where current management is not sufficient to protect these values or where the needed management action is considered unusual or unique), which is addressed in special protective management prescriptions.

A. BLM has failed to give priority to designation of ACECs

A critical aspect of the statutory language cited above is FLPMA's requirement that BLM "give priority" to ACEC designation. In essence, FLPMA directs BLM to prioritize protection and designation of ACECs across all alternatives under consideration, not simply the "conservation" alternative. In the Kanab PRMP, BLM has neither recognized nor carried out this statutory mandate. To resolve this, once BLM has determined that certain areas in the Kanab Field Office contain the requisite relevant and importance values and that the PRMP does not protect all of the relevant and important values (R&I values)—which the Kanab Field Office has already done—the agency must give priority to the designation of those areas as ACECs over other competing resource uses. *See, e.g.*, PRMP 4-114 to -115 (acknowledging that proposed management will protect "much"—but not all—of the proposed Vermillion Cliffs and White Cliffs ACECs Class A scenery).

The PRMP proposes to designate a single ACEC of 3,800 acres, which is actually an expansion of the existing ACEC (Water Canyon/South Fork Indian Canyon) of 220 acres. *See* PRMP at 2-2, 4-113 (discussing Cottonwood Canyon ACEC). BLM has determined that 60,600 acres comprising five ACECs meet the relevance and importance criteria for ACEC designation. PRMP, Appendix 14 at 14-3. BLM must give priority to the designation of these ACECs in *all* alternatives, not merely Alternative C. However, the PRMP preferred alternative designates only a small fraction of acreage (6%) evaluated by BLM to meet the relevance and importance criteria. This is a violation of FLPMA's mandate that "priority" be given to designation of ACECs.

B. Wilderness Study Area Status and Managing for Wilderness Character Status Are Not a Substitute for ACEC Designation

The PRMP points to the existing Moquith Mountain and Parunuweap Wilderness Study Areas (WSAs) and their management prescriptions as a justification for not designating the Welsh's Milkweed and Parunuweap proposed ACECs. PRMP at 4-113 to -115. The PRMP also cites to BLM's decision to manage the Upper Kanab Creek proposed wilderness unit to preserve wilderness character as a reason for not designating the proposed White Cliffs ACEC. *Id.* at 4-115. However, ACECs may be designated for a range of other values, as listed in FLPMA, which may not be protected by focusing on protecting wilderness character. Consequently, BLM cannot dismiss its obligations under FLPMA with regard to ACECs based on the existence of a WSA.

ACEC designation is also important in the event that WSAs are released by Congress. The PRMP's brief discussion of how BLM would manage public lands released from WSA status does not provide sufficient assurance that BLM would prevent all activities that could potentially impair identified R&I values. *Id.* at 2-57 to -58. Rather, the PRMP vaguely states that lands released from WSA status "will be managed in accordance with the goals, objectives, and management prescriptions in th[e] RMP, unless otherwise specified by Congress in its releasing language." *Id.* The PRMP must be explicit that BLM will manage released lands to protect their important values, including wilderness characteristics and the other relevant and important values that the PRMP acknowledges, according to the same standards (IMP) as analyzed and contemplated in the plan. Without this change, BLM's failure to designate the Welsh's Milkweed, Parunuweap, and White Cliffs ACECs runs afoul of its own ACEC Guidance—cited in Response to Comments at 107—which requires that the agency must specifically detail the "other form of special management" relied upon as support for not designating a potential ACEC.

In addition, there is no *per se* bar to managing and protecting R&I values through overlapping designations such as WSAs and ACECs. For example, BLM's Jarbidge resource management plan (and subsequent amendments) in southern Idaho designated the Bruneau/Jarbidge River ACEC and the Salmon Falls Creek ACEC, which overlap the Bruneau River-Sheep Creek WSA, Jarbidge River WSA, and Lower Salmon Falls Creek WSA. *See* BLM, Jarbridge Field Office, Idaho, Analysis of the Management Situation for the Jarbridge Resource Management Plan: Resource Management Plan/Environmental Impacts Statement at 206, (July 2007), *available at* http://www.blm.gov/pgdata/etc/medialib/blm/id/plans/jarbidge_rmp/documents/analysis_of_the_management.Par.59385.File.dat/part13.pdf (attached as Exhibit H); *see also id.* at Figure 39: Locations of Current ACECs, *available at* http://www.blm.gov/pgdata/etc/medialib/blm/id/jarbidge/rmp/maps.Par.16971.File.dat/Locations%20of%20Current%20ACECs.pdf (attached as Exhibit I); Figure 40: Wilderness Study Areas, *available at* http://www.blm.gov/pgdata/etc/medialib/blm/id/jarbidge/rmp/maps.Par.75489.File.dat/Locations%20of%20Current%20Wilderness%20Study%20Areas.pdf (attached as Exhibit J). These overlapping designations ensure that BLM protects R&I values both through current management and if WSAs are released during the life of the plan.

C. Wilderness Character Can Be Protected Through ACEC Designation

While managing to protect wilderness character will not protect all types of relevant and important values that may justify designation of ACECs, ACEC designation is a significant option. BLM acknowledges that it has the ability to value wilderness character and protect it, including through ACEC designations. Instruction Memoranda (IMs) Nos. 2003-274 and 2003-275, which formalize BLM's policies concerning wilderness study and consideration of wilderness characteristics, contemplate that BLM can continue to inventory for and protect land "with wilderness characteristics," which are identified as natural or providing opportunities for solitude or primitive recreation, and specifically references ACEC designation. Indeed, the BLM's guidance in IM-2003-275 states that "where ACEC values and wilderness characteristics coincide, the special management associated with an ACEC, if designated, may also protect wilderness characteristics." This point is reinforced in the ACEC appendix of the Kanab PRMP (AH-3); clearly making the case that while ACECs are not a substitute for the designation of wilderness, they can certainly be an important tool used to preserve wilderness characteristics—an outstanding feature in its own right. Similarly, in a February 12, 2004 letter to William Meadows, President of The Wilderness Society, Assistant Secretaries of the Interior Rebecca Watson and Lynn Scarlett stated that "through the land use planning process, *BLM uses the ACEC designation or other management prescriptions to protect wilderness characteristics* or important natural or cultural resources." (emphasis added) (attached as Exhibit K).

As discussed above, BLM has acknowledged the threats to lands with wilderness characteristics. However, the Kanab PRMP fails to support designation of ACECs to protect these values. BLM has identified approximately 89,780 acres of lands with wilderness characteristics. In addition, there are an additional 32,000 acres of lands with wilderness characteristics that are included in America's Redrock Wilderness Act, that have been submitted to BLM with new information to inform BLM as to the wilderness character of these lands.

Proposed eligible ACECs with wilderness characteristics that BLM failed to protect in its preferred alternative include: Welch's Milkweed ACEC, Vermilion Cliffs ACEC, Parunuweap Canyon ACEC, and the White Cliffs ACEC. BLM should designate these ACECs and consider designating others to protect lands with wilderness characteristics; these ACECs should include protective management prescriptions, such as closure to oil and gas leasing and ORV use, in order to protect wilderness characteristics.

D. BLM's Proposed Management Will Not Protect R&I Values for Proposed ACECs

1. Welsh's Milkweed Potential ACEC

The PRMP acknowledges that "[i]mpacts on the potential Welsh's Milkweed ACEC could occur if there were a threat of irreparable damage to scenic [and] special status species (Coral Pink Sand Dunes tiger beetle and Welsh's milkweed) values. Potential threats to these values include visual intrusions, surface disturbance, removal of vegetation and *OHV use*." PRMP at 4-113 (emphasis added). Though the PRMP emphasizes that 96% (1,250 acres) of the proposed ACEC is within the Moquith Mountain WSA, it fails to admit that much of this area is open to cross-

country ORV use (approximately 1,000 acres). *See id.* at 4-127. The PRMP likewise fails to explain how ACEC values such as scenic and special status species values will be protected from ORV damage. *See id.* at 4-113 to -114. SUWA raised these concerns in its comments on the DRMP but BLM did not address them in its response to comments. *See* SUWA DRMP Comments at 52; Response to Comments at 106–08. BLM Manual 1613 specifically requires that each area recommended for consideration as an ACEC, including from external nominations, be considered by BLM, through collection of data on relevance and importance, evaluation by an interdisciplinary team and then, if they are not to be designated, the analysis supporting the conclusion "must be incorporated into the plan and associated environmental document." Manual 1613, Section .21 (Identifying Potential ACECs). NEPA also requires consideration and response to comments. BLM has not provided a sufficient explanation and cannot justify its decision not to designate the Welsh's Milkweed ACEC; this decision must be reversed.

2. Vermillion Cliffs Potential ACEC

The PRMP acknowledges that "[i]mpacts on the potential Vermillion Cliffs ACEC could occur if there were a threat of irreparable damage to scenic and cultural values," among others. PRMP at 4-114. "Potential threats include visual intrusions, mineral development, and OHV use." *Id.* The PRMP further concedes that although 70% of the Vermillion Cliffs Potential ACEC contains "Class A scenery," PRMP at A14-12, only 56% of this value will be protected. *Id.* at 4-114. The PRMP claims that the PRMP will protect "*much* of the R&I scenic and cultural values," but then elaborates that 39% of the area will be managed for VRM III, "allowing for the introduction of visual intrusions into the area." *Id.* This damning admission confirms that not only do relevant and important values exist, but also that current management will not protect them.

In addition, the PRMP admits that 20% of the potential ACEC will be open to oil and gas leasing and development without major constraints. *Id.* The PRMP does not explain how this designation protects "scenic and cultural values, wildlife resources, and botanical and geologic systems or processes;" quite simply it will not. *Id.* Finally, the PRMP states that "OHV use throughout the potential ACEC would be limited to 63 miles of designated routes that already exist." *Id.* The PRMP then jumps to the unsupported conclusion that limiting ORVs to these 63 miles will protect R&I cultural values because the routes already exist. *Id.* BLM is gravely mistaken.

As SUWA explained in its comments, some of these routes cross areas with known high potential of cultural resources and should be closed. SUWA DRMP Comments at 53. BLM did not heed these concerns or address them in its response to comments. In the comments submitted by the Colorado Plateau Archaeological Alliance (CPAA), Mr. Jerry Spangler explained that ORVs cause direct and indirect adverse effects to cultural resources even when traveling on existing routes. *See* CPAA's comments to the Draft RMP. And it is entirely unclear whether BLM ever inventoried these routes for cultural resources before proposing to make them available for ORV use. BLM's decision to permit significant ORV use to continue unabated by failing to designate the proposed Vermillion Cliffs ACEC, with appropriate management language, violates FLPMA's mandate that the agency give priority to ACEC designation and must be corrected.

3. White Cliffs Potential ACEC

The PMRP acknowledges that "[i]mpacts on the potential White Cliffs ACEC could occur if there were a threat of irreparable damage to scenic and cultural values," among others. PRMP at 4-114. "Potential threats include visual intrusions, mineral development, and OHV use." *Id.* The PRMP admits that 44% of the potential ACEC (11,470 acres) will be open to oil and gas leasing and development without major constraints. *Id.* at 4-115. The PRMP does not explain how this designation protects "scenic and cultural values, wildlife resources, and botanical and geologic systems or processes." *Id.* Indeed, the PRMP concedes that impacts will be "*reduced*," but not eliminated through the use of standard stipulations or those with minor restraints. *Id.* The PRMP also states that "OHV use throughout the potential ACEC would be limited to 35 miles of designated routes that already exist." *Id.* The PRMP then asserts—without support—that limiting ORVs to these 35 miles will protect R&I cultural value because the routes already exist. *Id.*

As noted above, this is a false and misleading claim. As SUWA explained in its comments, some of these routes cross areas with known high potential of cultural resources and should be closed. SUWA DRMP Comments at 54. BLM did not heed these concerns nor address them in its response to comments. In the comments submitted by the Colorado Plateau Archaeological Alliance (CPAA), Mr. Jerry Spangler explained that ORVs cause direct and indirect adverse effects to cultural resources even when traveling on existing routes. *See* CPAA's comments to the Draft RMP. And it is entirely unclear whether BLM ever inventoried these routes for cultural resources before making them available for ORV use. BLM's decision to permit unabated significant ORV use in the potential White Cliffs ACEC violates FLPMA's mandate that the agency give priority to ACEC designation and must be corrected.

XIV. Wild and Scenic Rivers

The Wild and Scenic Rivers Act (WSRA) requires federal agencies, including BLM, to consider the potential for national wild, scenic, and recreational river areas in all planning efforts, including in the Kanab RMP process. 16 U.S.C. § 1276(d)(1). During the first WSRA review phase, BLM must determine which river segments are "eligible" to be considered part of the National Wild and Scenic Rivers System (NWSRS). 16 U.S.C. § 1273(b). Eligible river segments are those that are free-flowing and have at least one Outstandingly Remarkable Value, including but not limited to "scenic, recreational, geologic, fish and wildlife, historic, and cultural" values. 16 U.S.C. § 1271; 16 U.S.C. § 1273(b). Eligible segments are then given a tentative classification of "wild," "scenic," or "recreational," based on the level of human development associated with that segment. 16 U.S.C. § 1273(b)(1)–(3); BLM Manual § 8351.32.

A. Downgrading the Classification of Segment 37-40a of the East Fork Virgin River from "Wild" to "Scenic" Violates the WSRA, the IMP, and BLM's Manual

The Kanab PRMP determined that fifteen river segments, totaling nearly forty-six miles, are eligible for inclusion in the NWSRS. Once BLM determines that a river segment is eligible, "its outstandingly remarkable values shall be afforded adequate protection, subject to valid existing rights, and until the eligibility determination is superseded, management activities and authorized uses shall not be allowed to adversely affect either eligibility or the tentative classification." BLM Manual § 8351.32(C).

In violation of its own manual, and in disregard of SUWA's comments on the draft RMP, BLM chose to downgrade the classification of segment 37-40a of the East Fork of the Virgin River, through Parunuweap WSA, from "wild" to "scenic." PRMP at 2-52; *see* BLM Manual § 8351.32(C); 16 U.S.C. § 1273(b). This change in management changes the emphasis: "The basic distinctions between a 'wild' and a 'scenic' area are the degree of development, types of land use, and road accessibility." BLM Manual § 8351.5(B). By initially classifying this segment as "wild," BLM acknowledged that it is "free of impoundments and generally inaccessible except by trail," as defined by the WSRA. 16 U.S.C. § 1273(b)(1). BLM's decision to downgrade protection of these segment appears to rest on the potential for "conflict with use along the RS-2477 claimed routes". PRMP at Appendix 13-18. However, BLM's initial classification has already confirmed that the area is generally inaccessible except by trail. In addition, the agency has also acknowledged that "all of the public lands within this segment of the East Fork Virgin River are within the Parunuweap Canyon WSA" which "has been recommended by BLM to Congress for wilderness designation." *Id.* at Appendix 13-18. Accordingly, the area is in a predominantly natural state and supports a "wild" classification. Changing the management of this segment could impair the Outstandingly Remarkable Values previously identified by BLM and affect the river's eligibility and tentative classification, thereby violating BLM's Manual. *See* BLM Manual § 8351.32(C).

Furthermore, the WSRA requires that, once classified as "wild," a river segment must be administered to preserve its existing Outstandingly Remarkable Values, including that it remain "generally inaccessible except by trail." 16 U.S.C. § 1273(b)(1). By opening segments 37-40a

of the East Fork of the Virgin River to RS-2477 rights-of-way, BLM would make the river accessible by routes and impair the river's Outstandingly Remarkable Values, in direct violation of the WSRA. 16 U.S.C. § 1273(b).

In addition, segment 37-40a of the East Fork of the Virgin River are within the Parunuweap Canyon WSA and thus should be managed to the Interim Management Policy (IMP) standard for non-impairment. *See* Interim Management Policy for Lands Under Wilderness Review (IMP), at 2. Development of this area would violate the IMP and impair the "wild" classification of this segment of the river.

Also, as discussed in detail in our comments on the draft RMP, claimed RS 2477 rights-of-way are not legitimate bases for designation of motorized routes. Designations must be made based on the BLM's regulations (43 C.F.R. § 8342.1) and, in this context, the IMP and the WSRA. The agency must adhere to applicable laws and policies in designating routes and must forego any approach that could lead to a legally-questionable validation of R.S. 2477 rights-of-way claims. Designation of routes should be consistent with the management objectives set out in the RMP to prioritize certain uses and protect specific values, such as the Outstandingly Remarkable Values of this river segment. To the extent that BLM is basing its classification of this river segment and the resulting management on the existence of R.S. 2477 assertions and not on the priorities established in the applicable laws, policies, and regulations, BLM is violating governing law and policy.

BLM has never made an administrative determination that a valid R.S. 2477 right-of-way exists here, nor has the County apparently requested (or BLM granted) a Title V right-of-way for the area. Therefore, BLM has no basis for managing this river corridor as if a right-of-way may exist. Further, if Kane County wishes to establish that it has a R.S. 2477 valid right-of-way against BLM, the County bears the burden of proof in federal court under the Quiet Title Act. *See SUWA v. BLM*, 425 F.3d 735 (10th Cir. 2005) (placing the burden of proof squarely on those claiming to hold R.S. 2477 rights-of-way). The County has never filed such a suit.

Therefore, BLM's decision to downgrade the classification of the East Fork of the Virgin River from "wild" to "scenic" violates the BLM Manual, the WSRA, and the IMP.

B. BLM's Failure to Designate the Cottonwood Complex as "Suitable" Violates the WSRA, the IMP, and the Goals of the ACEC

After determining which river segments are eligible, BLM then determines which eligible segments are "suitable" for inclusion in the NWSRS. The "suitability" determination considers tradeoffs between river protection and corridor development, including the environmental and economic results of designation. 16 U.S.C. § 1275(a); PRMP at Appendix 13-13, 13-14. Once BLM determines a segment is suitable, it must manage it so as to preserve the Outstandingly Remarkable Values and not impair any future suitability decision. BLM Manual § 8351.32(C).

After BLM makes its suitability determinations, the agency must coordinate with the State of Utah, local and tribal governments, and other federal agencies to recommend segments to

Congress for inclusion in the NWSRS. Only Congress can designate rivers as part of the NWSRS. 16 U.S.C. § 1273(a), 1275(a). To date, not a single river segment in Utah has been included in the NWSRS. Despite Utah's critical riparian habitats and stunning river corridors, Utah is one of only ten states without a single river in the NWSRS. In order to adequately protect Utah's valuable and spectacular rivers, BLM should emphasize the suitability of rivers for designation.

Under the PRMP, only six river segments, totaling just thirty miles, were determined "suitable" for inclusion in the NWSRS. However, BLM's suitability analysis overlooked important values inherent in the Cottonwood Complex that should have rendered it "suitable" for inclusion in the NWSRS.

BLM ignored SUWA's comments on the draft RMP and failed to designate the Cottonwood Complex, which includes Cottonwood Creek, Indian Canyon, the South Fork of Indian Canyon, the North Branch of the South Fork of Indian Canyon, Water Canyon, and Hell Dive Canyon, as suitable. *See* 16 U.S.C. § 1273; BLM Manual § 8351.32(C).

The Cottonwood Complex segments total 8.6 miles and are located within and adjacent to the Moquith Mountain WSA. BLM admits that a suitability designation for the Cottonwood Complex would be "compatible with and would enhance wilderness use and management of the Moquith Mountain WSA." PRMP at Appendix 13-27, 13-28, 13-30 to -34. BLM similarly recognized that suitability designation would be compatible with the Water Canyon/South Fork Indian Canyon ACEC and Special Resource Management Area (SRMA) designations proposed and existing in this area. PRMP at Appendix 13-28, 13-31 to -33. Nonetheless, BLM failed to recommend the Complex for suitability designation.

Because BLM must coordinate with tribal governments before recommending suitability decisions to Congress, BLM should give additional weight to the position of the Kaibab band of the Southern Paiute Tribe and designate the Cottonwood Complex as suitable for inclusion in the NWSRS. *See* PRMP at Appendix 13-28, 13-30 to -35. In addition, not protecting the segment and permitting development in the Cottonwood Complex would impair the eligible status of the river in violation of the WSRA and BLM's own manual. 16 U.S.C. § 1273; BLM Manual § 8351.32(C). In terms of manageability, BLM recognizes that it would be capable of managing the Cottonwood Complex if it were designated in the NWSRS. PRMP at Appendix 13-28, 13-30 to -33, 13-35.

For the above-listed reasons, BLM's failure to designate the Cottonwood Complex was arbitrary and capricious.

C. Downgrading Segment 36-37 of the East Fork Virgin River to Not Suitable for Designation was Arbitrary and Capricious

In the PRMP, BLM changed its suitability determination, without explanation, for segment 36-37 of the East Fork Virgin River, totaling three miles, which had been proposed as suitable in BLM's Preferred Alternative in the draft RMP. *See* PRMP at 2-53; Draft RMP at 2-103, 2-104, Map 2-41.

BLM admits that the segment 36-37 possesses "outstandingly remarkable scenic, recreational, cultural, historic, fish, wildlife, and ecologic values," but nevertheless fails to recommend these segments for suitability. PRMP at Appendix 13-20. BLM also states that designation of segment 36-37 of the East Fork of the Virgin River into the NWSRS would be "compatible with and enhance wilderness use and management of the area," but BLM nevertheless fails to find this eligible river segment suitable. PRMP at Appendix 13-21.

BLM's unsupported change of the suitability determination for this river segment is arbitrary and capricious. BLM's Manual requires records and documents to "carefully describe all analyses and determinations" regarding eligibility and suitability. Manual § 8351.34. BLM must provide an explanation for its decision finding this segment not suitable. Further, since segment 36-37 of the East Fork of the Virgin River possesses many Outstandingly Remarkable Values and other factors that indicate suitability, as already acknowledged by the agency, to the extent that this change cannot be supported, the decision should be corrected to find this section suitable.

XV. Socioeconomic Analyses

Several deficiencies in the socioeconomic analyses in the Draft RMP and EIS were noted in comments submitted by SUWA and others. None of these deficiencies have been addressed, nor do the responses by BLM sufficiently justify this lack of action on the part of the agency. As discussed above, these deficiencies violate numerous provisions of NEPA and its implementing regulations.

Specific areas of concern are listed below and discussed in detail in the following sections:

A. The lack of variability in the range of alternatives considered by BLM does not reflect the full spectrum of tradeoffs among balanced multiple use management options.
B. BLM must assess the impacts on non-market values of the management actions in the PRMP.
C. The PRMP does not address the potential benefits to the local area economies from management to protect the natural amenities of the Kanab Field Office.
D. The PRMP overlooks the fact that participation in off-road motorized recreation participation is smaller than for non-motorized recreation. The PRMP does not present any assessment of the costs (economic, social, and environmental) associated with off-road motorized recreation. This deficiency is especially critical for a plan which places such a heavy emphasis on off-road motorized recreation. The PRMP fails to analyze the potential impacts that the management of the lands in the Kanab Field Office may have on the surrounding National Parks, and vice versa.
E. The PRMP does not address the potential socioeconomic costs associated with coal mining and oil and gas drilling.
F. The use of IMPLAN is insufficient to predict future economic impacts from the management of the Kanab Field Office lands.
G. The PRMP does not account for the errors and inadequacies of the Draft RMP/EIS that were identified in comments addressed to BLM for the land management plan.

A. The lack of variability in the range of alternatives considered by BLM does not reflect the full spectrum of tradeoffs among balanced multiple use management options

Because all three alternatives and the PRMP would open the majority of the planning area to oil and gas drilling and use, there is little variability in the economic impacts of each alternative. The four alternatives open between 69% and 86% of the planning area to oil and gas development, and in fact three of the four alternatives open 86% of the planning area to these activities. Similarly, between 70% and 96% of the planning area is open to off-road motorized recreation, with three of the four alternatives opening 95% or 96% to off-road motorized recreation. For both of these intensive uses (both of which are often mutually exclusive with other uses) the only alternative which offers a significantly different level of land available is the so-called protective alternative and even this alternative opens over two thirds of the planning

area for these uses. This is not an adequate range, but rather reflects the agency's pre-determined outcome and a "token" conservation alternative which was never seriously considered.

Public lands provide numerous values, some of which are realized when natural resources are extracted, and others which require that natural ecosystems remain intact. The benefits of these various values often flow to different groups or individuals. Given that some of the benefits from public lands are more likely to flow to individuals or companies (market benefits), and others are available for the entire population (non-market benefits) it is important that BLM examine a range of alternatives with varying levels of both market and non-market benefits. This means that some alternatives must produce larger levels of non-market benefits, such as those that accrue when wild lands are protected from development and off-road motorized recreation. These benefits must be measured and compared with the market benefits that accrue to companies and individuals when natural resources are extracted and sold. Only when a true range of alternatives are thoroughly examined and compared can an informed decision about public land management be made.

The current alternatives do not provide such a range. Under the PRMP, essentially all of the lands in the Kanab Field Office are open to oil and gas drilling (market values) and off-road motorized recreation (which provides both market and non-market values, but which is also largely mutually exclusive with other non-market values). As BLM notes, oil and gas leasing is discretionary. The agency must recognize that this single use may not be the highest and best use of such a large proportion of the planning area. And in any case there is no way to know what is the highest and best use since alternatives which provide more wilderness and less oil and gas were never even considered.

As the world's population approaches seven billion, places where one can almost forget this number are becoming increasingly rare and valuable. The PRMP would make almost the entire Kanab Field Office available for industrial development and off-road motorized recreation—permanently impairing the wilderness qualities of many of the areas in the planning area. This is not multiple use, nor is it balanced.

BLM has described multiple use as "the management of public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." PRMP/FEIS for the BLM Rawlins, Wyoming Field Office in at 1–6. The PRMP is not likely to meet the present and future needs of the American people. The Kanab FEIS states, "[m]ultiple use management includes the management of resource uses as well as resource values." PMRP at 3-1. These resource values must include non-market values or true multiple use will not be achieved.

BLM must recognize that some uses of the public lands entrusted to the agency are mutually exclusive. Oil and gas development and off-road motorized recreation are two uses which are not compatible with many other multiple uses, such as non-motorized recreation, wilderness recreation, protection of watersheds, wildlife habitat, and endangered species conservation. A plan which proposes to open the majority of the planning area to these sorts of industrial and/or excluding uses does not fulfill the multiple use mandate in FLPMA.

1. Requested Remedy

BLM should develop and analyze a broader range of alternatives which includes a full spectrum of possible management for both market and non-market benefits. These alternatives should be examined fully to assess the tradeoffs between all economic values (both market and non-market) for all alternatives. The economic analysis should consider the net (rather than gross) benefits of a full range of management alternatives.

B. BLM must assess the impacts on non-market values of the management actions in the PRMP

Any time that unique or irreplaceable resources or values are at risk there will be a strong component of non-market value which must be assessed. One of the primary purposes of the public lands system is the provision of public goods such as the protection of unique landscapes, ecological diversity, wildlife habitat, wilderness, cultural, and archeological resources. A proposed management plan which opens 86% of the resource management area to oil and gas development and 95% to off-road motorized recreation most certainly puts these resources at risk.

BLM dismisses requests to examine non-market values by stating that studies of designated wilderness values cannot be generalized to non-wilderness lands with wilderness characteristics. PRMP Response to Comments at 134. First, this is not necessarily true. Many early studies were conducted based on the limited number of designated wilderness acres and then generalized to assess the values associated with protecting other undeveloped lands, such as roadless areas. *See* Walsh et al. (1984). These techniques can and should be used to estimate the intrinsic value to all Americans of the similarly undeveloped lands in the Kanab Field Office. The Price Field Office has included estimates of the non-market values associated with full field natural gas development for the West Tavaputs Plateau.

Second, if BLM concludes that existing research cannot be used, then the agency should conduct appropriate primary research on the non-market values associated with the lands in the Kanab Field Office. Unlike the brief qualitative assessments performed, this would provide clear information on the values derived by all stakeholders.

C. The PRMP does not address the potential benefits to the local area economies from management that protects the natural amenities of the Kanab Field Office

BLM dismisses SUWA's request to examine the impacts to other sectors of the economy by stating that "[t]he Wilderness Society is an advocacy group, and their recommendations are understandably focused towards their specific objectives. BLM on the other hand, must take a broader view under its multiple-use, sustained yield mandate." PRMP Response to Comments at 134–35. This is absurd. The management plan proposed by the agency takes a rather narrow view, focusing only on the market values of the commodities that may be extracted from these publicly owned lands by private companies for private profit. An examination of the indirect impact that the presence of protected public lands has on the local economy is, in fact, a much broader view.

BLM dismisses the assertion that the proposed plan "will produce degradation to public lands to such an extent as to dissuade individuals (especially retirees) from relocating to, or staying in, the Kanab planning area" as "unsupported by any specific information." *Id.* at 135. First, the comments submitted by SUWA request that BLM examine the impacts that the actions will have on sectors of the economy which do not extract resources from BLM lands, but rather rely on the presence of these lands. SUWA DRMP Comments at 77–78. This request is entirely reasonable given that the economy of the area does not rely on the extractive industries for anything close to a majority of its jobs or income. The "assertion that retirees are likely to relocate from the Kanab planning area" does not appear in SUWAs comments. Rather, the request was made of the BLM to *examine* the impacts that may occur. In fact, BLM's response implies an unfounded assumption that retires will *not* relocate from the area if the amenities and environmental quality of surrounding BLM lands deteriorates. Furthermore, a recent study of the impacts of oil and gas development in northwest Colorado (BBC Research and Consulting 2008) does find that many of the potential impacts described in the comments on the Draft EIS have been occurring, including a repellant effect on retirees and tourism.

We are simply asking that BLM estimate these potential impacts with at least the same thoroughness and rigor with which they estimate the equally speculative benefits of coal mining, oil and gas development, livestock grazing, and off-road motorized recreation. We redirect the agency's attention to the comments submitted on the Kanab Draft RMP. SUWA DRMP Comments at 74–91. These comments provide a detailed summary of the extensive literature on the role of public lands in local economies throughout the region which we feel is ample support for our request that the analysis be expanded.

1. Requested Remedy

BLM must make a thorough examination of the full socioeconomic impacts likely to occur if the management alternatives are implemented. These analyses must take into account the impacts that BLM land management actions will have on the surrounding communities, including the added cost of providing services and infrastructure, the long-term costs of the likely environmental damage, and the impacts on other sectors of the economy. *BLM must examine the role that protected public lands (including lands with wilderness characteristics) play in the local economy.*

D. The PRMP places a heavy emphasis on off-road motorized recreation without a realistic assessment of current recreation impacts and trends or an adequate assessment of the potentially significant impact that such an emphasis is likely to have

BLM's response to the request to collect actual visitation data reiterates the agency's own admission that the data used are estimates. PRMP Response to Comments at 135. It also restates the assertion that the data are incomplete. Simply acknowledging that these data are incomplete does not address the issue. The comments submitted by SUWA include an extensive review of the literature on the costs associated with off-road motorized recreation. SUWA DRMP Comments at 78–86. These comments also direct the agency to several national studies

which indicate that *non*-motorized recreation accounts for the majority of participation in outdoor recreation. These studies provide ample documentation to support a request for the collection of additional data specific to the Kanab Field Office. There is no justification for the decision to open the majority of the planning area to an activity that, by all the evidence (including the incomplete data presented in the Draft RMP), is not the largest segment of use.

The PRMP fails to address the potentially significant costs associated with off-road motorized recreation. Comments on the Draft RMP included citations of a considerable number of studies on the costs (economic, social, and environmental) associated with off-road motorized recreation on public lands. *See id.*

The PRMP also fails to analyze the relationship between the management of the Kanab Field Office lands and the surrounding National Parks. This relationship includes both the potential impacts that off-road motorized recreation, coal mining, and oil and gas development will have on the Parks as well as the potential beneficial spillover tourism that may occur in the planning area as a result of Park visitors extending their exploration of the area.

E. The PRMP does not address the potential socioeconomic costs associated with coal mining and oil and gas drilling

Requests were made to BLM during the scoping phase of the Kanab RMP revision process to assess the hidden costs associated with oil and gas development. This request was ignored and repeated in comments on the Draft RMP EIS. *See* SUWA DRMP Comments at 87–89. Again, the request has gone unanswered. There is a well-documented predisposition of extractive industries such as coal mining and oil and gas development to cycles of boom and bust. These cycles will have impacts on the communities within the Kanab Field Office, including the negative impact from the decrease in economic diversity that is likely to result from an increase in extractive development, the potential impacts that increased coal mining and oil and gas drilling will have on the quality of life for local residents, the increased cost that oil and gas drilling will impose on local governments, and the non-market costs of the degradation of the environment.

1. Requested Remedy

BLM should conduct a more complete evaluation of the impacts that the PRMP will have on local communities by including an assessment of the role that natural amenities has played in attracting entrepreneurs, retirees, an educated workforce, and in diversifying the local economies. The agency should asses the impact that coal mining and oil and gas drilling will have on the attractiveness of the local communities for these other industries and include that in a net analysis of the Proposed Plan.

F. The use of IMPLAN is insufficient to predict future economic impacts from the management of the Kanab Field Office lands

The IMPLAN model is used to estimate economic impacts from only three industries (coal mining, oil and gas development, and livestock) from the PRMP. The Final EIS notes that due to

a lack of comparable data on other industries, similar analysis is not possible for all the industries impacted by the PRMP. PRMP at 4-131 to -132. This narrow analysis is insufficient as it implies that the positive impacts associated with these three industries are wholly beneficial to the economy overall.

There are industries which may depend upon the public lands administered by the Kanab Field Office in indirect ways. The role that public lands play in the overall economy has been discussed above and in detail in SUWA's and others' comments on the Draft RMP. Industrial development and extensive access for off-road motorized recreation is likely to reduce the benefit of these indirect impacts and this potential negative consequence of the PRMP is not captured in any way by the IMPLAN model.

1. Requested Remedy

BLM must include an analysis of sectors of the economy not readily analyzed in the IMPLAN model. This analysis must be done with the same detail and rigor as the analysis done for the coal mining, oil and gas development, and livestock sectors.

G. The PRMP does not account for errors and inadequacies of the Draft RMP/EIS that were identified in comments submitted to BLM

NEPA requires that BLM discuss "any responsible opposing view which was not adequately discussed in the draft statement and indicate the agency's response to the issue raised" in preparing a final EIS. 40 C.F.R. § 1502.9. The Council on Environmental Quality interprets this requirement as mandating that an agency respond in a "substantive and meaningful way" to a comment that addresses the adequacy of analysis performed by the agency.[8]

Many of the responses to comments on the Kanab Draft RMP failed to address the issues cited in a substantive, meaningful manner. If presented with a comment referring to an inadequacy of a particular aspect of the plan, BLM's response often simply refers back to the section in which the methodologies were described. For example:

SUWA Comment:

> Recommendations: BLM must develop recreation management directives which reflect the proportional use of the area by non-motorized and/or non-OHV users. BLM must collect and analyze more thorough and accurate data on the costs of off-road motorized recreation in order to make an accurate assessment of the impacts of the alternatives. BLM must recognize that increasing off-road motorized recreation implies the need for increased restrictions, and increased law enforcement, not opening more land for open cross-country travel.

[8] The U.S. Court of Appeals for the Tenth Circuit has held that the "Forty Questions" are "persuasive authority offering interpretive guidance" on NEPA from CEQ. *Davis v. Mineta*, 302 F.3d 1104, 1125 (10th Cir. 2002).

BLM's Comment Summary Response:

> The comment does not provide references to documentation or other evidence to support this assertion. The Draft RMP/EIS does evaluate the socioeconomic impacts of recreational use for various activities, including off-road motorized vehicles. A discussion of this analysis is provided in section 4.5, Impacts To The Social and Economic Environment.

PRMP Response to Comments at 135. Where the public comment discusses problems with a specific section, BLM's response simply does not address the underlying issue in any kind of a substantive or meaningful way.

There are a number of cases where in response to a comment criticizing an aspect of the research or methods behind a management decision, BLM has responded by stating "[t]he commentor does not provide an alternative source or method to refine the reasonable foreseeable development scenario (RFD)" or "[t]he commentor does not provide examples or alternative methods to revise the cumulative impact analysis" or "[t]he comment is general and lacking specific examples of how the management alternatives and analysis are inadequate" and the like. *See* PRMP Response to Comments at 110, 116. However, concerning the comments submitted by SUWA, this is often plainly untrue. Specific suggestions were made to improve particular aspects of management decisions and strategies, as well as to describe the inadequacy of BLM's analysis.

BLM's responses to comments are also inadequate because of the way that the PRMP presented those comments. In selecting individual comments from SUWA for response, BLM picked out incomplete parts from the comprehensive comment document that was submitted. This allowed the agency to respond to the comment piece by piece, disregarding a great deal of relevant information that was provided in the comment document as an entirety.

Presented below are examples of comments submitted, the revised comments posted by BLM, and the agency's response.

SUWA comment:

> The Kanab RMP Draft EIS fails to fully address the impacts that the alternatives will have on the local economy. The economic impact that wilderness and wilderness quality lands have on local economies is well documented and has grown in importance as the U.S. moves from a primary manufacturing and extractive economy to one more focused on service sector industries. This shift means that many businesses are free to locate wherever they choose. The "raw materials" upon which these businesses rely are people, and study after study has shown that natural amenities attract a high-quality, educated, talented workforce—the lifeblood of these businesses. To narrow the range of alternatives and the analysis of the potential impacts of land management on the local communities fails to address this important facet of today's economy.

More and more evidence has accrued indicating that the West is not a resource-dependent region. The public lands, including those managed by the BLM in the Kanab Planning Area are increasingly important for their non-commodity resources—scenery, wildlife habitat, wilderness, recreation opportunities, clean water and air. A vast and growing body of research indicates that the economic prosperity of rural Western communities depends more and more on these amenities and less and less on the extraction of natural resource commodities. *See* Bennett and McBeth 1998, Deller et al. 2001, Duffy-Deno 1998, Johnson and Rasker 1993 and 1995, Johnson 2001, Lorah 2000, Lorah and Southwick 2003, McGranahan 1999, Morton 2000, Nelson 1999, Power 1995 and 1996, Rasker et al. 2004, Reeder and Brown 2005, Rudzitis 1999, Rudzitis and Johansen 1989, Shumway and Otterstrom 2001, Snepenger et al 1995 and Whitelaw and Niemi 1989 for some examples.

New residents in the rural West often bring new businesses, and more and more of these are not tied to resource extraction. Some are dependent directly on the recreation opportunities on the surrounding public lands. Other entrepreneurs are attracted to the area for the same resources. The Federal Reserve Bank of Kansas City has found that the level of entrepreneurship in rural communities is correlated with overall economic growth and prosperity (Low 2004). These businesses may be harmed or deterred if the quality of the scenic and natural amenities is harmed due to the high levels of motorized off-road recreation and industrial uses allowed under the preferred alternative in the DRMP/EIS EIS.

Retirees and other who earn non-labor income are also important to rural western communities. This income is important for the counties impacted by the Kanab RMP—making up 27% of total personal income in Garfield County and 26% in Kane County, making it one of the largest sources of income in the planning area. Retirees are attracted by natural amenities that are available on undeveloped public lands. The potential impact that a management plan which is so heavily weighted toward development and motorized recreation will have on this source of income and economic activity must be accounted for.

Recommendations: The BLM must collect and analyze actual data on the economic impacts of the alternatives, including Alternative E. Some suggested analyses and sources of data can be found in "*Socio-Economic Framework for Public Land Management Planning: Indicators for the West's Economy*".[9]

BLM's revised SUWA comment:

Recommendations: The BLM must collect and analyze actual data on the economic impacts of the alternatives, including Alternative E. Some

[9] SUWA DRMP Comments at 77–78.

suggested analyses and sources of data can be found in "Socio-Economic Framework for Public Land Management Planning: Indicators for the West's Economy."[10]

BLM's Comment Summary Response:

The commentor offers no specifics as to what "actual" data BLM failed to use, nor does the commentor provide any detail as to where BLM erred in its analysis.[11]

SUWA comment:

Motorized uses can interfere and effectively cancel-out the benefits derived from non-motorized uses depending on the area. Conversely, nonmotorized use does not typically disrupt the motorized recreational experience and benefits nearly as much due to its lower impacts to soundscapes, vegetation, soils, wildlife, air quality, and natural surroundings. Thus, the Kanab Field Office has turned the benefits-based analysis on its head in the designation of SRMAs/RMZs. The current selection of alternatives is not a reasonable range for the multiple uses of the area because there is no alternative that looks at the benefits of not having the vast majority of the planning area managed to permit motorized use, whether non-motorized use is also allowed or not. BLM must develop an alternative for SRMAs that protects a significant portion of the planning area from the impacts of motorized use in order to fulfill the requirements of NEPA, the CEQ regulations, and case law . . . the BLM chose to focus on one alleged indirect benefit of decreasing erosion to areas that have yet to be harmed by motorized uses. This does not evaluate impacts to sensitive and fragile soils as well as biological soil crusts either in SRMAs or areas that should be SRMAs but not designated as such that are highly susceptible to erosion and loss of vegetative cover from recreational uses. Throughout the environmental consequences section, the BLM fails to perform an adequate analysis for recreation management pursuant to NEPA.[12]

BLM's revised SUWA comment:

Throughout the environmental consequences section, the BLM fails to perform an adequate analysis for recreation management pursuant to NEPA.[13]

BLM's Comment Summary Response:

The BLM performed an adequate analysis of recreation management. As described in Chapter 3, the best available recreation data was used in

[10] PRMP Response to Comments at 134.
[11] *Id.*
[12] SUWA DRMP Comments at 62.
[13] PMRP Response to Comments at 130.

> drafting the Kanab RMP. In addition, the commentor does not provide alternative data or information to incorporate in the analysis.[14]

There are numerous other instances in which BLM chooses to ignore the data and information presented by SUWA within its comments. It appears that they do this as an attempt only to disregard or evade available information that points out inadequacies and flaws in the management plan.

BLM has failed to comply with NEPA's mandate to disclose opposing views, make a careful review of differing professional interpretations and analysis, and then provide substantive and meaningful responses to such views. BLM was provided with detailed recommendations, based on scientific opinion that contradicts the basis for the agencies' findings and management approach in both the Draft and Proposed RMPs. The PRMP does not discuss this independent information or justify its decision not to alter its conclusions based on these scientific opinions.

1. Requested Remedy

BLM must complete a conforming NEPA analysis that fully considers the opposing scientific opinion and justifies its contradicting conclusions. BLM must take into account the full scope of the comments, and not specific points taken out of context. The agency must then revise the Proposed Plan as needed.

References:

BBC Research and Consulting. 2008. Northwest Colorado Socioeconomic Analysis and Forecasts. Final Report, Prepared for the Associated Governments of Northwest Colorado.

Bureau of Land Management. 2008. West Tavaputs Plateau Natural Gas Full Field Development Plan Draft Environmental Impact Statement UT-070-05-055. February 2008.

Walsh, R. G., J. B. Loomis, and R. A. Gillman. 1984. Valuing Option, Existence, and Bequest Demands for Wilderness. *Land Economics*, 60(1): 14-29.

[14] *Id.*