26 Dec. 2007

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Re: Comments – Kanab Field Office Draft Resource Management Plan and Draft Environmental Impact Statement

Please accept and fully consider these comments on behalf of the Colorado Plateau Archaeological Alliance (CPAA). Founded in 2005, CPAA works to protect archaeological and historical properties on public lands throughout the West through sound scientific research into the causes of adverse effects, through public outreach and education, and through collaborative projects with conservation and governmental entities. Our goal is to ensure that cultural resources are protected for future generations, for their scientific as well as aesthetic qualities. We appreciate this opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Kanab Field Office that has management responsibilities for 550,000 acres of public lands in Kane County and Garfield County.

FLPMA obligates the Bureau of Land Management (BLM) to protect cultural, geologic and paleontological resource values (43 U.S.C. §§ 1701(a)(8) 1702(c)), whereas 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 the 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 the 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 the 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).

As discussed below, many other federal laws, regulations and executive orders have articulated the BLM's responsibility to protect properties of cultural and religious significance. This responsibility was reaffirmed by President Bush's "Preserve America" initiative (See Exec. Order 13287, March 3, 2003) that requires the BLM to advance the protection, enhancement, and contemporary use of its historic properties. It states the

BLM must ensure that "the management of historic properties in its ownership is conducted in a manner that promotes the long-term preservation and use of those properties as Federal assets." It is within that context that the Kanab Field Office must carefully consider the effects of its RMP decision-making on archaeological and cultural values of significance to all Americans.

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Introduction

As stated in "Objectives" (DEIS 2-21), the BLM intends to "identify, preserve and protect significant cultural resources and ensure that they are available for appropriate uses by present and future generations," in accordance with various federal laws, and it will "seek to reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resources uses." Alternative A provides no significant strategy to identify, preserve or protect significant cultural resources, nor does it attempt to reduce threats or resolve conflicts arising over competing uses of federal lands. Given the complete failure of Alternative A to meet even minimal agency objectives, Alternative A should be rejected (it is not discussed in significant detail in this commentary).

A detailed review of the Kanab Field Office Draft EIS has identified minor and major deficiencies as they relate to cultural resources, both in terms of general theoretical assumptions applied throughout the document, as well as specific strategies identified for addressing cultural resource concerns. 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 identified in the Draft EIS are the absence of a clearly stated intent to initiate Section 106 compliance prior to the designation of OHV routes; the designation of OHV routes in areas known to have high archaeological site densities but little or no baseline inventory data; the failure of the 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.

General Concerns

The Draft EIS is fundamentally flawed on at least three important points: Previous archaeological surveys constitute an inadequate and statistically invalid sample, and hence the management alternatives are based on incomplete and inadequate data related to the nature, diversity and distribution of cultural resources; attempts to establish uniform spatial boundaries for landscapes of historic significance are fundamentally contrary to the nature of landscapes that will vary by individual circumstance; and the Draft EIS fails to adequately address indirect and cumulative impacts to cultural resources with the KFO.

Inadequate Statistical Sample. As stated in Section 3.2.9 Cultural Resources, BLM lands within the KFO have benefited greatly from previous archaeological research, in particular Section 106 compliance activities associated with natural resource extraction that resulted in a series of Class II and Class III investigations (see Geib et al. 2001; Spangler 2001). The level of research evident here is much greater than other BLM-managed areas in Utah, and in theory these data should have allowed more effective BLM management decisions as they relate to cultural resources. The Draft EIS correctly observes, however, that "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" (DEIS 3-58).

Only about 57,000 acres within the KFO have been subjected to intensive Class III inventories, or about 10 percent of lands managed by the KFO (DEIS 3-58). Although the proportion of inventoried lands here is higher than in other field offices, it must be also concluded the BLM has little or no data as to the nature, diversity or distribution of cultural resources on roughly 90 percent of the lands its manages, and that entire environmental and ecological ranges remain unexamined. CPAA recognizes that it is difficult to plan for and manage cultural resources that remain largely unknown and undocumented. However, it must also be recognized that the cultural resource data on which the three action alternatives 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.

Concerns over inadequate sampling are particularly relevant to management strategies reflected in action Alternatives B, C and D, each of which could have detrimental impacts to unknown and undocumented cultural resources. For example, each of the three action alternatives proposes the designation of 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. 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 (this specific issue is discussed in greater detail later in this review).

We emphasize that the 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 the 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. In light of these considerations, CPAA recommends the draft EIS 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.

Cultural Landscapes. An additional concern is related to Cultural Resources Management Actions (DEIS 2-55 to 2-56) regarding landscapes of cultural significance. Alternative B (preferred) 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. Alternative C precludes those activities within 0.25 miles or within the visual horizon, *whichever is greater*. Alternative D would follow Section 106 guidance as it applies to NRHP-eligible sites, but no protection of landscapes is articulated. The BLM is to be commended for recognizing in Alternative B and C the importance of landscapes to the integrity of historic properties and traditional cultural properties. Both alternatives are dramatic improvements over site-specific strategies reflected in Alternative D.

However, the theoretical premise of Alternatives B and C 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. As such, CPAA recommends that Alternatives B and C be modified 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 Alternatives B and C.

Indirect and Cumulative Impacts. Generally, the Draft EIS defers to Section 106 of the National Historic Preservation Act when discussing management alternatives related to cultural resources in the KFO. The Draft EIS seems to infer through the repeated use of the words "mitigate" and "mitigation" that mitigation of damage to cultural sites, as defined in 36 CFR 800, is a preferred strategy, with little mention of site avoidance and minimizing damage as possible or preferred strategies (see DEIS 4-97). 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. Furthermore, the statement that "Impact mitigation, such as the scientific excavation of identified sites, would minimize the potential for adverse effects to known cultural resource sites" (DEIS 4-97) fails to recognize that data recovery is itself a destructive activity that constitutes an adverse effect as defined in 36 CFR 800 (see King 2000a, 2000b).

More disconcerting is the near absence of any discussion or recognition of indirect impacts to historic properties. Particularly relevant is 36 CFR 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 …" (emphasis added; See also 65 Fed. Reg. 77698, 77720 (Dec. 12, 2000) discussing indirect effects).

This section of the Federal Code 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 CFR 800. It is therefore recommended the EIS clearly acknowledge the indirect adverse effects of undertakings on historic properties, and it should include a clear strategy with measurable benchmarks to avoid, minimize or mitigate those indirect effects through the Section 106 review process.

CPAA recognizes that 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). Consequently, the Draft EIS must adequately consider *all* impacts of undertakings on National Register-eligible properties that may be a consequence of the undertaking but not directly related to it. The document currently does not address this issue.

The Draft EIS also fails to properly consider cumulative impacts (DEIS 4-280 to 4-281). A mere acknowledgement that resource decisions resulting from the RMP "could produce cumulative impacts on cultural resources and resources of religious or traditional importance to Native American tribes" does not constitute a careful consideration of what those cumulative impacts would be under each of the alternatives. In fact, there is no acknowledgement that components of all alternatives increase the risk to cultural resources from looting, vandalism and other inadvertent impacts. Other draft 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" (see Moab DEIS 4-502). CPAA concurs with the assessment in the Moab DEIS, and recommends that the Kanab Draft EIS be modified to acknowledge and fully analyze the potential impacts of OHV 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 CFR 800.5(a)(2)(v)).

The designation of more than 1,000 miles of OHV routes within the KFO has significant potential to create cumulative adverse effects that are not anticipated or analyzed by the draft EIS. Similar concerns about cumulative impacts were raised in connection with large-scale natural gas development in Nine Mile Canyon, a National Register-eligible archaeological district in east-central Utah with world-renowned rock art. These concerns were largely dismissed by the Price Field Office. The subsequent natural gas development there has precipitated a dramatic increase in vehicle traffic that resulted in significant dust accumulation on rock art panels, traffic problems and conflicts with other user groups. The Deputy Utah SHPO now readily acknowledges that large-scale development has had cumulative adverse effects on eligible historic properties (Matt Seddon, personal communication 2006) and *post hoc* mitigation measures are now being negotiated. Given the scope of the proposed Travel Plan as articulated in the Kanab Draft EIS, and the anticipated increase in OHV use over the next decade, a more careful consideration of cumulative impacts from future OHV use should be reflected in the planning and route designation document.

Transportation/Travel Plan Concerns

The fundamental component of the Draft EIS is to address growing needs to manage off-highway vehicles and the competition between OHV use and other environmental values and uses. As stated in Section 3.3.4 (DEIS 3-84), since 1998 OHV ownership has grown by 189 percent in Garfield County, 256 percent in Kane County and 196 percent statewide. This level of OHV use was not anticipated in the current land-

use plan (Alternative A), and consequently most KFO lands are currently open to cross-country travel. It is highly probable that such use will continue to increase, and that such use has already or will in the future adversely impact cultural resources in the KFO.

The BLM's intent to establish open OHV travel areas encompassing 1,100 acres under Alternatives B and D, and more than 1,000 miles of designated trails suitable for OHV travel under all action alternatives, is a significant improvement over current management of most lands as open OHV areas. However, the mere designation of trails does not ameliorate the potential adverse effects to archaeological sites and historic properties, most of which remain undocumented. The Draft EIS 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 such, the Travel Plan is fundamentally flawed on two important points: (1) The failure of the 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 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 CFR 800.3(a), that travel route designations in such instances are not an undertaking as defined in 36 CFR 800.16(y).

CPAA strongly disagrees with any determination that designations of existing routes are not a federal undertaking. Section 36 CFR 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). CPAA contends that OHV route designation is an activity managed by the BLM, and that BLM resources are being expended to plan for OHV route designation and use areas to enforce OHV 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 CFR 800(a)) and to initiate the Section 106 process.

The Draft EIS is remarkably equivocal on exactly what Section 106 compliance would be required as part of the Travel Plan. The document does indicate the KFO would prioritize Class II or Class III inventories 30 meters on either side of centerline of designated OHV routes, but there is no explicit statement that designation of existing or future OHV routes would require Section 106 compliance *prior* to designation. Furthermore, the BLM's statement of intent is articulated under the agency's Section 110 responsibilities, not its Section 106 mandates. Consequently, it must be concluded the BLM intends to conduct such inventories after the fact and if and when funds are available for such surveys.

The Draft EIS also makes little effort to address Areas of Potential Effect outside of designated corridors, or to justify a 60-meter corridor as the APE. In fact, 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 OHVs can be both direct (driving vehicles through archaeological deposits) and indirect (using OHVs 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 OHV route (Spangler 2006).

Similar research in Range Creek in eastern Utah also demonstrated a direct relationship between vehicle access and frequency of vandalized sites. Sites within 200 meters of an existing route were more likely to have been vandalized, as were sites visible from a vehicle route regardless of distance (Spangler, Arnold and Boomgarden 2006). These findings are consistent with other vandalism studies in the Southwest. Nickens et al. (1981) found that archaeological sites within 100 meters of an existing dirt road that were more than 20 miles from a town were more likely to have been vandalized; these findings were supported by interviews with known artifact collectors. Simms (1986) also observed a correlation between vandalism and visibility from the road, distance from the road and ease of access; all alcoves and rockshelters in that sample had been vandalized. Ahlstrom et al. (1992) found site type to be a major factor in vandalism.

Improper OHV use constitutes perhaps the greatest single threat to the long-term preservation of cultural resources in the KFO and elsewhere in the West. The Draft EIS clearly recognizes that both legal and illegal OHV use are damaging resources and creating conflicts with other users, and that OHVs 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 OHVs 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. There is also little dispute that some individuals have utilized OHVs to facilitate damage to cultural resources, whether directly or indirectly.

In Tenmile Canyon near Moab, CPAA studies demonstrated a prevalence of direct and indirect impacts from both legal and illegal OHV activities. Most trail users observed during the four-day study remained on the signed trail, which directly impacts only one of 21 sites investigated. However, large numbers of individuals left the signed trail, using vehicles to gain access to bench areas above the trail where they directly impacted four sites, three of them concentrations of surface artifacts and the other cultural deposits in front of an alcove with storage cists. Indirect impacts were observed at 12 other sites where vehicle tracks were observed within 50 meters of archaeological sites with significant potential for subsurface deposits associated with the identified site. At

least 12 of 21 sites had been maliciously vandalized, presumably by individuals using motorized vehicles to gain access to the remote site locations at some point in the past (Spangler and Boomgarden 2007; see also Spangler 2006).

Given the hundreds of miles of existing OHV trails currently being utilized within the KFO, 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 OHV 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. CPAA has been unable to identify any public outreach effort by the BLM in Utah to educate OHV users as to the fragile and irreplaceable nature of cultural resources, to promulgate proper etiquette among OHV users who visit these resources or to enlist the vigilance of the OHV community in reporting vandalism and looting.

The primary consideration in this discussion is that OHVs allow greater public access to archaeological sites, and that this access facilitates adverse effects. This is casually acknowledged in the Draft EIS with the statement that "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" (DEIS 4-96). As discussed above, damage to or destruction of archaeological sites is most prevalent along existing routes, usually within 200 meters of an existing route (cf. Spangler, Arnold and Boomgarden 2006). Hence, the limitation of OHV travel to existing or designated routes may not significantly reduce impacts to cultural resources along those routes. These data stand in decided contrast to statements in the Draft EIS, Alternatives B and D, 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).

These statements are problematic on several important points. There is an inherent assumption in the statement that OHVs would cause minimal additional impacts that the damage caused to cultural resources in the past was a singular event that won't be repeated, or that that cultural resources were destroyed by past events and therefore cannot be further damaged through future use. These assumptions are inherently flawed in that (1) the BLM has little or no baseline data to know the nature of or extent of the damage to these sites; (2) although some scientific data will have been irretrievably lost, it is highly probable most sites damaged through direct or indirect OHV activities will retain some scientific value, and that continued OHV use will inevitably result in continued degradation of the remaining scientific values; and (3) there is no acknowledgement 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 statement that "because the designated routes currently exist, the damage adjacent to them would also be minimal" is erroneous, if not disingenuous. The inherent assumptions in this statement are that (1) all OHVs will remain on the designated trail, and hence there would be no vehicular damage to sites adjacent to the trail; and (2) that designated OHV trails would not facilitate pedestrian access to archaeological sites that could be subjected to illegal looting, vandalism, improper surface collection of artifacts and increased erosion and structural degradation caused by public visitation. Both assumptions are in conflict with data elsewhere that demonstrate 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.

Historically, that damage to historic properties along vehicle routes has not been well documented, and there has been little effort by the KFO to identify sites along OHV routes that have been damaged or are vulnerable to damage. In effect, there are no baseline data to evaluate the nature and extent of that damage. BLM's development of a major travel plan without basic information about the impacts of existing OHV use in these places puts the cart before the horse. It is difficult to see how the 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.

Alternative C would offer the greatest protection to cultural resources from vehicular impacts. It would eliminate open travel areas, and would limit OHV travel to designated routes accessing 388,300 acres, and would close 165,700 acres to OHV use. Alternative B (preferred) would limit OHVs to designated routes providing access to 524,000 acres and would close OHV access to 28,900 acres. Alternative D is roughly the same as Alternative B with only minor differences.

It is emphasized that all three alternatives are preferable to Alternative A that would not restrict cross-country OHV travel. It is also emphasized that restriction of OHV travel to designated routes, as articulated in all three action alternatives, is a dramatic improvement over current management approaches. However, the mere designation of official OHV routes is meaningless without a BLM commitment of necessary resources to enforce such travel restrictions. The Draft EIS acknowledges a risk that designated routes will be used to "pioneer" other routes, which will place cultural resources along the pioneered routes at significant risk. Given that caveat, it is imperative that Section 106 compliance be initiated as a component regardless of which alternative is chosen. In short, the BLM cannot manage for and properly protect resources that the agency does not know are there.

This is particularly relevant to Alternatives B and D that call for cross-country OHV travel areas encompassing 1,100 acres. Given 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 of 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 a 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. These adaptations remain largely uninvestigated and poorly understood. The Draft EIS acknowledges that "cross-country OHV use could result in inadvertent unmitigated damage of sites" (DEIS 2-118) and that such areas would be the highest priority for Section 106 compliance measures (DEIS 2-119).

Even if the management of open travel areas were structured to avoid known archaeological sites, 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. This will require a significant ongoing commitment of limited BLM resources to ensure that damage to sites exposed in the future is avoided, minimized and/or mitigated. Furthermore, data recovery is an adverse effect that must be properly considered through the Section 106 process (cf. King 2000a, 2000b).

The designation of such an OHV "open play area" is problematic and appears to extend preference to one user group over other irreplaceable values, including cultural resources, with no articulated rationale. Instead of "minimizing" impacts to cultural resources, it actually increases the likelihood that such resources will be damaged or lost. This approach also appears to be at odds with BLM management of open OHV areas elsewhere. For example, Little Sahara Recreation Area, a nationally recognized OHV play area in central Utah, allows open travel only in those areas where there are no competing values. Consequently, large areas of the recreation area have been placed off-limits to vehicle travel to protect sensitive plant species and natural values (see www.ut.blm.gov and www.utah.com/playgrounds). A similar approach to the protection of cultural resource values in open play areas would be appropriate in the KFO.

If Class III inventories of proposed open play areas demonstrates the presence of significant historical properties, closure of open play areas to protect cultural resource values is entirely consistent with Executive Orders 11644 and 11989 that mandate federal

land managers "protect the resources of (federal) lands" and that agency heads who determine that the use of off-road vehicles is causing or will cause adverse impacts to cultural or historical resources shall "immediately close such areas or trails to the type of off-road vehicle causing such effects, until such time as he determines that such adverse effects have been eliminated and that measures have been implemented to prevent future recurrence" (Executive Order 11989). Given the likelihood that hunting and gathering camps in this area are likely to yield considerable information about all periods of prehistory, the mitigation of adverse effects to known and unknown eligible properties can only be accomplished through site avoidance, in effect a closure of open play areas as is articulated in Alternative C. If the BLM proceeds with its preferred Alternative B, those dune areas demonstrated through future Class III surveys to have eligible properties should be closed to OHV travel.

We emphasize that the BLM elsewhere has developed detailed plans to accommodate OHV use in archaeologically sensitive areas that could be an appropriate model for the KFO. For example the Tangled Lakes Archaeological District (TLAD), a BLM-managed National Register district in Alaska, encompasses 185,321 acres and more than 600 archaeological sites. Since the 1980s, the Glennallen Field Office has proposed designating OHV routes with the express purpose of protecting the high density of archaeological sites. A draft travel plan calls for seasonal restrictions on designated trail use, prohibits off-trail travel for game retrieval with some exceptions, imposes weight restrictions on vehicles, expands efforts to provide educational materials to trail users about the archaeological significance of the region, provides suggestions for best trail-use practices, provides for a heightened law enforcement presence during high-use periods, and calls for expanded monitoring of trails. The plan also defined the area of impact due to motorized use to be one-half mile on either side of a designated trail (BLM 2006).

The TLAD has applied a tripartite management approach that clearly acknowledges the potential conflicts between OHV users and the protection of archaeological resources listed on the National Register. First, OHV travel was restricted to those routes where impacts to resources would be minimized and archaeological sites avoided. Second, these restrictions are being augmented with proactive efforts to educate trail users about the sensitivity and significance of archaeological resources, as well as rules, regulations and best practices intended to protect those resources. And third, the plan calls for enhanced law enforcement and monitoring of potential impacts.

As it relates to the Travel Plan, we also emphasize that any approach that limits vehicular access (e.g., management of lands for wilderness qualities, but without WSA designation) 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 discussion above related to OHVs; see also Spangler et al. 2006 and Spangler et al. 2007). As such, the management of these lands as roadless areas would greatly enhance the protection of cultural resources and minimize future impacts through prohibitions on OHV use. Alternative C is certainly preferable in that it would offer enhanced protection for cultural resources in areas where

they could become vulnerable to adverse effects resulting from enhanced OHV travel and other activities. However, even Alternative C does not offer full protection or minimization of impacts to cultural resources in roadless areas on a comprehensive basis.

In light of the concerns discussed above, we recommend that:

- All OHV travel should be restricted to designated routes and that the designation of all OHV routes must be based on full Section 106 reviews of all direct and indirect adverse effects resulting from enhanced access to backcountry areas and increased use of travel corridors resulting from formal designations.
- The Class III inventory and site evaluations along existing or 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.
- The stated management action (DEIS 2-55) that a comprehensive monitoring program is a critical component of the Draft EIS. Historically, site monitoring has consisted of on-site inspections with minimal field notes and substantial reliance on institutional memory as to what the original site condition was. It is recommended that any site monitoring program include a uniform statewide database whereby impacts to cultural resources can be accurately and consistently measured and documented, and site conditions compared and contrasted over time in a manner that will facilitate more informed management decisions.
- Any transportation plan should include public outreach efforts to educate OHV users about the fragile nature of cultural resources, the laws protecting those resources, "best practices" expected of OHV users in archaeologically sensitive areas, and proper procedures to follow when encountering cultural resources or when observing improper or illegal behavior. The BLM should also implement a mechanism whereby visitors can report OHV damage and violation of rules to BLM personnel. Various methods of reporting improper activities (e.g., phone numbers, Internet) should be widely advertised to facilitate maximum public participation.
- Route or area closures are an appropriate and proven management tool to mitigate the adverse impacts of OHVs on and around archaeological sites. As demonstrated in Range Creek in eastern Utah, these closures are most effective when accompanied by an administrative commitment to maintain a visible law enforcement presence (Spangler, Arnold and Boomgarden 2006). The plan should clearly specify such a management strategy.
- The EIS should clearly state that Class III inventories, site assessments and site mitigations will be completed prior to the designation of OHV routes, including existing routes and open OHV areas, and that cultural resource protection will be a fundamental goal of any transportation planning.

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. Although the formal listing of sites on the National Register occurs for a small portion of the total sites in any given county or state, the paucity of listed sites is actually a reflection of the failure of the federal agencies over the past 40 years to prepare and submit nominations to the Keeper of the Register. Only one BLM locality within the KFO (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.

The archaeological resources of the KFO include archaeological sites that are visually spectacular, as well as significant sites that are admittedly not as visually remarkable. It is emphasized that visual appeal is not a definitive standard whereby National Register sites or districts are deemed appropriate for listing (see *National Register Bulletin 16A*). Many known archaeological sites are clearly eligible under Criterion A in that the 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 KFO 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 KFO.

The KFO planning staff should be commended for recognizing the agency's Section 110 responsibilities to initiate a proactive cultural resources program, as articulated in the Draft EIS for all three action alternatives (DEIS 2-56). The commitment to conduct proactive Class II and Class III inventories in areas of high recreational use, along OHV routes, hiking and equestrian trails, areas lacking existing inventories, ACECS and buffer zones around communities are certainly worthwhile and appropriate expressions of the agency's Section 110 responsibilities. However, the identification of historic properties is only one component of the agency's responsibilities in this regard. Section 110(2)(a) also 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).

The alternatives discussed in the Draft EIS reflect an unwillingness on the part of the agency to fully embrace the BLM's responsibilities under Section 110 in that they do 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. It is indeed a sad commentary on the

BLM's abrogation of its Section 110 responsibilities in the past that only one site has been formally listed in the past 40 years. The Draft EIS offers little encouragement that that trend will improve during the life of the new RMP.

The absence of a stated strategy to actually nominate sites to the National Register would appear to reflect a common misperception that National Register designations are accompanied by greater levels of protection for listed resources. Under provisions of the National Historic Preservation Act, sites *eligible* for listing are afforded the same protection as sites actually listed on the National Register. Consequently, any eligible properties identified in the past or during the course of future proactive Section 110 inventories that are deemed eligible for listing would be afforded the same degree of protection as if they were actually listed. Given the federal agency's mandate to actually "nominate" properties to the register, the Draft EIS should reflect the commitment of the BLM to actually nominate eligible sites and archaeological districts where the cultural resources have been determined eligible for National Register listing.

The stated intent expressed in the Draft EIS that the KFO will more aggressively pursue its Section 110 mandates is an important improvement over current management practices. However, the historic practice in BLM field offices throughout the West has been to prioritize budgets based on greatest demand, usually to the neglect of non-consumptive management initiatives. Given that non-energy-related BLM budgets have been static or have declined in recent years, there would appear to be little incentive for the KFO to prioritize funding for non-project-driven initiatives, including National Register nominations and Class II and Class III surveys.

Given these considerations, it is recommended that:

- The EIS should explicitly recognize that proactive cultural resource work is a critical need accentuated by increased OHV use. The level of proactive cultural resource program work should be determined annually, and funding for such work should be prioritized within the KFO budget.
- Funding shortfalls to address issues like site monitoring and protection can be ameliorated through partnerships with advocacy groups, site stewards, non-profit organizations and research entities through the aggressive use of Challenge Cost Share grants and other non-BLM funding sources. The EIS should explicitly state the willingness of the BLM to engage non-governmental partners in its proactive cultural resource management initiatives.
- The BLM should 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. These efforts should explicitly reflect the agency's commitment to Section 110 compliance regardless of which alternative is chosen.
- The 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 statewide historical societies, and historic preservation advocacy organizations such as the National Trust for Historic Preservation.

Special Designation Areas

Chapter 2 of the Draft EIS discusses alternatives for management of various special management areas, including ACECs, wilderness study areas, wild and scenic rivers and lands with wilderness qualities. These management strategies bear indirectly on the long-term preservation and protection of cultural resources, and they are addressed briefly here. ACECs are an effective management tool to enhance on-the ground management of *all* affected resources in a sensitive area, including cultural resources that may or may not be known. CPAA unequivocally supports the expansion of the Water Canyon/South Fork Indian Canyon ACEC into the more inclusive Cottonwood Canyon ACEC, as recommended in Alternatives B and C. This area is known to contain exceptionally high densities of scientifically significant and visually spectacular cultural resources that warrant more aggressive management. Other proposed ACECs included in Alternative C, are also known to contain significant cultural resources that could be better managed and protected through ACEC designations. These include Vermilion Cliffs, White Cliffs and especially Parunuweap Canyon (see DEIS 2-197 to 2-103).

CPAA also supports the management of river corridors within the constructs of the National Wild and Scenic River System as an effective means to better address long-term preservation of cultural resources in riparian corridors (see DEIS 2-103 to 2-108). In water-stressed environments, such as those found in the KFO, human populations were tethered to a greater or lesser degree to permanent water sources, in particular perennial and ephemeral streams, springs and rivers (Spangler 2001). In addition to wild, scenic and recreational qualities, "river" segments proposed for inclusion in the WSR under Alternatives B and C would also have been the focus of significant human adaptations throughout prehistory.

Likewise, other river segments not identified for WSR designation under the various alternatives may be eligible because of their remarkable cultural values. In particular, upper Kanab Creek, Trail Canyon and North Creek are known to contain abundant archaeological sites of tremendous scientific value and aesthetic appeal to visitors (most of these sites are known but have not been formally documented). Recent research by Brigham Young University in the North Creek drainage has demonstrated more than 8,000 years of human occupation, making North Creek Shelter one of the most significant sites in the history of Utah archaeology. More aggressive management of important cultural resources in these localities, either through WSR designation or some other management strategy, would facilitate greater preservation of these resources for future generations.

Of those river segments identified for possible WSR designation that have remarkable cultural values, Alternative B (preferred) identifies only the East Fork Virgin River as suitable. Alternative C identifies the East Fork Virgin River, Cottonwood Creek, North Branch of South Fork Indian Creek and Hell Dive Canyon as segments with

remarkable cultural values. Hence, Alternative C would offer greater protection and management of those cultural resources found in optimal environmental niches along these river/stream corridors. It is emphasized that evidence of prehistoric adaptations will likely be found along most, if not all water sources in the KFO, and these should be of exceptional high density and quality to warrant aggressive BLM management regardless of which alternative is chosen or formal WSR designation.

Any plan to manage recreational use of riparian corridors, either as Wild and Scenic or though some other designation, should include a cultural resource management plan that includes (1) identification and documentation of cultural resources that may be impacted by recreational activities, (2) the development of public outreach efforts that promulgate proper etiquette on and around cultural resources, (3) the identification of management strategies to protect cultural resources (e.g., areas where camping is prohibited such as rockshelters and alcoves), and (4) the development of a site monitoring plan to assess the cumulative impacts of recreation visitors on the cultural resources.

Management of Wilderness Areas and Wilderness Study Areas is an effective means to facilitate the long-term preservation and protection of cultural resources. Specifically, the absence of roads providing access to archaeological sites has resulted in a much higher degree of site preservation in WSAs than in areas with vehicle access (see ongoing research by Spangler et al. 2007a, Spangler et al. 2007b, Spangler et al. 2008 in the Desolation Canyon WSA).

CPAA recommends that all lands currently designated as WSAs should be managed in compliance with the BLM's Wilderness Interim Management Policy and terms of the Wilderness Act of 1964, that no additional road construction be allowed and that no OHV routes be designated in these areas, as articulated in Alternative C (see DEIS 2-108 to 2-110). In the event Alternative B (15 miles of designated routes), Alternative D (32 miles of designated routes), or some variation of the two alternatives is chosen, it is recommended that thorough Section 106 inventories be initiated that include an adequate Area of Potential Effect of at least 200 meters on either side of centerline, and that these inventories be completed prior to any formal designations. Concerns regarding the designation of a 1,100-acre open play area in the Moquith Mountain WSA, articulated in Alternatives B and D, were addressed above in the Transportation section. It is also recommended that the EIS clearly state the BLM's intent to identify and monitor cultural resources within WSAs that are vulnerable to impacts from illegal activities, in particular OHV trespassing and vandalism.

Management of lands for wilderness characteristics but without WA or WSA designations is also 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 (see discussion above related to OHVs). As such, the management of these lands as wilderness would greatly enhance the protection of cultural resources through prohibitions on new road construction, precluding OHV use in these areas, and closing the areas to development that would precipitate new road construction and enhanced public access. Alternative C is

certainly preferable in that it would offer enhanced protection for cultural resources in areas where they could become vulnerable to adverse effects (both direct and indirect) resulting from OHV travel.

Miscellaneous Concerns and Recommendations

As it relates to Action Alternatives B, C and D, CPAA concurs with the stated Management Actions: Protection of Cultural Resources (DEIS 2-22), but with the following, minor modifications discussed below:

- *Mitigate adverse impacts on cultural resources resulting from authorized surface disturbing activities.* Mitigation of adverse effects may be appropriate in some instances, but 36 CFR 800.1 clearly states the goal of Section 106 compliance is to "seek ways to avoid, minimize or mitigate any adverse effects on historic properties." The Draft EIS should likewise state that the KFO will seek to "avoid" and "minimize" impacts, in addition to mitigating adverse impacts.
- *Mitigate and/or preserve cultural and historic values on cultural properties eligible for National Register listing.* It is unclear what "mitigation" of cultural and historical values means in this context. This objective should be reworded to clarify that the federal agency seeks to mitigate *adverse effects to and preserve* cultural and historic values on cultural properties eligible for National Register listing. The caveat "and/or" is superfluous and should be removed.
- *Use proactive research; protection; and inventories involving universities, avocational and service groups, site stewards, tribes and community outreach to gain a better understanding of cultural resources and preserve them for present and future study and use.* This statement excludes nonprofit research and conservation organizations (e.g., Utah Historical Society, The National Trust for Historic Preservation) that are integral components of historic preservation efforts locally and throughout the West. This statement should be augmented to include "non-profit organizations."
- *Identify and manage traditional cultural properties in coordination with Native American tribes.* This statement should be modified to recognize that traditional cultural properties include ancestral archaeological sites, burials, rock art sites, rock shelters and ceremonial and traditional-use areas. CPAA further recommends the Draft EIS should clearly articulate the agency's intent to avoid or minimize adverse impacts that may alter, directly or indirectly, the character of TCPs and other historic properties, "in a manner that would diminish the integrity of the property's location, design, setting, setting, materials, workmanship, feeling or association" (36 CFR 800.5 (a)(1).
- *Work with Native American tribes to ensure compliance with NAGPRA, when needed.* Compliance with NAGPRA is only one of many legal responsibilities of federal agencies interacting with Indian tribes. This statement should be augmented to reflect the agency's commitment to also comply with the American Indian Religious Freedom Act; Religious Freedom Restoration

Act,; Executive Order 13007: Indian Sacred Sites; Executive Order 13175: Consultation and Coordination with Indian Tribal Governments; and all other federal laws, regulations and executive orders that recognizes the "unique relationship" between the federal government and Indian tribes. This statement should clearly recognize and respect "that certain historic properties retain religious and cultural significance to federally recognized Indian tribes and that preservation of such properties may be imperative for the continuing survival of traditional tribal values and culture" (see Advisory Council on Historic Preservation Policy Statement, dated November 17, 2000, regarding relationships with Indian tribes).

- A factual inaccuracy needs to be corrected in Section 3.2.9 Current Conditions (DEIS 3-58) that states Noel Morss led the pioneering archaeological investigations of the Claflin Emerson Expedition. Morss, a major figure in Utah archaeology, was actually a minor figure on the Claflin Emerson Expedition, which was led in 1929 and 1930 by Henry B. Roberts, and in 1931 by Donald Scott. Morss was a member of the expedition but only peripherally, conducting his own investigations in Wayne County in 1928 and 1929 (mostly in areas managed by the Richfield Field Office, Price Field Office and Capitol Reef National Park that are irrelevant to this Draft EIS).
- As described in Areas of Importance to Native American Tribes (DEIS2-56), the BLM would "allow Native American non-commercial traditional use of vegetation and forest and woodland products for the collection of herbs, medicines, traditional use items, or items necessary for traditional, religious or ceremonial purposes, *through permits*" (emphasis added). The establishment of a permitting process to allow Native American use of items necessary for traditional, religious or ceremonial purposes would appear to contradict the spirit of the American Indian Religious Freedom Act (42 U.S.C. 1996) guaranteeing the freedom of Native Americans to worship through ceremonials and traditional rites. Any permit requirement has an inherent potential that the permit could be denied. In this case, it would appear to constitute a "prior consent" requirement whereby the BLM would decide who, when and where Native Americans could collect those items of traditional, religious or ceremonial importance, and thereby impede the practice of traditional ceremonies and rites. CPAA recommends that the words "through permits" be replaced with "through consultation with federally recognized Indian tribes."
- CPAA strongly concurs with Recreation Management Actions common to all action alternatives (DEIS 2-78 to 2-79) that the BLM will more aggressively engaged in public outreach initiatives such as Tread Lightly and Leave No Trace; that it will foster these and other public outreach programs that build emotional, intellectual and recreational ties to cultural resources; and that it will coordinate with local communities to promote heritage tourism opportunities. CPAA believes public education, as to the importance of irreplaceable cultural resources, is the most effective strategy to foster their long-term preservation and protection. We strongly encourage the BLM to embrace these initiatives *regardless* of which alternative is chosen.

Summary

As articulated above, of the alternatives provided by the KFO in the Draft EIS, Alternative C affords the best protection of cultural resources within the KFO for current and future generations, although it is emphasized that all four alternatives described in the Draft EIS are fundamentally flawed. All four alternatives propose management actions that will have direct and indirect adverse effects to historic properties that are currently unknown to the BLM. As stated in Section 3.2.9, "Cultural resources are sensitive, irreplaceable resources with potential public and scientific uses, and are an important and integral part of our national heritage" (DEIS 3-58). As such, a planning document that directs management decisions, including OHV route designations, that will be in effect over the next 15 to 20 years must reflect a more careful consideration of the direct, indirect and cumulative effects to irreplaceable historic properties.

The risk to cultural resources is more than a hypothetical possibility. Ongoing research across the northern Colorado Plateau has demonstrated that the explosion in OHV use over the past two decades has resulted in significant degradation of archaeological and historic sites, and that these impacts are accelerating. As noted in the Draft EIS, more than 57 percent of archaeological sites have been judged to be in excellent or good condition, "no doubt related to the remoteness and the rugged terrain that limit access to many areas" (DEIS 3-61). As the mechanical capabilities of OHVs increases, so increases the ability of OHV users to access more and more remote areas that have thus far been protected by their isolation.

CPAA recognizes that responsible use of OHVs in certain areas is an appropriate use of federal lands. CPAA agrees with the Draft EIS that "Over the past 20 years, OHV use has become one of the fastest growing recreation activities in southwest Utah, drawing thousands of visitors each year" (DEIS 3-83), and that continued growth in this recreation sector will constitute the most challenging management issue facing federal land managers in the West for many years to come. Consequently, the Kanab RMP and Travel Plan should reflect the BLM's careful consideration of the potential impacts of such activities on irreplaceable resources. These considerations should include, at a minimum, the identification of cultural resources at risk and the articulation of agency objectives and strategies to avoid, minimize and mitigate potential adverse effects.

Cultural resources in the KFO are among the most spectacular and scientifically important anywhere in the West. As articulated in the Draft EIS, these sites present tremendous opportunities for public outreach and education. Just as important, they have considerable potential to contribute important new insights into how humans throughout history adapted to and lived within the constraints of these desert environments, how populations were limited by their access to and efficient use of water, how changing climates may have influenced their ability to grow food crops, how excessive population expansion may have exceed the carrying capacity of the local environment and prompted societal collapse, and how families and communities responded to environmental and social changes through time.

Research into these questions is not an esoteric academic exercise. Rather, it bears directly on current socioeconomic conditions in the arid West – an area characterized by periodic and persistent droughts, population growth, limited sources of water to accommodate growing populations, a disappearance of agricultural lands to housing developments, an influx of outsiders with different social and cultural values, and changing floral and faunal regimes that influence the viability of traditional lifeways such as livestock ranching. The preservation and protection of cultural resources for public enjoyment and scientific inquiry must be reflected through careful planning that fully considers the future adverse impacts of decisions made today.

Thank you for considering my concerns and recommendations.

Best Regards,

Jerry D. Spangler, MA, RPA
Executive Director

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