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Re: Comments – Moab Field Office Draft RMP

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 Moab Field Office that includes 1.8 million acres of public lands in Grand and San Juan counties in eastern Utah.



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 Moab Field Office must carefully consider the effects of its RMP decision-making on archaeological and cultural values of significance to all Americans.

An examination by CPAA of the Moab Field Office Draft EIS has identified 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. One such fundamental concern is the absence of a meaningful and representative statistical sample of inventoried lands within the Moab Field Office whereby the density, diversity and distribution of cultural resources could be adequately considered during the planning process.

Within that context, the review also identified concerns related to the BLM’s approach to cultural resource management in the Moab area. Among these concerns: (1) The failure of the agency to adequately consider the direct, indirect and cumulative effects of various activities on the integrity of historic properties, for example the absence of Section 106 compliance prior to the official designation of OHV routes; (2) The failure of the plan to consider Class III inventories of areas adjacent to proposed OHV routes but clearly within the area of potential effect; and (3) The failure of the agency to more aggressively embrace its Section 110 responsibilities to identify, evaluate and nominate properties under its management jurisdiction to the National Register of Historic Places.

Of the alternatives presented in the Draft EIS, Alternative B offers the best management approach to facilitate the long-term preservation and protection of cultural

resources. It is also acknowledged that Alternatives C (preferred) and D are both improvements over the current management approach to lands within the resource area (e.g., no action Alternative A). It is also emphasized that the management alternatives articulated in all three action alternatives may be inadequate to meet the BLM's obligations under federal laws and regulations protection cultural resources.

As stated in "Goals and Objectives" (Table 2.1 DEIS 2-7), 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." However, 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 failure of Alternative A to meet even minimal agency goals and objectives, Alternative A should be rejected (it is not discussed further in this commentary).



As it relates to Action Alternatives B, C and D, CPAA concurs with management strategies identified in Table 2.1 "Cultural Resources" not otherwise discussed below. CPAA agrees with the following strategies summarized in italics, but with the following caveats, modifications and recommendations:

- *Class III inventory "is not required prior to designations that allow continued use of an existing route, impose new limitations on an existing route, close an*

open area or travel route, keep an area closed, or keep an area open” (Table 2.1 DEIS 2-7). CPAA concurs that no additional inventory should be required to close an open area or travel route, or to impose new limitations. But CPAA strongly disagrees that Class III inventories should not be required prior to official designations that allow continued use of existing routes. CPAA believes that official designations of OHV routes constitute an “undertaking” as defined in 36 CFR 800, and that Section 106 compliance should be required prior to all designations regardless of previous use. These concerns are discussed in greater detail below.

- *All land-disturbing activities within Traditional Cultural Properties (TCPs) would be designed to avoid or minimize impacts to those properties. As articulated in Section 3.3.2.4.2 (DEIS 3-16), TCPs include ancestral archaeological sites and burials, rock art sites and rock shelters. CPAA recommends the Draft EIS should clearly articulate the agency’s intent to avoid or minimize all impacts, including indirect and cumulative impacts, that may alter, directly or indirectly, the character of historic properties, including TCPs, “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).*
- *Cultural sites should be closed to visitation if visitation is endangering site integrity. CPAA recommends that the term “visitation” be clearly defined to include all uses of public lands that are shown to endanger the integrity of sites eligible for listing on the National Register (e.g., industrial, vehicular, recreational).*
- *Camping should be prohibited at sites eligible for listing on the National Register. CPAA recommends that this prohibition be extended to include a ban on camping “on or near” eligible sites. This concern is addressed in greater detail below.*
- *Class III inventories of Areas of Potential Effect (APE) will be conducted in connection with new OHV routes prior to such designations. CPAA agrees but also recommends that this language be modified to reflect the agency’s intent to consider the cumulative impacts from designating thousands of miles of official routes. Concerns related to nature and scope of such Class III inventories are addressed below.*
- *The BLM will cooperate with counties to ensure road and trail construction and maintenance minimizes impacts to cultural resources. CPAA recommends this language be modified to reflect a preferred strategy of avoidance of impacts to cultural properties, with a secondary strategy of minimizing impacts when avoidance is not possible.*

Inadequate Sample Size

As discussed in Section 4.3.2, potential impacts to specific cultural resources are difficult to quantify in light of the fact that the location of all cultural resources remains unknown (DEIS 4-30 to 4-31). The paucity of statistically valid data on the nature, diversity and distribution of historic properties within the MFO prompted BLM staff to

develop its own site density model based on the existence of one or more of seven environmental variables. If only one variable was present, the area was deemed to have a low probability for archaeological sites. If two variables were present, the area was classified as having a medium probability for archaeological sites. And if an area had three or more variables, it was classified as having a high probability for archaeological sites. Of the 4,259 archaeological sites documented within the MFO, some 3,103 (73 percent) were located in areas with medium or high probability. The Draft EIS acknowledges the model is imperfect as a predictor of site density, but one that is accurate enough to gauge the impacts of the various alternatives on those areas with a greater probability of cultural resources (DEIS 4-30).

CPAA agrees that the site density model may be a valuable tool in identifying some areas with higher potential for cultural resources. CPAA also agrees that it is difficult to plan for and manage cultural resources that remain largely unknown and undocumented. However, CPAA believes the model is fundamentally flawed as a primary planning tool in that the data used to create the model are derived from previous archaeological inventories that do not comprise a meaningful and statistically valid sample. 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 predictive model used by BLM staff to identify probability zones for cultural resources is actually a reflection of the amount of Section 106 compliance in a particular area and may not reflect actual site densities. A review of archaeological site data on file with the Antiquities Section of the Utah Division of State History reveals astonishingly few archaeological block surveys within the MFO that would contribute to an understanding of potential site densities or to the distribution of archaeological sites across an entire landscape.

The inadequacy of the current archaeological database for the MFO was recently demonstrated during the course of recent CPAA studies (Spangler and Boomgarden 2007) of a small section of Tenmile Canyon below Dripping Springs. Previous inventories in the region had identified only three sites in the area examined: two artifact scatters and one alcove with prehistoric residential detritus. A brief intuitive reconnaissance by CPAA crews identified 18 additional sites in this same area, including important rock art sites, open encampments, storage facilities and large alcoves with deep cultural deposits of Archaic and Formative age.

Although the surveys were not systematic, the CPAA data also demonstrate a potential of 12.5 to 15.5 archaeological sites per linear kilometer within the drainage – or a total of 310 to 385 sites. Furthermore, sites in Tenmile Canyon will likely be located in natural alcoves and rockshelters, on bench areas abutting the canyon bottom and at the base of the first cliff level, and on both sides of the canyon. A more comprehensive Class III survey of the drainage that included higher ledges, canyon rims and a more thorough examination of areas along the canyon bottom could demonstrate an even greater density of sites than demonstrated during the limited CPAA investigations.

The potential number and quality of sites identified in such a small area of the canyon stands in decided contrast to the BLM's existing database, and suggests that current BLM management decisions related to Tenmile Canyon are predicated on previous research that is clearly inadequate. It is considered highly probable that previous research in other areas of the MFO is likewise insufficient to allow informed management decisions related to the density, distribution and nature of cultural resources.

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. Instead, the model 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. The invalidity of the model is not ameliorated by the fact it was the only such model available to planners.

Given the model on which the BLM relies for its consideration of the draft plan's impact on cultural resources is fatally flawed, the EIS should instead be revised to reflect a meaningful and statistically valid inventory of representative lands within the MFO whereby the diversity, distribution and density of cultural resources can be properly considered in future land management decisions. Alternative B states that 50,000 acres would be identified for Class II and Class III surveys with a priority given to areas of high probability for site density; Alternative C identifies 30,000 acres for Class II and Class III surveys; and Alternative D identifies 20,000 acres for such surveys. Although the identification of areas such as Tenmile Wash, Mill Creek and the Dolores Triangle as priorities for such surveys are laudable and should be encouraged, this approach fails to address broader perspectives of prehistoric land-use patterns across entire landscapes, including areas of low probability. It is emphasized that one out of every four known sites in the MFO is located in areas of *low* probability for site density, as determined by the model used by BLM planners, suggesting that significant numbers of National Register-eligible sites will be located in areas not prioritized for Class II and Class III surveys.

We emphasize that the probability model, as currently implemented by BLM planning staff, is incapable of predicting significance of sites eligible for listing on the National Register, only that more sites may be located in some areas than others. Hence, management considerations articulated in the various action alternatives are predicated on site quantity rather than actual site significance. This approach fails to recognize that sites of tremendous scientific and cultural significance may be located in areas deemed to have a low probability for archaeological sites, and that the rarity of such sites may actually accentuate the importance of those sites within the context of broader cultural landscapes. A good example of this is the Green River Desert, where site density is generally low but there are numerous Paleoindian sites that have contributed and will likely continue to shed important insights into the first inhabitants of western North America. The importance of such sites, although rare, cannot be overstated.

It is therefore recommended the probability model developed by BLM planners be augmented to include additional variables that would precipitate greater understanding of the potential impacts to significant cultural resources from the various action alternatives. These variables should include, at a minimum, site types and National Register eligibility. These data are readily available on the Intermountain Antiquities Computer System database (IMACS) and could be incorporated into the probability model with minimal effort. Such data would better facilitate management decisions related to significant sites or clusters of significant sites in low probability areas.



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 MFO. The Draft EIS infers that site avoidance is the primary mitigation measure (see DEIS 4-502), where possible, with the inherent assumption that avoidance would ameliorate adverse effects. Any assumption that site avoidance results in no adverse effects, or insignificant effects, is inherently flawed and is at odds with 36 CFR 800. Avoidance of cultural sites evident on the ground surface *may* avoid direct damage to the surface evidence. However, there is a potential for damage to archaeological sites not clearly evident on the site surface, as well as adverse effects to sites outside the area of direct impact. 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. The Draft EIS correctly acknowledges that “it is likely that, in spite of Section 106 of the NHPA and BLM policy and guidelines, some non-mitigatable impacts would occur and would likely be irreversible since restoration of an archaeological site is typically very difficult” (DEIS 4-498). 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. Likewise, data recovery is a destructive activity that constitutes an adverse effect that should be considered in the planning process (see King 2000a, 2000b). 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.

Cultural resources can certainly be negatively 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 oil and gas development subsequently provides access to looters and vandals). Consequently, the Draft EIS should reflect the intent of the BLM to adequately consider *all* indirect impacts of undertakings on National Register-eligible properties that may be a consequence of the undertaking but not directly related to it. Such intent is not now articulated in Draft EIS.

The Draft EIS correctly acknowledges that cumulative impacts from minerals development will likely increase the human presence in the region, thereby increasing the risk to cultural resources from looting, vandalism and other inadvertent impacts. It also recognizes that these cumulative impacts would likely be less than “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” (DEIS 4-502). CPAA concurs with that assessment, but also recommends that the Draft EIS be modified to acknowledge that recreation on such a massive scale could result in cumulative effects to site setting and integrity, even if the historic properties themselves are not directly impacted by vandalism and/or looting (see 36 CFR 800.5(a)(2)(v)).

The designation of thousands of miles of OHV routes within the MFO has significant potential to create cumulative adverse effects that are not anticipated 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 heavy truck 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 and breadth of the proposed Travel Plan as articulated in the Moab Draft EIS (e.g. number of miles of ORV routes and density of ORV routes), a more thorough consideration of cumulative impacts from OHVs should be reflected in the planning document (see discussion hereafter).



OHV Travel Plan

The fundamental component of the Draft EIS Travel Plan is the BLM's intent to establish thousands of miles of designated trails suitable for OHV travel, and the stated management strategy that Section 106 compliance (e.g., Class III inventories) will not 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 travel is an activity managed by the BLM, and that BLM resources are being expended to plan for OHV travel and to enforce travel restrictions and route designations. 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.

On this point, the Draft EIS reflects remarkable inconsistencies. The BLM clearly recognizes OHV travel is an activity requiring Section 106 review in that Class III surveys would be required for all "new" OHV routes. But no such requirements are articulated for routes currently in use, even though Section 106 compliance should have occurred in the past related to these activities. As stated throughout the Draft EIS, the BLM clearly recognizes that OHVs have significant potential to cause future adverse effects to historic properties, and that these adverse effects are already accelerating due to growing OHV travel along and adjacent to routes already in use. But no convincing rationale is offered as to why Section 106 compliance will be required in the future, but preexisting uses are exempt from compliance.

The Draft EIS is also equivocal on whether or not Class III inventories would include Areas of Potential Effect outside of designated corridors, and whether APEs would include 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 eastern Utah also demonstrated a direct relationship between vehicle access and frequency of vandalized sites. Sites visible from an existing route were more likely to have been vandalized, as were sites within 200 meters of an existing route (Spangler, Arnold and Boomgarden 2006).

These findings are consistent with other 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 MFO and elsewhere in the West. The Draft EIS clearly recognizes that both legal and illegal OHV use is damaging resources and creating conflicts with other users, and that “the ability of OHV users to penetrate the backcountry where patrols are difficult may lead to secondary impacts to cultural resources from increased vandalism and theft” (DEIS 3-87). 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, 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 designated trail, which directly impacts only one of 21 sites investigated. However, large numbers of individuals left the designated 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).

Given the thousands of miles of unofficially designated OHV trails currently being utilized within the MFO, 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. These impacts are acknowledged in all four alternatives. 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. 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.

Historically, that damage has not been well documented, and there has been little effort by the MFO to identify sites along OHV routes that have been damaged or are vulnerable to damage. In effect, the BLM's Draft EIS acknowledges that damage is being done to cultural resources and that site integrity is diminishing, but it has no baseline data to evaluate the nature and extent of that damage. BLM's development of a major travel plan incorporating thousands of miles of designated routes without baseline information about the impacts of existing OHV use in those places puts the cart before the horse. It is difficult to comprehend how the BLMM can meet its statutory obligations toward cultural resource protection if it has no or little information as to how OHV use will affect these resources.

Alternative B would offer the greatest protection to cultural resources from vehicular impacts. It would eliminate open travel areas, and would close about 24 percent of high-density lands to OHV travel and limit OHV travel to existing routes on 76 percent of high-density lands. About 28 percent of medium-density lands would be closed to OHV travel, and travel would be restricted to existing routes on 72 percent of medium-density lands. This would close approximately 1,000 miles of existing routes in high-density and medium-density areas. As discussed above, the designation of routes alone may not protect cultural resources along those routes from adverse effects.

Alternative C (preferred) is less restrictive. It calls for the elimination of OHV travel on 23 percent of high-density lands and 27 percent of medium-density lands, with travel restricted to designated routes on 77 percent of high-density lands and 73 percent of medium-density lands. These percentages are similar to those in Alternative B. The major difference is that 486 acres of land with high site densities would be designated as open OHV use, and 882 acres of land with medium site densities would be open to cross-country OHV travel. Furthermore, this alternative calls for the establishment of 45 miles of motorcycle trails in high-density and medium-density areas. As discussed above, the designation of routes alone may not protect cultural resources along those routes from adverse effects, and sites located within cross-country travel zones would particularly vulnerable to damage or destruction from OHV activities.

Alternative D is the least restrictive of the action alternatives, calling for closure of only 6 percent of lands with high site densities and 4 percent of those lands with medium site densities. OHV use would be restricted to designated routes on the remainder of those lands with the exception of almost 2,000 acres of high- and medium-density lands that would be opened to cross-country OHV travel. About 57 miles of motorcycle trails would be established on lands with high or medium potential for site densities. As discussed above, the designation of routes alone may not protect cultural resources along those routes from adverse effects, and sites located within cross-country travel zones would particularly vulnerable to damage or destruction from OHV activities.

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 MFO has not demonstrated such a commitment in the past, as evidenced by the willful and repeated violation of travel restrictions in Tenmile Canyon and the tepid BLM enforcement response to widespread violations (Spangler and Boomgarden 2007).

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 particular relevant to Alternatives C and D that call for cross-country OHV travel in areas with a high or medium potential for archaeological sites. Given the unavoidable and permanent destruction that would occur from cross-country travel, 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 area in the White Wash Sand Dunes. These dunes are known 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. 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. This approach 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 would be appropriate at White Wash Sand Dunes.

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 travel areas to OHV travel as is articulated in Alternative B. If the BLM proceeds with its preferred Alternative C, those areas within the White Wash Sand Dunes demonstrated through future Class III surveys to have eligible properties should be closed to open OHV travel.

It is emphasized that BLM offices elsewhere are developing detailed plans to accommodate OHV use in archaeologically sensitive areas while enhancing cultural resource protection. 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 designated OHV routes with the express purpose of protecting the high density of archaeological sites. A subsequent 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 proposed plan defined the area of impact due to motorized use to be one-half mile on either side of designated trails (BLM 2006).

The TLAD has applied a tripartite management approach to route designation 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 rules, regulations and best practices intended to protect those resources. And third, the plan calls for enhanced law enforcement and monitoring of potential impacts. The TLAD approach could be an appropriate strategy for the management of OHVs in archaeological sensitive areas within the MFO.

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 (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 through prohibitions on new road construction, limiting OHV use to boundary routes, restricting OHV use within the roadless areas, and closing areas to development that would precipitate new road construction and enhanced public access. Alternative B 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, energy development and other activities.

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

- OHV travel should be restricted to designated routes, as articulated in Alternatives B, C and D, 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.
- Historically, site monitoring has consisted of on-site inspections with minimal field notes and substantial institutional memory as to what the original site condition was. It is therefore recommended that MFO site monitoring include a uniform database whereby impacts to cultural resources can be accurately and consistently measured, and site conditions compared and contrasted over time in a manner that will facilitate more informed management decisions.
- Given that budget constraints will greatly impede the progress of any Class III inventories related to OHV travel routes, monitoring and data recovery, it is recommended that OHV users contribute to the cost of Section 106 compliance, perhaps through the designation, with Utah Resource Advisory Council approval, of special fee areas or the use of other tax revenues earmarked for OHV recreation. The use of OHV user fees would not preclude future DLM determinations that ORV use is causing or will cause adverse effects that may warrant more aggressive protective measures.
- 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.
- 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 each OHV route and open OHV areas, and that cultural resource protection will be a fundamental goal of any transportation planning.

Other Recreation Impacts

CPAA concurs with the management strategy common to Alternatives B, C and D that camping should be prohibited on or within historic properties eligible for listing on the National Register. However, it is emphasized that adverse effects from such activities are not limited to surface impacts from camping impacts alone, but from activities associated with camping, including OHV impacts, pedestrian impacts, and looting and vandalism to sites that are easily accessible from camp sites. Ongoing studies in the Desolation Canyon National Historic Landmark and adjacent non-NHL lands are examining the relationship between established camp sites used by river runners and the co-occurrence of adverse effects to nearby archaeological sites. Although these data remain preliminary (see Spangler et al. 2006; Spangler et al. 2007), there appears to be a direct correlation between ongoing vandalism (primarily graffiti and theft of artifacts) and the proximity of river camps. In effect, individuals who remain at a single location for more than brief periods of time are more likely to engage in activities that denigrate the integrity of historic properties.

In light of these findings, it is imperative that BLM management of primitive camping opportunities include analyses of both direct and indirect impacts. Such strategies should include (1) the identification of all archaeological sites within close proximity to localities where camping is permitted (in Desolation Canyon, the spatial range of adverse impacts from camping appears to be about 0.4 kilometers), (2) an evaluation of the potential impacts from visitation, including baseline documentation of the site and its current condition, (3) consistent monitoring of the site to ascertain the nature and scope of any ground-disturbance and theft of artifacts, and (4) implementation of public outreach measures to education users on the importance of cultural resources and proper site etiquette whereby visitors can avoid impacting the resources further.

It is emphasized that public interest in archaeological sites is significant, and resources found in the MFO remain a primary attraction to individuals visiting public lands in this region. The above recommendations are not intended to suggest that public visitation to such sites be prohibited, but to ensure proper BLM consideration of direct and indirect impacts when establishing areas approved for camping. Given the extremely high probability that archaeological sites in close proximity to camp sites will be discovered (inadvertently or through informal pedestrian trails leading to the site), BLM planning decisions related to camping must include evaluations of whether or not the site

is appropriate for public visitation, the likely volume of such visitation and methods the agency will employ to mitigate damage resulting from public visitation.

Section 110 Responsibilities

Section 110 of the National Historic Preservation Act unequivocally specifies the responsibilities of federal agencies to proactively identify and evaluate National Register-eligible historic properties under their jurisdiction or control. As discussed in Section 3.3.2.3, formal listing of sites on the National Register occurs for a small portion of the total sites in any given county or state (DEIS 3-14). Although this is indeed the case, the paucity of listed sites is actually a reflection of the failure of the federal agencies over the past 50 years to prepare and submit nominations to the Keeper of the Register. Only two BLM localities within the MFO (Thompson Wash Rock Art District, listed in 1980, and the Denis Julien Inscription, listed in 1991) have been listed on the National Register through efforts of a federal agency. The Desolation Canyon National Historic Landmark was created in 1968 through an administrative action of the Secretary of Interior.

The archaeological resources of the MFO 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 (see *National Register Bulletin 164*). Many known archaeological sites are clearly eligible under Criterion A in that they are associated with broad patterns of human prehistory in eastern Utah; 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. Historic sites in the MFO would be eligible under these three criteria, and potentially under Criterion B if they are associated with important individuals.

The MFO 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. Action Alternatives B, C and D all reflect proposals to nominate important archaeological districts to the National Register of Historic Places. Alternative B calls for the nomination of the Dolores River Canyon Archaeological District, Kane Springs Canyon Rock Art District, Wall Street Rock Art District, Westwater Canyon of the Colorado River Archaeological District and Westwater Creek Rock Art District. Alternative C (preferred) calls for the nomination of the Westwater Creek Rock Art District and the Wall Street Rock Art District. Alternative D calls only for the nomination of the Wall Street Rock Art District.

The tiered approach reflected in the three action alternatives (more under Alternative B, less under Alternative C and even less under Alternative D) is problematic and 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, if Alternatives C or D were approved, those localities listed under Alternative B but not in Alternatives C and D would remain eligible historic properties afforded the same degree of protection as if they were actually listed. This is based on the assumption that the BLM has already “identified” the historic properties articulated in Alternative B and “evaluated” their significance. Given the federal agency’s mandate to actually “nominate” properties to the register, all of the historic properties articulated in Alternative B should also be included in Alternatives C and D. This rationale also applies to other eligible sites and archaeological districts where the cultural resources have been determined eligible for National Register listing.

CPAA recommends the BLM consider two additional areas for listing on the National Register. As discussed above, the Tenmile Canyon drainage features a potential for 310 to 385 sites within a narrow, spatially defined canyon corridor from Dripping Springs to the canyon confluence with the Green River. This canyon contains a remarkable suite of large and impressive sites attributed to Archaic and Formative human occupations, including spectacular rock art sites, storage localities, burials, camp sites and deep alcoves with evidence of human occupation throughout the millennia. The deep cultural deposits within these alcoves have considerable potential to shed new insights into the earliest human occupations of the Desert West, including terminal Ice Age adaptations to emerging Holocene environments.

Another area worthy of consideration within the Draft EIS is an expansion of the current boundaries of the Desolation Canyon National Historic Landmark along the Green River corridor in lower Desolation and Gray Canyons. There is a widespread misperception among BLM managers and the public at large that this area is already included within the National Historic Landmark. Documentation obtained by CPAA demonstrates that the southern boundary of the NHL is actually located at Florence Creek (Grand County contains only about 7 miles of the Green River within the NHL). The 1968 rationale for the Florence Creek southern boundary is not clearly articulated and is not justifiable given that the same internationally famous canyon resources found further up river within the NHL also continue uninterrupted down river to at least Swaseys Rapids. CPAA is currently working cooperatively with the Utah BLM State Office and the Price Field Office (the PFO manages river recreation in this area) to document cultural resources along the river corridor and assess damage to those resources from river recreation (see Spangler et al. 2006; Spangler et al. 2007).

CPAA recommends the Moab Field Office Draft EIS reflect support for expanding NHL boundaries to include all of Desolation and Gray Canyons given (1) The BLM management of the river corridor is identical for NHL and non-NHL properties along the river, (2) the non-NHL properties are all federally or tribally owned, (3) the historic properties within the NHL are identical to sites outside the NHL that have been deemed eligible for listing, (4) most BLM lands adjoining the river are wilderness study areas already afforded significant environmental protections, and (5) there is widespread public support for maintaining the remarkable environmental and cultural values found in Desolation and Gray Canyons.

The stated intent expressed in the Draft EIS that the MFO will more aggressively pursue its Section 110 responsibilities is laudable. 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 MFO to prioritize funding for non-project-driven initiatives, including National Register nominations and non-project-drive Class II and Class III surveys.

Given these considerations, it is recommended that:

- The EIS should explicitly state 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 MFO 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 not be tiered, as currently represented in the action alternatives, but should 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 the Utah Professional Archaeological Council, local and statewide historical societies, and historic preservation advocacy organizations such as the National Trust for Historic Preservation.

Summary

The cultural resources found within the jurisdiction of the MFO constitute some of the most scientifically significant and aesthetically appealing resources anywhere on the Colorado Plateau. Draft EIS recognizes that that MFO is internationally renowned for both its scenic quality and its recreational opportunities, *which are the primary land use in the planning area* (ES.6 Affected Environment, emphasis added), and that many trail-based recreational activities in the planning area are dependent upon route systems. CPAA contends that cultural resources are indeed a major attraction to visitors to the region, and that management of these resources for their long-term preservation and protection will enhance local tourism-based economies. The MFO is to be commended

for including public outreach and education components into the Draft EIS, and CPAA encourages the BLM to incorporate more aggressive outreach efforts into its management strategies regardless of which alternative is chosen.

As expressed above, CPAA is fundamentally concerned that BLM decision making has been predicated on insufficient data related to the nature, diversity and distribution of archaeological resources within the planning area, and the Draft EIS articulates few proactive measures whereby these data gaps will be ameliorated. Quite simply, the BLM cannot manage resources it does not know exist, and management decisions made without baseline data will inevitably result in adverse and unanticipated consequences to the integrity of historic properties. This is particularly relevant to the Draft EIS Travel Plan where thousands of miles of OHV routes would be designated without any attempt to determine the nature, diversity and distribution of cultural resources that have already been adversely effected along those routes, or that could be adversely effected in the future.

CPAA appreciates the opportunity to comment on the Draft EIS, and as an organization we look forward to working collaboratively with the Moab Field Office on future projects that will preserve and protect historic properties for future generations. These efforts could include assisting the BLM in the preparation of National Register nominations, the development and dissemination of “best practices” materials for trail users, the development of baseline data to facilitate future monitoring of adverse effects, the development of public outreach materials and site interpretation, and data recovery. We are optimistic that the MFO will prioritize funding for proactive management strategies as articulated in the Draft EIS, and we strongly encourage and support the BLM in any effort to more aggressively embrace its Section 110 responsibilities. Please feel free to contact me if you have questions or need additional clarification.

Best Regards,

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