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Little Snake Resource Area
455 Emerson Street
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Re: Comments – Little Snake 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 and effects of adverse effects, through public outreach and education, and through cooperative 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. As a registered professional archaeologist with more than 15 years research experience in northeastern Utah and northwestern Colorado, I appreciate this opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Little Snake Resource Management Plan encompassing 1.3 million acres in Moffat, Routt and Rio Blanco counties in northwest Colorado.

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 Little Snake Resource area

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



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An examination by CPAA of the Little Snake Draft EIS has identified several 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. Among the general concerns are (1) the absence of a meaningful and representative statistical sample of inventoried lands within the LSRA whereby the density, diversity and distribution of cultural resources could be adequately considered, (2) an inadequate tribal consultation policy that fails to reflect the broad range of Native American groups with deep cultural ties to the region, (3) a flawed assumption repeated throughout the document that site avoidance results in no significant adverse effects, (4) the failure to adequately consider the cumulative effects of federal undertakings on historic properties, (5) the failure to specifically address public participation requirements allowed in Section 106 reviews, as provided for under 36 CFR 800, (6) inadequate consideration of indirect effects during the Section 106 review process, and (7) a general diminishment of the importance of cultural resources as a significant management issue throughout the planning document.

The review also identified specific concerns related to the BLM's approach to cultural resource management in the LSRA. Among these concerns are (1) the lack of a

management plan for cultural resource protection in the absence of Section 106 reviews, as is the case in Fire Suppression management, (2) the failure to adequately consider the indirect effects of various activities on the integrity of historic properties, as is the case with various alternatives related to OHV travel, (3) the abdication of Section 106 responsibilities when the management of adverse effects is admittedly difficult, as is the case with livestock management, (4) the failure of the plan, in some instances, to consider impacts to cultural resources when addressing other management issues, as is the case with recreation planning, (5) the failure of the plan to even acknowledge cumulative impacts, as is the case with the proposed opening of the Vermillion Basin to oil and gas leasing and development, and (6) the willingness of the agency to sacrifice large numbers of National Register-eligible properties to a competing use, as is the case with the proposed open OHV travel in the Sand Wash Basin where there is a potentially high density of sensitive and rare archaeological sites eligible for listing on the National Register of Historic Places.

These concerns are discussed as follows:

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General Concerns

General Concerns identified during the CPAA review of the LSRA Draft EIS are those issues prevalent throughout the entire planning document and are not necessarily related to a specific alternative or management strategy. Rather, these comments are directed at collective BLM approaches to management issues encompassed by *all* alternatives considered. Consequently, the recommendations offered here should be considered regardless of which alternative is chosen.

Statistical Sample

The Draft EIS accurately and appropriately acknowledges the difficulty in planning for and managing cultural resources that remain largely unknown and undocumented (Section 3.1.10.1 Current Conditions). The draft also acknowledges that data derived from previous archaeological inventories do not comprise a meaningful and statistically valid sample in that these investigations were driven by the location of extraction projects and 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 sensitivity zones for cultural resources (cf. McDonald and Metcalf 2006) is actually a reflection of the amount of Section 106 Class III survey work that has been done in a particular area and may not reflect actual site densities (see Section 3.1.10.2 Characteristics). As stated in the draft, “pockets of higher sensitivity could occur within larger areas mapped as low sensitivity, and the reverse – pockets of low sensitivity within areas mapped as high sensitivity – could also occur” (Draft EIS 3-78).

Data derived from past archaeological surveys in the LSRA has been limited and piece-meal, focusing exclusively on small areas subject to developments that precipitated Section 106 compliance activities. The limited spatial scope of LSRA inventories was first emphasized twenty years ago (La Point 1987), and there has been little conspicuous improvement in the status of cultural resource documentation over the subsequent two decades. In particular, a review of archaeological site data on file with the Colorado Historical Society reveals astonishingly few archaeological block surveys within the LSRA that would contribute to an understanding of potential site densities or to the distribution of archaeological sites across an entire landscape.

The BLM has applied the McDonald and Metcalf (2006) predictive model for cultural site sensitivity throughout the Draft EIS, while admitting that the sample of known sites used to create the model may be statistically invalid. The invalidity of the model is not ameliorated by the fact it was the only such model available to planners. 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 Draft EIS also includes misleading and inconsistent statistical information that should be corrected. For example, Section 3.1.10.1 Current Conditions cites McDonald and Metcalf (2006), stating that as of September 2005, about 1.8 million acres had been inventoried. The LSRA contains only about 1.3 million acres, thereby creating a misperception that all of the resource area (and more) has been inventoried. The Draft EIS fails to indicate that some high development zones have been re-surveyed multiple times, accounting for the higher acreage surveyed when, in fact, only a very small

percentage of the LSRA has been intensively inventoried, and only a small fraction of sites identified (see Draft EIS 4-104). Section 3.1.10.1 further states there are 5,622 sites where cultural resources have been identified. However, it also states there are 4,246 prehistoric sites, 1,217 historic sites and 154 sites with both historic and prehistoric components. Those numbers do not add up to the 5,622 sites indicated above.



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It is therefore recommended:

- The EIS should state the intent of the BLM to develop a meaningful and statistically valid inventory (Class II or Class III block surveys) of representative lands within the LSRA whereby the diversity, distribution and density of cultural resources can be properly considered in future land management decisions.
- Statistical inaccuracies related to the number of documented sites need to be corrected.
- References throughout the document to numbers of affected sites in specific areas under various alternatives need to accurately reflect that these are “potential” numbers that were derived from an invalid sample, and that the actual number could be much higher.

- Misleading data related to the acreage subjected to intensive inventory need to be clarified to reflect actual acres considered in these inventories.

Native American Consultation

As discussed throughout the Little Snake Draft Resource Management Plan, the Bureau of Land Management has expressed its intent to engage in consultation with Native American tribes, taking into consideration their concerns when actions might affect cultural or religious values, in accordance with Executive Order 13175 (cf. Section 2.5.9 Cultural and Heritage Resources). The document further states that four Native American tribes have cultural and historical ties to lands administered by the Little Snake Field Office: the Shoshone Tribal Council, Ute Mountain Tribal Council, Uintah and Ouray Tribal Council and the Southern Ute Indian Tribe (cf. Section 5.1.1 Native American Consultation). Section 3.1.10.1 Current Conditions further states that three of the identified tribes did not respond and one responded negatively to the invitation to participate in the planning process.

It is acknowledged that all four of the identified tribal interests, all with a shared Numic linguistic heritage, indeed have historical ties to the region, and that archaeological evidence suggests these ties have existed for at least five to seven centuries (cf. Spangler 2002). It is emphasized that all four identified tribes should be involved in ongoing coordination and participation in the RMP process. However, the list of tribes included in the Native American consultation process is clearly inadequate in that it is exclusive of other, non-Numic tribal interests with longstanding cultural and historical ties to the lands and cultural resources of the LSRA, and whose archaeological imprint in the region may have exceeded that of the ancestral Utes by many centuries or more. The exclusion of other Native American groups from the consultation process stands in decided contrast to the archaeological evidence that suggests that ancestral Plains groups, Puebloan groups and perhaps Athapaskan groups may also have deep cultural and historical ties to the region, and that these groups should also be afforded the opportunity to comment on the planning process.

Although it is difficult to assign ethnicity or linguistic affiliation to archaeological remains thousands of years old, archaeological research has demonstrated that human groups have occupied the LSRA throughout the past 12,000 years, and that these groups invariably shared material culture traits with similar groups living to the north on the northwestern Plains and to the southwest on the northern Colorado Plateau and eastern Great Basin. This shared technology, which may or may not imply a shared ethnicity, is evident in Early Archaic times in the LSRA with the emergence of Archaic camps strikingly similar to those observed in southwestern Wyoming (see Thompson and Pastor 1995). More recently, a robust Early Archaic presence, called the “Spring Creek phenomenon,” was identified along the Uinta Basin Lateral pipeline project in the LSRA. This evidence is strongly suggestive of a cultural influence from or affinity with ancestral Great Plains cultures that extended into the LSRA from the north (Reed and Metcalf 1999). Other sites in the region yielded distinctive atlatl dart points consistent with those defined in the eastern Great Basin (see Spangler 2002 for a regional overview of these data).

A shared affinity to the Great Plains continued through Middle Archaic times with the emergence of a shared lithic technology complex referred to as the McKean Complex (cf. Frison 1991). Throughout the LSRA, McKean Complex artifacts clearly dominate Middle Archaic deposits, and most have been recovered in contexts with a narrow temporal range of about 3000 to 2500 B.C. Corroborative evidence of McKean Complex artifacts in Middle Archaic contexts has been reported from numerous sites within the LSRA, and through controlled excavations at three sites along the Uinta Basin Lateral (Graham 2000:6; McDonald 2000:11; Pool 2000:38). These latter investigations also documented a continuation of the Early Archaic pattern of residential base camps with ephemeral semi-subterranean pithouses, storage pits and evidence of logistically oriented subsistence that reflected continued Plains influences on local populations (Reed and Metcalf 1999; see also Spangler 2002).

During Late Archaic times, the LSRA and contiguous regions may have experienced population increases, a hypothesis based on a sharp increase in radiocarbon dates attributed to this period of time, but adaptive lifeways appear to have changed little (Spangler 2002). However, two fundamental changes occurred that suggest influence from or cultural affinity with groups from other geographic regions. By about A.D. 1, some groups appear to have adopted the bow and arrow (McKibbin 1991), a technology that is believed to have diffused into northwestern Colorado from the Great Basin. And by about A.D. 250, maize farming was firmly established in the Steinaker Gap area immediately west of the LSRA (Talbot and Richens 1996), suggesting that influences from the Southwest were emerging throughout the region at about that time, and that the presence of proto-Fremont farmer-foragers with a Southwestern ethnic origin is quite possible within the LSRA at that time.

Reed and Metcalf (1999) suggested the term “Aspen Tradition” to describe hunters and gatherers who coexisted with horticulturalists (e.g., Fremont) in this region from about 400 B.C. to A.D. 1300. They suggest the shift to bow-and-arrow technology and the adoption of maize horticulture and ceramics – two radical shifts in fundamental human lifeways with origins other than the Plains – coincided with an intensification of hunted and gathered resources (1999:141-142). As hypothesized by Talbot and Richens (1996), early farmers throughout the Uinta Basin may also have been foragers engaging in a dynamic seasonal subsistence strategy at about the same time. Consequently, the same group could be labeled “Fremont” while engaged in horticulture, and “Aspen” while engaged in foraging (Spangler 2002).

The Aspen Tradition, with roots in earlier Plains cultures, persisted throughout the Formative, but with the addition of distinctively Southwestern traits, primarily the advent of ceramics and maize horticulture. The florescence of horticultural lifeways in the Uinta Basin to the west of the LSRA resulted in population increases that eventually resulted in expansion of horticultural adaptations into similar environments east of the Green River. An abundance of masonry granaries for storage of maize, as well as sites with Fremont ceramics and rock art, have been documented in the Yampa River drainage and Vermillion Basin, suggesting this florescence indeed extended east of the Green River. There is little question these groups had contact with Fremont farmer-foragers, and may well have been

part of a larger Fremont complex themselves. During the Scoggin Period (A.D. 550 to 1050), most radiocarbon dates were obtained from residential base camps that may have been logistically oriented toward hunting and gathering. But at least three radiocarbon dates have been reported from Fremont-like granaries and three additional dates from Fremont-like residential sites (see Spangler 2002 for an overview of these data).

Further evidence of Southwestern influence within the LSRA is found during the Wenger Period (A.D. 1050 to 1300), suggested by the presence of Anasazi tradewares dated to this time and two radiocarbon dates from Fremont-like contexts, both from Dinosaur National Monument. Generally, prehistoric exploitation of the Yampa River basin during Formative times was relatively intense, but this consisted primarily of hunting and gathering, either seasonal occupations by Fremont foragers, or by foragers engaged in socioeconomic intercourse with Fremont farmers but who themselves never fully embraced sedentary lifeways. It is considered highly probable that Fremont villages and farmsteads focused on maize horticulture will be documented in the LSRA.

The question of Fremont ethnicity continues to be a matter of considerable debate, with two unrelated Native American groups (Puebloans and Numic-speakers) claiming ethnic affinity to the Fremont. Indeed, the question of Fremont origins is centered on two competing hypotheses: (1) Fremont farmer-foragers were descended from sparse Archaic hunting and gathering populations who acquired maize agriculture and ceramics technology from contiguous groups in the greater Southwest, or (2) Fremont farming and foraging was an adaptive hybrid resulting from a migration of Basketmaker farmers into the region during Basketmaker II times. Likewise, the demise of Fremont farmer-forager lifeways at about A.D. 1300 has been attributed to (1) local populations of farmers, who when faced with devastating droughts, reverted to full-time foraging and are the Ute peoples who occupied the region at the time of historic contact, or (2) faced with persistent droughts and encroachment from recently arrived Numic-speaking foragers the Fremont farmers retreated to ancestral homelands in the Southwest. There is growing evidence from northwestern Colorado that remnant populations of Fremont farmers with distinctive Southwestern material culture traits may have persisted in optimal environments into the A.D. 1500s (see Spangler 2002 for an overview of these debates).

The debate over origin or demise of the Fremont culture remains as vigorous as ever (cf. Madsen and Rhode 1994), although the preponderance of evidence seems to suggest that *some* Fremont farmers were affiliated more with Ancestral Puebloan groups to the south (cf. Berry and Berry 2003). There are additional competing hypotheses that also warrant consideration. Schlesier (1994) has argued for a southeastern migration of Fremont peoples from Utah across the Rocky Mountains of Colorado into the Southern Plains. Schlesier (1994) identified the Uinta Fremont as ancestral to the Jicarilla Apache, whom he described as related to the post-Fremont Sopris Phase of Apachean prehistory. "The Uinta Fremont culture in turn seems to derive from the Avonlea II southern expression of the Beehive Phase recognized in such sites as the Serviceberry Shelter in Dinosaur National Monument, in the very same area in which Uinta Fremont rose a few centuries later" (1994:332).

More recently, Loendorf (2004) has argued that Fremont populations in northeastern Utah and northwestern Colorado could have been Tanoan-speakers related to the Late Archaic Pelican Lake Complex of the northern Plains, and that they may have been ancestral to Kiowa groups encountered in historic times on the Plains. Given that the main branch of Tanoan speakers is located in the Rio Grande Pueblos, Loendorf's hypothesis suggests that instead of migrating south, as did other Fremont, some Fremont groups migrated north into the Yellowstone area (cf. Nabokov and Loendorf 2002) and later into eastern Wyoming.

There is little dispute that distinctive Ancestral Ute traits (a new form of basketry, Desert side-notched points, brownware ceramics) appeared in the LSRA shortly before or by about A.D. 1300, and it is possible that Ancestral Ute foragers coexisted with semi-sedentary Fremont horticulturalists. However, it cannot be stated with any scientific certainty whether the Ancestral Ute presence in the LSRA is reflected in thousands of years of prehistory, or whether they were later arrivals who displaced Fremont farmer-foragers who were themselves influenced by Plains and Southwestern traditions over the course of thousands of years.

Given the absence of scientific consensus, the identification of only four Native American groups, all with the same shared ethnic and linguistic heritage, does not adequately reflect the complex tapestry of cultural influences evident in the archaeological record of the region. Nor is it consistent with 36 CFR 800.2(C)(2) or guidance from the Advisory Council on Historic Preservation (www.achp.gov/regs-tribes) that state and federal agencies must "make a reasonable and good faith effort to identify Indian tribes that attach (religious or cultural) significance but may now live at great distances from the undertaking's area of potential effect." ACHP guidance further states that there may be multiple Indian tribes that attach significance to historic properties and that "the federal agency is obligated to consult with each of the Indian tribes."

The limited scope of tribal consultation also appears to be inconsistent with Section 101(d)(6)(B) of the National Historic Preservation Act, which requires the agency official to consult with "*any* Indian tribe ... that attaches religious or historical significance to historic properties that may be affected by an undertaking. This requirement applies regardless of the location of the historic property" (emphasis added; see also 36CFR 800.2(ii)). As further described in 36 CFR 800.2(ii)(A), "It is the responsibility of the agency official to make a reasonable and good faith effort *to identify* Indian tribes ... that shall be consulted in the Section 106 process." Furthermore, 36 CFR 800.2(ii)(D) states that "federal agencies should be aware that frequently historic properties of religious and cultural significance are located on *ancestral*, aboriginal or ceded lands of Indian tribes ... and should consider that when complying with the procedures in this part" (emphasis added).

The failure to identify all Indian tribes with cultural or religious interests in the region also contradicts the spirit and intent of Executive Order 13175 that seeks "regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications," and that tribal governments be granted

“the maximum administrative discretion possible.” It is clearly evident that the identification of only four tribes does not constitute a “reasonable and good faith effort” to identify Indian tribes that should have been consulted during the planning process.

The Draft EIS (Section 5.1.1 Native American Consultation) indicates that the BLM initially sent an internal draft of the RMP/EIS to four tribes (Shoshone Tribal Council, Ute Mountain Tribal Council, Uintah and Ouray Tribal Council and Southern Ute Indian Tribe) in April 2004, and in October 2004 sent letters to tribal governments “requesting information for the RMP/EIS and inviting their coordination and participation in the RMP revision process.” This was followed by a telephone call to the tribes in November 2006. The document states the BLM will engage in additional consultation with the tribes.

There is little documentation in the Draft EIS supporting the contention that the LSRA has engaged in robust consultation with Indian tribes to this point, or that the consultation letters inviting participation specifically identified cultural or religious properties of significance that would be relevant to the tribes’ participation. As articulated in 2007 by the Interior Board of Land Appeals (IBLA 2004-124) in *Southern Utah Wilderness Alliance v UT 055 et al.*, meaningful consultation with Indian tribes involves more than sending letters inviting their participation. In that case, SUWA argued that “brief conversations with, or form letters to, tribal councils or leaders regarding the potential effects of oil and gas leasing and development are insufficient to meet BLM’s duty under NHPA to make a reasonable and good faith effort to seek information from Native American tribes” (citing *Pueblo of Sandia v United States*, 50 F.3d 856, 10th Circuit 1995). The IBLA ruled in favor of SUWA.

Efforts by LSRA staff to consult with the identified tribes regarding the Draft EIS *may* have been adequate, although meaningful consultation efforts are not clearly articulated in the Draft EIS and there is no indication the BLM identified historic properties or sacred sites of significance to the tribes. The failure to involve a broader range of tribes (see discussion above) would also minimize BLM’s claims of meaningful consultation. LSRA staff has indicated their intent to brief tribal leaders in the near future regarding the Draft EIS to seek greater tribal participation. These briefings are certainly appropriate. However, the initiation of these briefings three years after initial planning documents were formulated seems inconsistent with the spirit of Executive Order 13175 requiring “timely input by tribal leaders,” or with 36 CFR 800.2(ii)(A), that “Consultation should commence early in the planning process, in order to identify and discuss relevant preservation issues and resolve concerns about the confidentiality of information on historic properties.”

In light of these considerations it is recommended:

- The LSRA immediately revise its consultation policies to include the broadest possible range of tribal interests, and that this range include, at a minimum, Puebloan, Plains, Athapaskan and Numic groups, as identified in *Colorado Historical Society Document No. 1550*. Particular efforts should be directed at

consultation with the Hopi and Zuni tribes, which have historically claimed affiliation with Fremont peoples.

- In accordance with IBLA Ruling 2004-124, meaningful consultation should include more than form letters and cursory phone calls to invite participation. If necessary, a final EIS should be delayed until meaningful and comprehensive consultation with all relevant tribes is initiated and tribal concerns are properly addressed in the RMP.

Site Avoidance and Mitigation

Generally, the Draft EIS defers to Section 106 of the National Historic Preservation Act when discussing management alternatives related to cultural resources in the LSRA. The Draft EIS repeatedly states its preference for site avoidance as the primary mitigation measure, where possible, with the inherent assumption that avoidance would eliminate adverse effects. Furthermore, Section 4.3.9 Impacts on Cultural and Heritage Resources states: “Through compliance with Section 106, there would be no significant impacts on cultural resources from federal undertakings such as oil and gas development, coal mine development, construction within ROWs, recreation site development, prescribed fire, vegetation treatment projects that require Class III inventories, wild horse gathers, forest and woodland product harvest, and special recreation permitting or construction of range improvements” (Draft EIS 4-104).

Such statements are problematic on numerous points. The assumption on the part of the BLM 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 given 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. It can also be concluded that 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.

Also problematic is the statement that compliance with Section 106 would result in no significant impacts from undertakings on BLM-administered lands. This statement is naïve, if not disingenuous, given the Draft EIS acknowledges that unknown sites could be damaged or destroyed through ground-disturbing activities and that it may not be

possible to avoid some sites (Section 4.3.9 Impacts on Cultural and Heritage Resources). Damage to such sites, whether or not mitigation occurs, 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 that:

- Statements to the effect there would be no significant impacts to historic properties through Section 106 compliance should be deleted and replaced with a statement to the effect that “significant impacts, both direct and indirect, to cultural resources could occur through federal undertakings regardless of compliance with Section 106 provisions.”
- The EIS should clearly acknowledge the indirect adverse effects of undertakings on historic properties, and it should articulate the agency’s intent to avoid, minimize or mitigate those indirect effects through the Section 106 review process.

Cumulative Impacts

The Draft EIS also fails to adequately acknowledge that cumulative impacts from large-scale energy development could adversely affect site setting and integrity, even if the historic property itself is avoided (see 36 CFR 800.5(a)(2)(v)). Section 4.6.3 of the Draft EIS (Cumulative Impacts Cultural and Heritage Resources) offers only a cursory discussion of such impacts, suggesting that Section 106 compliance would require cultural surveys and avoidance or mitigation of identified sites, which in turn would result in the identification of more cultural sites and more information about cultural resources. There is no discussion whatsoever as to the cumulative impacts of federal undertakings on the integrity and setting of historic properties (see also discussion below related to the Vermillion Basin).

Similar concerns about cumulative impacts were raised in connection with 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, which imposed minimal conditions on leaseholders. The subsequent natural gas development has precipitated a dramatic increase in heavy truck traffic through Nine Mile Canyon that has since resulted in significant dust, traffic problems and conflicts with other user groups. The Utah SHPO now readily acknowledges that the cumulative effects of large-scale natural gas development has had adverse effects on eligible historic properties (Matt Seddon, personal communication 2006) and *post hoc* mitigation measures are now being negotiated. The failure of the LSRA Draft EIS to consider the potential cumulative impacts of such development in the Vermillion Basin creates a similar potential to adversely affect historic properties without adequate consideration of those effects prior to development.

It is therefore recommended:

- The EIS should clearly acknowledge and thoroughly consider the cumulative effects of large-scale undertakings on historic site setting and integrity, even if direct impacts to those sites are avoided or mitigated as now stated.
- The direct and indirect impacts of increased vehicular traffic, access, road construction, air quality and diminishment of site setting and location should be clearly stated.



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Consulting Parties

Statements in the Draft EIS to the effect there will be no significant adverse effects because sites will be avoided creates a potential wherein BLM managers could determine that no consultation would be needed under provisions of 36 CFR 800.3. There is no overt indication in the EIS that the LSRA intends to preclude public participation in the Section 106 process, nor is there any explicit assurance that officials intend to engage interested publics as consulting parties through the Section 106 process. Any attempt to avoid public participation through a finding of no adverse effect would undermine the spirit and intent of Section 106 of the National Historic Preservation Act.

There is growing concern that some BLM managers (e.g., Price Field Office and Vernal Field Office in Utah) are using or intend to use findings of no adverse effects to preclude public participation in the Section 106 review process, with the caveat that the public has ample opportunities to comment through provisions of the National Environmental Policy Act (Gubbins 2006 and Stringer 2006, see also identical letters denying consulting party status to the Southern Utah Wilderness Alliance and the National Trust for Historic Preservation). As stated in 36 CFR 800.3, the agency official has no further obligations under Section 106 if it is determined the undertaking has no potential to cause effects on historic properties.

Any BLM unwillingness to acknowledge adverse effects, whether direct or indirect, could through a narrow interpretation of 36 CFR 800.3(a)(1) result in a *de facto* finding of “no potential to cause effects” and thereby circumvent the federal agency’s responsibility to “seek and consider the views of the public in a manner that reflects the nature and complexity of the undertaking and its effects on historic properties,” as defined in 36 CFR 800.2(d)(1).

It is therefore recommended:

- The EIS should clearly state the intent of the agency to comply with public participation provisions of Section 106 of the National Historic Preservation Act, *in addition* to provisions for public comment through NEPA. Such participation is at the heart of the National Historic Preservation Act.

Indirect Effects

Section 4.3.9 Impacts on Cultural and Heritage Properties acknowledges that cultural resources can be negatively impacted through the course of non-regulated surface-disturbing activities such as cross-country OHV travel, wildfires, illegal collection of artifacts, vandalism and pedestrian impacts that are *not* typically considered through Section 106 reviews. These impacts are admittedly difficult to quantify given that the locations of most cultural sites are unknown and that alternatives considered in the Draft EIS do not identify specific areas for ground-disturbing activities (see Section 4.3.9 Impacts on Cultural and Heritage Resources). 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. The failure of the BLM to adequately consider such indirect impacts of undertakings on National Register-eligible properties is an abrogation of its responsibilities under Section 106 and 36 CFR 800.5(1).

It is therefore recommended:

- The EIS should clearly articulate the indirect impacts of federal undertakings and should explicitly state the intent of the BLM to consider such indirect effects during the course of Section 106 reviews of regulated activities (e.g., transportation planning, new road construction for oil and gas development, prescribed burns, etc.).

General Management

Section 1.5.1 of draft EIS articulates six broad planning issues identified during the scoping process: Energy and Minerals, Special Management Areas, Transportation and Travel Management, Wildlife, Socioeconomic Values, and Lands and Realty. All issues identified are valid planning issues that should be addressed. However, the identification of these six issues and related sub-issues includes no mention whatsoever of cultural resources, either as a separate management issue or as a related management consideration. The omission of cultural resources (historic and archaeological) as an important management issue negates the importance of these resources to local residents and Native American groups with deep historical and cultural ties to the region. Furthermore, it belies the importance Congress placed on these resources. As stated in the preamble to the National Historic Preservation Act, “the spirit and direction of the Nation are founded upon and reflected in its historic heritage,” that “the preservation of this irreplaceable heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans,” and that “increased knowledge of our historic resources, the establishment of better means of identifying and administering them, and the encouragement of their preservation will improve the planning and execution of Federal and federally assisted projects and will assist economic growth and development” (*16 U.S.C. 470 Section 1*).

Section 1.5.2 (Planning Criteria) of the draft includes a catalog of constraints, conditions and guidelines for conducting the BLM planning process. As with Section 1.5.1, there is no mention of cultural resources within any of the 22 stated planning criteria, although there is a caveat that additional planning criteria may be identified throughout the planning process. This omission further negates the importance of cultural heritage to local residents and to Native American groups with deep historical ties to the region.

Section 1.6.6 (Cultural and Heritage Resources) articulates the various federal laws under which cultural resources are managed. It includes the statement related to Section 106 of the National Historic Preservation Act that “Agencies are also required to

consult with the State Historic Preservation Office (SHPO) and sometimes with the Advisory Council on Historic Preservation.” This section omits a critical condition that agencies are required to consult with tribal preservation officers or their designees, as per 36 CFR 800.2(c)(2). This omission greatly diminishes the recognition that “the federal government has a unique legal relationship with Indian tribes set forth in the Constitution of the United States, treaties, statutes and court decisions,” as stated in 36 CFR 800.2(c)(2)(ii)(B).

It is therefore recommended:

- Language found in the identified six planning issues in Section 1.5.1 should be modified to reflect the BLM’s commitment to balancing competing values, including cultural resources. The last sentence of Issue 1 Energy and Minerals could be modified to read “Issues regarding where and how mineral resources could be developed within the context of balancing environmental and cultural resource values will be a major focus of this plan.” The last sentence of paragraph one of Issue 2 Special Management Areas could be modified to read “Many of the proposed wilderness characteristic areas also have oil and gas potential, important cultural resources, and support other uses, which could affect how BLM determines appropriate management.” The last sentence of paragraph two of Issue 3 Transportation and Travel Management could be changed to read “Use and proliferation of roads greatly contribute to impacts to environmental values, wildlife, cultural and paleontological resources, and other values, and contributes to user conflicts over those values.” The first sentence of Issue 5 Socioeconomic Values could be modified to read “people value northwest Colorado for a variety of reasons – it is a source of livelihood, has scenic qualities and open spaces, is a place to recreate, and offers an abundance of historic and archaeological resources important to the cultural heritage of the region.”
- The planning criteria listed in Section 1.5.2 should be augmented to include the criterion: “The Little Snake RMP will take into consideration the prehistoric and historic heritage of the region, while recognizing these resources are of value to local and national interests.”
- The third sentence of Paragraph 3 of Section 1.6.6 Cultural and Heritage Resources should be modified to read that “Agencies are also required to consult with the State Historic Preservation Office (SHPO), tribal governments and sometimes with the Advisory Council on Historic Preservation.”
- The list of applicable federal laws identified in Section 1.6.6 should be augmented to include Executive Order 13007 (Indian Sacred Sites) and executive Order 13175 (Consultation and Coordination with Indian Tribal Governments).

Specific Concerns

Specific Concerns identified during the CPAA review of the Draft EIS are those related to management issues and/or alternatives proposed for the LSRA. Consequently, recommendations in this section are specific to those management issues identified in the Draft EIS.

OHV Travel

Section 2.5.9.2 Management Actions, Mitigation of Potential Adverse Effects to Historic Properties in Open OHV Areas addresses the LSRA strategies to mitigate the effects of OHV travel on cultural resources that are eligible or potentially eligible for listing on the National Register of Historic Places. It states that “Cultural resource site areas located within or immediately adjacent to existing routes would be protected by route or area closures to the types of travel that may cause adverse effects. The closure would remain in effect until the cultural resources are field-visited and documented and the needed mitigation measures are completed. The avoidance of cultural resources would be the primary mitigation measure, where possible. Significant cultural resource sites and areas may be mitigated through long-term route or area closure, re-rerouting and new construction, limitations on vehicle type and time or season of travel, excavation of archaeological resources, or other less common approaches.” The only difference between Alternatives B and C is that Alternative C calls for transportation planning once the Record of Decision is signed. Transportation planning would subsequently involve Section 106 reviews.

CPAA concurs with the BLM that route or area closures are an appropriate management strategy to protect known and unknown cultural resources that may be adversely impacted by OHV travel. This strategy is consistent with recent research in Range Creek in eastern Utah that demonstrated that vandalism decreased in direct proportion to increased distance from controlled access points, augmenting the validity of road closures as an effective management tool for preservation of archaeological sites (Spangler, Arnold and Boomgarden 2006).

CPAA also concurs with the BLM that a comprehensive monitoring program should be implemented to assess OHV impacts on cultural resources. However, the Draft EIS is equivocal as to whether the Class III inventory of the affected areas, site evaluations, site mitigations and formal reporting should be completed prior to allowing OHV travel in open OHV areas or along designated routes.

The Draft EIS is also equivocal on whether or not Class III inventories and ongoing site monitoring would include areas of potential impact outside of the open OHV areas and designated corridors. 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 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 LSRA and elsewhere in the West. 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. CPAA has been unable to identify any public outreach effort by the BLM in Colorado to educate OHV users as to the fragile and irreplaceable nature of cultural resources, or to promulgate proper etiquette among OHV users who visit these resources.

Given the hundreds of miles of existing OHV routes within the LSRA, it is highly probable that significant impacts to historic properties have already occurred, although there is little or no baseline data currently available. Unlike other permitted uses, no cultural resource inventories were conducted before designating OHV routes. 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.

Alternative A states that 991,920 acres within the LSRA would remain open to cross-country OHV use, including about 647,000 acres in areas identified as having high historic or high prehistoric sensitivity (based on the sensitivity model developed by McDonald and Metcalf 2006). Alternative B is similar but is even less restrictive. It would open an additional 181,000 acres to cross-country OHV use, including almost 746,000 acres in areas identified as having high historic or high prehistoric sensitivity. Both alternatives create significant obstacles for the preservation and protection of historic properties, either in the short term or for future generations. As discussed in Section 4.3.9.1, improved vehicle access could increase contact with cultural resources by visitors who could intentionally damage sites by collecting surface artifacts, vandalizing, illegally digging or otherwise excavating sites. And cross-country OHV

travel would accelerate erosion and otherwise disturb as many as 7,904 archaeological sites eligible for listing on the National Register under Alternative A. As many as 9,347 sites could be damaged under Alternative B.

Alternative C calls for limiting open OHV use to 21,940 acres, of which about 15,000 acres would be in areas of high historic or high prehistoric site sensitivity. As many as 175 eligible sites could be damaged or destroyed under this alternative. Alternative D eliminates open OHV travel and hence would result in no damage to eligible sites from OHVs. Both alternatives demonstrate a much greater commitment to the protection and preservation of historic properties than do Alternatives A and B, and are far more preferable than either of those two alternatives.

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 LSRA 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.

In terms of the protection of cultural resources, the restriction of OHVs to existing or designated routes is preferable to unrestricted cross-country travel. As discussed in Section 4.3.9.1, limiting OHV use to existing or designated routes must undergo site-specific transportation planning, which would include Section 106 review. The draft also states that "if this process does not occur, limiting OHV use to existing or designated routes could still result in significant impacts caused by use of routes that contain or are adjacent to cultural resource sites." Given that caveat, it is imperative that Section 106 compliance be initiated as a component regardless of which alternative chosen. In short, the BLM cannot manage for and properly protect resources that the agency does not know are there.

Alternative C is certainly preferable to Alternatives A and B, although the potential loss of eligible historic properties to open OHV use is a significant problem that must be properly addressed. There is serious question as to whether Sand Wash Basin is an appropriate location for open OHV use. The Draft EIS acknowledges that four sites have been recorded in the Sand Wash Basin area, and predictive modeling (McDonald and Metcalfe 2006) suggests as many as 175 sites could be located in open OHV areas where they could be adversely affected. Furthermore, an important and extremely rare wickiup site is located in the Sand Wash Basin, and additional such sites could be located in the same area targeted for open OHV travel.

Alternative C calls for a comprehensive Class III survey of the area, as well as mitigation and data recovery. Such measures are certainly appropriate, but it should also be noted that the nature of hunting and gathering camps is such that subsurface deposits 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 the 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. 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 a large OHV “open play area” is problematic in that Alternative C acknowledges that significant cultural resources would be damaged or destroyed. Under Alternative C, open OHV use in the Sand Wash Basin appears to have been afforded preference over other irreplaceable values, including cultural resources. This approach appears to be at odds with BLM management of open OHV areas elsewhere. For example, at Little Sahara Recreation Area, a nationally recognized OHV play area in central Utah, open travel is allowed 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 Sand Wash Basin.

The closure of areas to open OHV travel due to archaeological site sensitivity is appropriately acknowledged in Alternative C as a possible strategy to protect cultural resources. But as stated in Section 4.3.9.3, it would nonetheless result in significant damage to cultural resources. Section 2.5.9.2 indicates eligible properties could be protected through mitigation of adverse effects, including site avoidance where possible. These two statements appear to be somewhat inconsistent, e.g. the Draft EIS states that damage will be significant and that adverse effects can be mitigated through avoidance. CPAA concurs with the BLM that the only mitigation strategy that can properly protect cultural resources is a prohibition of open OHV travel in all areas where eligible properties are located. Consequently, it is also a *de facto* recognition that Alternative D (no open OHV travel) is the appropriate mitigation to ensure the protection of eligible properties in areas of archaeological site sensitivity, such as Sand Wash Basin.

Closure of Sand Wash Basin 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). The Draft EIS acknowledgment that cultural resources in the Sand Wash Basin would be damaged or destroyed by open OHV travel does not

constitute an elimination of such adverse effects, even if such adverse effects to National Register sites are mitigated through avoidance or data recovery.

The BLM acknowledges that the Sand Wash Basin area has a high potential to contain a significant number of sites eligible for listing on the National Register, and that these sites include a rare Ancestral Ute wickiup site. CPAA concurs in this assessment, but adds that camps in this area are also likely yield considerable information about hunting and gathering during 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 to open OHV travel that is articulated in Alternative D. If the BLM proceeds with its preferred Alternative C, those areas within the Sand Wash Basin demonstrated through future Class III surveys to have eligible properties should be closed to open OHV travel. The application of any mitigation strategy that does not include site avoidance (e.g., data recovery) must be acknowledged as an adverse effect that must also be considered within the Section 106 review process.

It is emphasized that the BLM elsewhere has developed detailed plans to accommodate OHV use in archaeologically sensitive areas. 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 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 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 three-part management approach 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 LSRA.

As these recommendations relate to OHV travel in open areas and on designated routes, it is recommended that:

- OHV travel be restricted to designated route, and that the designation of OHV routes include full Section 106 reviews of direct and indirect adverse effects,

including enhanced access to vulnerable sites that could be vandalized or otherwise damaged.

- 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 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 the LSRA 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.
- Given that budget constraints will greatly impede the progress of any Class III inventories related to OHV travel routes, ongoing monitoring and data recovery, as specified under Alternatives B and C, it is recommended that OHV users contribute to the cost of Section 106 compliance, perhaps through the designation, with Colorado Resource Advisory Council approval, of special fee areas or the use of other tax revenues earmarked for OHV recreation.
- Any transportation plan should include public outreach efforts to educate OHV users about the fragile nature of cultural resources, the laws protecting those resources, proper etiquette 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 EIS should clearly state that Class III inventories, site assessments and site mitigations will be completed prior to the designation of OHV routes or open OHV areas, and that cultural resource protection will be a fundamental goal of any transportation planning.
- If the BLM determines that areas of high archaeological site sensitivity should be closed to OHV travel, as described in Alternative C, planning efforts should ensure that such designations do not overtly direct vandals and artifact collectors to vulnerable archaeological sites.

Livestock Grazing

Section 4.3.9 Impacts on Cultural and Heritage Resources contains a relevant discussion related to the impacts of livestock grazing on cultural resources. The section notes that areas where livestock congregate can affect cultural resources by altering the

context of archaeological deposits, and can result in damage to standing structures, abrasion of rock art panels and trampling of vegetation that can accelerate erosion and expose artifacts to surface collection and vandalism. The section also notes the dispersed nature of livestock grazing “creates challenges” in applying Section 106 to all areas of potential disturbance.

The potential adverse effects of livestock grazing on cultural resources has historically been understated in BLM planning documents, due in large part to the paucity of data directly related to such impacts. It is generally accepted that in water-stressed environments, like the LSRA, livestock will congregate in those areas with a predictable and consistent source of water. In the absence of artificial water delivery systems, livestock will have the greatest impact on or around natural water sources, such as streams, springs, seeps and rivers. Archaeological research throughout the arid West has repeatedly demonstrated that prehistoric humans were also tethered to predictable water sources to a greater or lesser degree (see Spangler 2001, 2002 for overviews of the regional data on this issue). It can therefore be postulated that those water sources conducive to livestock needs are the same water sources utilized by prehistoric populations, and that copious evidence of human activities through all periods of time will be located in direct proximity to areas disturbed by modern livestock activities. Consequently, livestock activities have a much greater potential to adversely affect historic properties than most other ground-disturbing activities.



Photo courtesy of Sally Cole

The Draft EIS indicates that impacts could be significant, but would be mitigated on a case-by-case basis in most instances (Draft EIS 4-104). Although Section 4.3.9 of the Draft EIS acknowledges the difficulty in applying Section 106 to dispersed livestock operations, Section 2.6.2 fails to acknowledge any Section 106 obligations whatsoever, either through its stated goals or its proposed management actions. Furthermore, Section 3.2.2.2 states that BLM's traditional goal of managing livestock grazing to provide for sustainable habitat for livestock and other animals, but it makes no mention of management of livestock to preserve other values that may be impacted by livestock grazing. Section 2.6.2 does contain the caveat that "public land found to contain resource values that cannot be adequately protected from livestock impacts through mitigating measures would not be allocated to livestock grazing," although this statement is particularly vague. The Draft EIS appears to suggest an *ad hoc* management response to addressing livestock damage to cultural resources rather than full Section 106 considerations to avoid, minimize or mitigate prior to such impacts.

Given that most cultural resources remain unknown and undocumented, the impacts from dispersed livestock activities on those sites remains unknown and undocumented. And given the broad spatial range of livestock grazing, it would be extremely difficult, if not impossible, for the BLM to monitor impacts to archaeological sites. This creates a scenario where the BLM knows that significant impacts are occurring, but they do not know the nature, extent or location of those impacts. And that would limit mitigation of impacts to the extremely small number of impacted sites that may be identified during the course of other routine management activities. This "accidental management" approach to mitigation of livestock impacts may be inevitable, but it is also an abrogation of the agency's Section 106 responsibilities.

It is therefore recommended that:

- The EIS should clearly state that livestock grazing leases are subject to Section 106 review, and that the BLM will thoroughly comply with its Section 106 responsibilities in that regard.
- The EIS should articulate the intent of the BLM to identify impacts from livestock grazing prior to the occurrence of those impacts, and the measures that may be appropriate for avoiding, minimizing or mitigating such impacts.
- The EIS should indicate that the BLM will monitor the impacts of livestock on cultural resources, and that baseline data will be collected whereby future management decisions can be based on documented evidence.

Wildfire Suppression

Section 2.5.8 Wildland Fire Management identifies management goals and actions related to the management of wildland fires. All four alternatives state that "both prescribed fire and wildfire would be used to improve resource habitat and conditions, where appropriate." Any wildland fire management plan is problematic as it relates to cultural resources. As discussed in Section 4.3.9, the emergency nature of wildfires can

result in surface disturbance of cultural resources through fire suppression activities that are conducted outside of Section 106 reviews. These damages can include bulldozer cuts, and the establishment of base camps, staging areas and helicopter pads. Fires can also damage fragile and rare cultural resources such as wickiups, tree stands and eagle traps, contaminate organic and inorganic deposits at surface sites and accelerate erosion that can compromise the integrity of intact subsurface cultural deposits. The Intermountain Fire Agency has historically expended considerable effort to avoid damaging known cultural resources when responding to wildland fires.

In the case of prescribed burns, Section 106 compliance measures would be in effect to ensure that no eligible properties would be adversely affected. However, given the stated management intent of prescribed fires (removing undesirable or excessive overgrowth to improve vegetative habitat) there is a high probability that historic properties will be obscured by vegetation and will not be identified during inventories. These resources could be significantly impacted by fire (see discussion in Section 4.3.9 Impacts on Cultural and Heritage Resources). The emergency nature of wildland fire response militates against comprehensive planning to protect historic properties. And it is probably beyond the scope of the RMP to suggest guidance for the protection of cultural resources in such events. However, it is recommended that:

- General planning principles be implemented within the LSRA to ensure that wildfire responders are aware of the location and nature of potentially impacted cultural resources, and that qualified field specialists assist responders to facilitate the protection of known historic properties.
- Because wildland fires have the potential to remove dense overgrowth, they also create opportunities to identify archaeological sites in areas where they are now obscured by vegetation. There is typically a narrow window of opportunity after such fires when the ground surface is not obscured by vegetation. It is therefore recommended that BLM articulate a planning strategy to initiate inventories of burned areas to (1) identify previously unknown properties that may be eligible for the National Register of Historic Places, (2) identify potentially eligible properties that could be further damaged through accelerated erosion, and (3) conduct data recovery and/or mitigation at sites that were inadvertently damaged through fire suppression activities.
- Section 106 compliance is usually associated with planning activities prior to the initiation of an undertaking such as a prescribed burn. Given the unique nature of fire and the potential for damage to cultural and heritage properties after the undertaking (e.g., erosion resulting from removal of overgrowth), planning documents should clearly articulate management policies for identifying cultural resources and avoiding, minimizing and mitigating damage to those resources *after* the prescribed fire. These could include secondary cultural resource inventories to be required immediately upon completion of the prescribed fire.
- Fire management plans should explicitly state the importance of cultural resources and should not simply defer to the agency's Section 106 responsibilities.

Special Management Areas

Section 2.5.11.2 addresses alternatives for management of various special management areas, including ACECS, wilderness study areas and wild and scenic rivers. 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 retention of the Irish Canyon ACEC with its abundant and significant cultural resources, as recommended in Alternatives A, C and D (see also discussion hereafter regarding Irish Canyon rock art). However, other ACECs in the LSRA, excluded from Alternatives B and C, may also contain unknown cultural resources that could be better managed and protected through ACEC designations (see discussion above on the potential for high densities of cultural resources in areas where they have not yet been identified). Consequently, Alternative D would provide the greatest potential for long-term cultural resource protection by facilitating more intensive management of sensitive resources, including known and unknown cultural resources.

Management of 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. However, it has been observed in the BLM-managed Grand Staircase-Escalante National Monument that limited vehicular access also inhibits the ability of land managers to monitor adverse impacts to vulnerable cultural sites, particularly from illegal OHV use (Douglas McFadden, personal communication 2006).

CPAA concurs with the Draft EIS in Alternatives B, C and D that all lands currently designated as WSAs should be managed in compliance with the BLM's Wilderness Management Policy and terms of the Wilderness Act of 1964, that no additional road construction be allowed and that OHV use be limited to existing routes. 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 OHV use and vandalism.

The Yampa River corridor was the focus of intense occupations through human prehistory, and as such contains an abundance of archaeological sites, although most remain undocumented. The management of the river corridor has primarily focused on recreational qualities, with little consideration expressed in planning documents for the impacts of those activities on cultural resources that may be located in proximity to areas of intense recreational use. As documented recently throughout the Desolation Canyon National Historic Landmark, those who use rivers for recreational purposes generally have great respect for cultural resources, and those resources have not suffered seriously from malicious acts in recent times. Most resource degradation consisted of inadvertent damage to the resources (e.g., trails through potential midden areas, leaning on ruin walls,

stacking of artifacts into piles). The cumulative effect of such visitation was significant, but manageable through aggressive BLM planning (Spangler et al. 2007).

Any plan to manage recreational use of the Yampa River, either as Wild and Scenic or through 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.

Lands With Wilderness Qualities

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). As such, the management of these lands as wilderness would greatly enhance the protection of cultural resources through prohibitions on new road construction, limiting OHV use to existing routes, and closing the areas to development that would precipitate new road construction and enhanced public access. Alternative D 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 unrestricted OHV travel, energy development and other activities.

Alternative A and Alternative B as they relate to the Dinosaur North and Cold Springs Mountain areas would allow energy and mineral development and would be open to OHV use. These alternatives create a high potential for adverse effects to known and unknown cultural resources in the region. Both areas have large numbers of significant and eligible historic properties, including rock art sites, hunter-gatherer encampments and storage facilities that could be adversely affected by increased access facilitated by oil and gas development. The integrity of these sites has been greatly enhanced by the paucity of road access.

CPAA concurs with Preferred Alternative C that closure of these two areas to energy and mineral development, while limiting OHV travel to designated routes, would offer a much greater level of cultural resource protection than offered under either Alternative A or Alternative B. Known and unknown sites in these two areas have significant potential to exhibit a much greater level of site integrity due to the limited access that currently exists. Section 106 reviews conducted in connection with transportation planning prior to route designations could ameliorate potential adverse effects to cultural resources along those routes (see discussion above related to OHVs). However, resource protection would be further enhanced through OHV closures suggested under Alternative D. CPAA concurs with Alternatives A, B, C and D related to the Little Yampa/Juniper Canyon area.

- Given that Dinosaur North and Cold Springs Mountain are predominately roadless, and that the absence of roads has undoubtedly resulted in a much greater degree of site integrity, Alternative D is recommended as an appropriate strategy to foster the long-term preservation of historic properties in both areas.

The opening of the Vermillion Basin to oil and gas development, as described in Alternatives A, B and C, poses significant risks to the integrity of hundreds of archaeological sites that are potentially eligible for listing on the National Register. Alternatives B and C state that development would occur within management constructs that protect natural values (Draft EIS 2-47), although there is no acknowledgment that this region has a high density of significant archaeological sites, including a robust Fremont culture presence that resulted in spectacular rock art sites and storage locales. The aesthetic qualities of these archaeological sites continue to draw significant numbers of visitors to the Vermillion Basin.

The archaeological imprint of the Fremont culture in this region is substantial, and is certainly much greater than has been currently documented. The Fremont occupied all of Utah north of the Colorado River, and a large portion of northwestern Colorado in Moffat and Rio Blanco counties, where they constituted the northernmost extent of Southwestern cultures during the Formative period (cf. Spangler 2002). As such, they comprise a vital link in the understanding of prehistoric interactions between cultures adapted to the Greater Southwest, eastern Great Basin, Rocky Mountains and Northern Plains. Current archaeological research suggests the Vermillion Basin was a critical transportation and communications corridor between Southwestern peoples and contemporaneous groups on the Northern Plains.

There are copious remnants of the Fremont culture in the Cold Springs Mountain and Vermillion Basin, two areas that have been proposed for wilderness designation, and in Irish Canyon and Dinosaur National Monument. In fact, remnants of the Fremont culture in northwestern Colorado are nationally known archaeological treasures that have made significant contributions to an understanding of prehistoric lifeways in the region, and which contributed important data that augmented original definitions of the Fremont culture as traditionally defined (cf. Burgh and Scoggin 1948; see also the National Register nomination of the Castle Park Archaeological District).

Largely absent from the current database is evidence of permanent or semi-permanent Fremont residential sites. The large number of conspicuous Fremont rock art panels located in the Cold Springs Mountain and Vermillion Basin areas suggests a high probability of much larger prehistoric site populations than presently indicated by the limited surveys and site records, and that substantial residential sites will be located in both regions. The potential for significant numbers of Fremont sites is supported by the documentation for the nearby Castle Park National Register District in Dinosaur National Monument where 32 contributing prehistoric sites were located within a 1.06 sq mile (2.75 sq km) area. A similar high density of Fremont sites is expected in those localities

with prominent Fremont rock art and/or granaries (e.g., Vermillion Basin and Cold Springs Mountain).

Some scholars believe that rock art served to mark community meeting places, boundaries, ethnic or band identity and/or trade routes. There is little dispute that rock art panels in the Vermillion Basin, Irish Canyon and Cold Springs Mountain served as distinct cultural markers on well-populated, well-traveled and oftentimes contested prehistoric landscapes. There is also little doubt that rock art panels constitute a distinct visual record of past human behavior. However, at present there simply is insufficient regional survey data (e.g., large block surveys) from this area to understand prehistoric settlement or land-use patterns.

The importance of northwest Colorado to an understanding of the Fremont culture cannot be overstated. The Dinosaur National Monument, Vermillion Basin and Cold Springs Mountain areas constitute the northeastern-most boundary of the Fremont culture, representing that area where Southwestern-influenced and Plains-influenced peoples engaged in robust socioeconomic intercourse that resulted in a unique adaptive cultural hybrid evident in the archaeological record (Madsen 1979). This region also plays prominently into scholarly discussions about the demise of agriculture in the region and the disappearance of farmer-forager lifeways that define the Fremont. Indeed, the “last stand” of Fremont farmer-foragers may well have been in northwestern Colorado two to three centuries *after* the collapse of farming among Fremont people living in Utah (see Spangler 2002 for an overview of these data).

Despite the fact the Vermillion Basin is nationally renowned for its archaeological resources, including spectacular Fremont rock art panels and masonry granaries, few sites have been subjected to significant scientific inquiry (only a handful have been documented to currently acceptable scientific standards). Consequently, the spatial distribution of these sites is poorly known. It is anticipated that substantial permanent or semi-permanent Fremont residential sites will be located within the basin, and that these sites will be located within a spatial range consistent with the economically efficient retrieval costs associated with the transport of stored food resources (cf. Barlow 2006; Spangler et al. 2007). Such research has tremendous potential to contribute important new insights into Fremont agricultural and storage strategies through cost-benefit analysis and studies of land-use-patterns. Such studies, which constitute the backbone of modern archaeological research, are directed at understanding prehistoric human behavior, in particular explaining how human groups adapted to their environmental landscapes. As such, Fremont sites in the Vermillion Basin may constitute a cohesive, interrelated assemblage of sites that would be eligible for National Register designation as an archaeological district under Criteria A and D.

The most visible reminders of past human behavior, which may be individually eligible for National Register designation under Criterion C, are the abundant rock art panels. In addition to the aesthetic qualities, these images offer clues as to spatial and temporal relationships between prehistoric populations. Nationally recognized rock art expert Sally Cole indicates at least five archaeological sites with 39 distinct rock art

panels and associated features are found in Irish and Vermillion Canyons that are currently eligible for nomination to the National Register (sites 5MF353/419 and 5MF354 in Irish Canyon and sites 5MF492, 5MF756, and 5MF758 in Vermillion Canyon). These properties clearly have potential to yield information important in prehistory and history, including the development and demise of northern Fremont culture, the arrival and interface of Ute and Eastern Shoshone populations, and Euroamerican exploration and settlement.

These sites offer evidence that the Green River and its tributaries were utilized by prehistoric populations for travel and communication, and that evidence documented at these sites indicates a relationship between peoples and ideas of the Southwest and Colorado Plateau and those of the Great Basin and Plains. Furthermore, these data suggest links with neighboring sites in the Cold Springs Mountain and Browns Park areas. Most of the Irish and Vermillion Canyon petroglyphs are attributed to the Fremont culture (see discussion above). Exceptions are found at 5MF353 and 5MF756 where Ute or Eastern Shoshone elements also occur. An incised historic date (1929) appears at 5MF756. Patterns of weathering and stylistic evidence suggest that Fremont rock art was made over a significant period of time, dating from about A.D. 500 and continuing through A.D. 1300 or later. Some of the petroglyphs resemble Basketmaker II imagery in the Colorado and San Juan River drainages and suggest connections to those areas prior to A.D. 500 (Charles and Cole 2006). Stylistically, the Irish and Vermillion Canyons petroglyphs are most closely affiliated with the Uinta Basin Fremont, but there are similarities to rock art of the Tavaputs Plateau and Book Cliffs regions to the west and south (Cole 1990; Spangler and Spangler 2003).

The settings for two of the petroglyph sites provide clues as to how rock art functioned in different ways through time. At site 5MF353/419 in Irish Canyon, Fremont and Ute or Eastern Shoshone petroglyphs are on cliffs (high and low) and on boulders at the point where the canyon narrows to the south. The narrowing does not inhibit travel but increases the likelihood that much of the rock art will be seen by local residents as well as outsiders. This choice of setting indicates the imagery was intended to be viewed and was essentially public in nature.

Fremont and Basketmaker-like petroglyphs at site 5MF492 in Vermillion Canyon were probably not viewed on a regular basis, particularly by the traveling public. The petroglyphs are situated on near vertical, orange and yellow cliffs in a spectacular and narrow (slot-like) gorge cut by Vermillion Creek. Access to these panels is by way of the interior of the gorge, which usually requires walking through a perennial stream along the rocky canyon floor and navigating floods during thunderstorms and spring runoff. The panels vary considerably in content. Some are crowded with a variety of styles and elements that appear to have been made over a considerable period of time. Two complex panels are located high on the cliff above narrow, crumbling ledges that would have afforded precarious perches for making petroglyphs. Cole indicates the canyon setting is indicative of shrine-like qualities, and it is likely that the site was visited periodically for ceremonial purposes, and that petroglyphs were made by select individuals or groups. Consequently, this site and others like it may be properties of religious significance to

indigenous groups with historical ties to the region (see Native American consultation discussion above).

The documented sites in the area are evidence of a movement of peoples and ideas from north to south, south to north, and along tributaries of the Green River throughout various periods of time. Hence, sites in the Vermillion Basin are interrelated to sites on Cold Springs Mountain, Browns Park and Irish Canyon. This relationship supports the designation of a more regional National Register district that includes significant sites in all of those areas. A model for this kind of district is the nearby Canyon Pintado National Historic District in Rio Blanco County, Colorado. This BLM-administered district has operated successfully since the oil-gas boom times of the 1980s and insures large-block (rather than piecemeal) protection and interpretation of archaeological resources in tributaries of the White River.

The limitation of surface disturbance to no more than 1 percent of the Vermillion Basin is problematic in that development could be aggregated rather than dispersed, and that such development could result in concentrated cumulative effects that could “diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling or association” (36 CFR 800.5). Consequently, adverse effects from such development, which should be considered in Section 106 reviews, must include the indirect and cumulative effects of increased road construction (increased vandalism and damage resulting from OHV use), increased vehicular traffic (air quality) and the integrity of the location where eligible properties are found (viewshed). The Draft EIS fails to even consider that such activities could have a cumulative effect (see discussion above regarding cumulative effects).

Alternative D is preferable in that it would allow for the greatest protection of cultural resources within the Vermillion Basin. The Draft EIS states in numerous locations (cf. ES-10) that “the preferred mitigation treatment for adverse effects will be site avoidance.” Because the Vermillion Basin contains a large concentration of known eligible archaeological sites, including those of interest to the general public, this area should be “avoided,” or removed from consideration for developments that could have direct and indirect effects on nationally recognized archaeological resources.

The following recommendations are applicable to Alternatives A, B and C as each relates to oil and gas development in the Vermillion Basin:

- Despite limiting the surface disturbance to no more than 1 percent of the Vermillion Basin as a whole, exploration and development activities in the region will allow for aggregated development in those areas of high potential, while other areas of low potential are reserved as undisturbed “credits” as part of the overall leasing unit. This creates a significant potential for cumulative effects that must be properly addressed in the EIS and through Section 106 reviews.
- Energy development would mandate the construction of access roads subject to Section 106 compliance. These access roads could also facilitate public

access to and degradation of cultural resources in the area. Consequently, any access routes constructed in connection with energy exploration and development should be designated as administrative routes and not public rights-of-way. These routes should be gated and locked, and OHVs should be limited to designated routes that have undergone Section 106 review.

- Investigations of archaeological site vandalism and site degradation in eastern Utah have demonstrated that vandalism to cultural resources in the Jack Canyon area resulted from employees of oil and gas companies (BLM 2005). Anecdotal evidence of oil and gas employees engaging in vandalism (and other illegal activities) are common throughout the BLM, but are poorly documented. It is therefore recommended that each POD include stipulations that leaseholders, prior to initiating development, have in place BLM-approved personnel policies regarding employees who engage in illegal or inappropriate behavior, including acts that diminish the integrity of historic properties.
- The cultural resource inventory plan specified in the POD components should include a public outreach component, to be determined by the BLM and/or SHPO, whereby archaeological data collected during the course of Section 106 compliance activities can be reported to the public. Such requirements have been required by the Nevada SHPO for many years, and similar requirements are now being implemented on a case-by-case basis by the Utah SHPO. These efforts foster a greater public appreciation for cultural resources, while demonstrating appropriate accountability to the public for actions affecting historic properties.
- Given the importance of the Vermillion Basin to an understanding of Fremont culture interactions with ancestral Plains peoples, the entire Vermillion Basin should be subjected to an intensive Class III survey to determine the nature and extent of Fremont adaptations, and to assist the BLM in its efforts to mitigate direct and indirect adverse effects to these resources. This survey should be completed prior to lease development.
- Archaeological resources in the Vermillion Basin are well known to the general public, and they remain the subject of considerable public interest and recreational visitation. Any development of Vermillion Basin oil and gas leases should take into account the extreme sensitivity of these resources, including the aesthetic qualities that draw people to visit these cultural resources. In light of the fact that the area of potential effect is far greater than the 1 percent total surface disturbance, these considerations should include analyses of traffic patterns and potential conflicts with other users, deposition of road dust and chemical particulates on rock art panels, diminished quality of the viewshed and the cumulative impacts of the undertakings on the integrity of the property's location, design, setting, materials, workmanship, feeling or association (see 36 CFR 800.5(a)(1)). Furthermore, 36 CFR 800(2)(v) states the "introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features" is an adverse effect that must be taken into consideration.

- A National Register nomination for rock art sites in the Vermillion Basin was initiated several years ago but was not finalized (Sally Cole, personal communication 2007). The nomination of the Vermillion Basin as a National Register archaeological district should be completed by the BLM and formally submitted to the National Park Service. Given the relationship of sites in the Vermillion Basin to those in Irish Canyon, Cold Springs Mountain and Brown's Park, the BLM should consider an archaeological district that includes nearby archaeological sites.
- The Vermillion Canyon sites upstream from the canyon gorge (5MF756 and 5MF758) are highly susceptible to damage from off-road vehicle use and the associated arroyo cutting and vandalism. Adverse impacts can be minimized by prohibiting vehicle travel in the area surrounding the gorge, including canyon rims above and areas below.

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. There is no evidence the LSRA has aggressively pursued its responsibility to nominate properties to the National Register. In fact, none of the National Register properties located within the political boundaries of the LSRA were nominated by the BLM. This stands in decided contrast to other federally managed areas in Colorado. For example, in Montezuma County there are six National Register prehistoric archaeological districts that cover a total of 842,880 acres, three of which are managed by the BLM or Forest Service.

The archaeological resources of the LSRA are admittedly not as visually remarkable as those in southwestern Colorado. But visual appeal is not a definitive standard whereby National Register sites or districts are deemed appropriate (see *National Register Bulletin 16A*). Many known archaeological sites are clearly eligible under Criterion A in that they are associated with broad patterns of human prehistory in northwestern Colorado; 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 they 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 LSRA would be eligible under these three criteria, and potentially under Criterion B if they are associated with important individuals.

A review of the current data suggests significant inconsistencies in how sites were recorded and evaluated, and a considerable number need additional data for a National Register eligibility assessment. In many cases, site data and eligibility determinations have not been augmented since they were recorded in the 1970s. Some sites are presently considered ineligible, although they are clearly eligible. One of these ineligible sites has two prehistoric rock art panels with a minimum of 10 figures located within a rock shelter with a concentration of lithic debris suggestive of cultural deposits.

These data offer further evidence that Draft EIS discussions related to various alternatives are based on incomplete and inadequate archaeological data as they relate to site significance and eligibility. Consequently, there could be significant future adverse effects on vast numbers of historic properties that are presently unknown due to BLM – a data gap that may be a direct consequence of the BLM’s ambivalence toward its Section 110 mandates in the past. In effect, the failure to incorporate long-term cultural resource planning in the past has resulted in a paucity of quality baseline data that makes it extremely difficult to adequately consider cultural resource protection in the future.

The Draft EIS states the intent of the BLM to embrace its Section 110 responsibilities. The preamble to Section 2.5.9 (Cultural and Heritage Resources) states “The LSFO will implement a proactive cultural resource program required under Section 110. A reasonable amount of outreach/customer service work, Native American consultation, interpretation and environmental education, cultural resource inventories, data recovery and recordation efforts, restoration and protection of at risk site efforts, and systematic monitoring of cultural sites treatments are to be completed annually. The level of proactive cultural resource program work would be determined annually within constraints of available funds and staff.”

The above-stated intent is laudable and has the potential to become a model for BLM management of cultural resources on public lands. 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. In the case of the Little Snake Resource Area, as well as in adjacent field offices, these annual budgets have been focused predominantly on the expedited extraction of energy resources. The caveat that the level of “proactive” cultural resource work would be determined annually within the constraints of budgets and staff is disconcerting in that those constraints provide a convenient avenue for LSRA managers to defer indefinitely their Section 110 responsibilities to engage in proactive cultural resource management. Given that non-energy-related budgets have been static or have declined in recent years, there would appear to be little incentive for the LSRA to prioritize funding for non-project-driven initiatives.

Section 2.5.9.1 Resource Goals and Objectives states its intent to “complete site nominations to the National Register of Historic Places,” and in Section 2.5.9.2 Alternative B it identifies the Vermillion Buffalo Trap, Sand Wash Wickiup and other known wickiups sites, known tree stands, Irish Canyon Shelter, Red Army Shelter and Cross Mountain Shelter as priority sites for nomination. The goal to nominate eligible sites is clearly an important one articulated by Congress in Section 110 of the National Historic Preservation Act, and emphasized by Executive Order 11593 that require federal agencies to locate, inventory and nominate to the National Register all properties under their jurisdiction or control that qualify for listing. CPAA enthusiastically supports the LSRA in the pursuit of that long-delayed goal.

However, the information contained in the Draft EIS regarding National Register sites is misleading and perhaps inaccurate. Section 3.1.10.1 Current Conditions states that 30 sites are listed on the National Register of Historic Places (Draft EIS 3-77). A CPAA review of the National Register Information System (NRIS) database reveals that there are 12 National Register sites and one archaeological district in all of Moffat County, 13 National Register sites in all of Routt County, and none in the small portion of Rio Blanco County within the boundaries of the LSRA. The Draft EIS fails to acknowledge that most of the listed sites are historic buildings in private ownership, or are properties in Dinosaur National Monument that were nominated by the National Park Service. Further examination of the NRIS database reveals the LSRA has not nominated a single site to the register. These data also reveal that only one archaeological site and one archaeological district, both in Dinosaur National Monument and outside the purview of the BLM, have been formally listed.

Given these considerations, it is recommended that:

- The EIS should explicitly state that proactive cultural resource work is a critical need accentuated by accelerated energy development, increased OHV use and other uses. The level of proactive cultural resource program work should be determined annually, and funding for such work should be prioritized within the LSRA budget.
- Funding shortfalls to address issues like site monitoring and protection can be ameliorated through partnerships with advocacy groups, 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.
- Section 3.1.10.1 of the EIS should be modified to reflect the actual number of National Register properties on lands administered by the BLM (currently there are none), not those in private ownership or managed by the National Park Service.
- 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. This list of priority nominations should be expanded to include an archaeological district in the Spring Creek area that have made immeasurable contributions to an understanding of Archaic lifeways in the American West, as well as rock art sites in the Vermillion Basin and Cold Springs Mountain (see discussion above).
- The BLM should aggressively seek public input regarding which sites should be prioritized for nomination. This could include discussions with the Colorado Council of Professional Archaeologists, local and statewide historical societies, and historic preservation advocacy organizations such as the National Trust for Historic Preservation.

Summary

As discussed above, the draft EIS contains many deficiencies related to cultural resources, some serious (e.g., Native American consultation, the failure to consider indirect and cumulative effects), and others less significant (e.g., a need to enhance the prominence of cultural resource protection in all aspects of the planning document). The overriding concern identified throughout these comments has been the paucity of baseline data over the past two decades whereby informed management decisions could be made. The BLM simply does not know the quantity, diversity or density of cultural resources under its jurisdiction, and hence management decisions have been predicated on incomplete or inadequate information.

Clearly, the Draft EIS is attempting to assess the adverse effects for archaeological sites across millions of acres with practically no relevant Section 110 survey data. The conspicuous information currently available – such as the widespread rock art – suggests a much higher site density in some of these locales than are currently documented, and that known sites comprise a small part of a largely unseen and undocumented prehistoric presence in this area. It is also evident that the number of National Register-eligible sites is likely much greater than current documentation suggests, and that adverse effects, especially in the Vermillion Basin and Cold Springs Mountain areas, will be much greater than anyone can possibly know at this time. These effects will be exacerbated if areas that are currently roadless are opened to increased on-road and off-road vehicular traffic or energy development.

As discussed above, Alternative D provides the greatest level of protection for known and unknown cultural resources by limiting vehicular access that facilitates adverse effects, both directly and indirectly. If the BLM proceeds with its preferred Alternative C, the damage to significant numbers of irreplaceable cultural resources, particularly in the Sand Wash Basin and Vermillion Basin, would be substantial. The avoidance of archaeological sites as a preferred mitigation strategy is laudable, but it fails to consider the indirect effects of such actions on the location and setting of historic properties. Nor does the Draft EIS acknowledge that when avoidance is not possible that mitigation efforts such as data recovery are adverse effects that must be considered within the context of Section 106 compliance.

Alternative C is certainly preferable to Alternatives A and B, both of which would precipitate widespread and irreparable damage to cultural resources through open OHV travel. These two alternatives offer little protection for cultural resource values, and reflect an abrogation of BLM responsibilities under various federal laws, regulations and executive orders. Neither alternative should be seriously considered without a management plan that comprehensively addresses the identification of potentially affected archaeological sites and strategies to mitigate damage to those sites. The Draft EIS acknowledges that damage to cultural and heritage resources under both alternatives would be substantial, and that potentially thousands of archaeological sites could be adversely affected. Measures to mitigate such damage, as described in Alternatives A and B, are clearly inadequate and reflect a subrogation of cultural resource values to destructive uses.

The BLM should be commended for stating its intent to initiate a proactive, non-project-driven archaeological program that will foster public education and outreach. If actually implemented and funded by the BLM, such a program has the potential to become a model for cultural resource management. CPAA concurs that educating the public as to the fragile and irreplaceable nature of cultural resources is critical to the long-term preservation of those resources. Such public outreach efforts are also critical to resolving potential conflicts between user groups, and should be encouraged as a fundamental component of all land management decisions. These efforts should be promulgated through enhanced partnerships with academic institutions, non-profit organizations, citizen advocacy organizations and user groups.

Thank you for considering my comments and recommendations.

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