



**CENTER FOR
DESERT
ARCHAEOLOGY**

a nonprofit corporation

William H. Doelle, Ph.D.
President and CEO

March 2, 2011

Forest Supervisor
Attn: Travel Management
3005 E. Camino del Bosque
Silver City, NM 88061

Dear Forest Supervisor:

The Center for Desert Archaeology is a non-profit organization operating in Arizona, New Mexico and portions of Mexico. With over a thousand members, our mission is to preserve the places of our shared past. For 25 years, we have pursued this mission on behalf of all who find meaning in such places. To this end, the Center strives to:

- *conduct research that addresses questions of broad interest and connects people of today with the past;*
- *enable people to explore and learn about the Southwest's past through creative and varied means;*
- *achieve long-term protection of our cultural heritage—archaeological sites, historic buildings, and cultural landscapes—in the Greater Southwest, including promoting a stewardship ethic with the public and professionals.*

Through a recent partnership with the National Trust for Historic Preservation, we have extended our capacity to promote the long-term protection of our cultural heritage. Working with private and public landowners, we are exploring ways to better protect our cultural heritage while meeting their needs and responsibilities as landowners and managers.

Here in the Southwest, it is our experience that cultural resources on public lands are most threatened, at least in a collective sense, from inadvertent destruction (i.e. vehicles running over sites), surface artifact collecting (casual sherd or arrowhead collecting), looting, and in some instances, outright vandalism. These impacts are largely a reflection of the accessibility of the cultural resource sites to the public; accessibility which often is facilitated by motorized vehicles. While much progress has been made over the last 30 years in protecting sites, absent increased resources to more directly manage sites, monitor sites on the ground and to provide increased public education, travel management becomes an essential element of the National Forest's stewardship of our Heritage resources. It may be the single most important Forest-wide action that can better steward cultural resources.

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Our comments are largely directed to the Cultural Resource section of the DEIS and they are intended to improve upon what will be a significant step forward in travel management on the Gila National Forest. The Center for Desert Archaeology appreciates the opportunity to provide comment on the Travel Management Rule DEIS for the Gila National Forest.

DEIS Comments:

In general we fully support the intent of the Gila National Forest to develop a Travel Management Rule. In particular, we strongly support the prohibition on cross country travel common to all alternatives. This will provide significant benefit to the preservation of cultural resources. Similarly, we strongly support limiting Motorized Big Game Retrieval (MGBR) to dispersed camping corridors. To the extent that motorized dispersed camping corridors are designated only in areas where there are no impacts to National Register or Register-eligible sites than similarly MBGR will have no impact to these cultural resources.

We commend your cultural resources staff for the risk factor analysis. While we don't agree that past disturbance is a likely predictor of future impact, the risk factor analysis clearly provides a more objective basis for decision-making. However, we don't understand the restricted use of this analysis in assessing impacts. We strongly recommend the use of this technique for evaluating alternatives as they relate to all motorized routes as well as motorized dispersed camping corridors.

Chapter 2

Mitigations: Cultural Resources

We commend the Gila National Forest proposal to mitigate "substantial impacts" to cultural resources through avoidance. This best meets the intent of the National Historic Preservation Act. However the term "substantial impact" is not defined. We suggest using sites that are National Register-listed, -eligible or unevaluated with the risk factor scores that are moderate or severe. Despite the small route prisms used (see discussion below regarding the adequacy of these buffer areas in assessing risk), there are significant differences among alternatives with respect to impacts on cultural resources based upon the information presented in the DEIS (see table at top of Page 232). Can we conclude that the increased amount of motorized route miles between Alternative G and Alternatives D&E will not result in any differences in substantial impact to cultural resources? If not then a reduction in miles designated as open to motorized use is required in the final rule. This would also apply to Motorized Dispersed Camping Corridors.

Cultural Resources Consultation and Travel Management and Environmental Effects

In our scoping comments submitted in October 2009, we stated that the Section 106 review was not adequate because it did not fully consider the indirect effect of existing authorized routes,

new routes and motorized dispersed camping corridors. Our position then, and now, is that trails or routes open to motorized use provide easier access to sites depending on the proximity of the site to the trail or route. Several studies (see below) have demonstrated that sites are impacted to a greater degree when they are close to a road open to motorized travel. The explanation for this observed pattern is speculative but it seems reasonable that if someone can drive close to a site they are more likely to unintentionally encounter the site when they are walking. If they are intentionally visiting the site to do harm, being able to drive closer provides an individual(s) an easier way in which to transport heavy, awkward or delicate artifacts as well as the implements needed to excavate the site. It also stands to reason that if a site is closer to a motorized route, it is usually easier to reach the site (whether driving off road or walking), particularly at night when illegal activities are more likely to occur; that a looter/vandals perception of their risk of detection is less if they have to walk less distance to reach the site; and that their perceived ability to escape in the event they are detected is less if their vehicle is closer at hand.

Looting remains a persistent problem on our National Forests. It is our position that apart from the natural process of degradation that all human features experience, looting and vandalism are the two most significant threats to cultural resources on federal lands. As such, any Forest actions that have the potential to deter looting or vandalism should receive serious and thorough scrutiny. The decision to designate a trail or route open to motorized travel or to designate a motorized dispersed camping corridor will have by definition an indirect effect¹ related to the site's accessibility which often is related to its proximity to a trail, route or corridor open to motorized use. While the Section 106 protocol agreement may eliminate the need to fully consider these indirect effects in the strict context of consultation requirements with the State Historic Preservation Office, this is not the case in the context of a NEPA analysis.

This issue is well documented in the Apache-Sitgreaves National Forest Cultural Resource Specialist report (select pages are presented in Appendix A) prepared in support of their recently proposed TMP rule. Pages 15-16 of that report do a very good job of elucidating this issue of indirect impact and site accessibility and also reference several studies that speak to this issue. In addition to these studies, we again refer to Spangler's 2006 report which you reference in the DEIS as well as a report from work we conducted on the Tonto National Forest this past summer (Appendix B). Our observations involving 96 prehistoric sites that are prone to looting/vandalism² indicate that these sites experienced significantly more recent damage

¹ CEQ defines "Effects" in the context of the National Environmental Policy Act as "direct" and "indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable".

² Sites prone to vandalism/looting include habitation sites with above ground features, pictograph/petroglyph/rock shelter sites and high density decorated sherd scatters.

(damage which is less than 5 years old) when located near a route open to motorized use when compared to sites located farther from a trail or route open to motorized use regardless of route condition. In addition, sites closer to routes open to motorized use were classified in poor condition in greater frequency than sites classified as fair or good condition. These results were found to be statistically significant at the $p < 0.05$ level.

It is our experience that accessibility of a site is a significant factor in accounting for site impacts over time. The issue of site accessibility as it pertains to travel management planning revolves around the question of what we term "threshold distance": at what distance from a trail or route open to motorized use can discernible differences in impact to sites be demonstrated when compared to similar sites found at greater distances? Once determined the threshold distance becomes an important aspect of evaluating impacts and comparing alternative in motorized trail and route designation. In a much more limited manner this appears to be the approach taken by your analysis through the use of buffer acres for assessing potential impacts of motorized routes on page 231. However the distance threshold used in the DEIS is grossly inadequate. The studies referenced in the Apache-Sitgreaves specialist report indicate on Page 15, "a few hundred yards" and "150 meters". Spangler (2006) suggests 200 meters and our work on the Tonto indicates that statistically significant differences could be found in relation to recent damage and overall site condition at distances up to 300 meters. Clearly the 10 feet for trails and 50 feet buffer area (i.e. route prisms) around motorized trails and routes does not adequately assess this indirect effect of road designation nor does the 7.5 and 30 meters established through the Protocol Agreement for Region 3.

Absent objective information developed for the Gila National Forest³, we propose relying on the quantitative studies that have addressed this issue and request that the buffer area size for all motorized routes be increased to 300 meters each side of the trail and route centerline⁴ to more fully assess the indirect effects of trail or route designation. This will provide a more complete understanding of impact potential for purposes of evaluating differences between alternatives as it relates to cultural resources. This is a key element of the analysis as your report states very clearly on Page 230 that the "reduction of miles/acres of motorized routes...is *highly* (italics added) beneficial to cultural resources by reducing the number of cultural resources exposed to direct and indirect effects of motorized vehicle use".

In a similar vein we argue that the assessment of effects associated with dispersed camping corridors fails completely in assessing the indirect effects of designation. If someone can drive

³ For example is there any meaningful correlation between risk factor score and distance from a motorized route? Does this relationship vary at different distances?

⁴ With respect to indirect effects, we see no reason to differentiate trails from routes as the Issue is simply on how close someone can drive to a site regardless of the vehicle type.

their vehicle 300 feet from a road, a dispersed camping corridor functions as a very wide road for purposes of facilitating access to sites. For the reasons stated above, an adequate assessment of potential effects requires that a buffer area or area of potential effect be evaluated at a 300 meter fixed distance beyond the outside edge of the corridor. It also our position that any surveys conducted for dispersed camping corridor designation in the context of Sec 106 review should be expanded to include this recommended buffer distance from the corridor edge to adequately assess indirect effects of motorized camping corridor designation.

Conclusions on Direct and Indirect Travel Management Effects to Cultural Resources

Based in large part on the aforementioned discussion and aided by habitation site databases developed by the Center for Desert Archaeology and by Arizona State University through its Long Term Vulnerability and Transformation Project⁵, we provide specific recommendations regarding motorized route and motorized dispersed camping corridor designations (Appendix C). Our analysis is based on a limited data set and as such is not complete.

Cumulative Effects

This section acknowledges that the impacts to cultural resources are likely to be episodic and continual over time. Decisions to designate new unauthorized roads as open, opening closed roads, continuing to designate existing roads as open, designating areas open to motorized cross country travel and designating motorized dispersed camping corridors that include motorized big game retrieval will contribute to the continued degradation over time of cultural resources. These are non renewable resources and their continued degradation will for all practical purposes destroy an irreplaceable resource. The nature of this cumulative impact and the non-renewable nature of the resource have significant ramifications that need to be better articulated in the final EIS which in turn provides a stronger foundation for the application of the mitigation measures identified in Chapter 2 and in defining "substantial impact" broadly.

Thank you for this comment opportunity and for your efforts to better steward our shared places of the past through more active management of roads on our National Forest land.

Sincerely,



Andy Laurenzi

⁵ Coalescent Communities Database and National Science Foundation Project Number: 0508001, respectively.