

Desert Advisory Council
West Mojave Route Network Project Subgroup
Report of Findings and Recommendations
May 24, 2013

Executive Summary

In response to a request from the Bureau of Land Management (BLM) for assistance with The United States District Court for the Northern District of California's mandates resulting from a suit by the Center for Biological Diversity and others, the Desert Advisory Council (DAC) established the West Mojave Route Network Project Subgroup (subgroup). The subgroup spent fifteen months (February 2012 through May 2013) examining transportation issues within the eight proposed Western Mojave (WEMO) Transportation Management Areas (TMAs). The subgroup was tasked with:

Preparing a report that would:

- A. Identify the range of uses and user groups of the WEMO Planning Area.
- B. Identify the route network requirements for the identified uses.
- C. Present recommendations for policy and management of the WEMO route network.

This report reflects the deliberations and conclusions of the subgroup based on data gathered from public sources, including subgroup member expertise. Recommendations are being made after carefully scrutinizing: the BLM's West Mojave Travel Management Area (TMA) Maps with Ground Transportation Linear Features (GTLF) data; data gathered during taskgroup meetings; and additional data provided by the BLM via the scoping meetings in early 2012. Additional resources were provided to the subgroup from the public and interested agencies via e-mail, mail, and personal appearances at both subgroup and taskgroup meetings. It should be noted, however, that known databases managed by the BLM (maps of mine and abandoned mine sites, cultural resource sites and districts, paleontological resource sites and districts, water sources and guzzlers, species range maps, and maps for apiaries and grazing, etc.) were not made available to the subgroup and could have provided additional information that might have influenced the subgroup's final recommendations.

The subgroup finds that there are two primary forms of access required by the public who work and recreate in the West Mojave: Unconstrained Aggressive Use and Managed Passive Use.

Managed Passive Use includes access for vehicle supported recreation such as family camping, hobby collecting, and resource inventory and management by BLM volunteer public support

groups, other agencies, professionals/individuals, either formal or informal. The Friends of Jawbone's (FOJ) Jawbone Route Management System (Jawbone RMS) methods are applied here.

Unconstrained Aggressive Use includes access for high speed recreational testing or operation of a vehicle and of the operator in remote areas legally designated Open areas.

Much of the public, and even lead agencies, consistently fail to recognize that most of the public conduct professional and recreational activities where motorized vehicles are used as secondary support – a means to an end dictated by the sheer size of the WEMO planning area. The subgroup finds that the high profile OHV activities generally associated with motorized recreation in the desert do not properly reflect how the vast majority of people use the desert. Much of the public uses the desert in additional, and mostly managed, passive ways (e.g. camping, hiking, photography etc.). These passive users, who assist with resource management, camp with families, conduct professional surveys, and educate students, would be hurt by further route closures.

Recognized uses of routes in WEMO

Below is a list of selected public uses identified by the subgroup:

- Motorized Recreation,
- Resource Management (including volunteers and other agency professionals),
- Field Studies related to Health and Safety,
- Resource Management through BLM partnerships,
- Authorized Resource Exploitation,
- Education,
- Motor dependent/assisted activities with family values.

The subgroup's findings support many substantial reasons to maintain multiple routes in an Open status within WEMO TMAs. One of the most important reasons is continued and increasing managed passive access to assist the BLM with resource management. Additional important, existing, and authorized managed passive vehicle assisted uses are recognized and explained in detail below.

TMAs within WEMO contain routes that fall within three categories: Open, Conditional Limited Access, and Closed. The subgroup recommends that the category of Conditional Limited Access be reviewed and expanded to encourage volunteer resource management under conditions of Limited/Seasonal/Special Use permits. Based upon the findings by the subgroup of the many uses within the WEMO, and the

limitation of three categories of road designation, the subgroup presents recommendations for the management of the WEMO TMAs:

- BLM criteria for road closures: criteria should be very simple and transparent.
- Subgroup criteria for keeping routes open: links between routes, continued maintenance of open routes.
- Route Education: signage, maps, on-ground signing (implement FOJ's Jawbone RMS strategies).
- Open Routes: kiosks at main entries, "line of sight" signage.
- Criteria for expanding "limited" access: provide access for resource management by permits and field work authorizations, including mining, guzzlers, wind energy, private property, biologic and geologic studies and nonrenewable resources.
- Closed Routes: routes not designated as Open or Limited should be marked closed.
- Personal/Individual health and safety: new technology (e.g. GPS navigation devices).

The subgroup's specific recommendations are divided into two major groups: recommendation for managing resources, and recommendations for routes and route management. Many of the subgroup's recommendations overlap both groups. In addition, the subgroup provides recommendations for each specific Travel Management Area (TMA).

A. Subgroup Recommendations Regarding Resource Management:

- A1. Promote public volunteerism to support resource management by user groups and individuals. This will promote better understanding of the fragile desert ecosystem among all users.
- A2. Develop Resource Polygons as layers in the BLM GIS data resources.
- A3. Integrate GIS data with GTLF-based layer.
- A4. Provide and maintain route access to resource areas including: sensitive areas, guzzlers, mining claims, for resource inventory, monitoring maintenance, or other studies.
- A5. Private vs. Public lands: clarify responsibilities; the BLM managers must clarify responsibilities for routes that cross private lands.
- A6. No buffer zones: there should be no buffer zones around Wilderness, Wilderness Study Areas or Areas of Critical Environmental Concern (ACEC).
- A7. Consistent management policies: management policies in the WEMO Planning Area should be consistent over all BLM districts throughout the western states.

A8. Ample notification of changes: assure that changes will not occur without notice, or without review by an Implementation subgroup.

A9. Maintain roads created for sustenance living (mining, farming, or grazing).

B. Recommendations for routes and route management:

B1. Route Signage: All routes must be signed and posted with current status:
Open, Limited, or Closed

B2. Apply continual maintenance along routes.

B3. Implement persistent monitoring strategies to determine effectiveness of existing strategies, and allow focused enforcement.

B4. Funding commitments to maintenance. Funding commitments to field monitoring and maintenance should be a priority in the BLM budget.

B5. Permit systems should be considered as a general management tool. Permitting systems should encourage resource management through Special Use permits, Limited Access permits, and seasonal closures.

B6. Avoid proliferation by route design when alternatives are available.

B7. Single-track trails: designate and maintain single-track trails utilizing the successful strategies of FOJ's Jawbone RMS.

B8. Protect historic foot trails: Ensure that historic foot trails are protected from motorized incursions.

C. Recommendations for long term monitoring

C1. Partnerships for monitoring routes and erosion within each TMA

C2. Partnerships for monitoring nonrenewable resources

C3. Partnerships for monitoring biologic population

C4. Establish a standing DAC WEMO Implementation subgroup to monitor the implementation of the new or modified WEMO plan additions as they develop.

The subgroup encourages directing unconstrained aggressive motorized sports toward OHV Open Areas designated for that use. The subgroup applauds successful route management of the route management system developed by Friends of Jawbone (Jawbone Route Management System (Jawbone RMS)) covering four subregions within TMAs 4 & 7. The subgroup strongly encourages funding to implement this route management system in other TMAs near population sources. Separation of unconstrained aggressive use from managed passive uses and areas will reduce conflicts and injuries.

The subgroup strongly encourages retaining multiple routes in an "Open" or "Special Use" status to enable and facilitate volunteer programs that inventory and monitor biotic and nonrenewable resources as climate and weather patterns change. Citizen-involved management programs will help provide base line data that allows annual documentation of resource status changes over the next twenty years. Ground truth monitoring should utilize GIS tools with integrated GTLF data layers.

The subgroup finds many substantial reasons to retain multiple routes in an "Open" status within WEMO TMAs. One of the greatest reasons is continued and increasing managed passive access to assist the BLM with resource management. Additional important, existing, and authorized managed passive vehicle assisted uses are recognized herein.

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Introduction:

History/Problems/Issues within the WEMO

At the Desert Advisory Council's (DAC's) meeting in on December 3, 2011, staff from the Bureau of Land Management (BLM) Barstow Field Office gave a presentation about the court decisions in a suit filed by the Center for Biological Diversity regarding the West Mojave Plan (WEMO Plan). The United States District Court for the Northern District of California (the court) held that the BLM's 1980 basis for route designations was "unclear."

"There is...an inherent tension between the California Desert Conservation Plan's statement that Off Highway Vehicle (OHV) routes are limited to those in existence...[in] 1980... and the factual reality that the BLM did not have an inventory or listing of what those routes were in 1980."
(Summary Judgment, p. 8)

(See the court's Summary Judgment: http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/cdd/west_mojave_plan_updates.Par.3964.File.dat/Summary%20Judgement.pdf)

In response to the court's findings, the BLM indicated that one possible response to the decision was to propose a formal Plan Amendment and establish a new WEMO route baseline. The BLM recognized that this task might require more resources than the BLM could gather, assess, and formalize given the court's two-year mandate.

The BLM was already in the process of setting up venues in various Desert District sites for public scoping meetings (under the National Environmental Protection Act (NEPA)) to gather public comments on the WEMO route network. The route maps available to the public during these scoping meetings were limited to the 2006 WEMO Record of Decision (ROD) Maps (*see these "Supplemental " maps at the WEMO website: http://www.blm.gov/ca/st/en/fo/cdd/west_mojave__wemo/wemo_maps.html*). However, these 2006 maps did not correspond to the "on the ground" nomenclature introduced by the BLM in 2011 under the court's order. This disparity caused much confusion among the public who attended the scoping meetings.

Recognizing both the enormity of this task and the potential consequences of missing the court's two-year time frame, the Bureau requested assistance from the DAC. The DAC's unique position as a "citizen advisory committee" to the BLM Desert District provided an opportunity for the BLM to access public information in addressing the court's mandates. After a brief discussion about how to best assist the BLM in the WEMO Project, the DAC proposed the formation of a subgroup to address and assist in the process.

Under the leadership of Dinah Shumway (the appointed WEMO Subgroup Chair) and Randy Banis (the DAC Chair), applications for the new subgroup were circulated, applicants evaluated, selected and the subgroup assembled in February 2012 at the Barstow Field Office for its first meeting.

The subgroup's basic understanding of the court's decision is that:

A: the 1980 baseline the BLM referred to in all subsequent management plans for the West Mojave was in fact without basis because no inventory of routes within WEMO in 1980 existed, and

B: the route *designation* process was incomplete because the required minimization criteria could not be shown to have been applied to the routes that were designated Open or Limited in the 2006 ROD. The court also inferred that a *NEW* Plan Amendment establishing a 2014 baseline would be appropriate.

The DAC formed the WEMO Subgroup with the understanding that any findings would be used to assist the BLM (through the DAC) in developing new baseline data for a route network in the West Mojave based on the routes of travel recognized in the 2006 ROD. In addition, the DAC anticipated that the subgroup members and public participants in the new information-gathering process – via the BLM's own scoping process and the subgroup's many Taskgroup meetings – would discover routes with resource values, or which provided access to resources. Limited discussion determined that deliberation and public involvement were governed by the DAC's charter and bylaws rather than by NEPA.

WEMO Subgroup Mission

The original mission statement was hastily developed by the DAC and published on the BLM's WEMO website in December 2011. It was later found by the members of the subgroup to be unrealistic given the resources of the subgroup itself and those that could be provided by the BLM, and the time limitations set by the subgroup under the work plan (see "Methods and Work Plan" below) the subgroup set for itself. The final Mission Statement of the subgroup evolved as:

To prepare a report that would:

- A.** Identify the range of uses and user groups of the West Mojave Planning Area.
- B.** Identify the route network requirements for the identified uses.
- C.** Present recommendations for policy and management of the WEMO route network that are consistent with the data gathered by the subgroup.

After much discussion it was agreed that one of the subgroup members would consider the data collected by the subgroup and draft a brief set of alternatives to be included by the subgroup as a supplemental to the recommendations proposed in the report. The purpose of this very brief discussion was to remind the BLM [and the court] that the subgroup's recommendations do not exist in a vacuum but are well within a range of alternatives for a route network in the West Mojave based on historical management of the area.

The original Mission Statement can be found at the subgroup website:

<http://www.blm.gov/ca/st/en/info/rac/dac/wmrnp.html>

WEMO Subgroup Members

Members of the WEMO Subgroup route network project were selected from multiple applicants based on their interest, expertise, and knowledge of the WEMO network. Member qualifications appear in Appendix 1.

Dinah Shumway	DAC Representative, Subgroup Chair
Mark Algazy	Public-at-Large
Randy Banis	DAC Representative (Alternate)
Jill Bays	Biological Resources
Tom Budlong	Biological Resources (Alternate)
Kim Erb	DAC Representative (Alternate)
Jim Kenney	Public-at-Large
Thomas Laymon	Public-at-Large
Bill Maddux	Motorized Recreation
Robert Reynolds	Non-Biological Resources
Ron Schiller	Motor-Dependent Recreation
Ed Waldheim	Motorized Recreation
Jim Wilson	Motorized Recreation (Alternate)

Methods and Work Plan

Determination of Methods

This report reflects the findings of the WEMO Subgroup in its deliberations and scrutiny of the West Mojave Travel Management Area Maps, in its own data gathering via Taskgroups and public input, and in the additional data provided by the BLM via the scoping meetings in early 2012. Additional route-use information arrived by letters and e-mails from academics, professionals and avocationalists working within WEMO planning area. Resource polygons were constructed by geologists, geographers, and technical staff at San Bernardino Valley College (Appendix 2). Known resource databases (e.g. cultural resource sites, mine and mineral databases, etc.) were not provided to the subgroup by the BLM and thus could not be consulted by the subgroup. They likely would have provided abundant additional information that would have augmented subgroup final recommendations for each of the TMAs.

The subgroup recognized that Cultural Resource Locality Data was not included in the Freedom of Information Act, that reference to these confidential and religious localities could not be presented in subgroup reports, and indicated that incorporation of such data into TMA route assessment would be left to the BLM, if necessary. However, in support of resource management access, the subgroup did initiate development of some resource polygons for selected disciplines (Biological & Paleontological resource management, Geologic Studies and Education, Family and Hobby Values) for all eight TMAs.

Early in 2012, the subgroup determined that data gathering could be conducted in two ways:

A: Examining the preliminary TMA maps with new GTLF-based data layers as the maps became available. Maps for each TMA would be examined in numerical order during the subgroup's monthly scheduled meetings. It was estimated that this would be completed by November of 2012. The subgroup determined that TMA maps and the new route nomenclature would be essential in orienting the group toward each TMA, and in presenting its report in the most useful format. The TMA maps can be seen at the WEMO website:

http://www.blm.gov/ca/st/en/fo/cdd/west_mojave__wemo/WEMO_TMA_Maps.html

B: Conducting taskgroup meetings where subgroup members could interact with the public to determine public uses of the desert and available access, how public uses available maps, what the public considers important in desert transportation management issues, as well as what routes are important to the public as managed passive usage and unconstrained aggressive recreation. For the most part, the Taskgroup had the advantage of using TMA maps as opposed to the out-of-date, inaccurate 2006 maps that were available during the scoping meetings.

These two basic data gathering methods (A: within the subgroup, and B: from the public) would be then be used to determine an appropriate network of routes, and to identify a list of general management

recommendations and strategies that would assist the BLM in implementing and managing the network. The subgroup's report also reflects the fact that no sensitive nonrenewable resource data (paleontological, archaeological and historical) was received from the BLM. Selected paleontological resource districts (sedimentary formations) and historical route and trail data were added in the form of resource polygons since they have a substantial effect on shaping route networks focused on resource management. The subgroup makes a recommendation that, and operated under the premise that historic sustenance routes and foot trails be excluded from route cumulative mileage of WEMO routes.

It was recognized early by the subgroup that the only real knowledge of how the public actually uses the desert was based upon the expertise and experience of the subgroup members themselves, and from public attendees who spoke at the first meeting. The issue of public input at these meetings, under NEPA provisions, was controversial. Interested public was welcome to attend these public meetings. Given the size of our project, the subgroup decided that to maximize productivity, public attendance would not be a guarantee of participation by verbal or written methods.

The identification of the various uses of the desert by citizens was regarded by the subgroup as a critical task. Unwilling to rely solely on the focused expertise of subgroup members, the concept of Taskgroup meetings (where citizens were invited to provide additional information for the subgroup), as proposed in the original mission statement, was agreed upon.

Implementing the Work Plan

The court's Summary Judgment indicated that all route designations must be based on (summarized):

- The protection of resources on public lands;
- The promotion of safety of users of public lands;
- The minimization of conflicts among various uses of the public lands, and
- Therefore be in accordance with the criteria presented in Title 43: Public Lands: Interior, Part 8340—Off-Road Vehicles, Subpart 8342—Designation of Areas and Trails:

§ 8342.1 Designation criteria

The authorized officer shall designate all public lands as either open, limited, or closed to off-road vehicles. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:

- (a) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.

(b) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.

(c) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

(d) Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that off-road vehicle use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

The first subgroup meeting discussed: 1) the role of the subgroup in assisting the DAC; 2) determining the process of managing the taskgroup meetings; 3) the proper identification of the basic mission; and 4) potential NEPA issues. The BLM's Global Information System (GIS) was in transition to the GTLF-based data standard for route data. Discussion continued about data the BLM could provide to the subgroup, and what the subgroup's final work product would look like.

After discussing a relevant meeting schedule that would accommodate a volunteer group who would be collectively and traveling many thousands of miles it was decided to meet monthly at either the Barstow office or the Ridgecrest offices. Background discussion would be conducted as necessary by e-mail. Notes were taken by BLM staff and distributed to the subgroup.

It was pointed out that the original mission statement would not be a practical approach since it would, among other things, essentially duplicate what the BLM was attempting in a parallel project. The BLM was concurrently conducting scoping meetings on the WEMO project and collecting comments (via internet and paper submittals), however that information was not expected to be available to the subgroup before August or September of 2012.

BLM staff indicated to the subgroup that the new GTLF-based maps were progressing in numerical order of the newly designated Travel Management Areas (for a total of eight TMAs). Review of the TMA maps engendered discussion of which routes were used, or sensitive, or subject to erosion, or proliferation. Discussions at meetings of 'through' routes, seasonal sensitivity, importance as access to educational, geological, paleontological, historical, or touring resources provided information from the various perspectives of the subgroup members, and in some cases, from the perspectives of limited invited participants with specific experience or expertise. In addition, testimony and submittals from various other users of the desert, including working professional geologists from the USGS and various academic institutions, became an important source of information of how citizens use the WEMO area. These submittals are included in Appendix 4.

Taskgroup meetings for community participation were held in 2012 on August 4, September 8, September 14, and November 7 in Ridgecrest, at Jawbone Station, and in Lucerne Valley, all within the WEMO area. These loosely organized meetings started with a brief introduction by subgroup representatives, and instructions on how to view the new GTLF-based TMA maps. Information was then collected from the community on uses and routes, and processed by professional staff donated by Sundance Media, and is reproduced in Appendix 4. In contrast, it should be noted that during the scoping period managed by the BLM early in 2012, the only available maps were outdated "Supplemental" maps. This generated much confusion for the public since the new GTLF-based nomenclature on the ground and in the field did not match the old nomenclature. The subgroup's use of the new GTLF-based TMA maps allowed the public to compare the data in the field with the data on the new TMA maps, and to provide information on the most useful format.

The Taskgroup meetings attracted a variety of WEMO area users who might not normally attend a scoping meeting. These included back-country hikers, naturalists, Quails Unlimited representatives, OHV enthusiasts, academic authors with new books and articles, archeologists conducting work on the mining artifacts and workings in Calico, elected officials and their staff, and candidates for election. All were following closely the issues of access in the WEMO area. The subgroup also received e-mails and letters that greatly expanded exact understanding of who uses the WEMO area and its access routes.

Realizing that many access routes are dictated by resource use areas, additional use data was generated, and identified, as polygons by the academic professional geologists at San Bernardino Valley College. This data is reproduced in Appendix 2.

TASKGROUP FINDINGS:

Recognized Uses of the West Mojave Route Network – How Citizens Use the WEMO Planning Area

"In general, roads and trails in the desert are not an end unto themselves. They are a tool for the hiker to get to a trail head, a way for a photographer to get to a view point, a route that allows paleontologists to manage nonrenewable resources, geologists to determine fault activity, a researcher to gain information on a historic site, etc." (Bill Maddux, WEMO Subgroup member).

"There is nothing like going off road, off the pavement in any type of vehicle to explore beautiful open space. The fact that you and your machine, car, 4 x 4, motorcycle, horse, feet, or whatever you want to use to explore is even possible, in itself is gratifying. The distances you travel from range to range, valley to valley are not legally possible any place else in this country except on Federal Lands. This is why we fight to keep "Access" to our public lands open for everyone to explore." (Ed Waldheim: Friends of Jawbone, WEMO Subgroup member).

"People use lands as 'areas,' not as 'linear features.' In planning department terms, this configuration is a "cherry stem," where the stem is a linear access road, and the cherry is a polygon for a resource or activity." (Bob Reynolds, BLM volunteer, WEMO Subgroup member).

The preceding statements help illustrate the two primary forms of access required by the public who work and recreate in the WEMO planning area: Managed Passive Use and Unconstrained Aggressive Use.

Managed passive use includes access for vehicle-supported recreation such as family camping, hobbies and hobby collecting, and resource inventory and management by BLM volunteer public support groups, other agencies, professionals/individuals, either formal or informal. This report includes Friends of Jawbone's route management systems within managed usage. Three types of usage can be distinguished:

- 1). Resource management is generally conducted under an agency (BLM or other) permit, and can be accomplished by individuals, groups or private parties (sustenance & mining). Speeds are moderate (about 30 mph).

2). Family values: Camping, hobby collecting, vehicle supported activities, etc. do not need a permit, but follow guidelines (Appendix 3). Access is along designated Open routes, and speeds are moderate so as not to damage personal effects.

3). Areas operating under route management methods receive intensive, recurrent management of trails, signage and route information (printed and digital). This allows touring speeds to be as fast as safety allows.

Unconstrained aggressive use includes access for high-speed recreational testing or operation of a vehicle and in an open area away from the confines of asphalt and concrete. Aggressive OHV activities are generally understood herein to be legally limited to designated Open Use Areas.

Aggressive, high-speed OHV activities are often the focus of media attention when it comes to motorized recreation in the desert. Unfortunately, as a result, much of the public, and even lead agencies, are led to believe that this highly destructive use is the norm. As a consequence of that perception, many fail to recognize that most of the public conduct professional and recreational activities where motorized vehicles are used merely secondary support – a means to an end dictated by the sheer size of the WEMO planning area. The subgroup finds that the high profile OHV activities generally associated with motorized recreation in the desert do not properly reflect how the vast majority of people use the desert. Much of the public uses the desert in additional, and mostly managed, passive ways (e.g. camping, hiking, photography etc.). These passive users, who assist with resource management, camp with families, conduct professional surveys, and educate students, would be hurt by further route closures.

The subgroup findings support the conclusion that there are many users of the desert that leave fewer visible impacts than unconstrained aggressive motorized recreation. These are the passive users who assist with resource management, camp with families, conduct professional surveys, and educate students, all of whom would also be hurt by further closures. These passive users of the desert in general are less gregarious, sometimes work alone, and file few complaints with federal agencies, although benefits of their activities may outweigh those of motorized recreation. A common observation though, in all the various groups that submitted information for the subgroup is a general distrust of the BLM in its management skills, and in its determination to actually work to solve the problems that could lead to closure of most of the desert to the public.

Below is a brief list of the varied uses by the public identified by the subgroup within the WEMO planning area:

Motorized Recreation: This includes casual and organized group OHV riding (motorcycles, quads, four wheel drive, etc.) excluding rally and race riding, which are limited to “open areas.” This form of unconstrained, aggressive vehicular recreation is generally at speeds greater than 30 mph.

Resource Management (including volunteer assisted): These activities include vehicle assisted botanic, zoologic, paleontologic, geologic and mineral resource studies, and terrain and slope preservation/stabilization, motorized access to wilderness, wilderness study areas and limited access areas. BLM volunteers assisting with resource management provide "additional surveillance and monitoring opportunities" that can report problematic issues.

Much of the public and many of the BLM managers and staff overlook the fact that other lead agency scientists work within WEMO. U.S.G.S. Geologists mapping active faults and hazards require vehicular access within WEMO. U.S.G.S. biologists require vehicle access to inventory populations of listed and endangered species. The US Coast and Geodetic Survey requires vehicular access to erect towers and perform geomorphic measurements.

"access... allows us to drive our equipment in, providing more access for hiking to un-roaded sites, and providing safety for us, and also providing the possibility of taking in heavy equipment such as a gravimeter. We understand and go to great lengths to defend natural wild values of the land, and do not drive untracked lands. Closing of currently used roads and tracks is very frustrating, because it essentially denies access for parts of the desert. Our only alternative is to hire a pack string [horses] at greater expense in terms of both time and cost [to the taxpayer]."

"The reason this matters is that our work is framing a new generation of hazard maps that will delineate earthquake fault zones. These faults are not of immediate concern in wilderness areas, but the faults are continuous from populated areas to wilderness areas, and only by studying the entire of length of faults can we make good determinations about their hazards."

*"Decisions made to close roads and tracks affects our work in measurable ways, and we appreciate any consideration that can be made to retain access on existing roads and tracks."
(Dr. D. Miller, USGS).*

Field Studies related to Health and Safety (including Agency and Institutional research):

Tectonic and seismic studies, water supply analysis and flood hazard studies includes motorized access to wilderness, wilderness study areas and limited access areas. These researchers can provide "additional surveillance in sensitive areas."

Resource Management through BLM partnerships: Coordinated BLM and volunteer inventory and management of paleontological, cultural (archaeological and historic), botanic and zoologic resources. Such management programs provide "additional monitoring opportunities."

Authorized Resource Exploitation (including motorized support): Grazing, farming, mineral exploration and extraction, and mineral claims maintenance are authorized activities that require regular and frequent motorized access.

Education (with vehicle support or assistance): biologic, geologic, esthetic, environmental, historical routes and cultural sites within WEMO have been visited for 60 years to educate students, avocational researchers and tourists. For example, Rainbow Basin (TMA 5) is the focus of geologic mapping classes that come in spring and fall from the east coast (PA, LA), the west coast (CA) and from Hawaii. These researchers can provide "additional surveillance."

Family Values (using motor assisted access): camping, hunting, hiking, hobby mineral collecting, photography, equestrian, hunting, target shooting, and motorized access for enjoyment of esthetics and open space.

Summary

The subgroup findings support many substantial reasons to maintain multiple routes in an "Open" status within WEMO TMAs. One of the greatest reasons is continued and increasing managed passive access to assist the BLM with resource management. Additional important, existing, and authorized managed passive vehicle assisted uses are recognized.

Despite limiting its scope of activities relative to the original mission set for the WEMO Subgroup, the subgroup has managed, in a very short time frame, to construct a set of recommendations for the BLM that the subgroup believes will address the mandates of the court and provide the access to WEMO that the public so obviously desires. Through the expertise of the subgroup members themselves and the interactions of the public users via the taskgroup meetings, the subgroup has identified two major types of WEMO access and usage: **Managed Passive Use** versus **Unconstrained Aggressive Use**.

Recognized land usages are contrasted as follows, considering cost savings of volunteer resource management and public education programs on one hand, and the cost of maintenance and revegetation on the other. The cost or cost savings of one type of recreation should be weighed against the other:

- A). Managed Passive Use: the testing of self and mount (vehicle or horse) vs. Unconstrained Aggressive Use: testing of vehicle and driver in designated open areas.
- B). Cost of erosion and route management vs. managed passive access for resource management, public education, tourism and family educational values, usually accomplished along self-healing wash bottoms.
- C). Compare the expense of "recreation for many" vs. the return from "free resource management and resource enjoyment."

The subgroup encourages the DAC and BLM to weigh the alternatives presented above when considering changing classifications of routes that have been used for resource management and

education for over 60 years. The subgroup asks: why penalize the managed, passive users that assist with resource management by supporting costly unconstrained, aggressive recreation in open areas? The subgroup encourages directing unconstrained, aggressive OHV activities to already established open areas, while encouraging that institution to support its preferred form of recreation by enlisting members to institute Jawbone RMS style management and reclamation activities to other WEMO areas.

General Recommendations for Managing Transportation in WEMO

BLM Road Classification Policy

The WEMO Route Subgroup recognizes that the optimum approach to establishing a useful route network within WEMO would be one balanced for resource use and management, or "Multiple Use." As an example, the WEMO planning area contains 3.2 million acres of public land. Of that figure, 500,000 (16%) acres are devoted to Wilderness, which is used predominantly by demographics of a certain age and physical ability. Another 320,000 (10%) acres designated "Open Use" OHV areas are used almost exclusively by operators testing personal and vehicular ability at speeds greater than 30 mph. The recognized uses of the remainder of the WEMO areas are listed above in the section entitled "Recognized Uses within WEMO"(above).

TMAs within WEMO contain routes that fall within three categories: Open, Conditional Limited Access, and Closed. The subgroup recommends that the category of Conditional Limited Access be reviewed and expanded to encourage volunteer resource management under conditions of Limited/Seasonal/Special Use permits. Based upon the findings by the subgroup of the many uses within the WEMO and the limitation of three categories of road designation, the subgroup presents recommendations for the management of the WEMO Transportation Management Areas:

BLM criteria for road closures

Criteria should be very simple and transparent. Criteria should recognize resource management issues for education, cultural, paleontological, biological, erosion and landscape degradation issues, water and air quality issues and health, seismic and safety issues in addition to recreational issues. All of these resource considerations must be addressed, with public involvement, before closures are instituted in an effort to maintain "routes for balanced resource use and management."

Further, actual publishing of the criteria used to make closure decisions ensures the BLM of their own compliance with the Code of Federal Regulations (CFR). Specifically, 43CFR8342.1 will give the agency more credibility with the public, who currently believe that many of these decisions are arbitrary – a public sentiment generally supported by the Taskgroup findings.

Subgroup criteria for keeping routes open

Public input has shown the subgroup that there is a need for links from point "a" to point "b." Each route and direction brings a different experience, and a loop produces less ground disturbance than a cul-de-sac. The more closed routes, the higher the impact will be on the remaining routes because all traffic will be diverted to fewer open routes, increasing the intensity of use. Open routes now require extensive and expensive signing and/or regular maintenance. In higher use areas, deteriorating trails and roads encourage proliferation by all

users: without regular maintenance, routes become “wide whooped” (unusable) trails. Riders dislike “whooped” trails, and will ride along margins, making each trail wider and further impacting animal and plant habitat and other resources.

Route education

Route Education includes two facets: Signage and Maps. Maps and on-the-ground Signing are keys to proper implementation of any designated route system. Some management plans over the past three decades have never been fully implemented. As a result, the public has few maps, sees few signs, and, as a consequence, considers that all routes are open.

For the greater Jawbone Canyon area, the Friends of Jawbone (FOJ) and California Trail Users Coalition (CTUC) saw the need for maps, and has filled the void with regional OHV tourism maps that are much more user friendly than agency-specific land status maps. However, even with these regional tourism maps the associated major problem remains: if routes are not signed on the ground, maps don’t help. The BLM signage policy needs updating and application.

Open routes

1. All routes need to have a kiosk at the main entries to areas.
2. All routes need to have brown signs with proper area letter of the area you are in and number.
3. For intense use areas, signs need to be placed line of sight so there is no confusion as to what route you are on. Low-usage backcountry travel should have signs spaced at quarter-mile intervals. Major closed routes need to be so signed.

Criteria for expanding limited access

The criteria for Limited Administrative Access or Conditional Limited Access needs to be revisited and expanded to include access by volunteers who assist the BLM with resource management issues for education, cultural, paleontological, biological, erosion, landscape degradation issues, water and air quality issues, and health, seismic, and safety issues. Resource management considerations, such as claims maintenance and options, can be implemented with the addition of cost-effective public involvement. Each closed route within WEMO needs reevaluation to maintain “routes for balanced resource use and management.” Limited access to remote areas, Wilderness Study Areas, and ACECs for resource management needs to be retained with stipulations that the integrity of the route be maintained, and that access will be along self-restoring drainages (and not across slopes). Such stipulations are traditionally found as conditions attached to special use permits and fieldwork authorizations.

In areas of limited use, where access is granted by administrative permit (access to mining, guzzlers, wind energy, private property, biologic and geologic studies and nonrenewable resources), special gates and educational signs will inform the general public that environmental conditions preclude public use. The BLM needs to revise criteria describing whether a Plan Of Operations is needed to develop vehicular access routes to recently located mining claims. BLM policies regarding access to claims must be brought into accord with those of the State of California, the latter requiring that claims be visited annually. Without access across Federal land, claim visitation and maintenance becomes a financial burden to the claimant. If BLM cannot guarantee vehicular assisted access to claims, but demands annual assessment work, the concept of "CDCA Multiple Use" is meaningless.

Closed Routes:

All routes not part of designated system should be signed closed, but retain their numerical designations in the BLM's GIS data. Each route should be scheduled for restoration within line of sight of open routes so that undesignated routes disappear.

The OwsheadGPS project (below) is another tool for encouraging the public to follow designated trails. With similar programs and proper maps and trail signing, the public will have the satisfaction of knowing they are on the correct trail.

Personal/individual health and safety – Implementation of new technology

The OwsheadGPS project (Banis, 2013, <http://www.owsheadgps.com/home/index.html>) describes how failure of a GIS navigational unit caused a young boy to perish in the summer heat in a remote area of Death Valley. Agencies condoning, dealing with and responsible for tourism, family camping, and volunteer resource management need to support development of technologies that help prevent loss of life in remote areas lacking accurate GIS data.

Subgroup Policy Recommendations

The subgroup's varied expertise has been a great advantage in constructing a list of recommendations for the BLM in going forward to manage WEMO transportation routes. The subgroup has divided the recommendations into two major groups: recommendation for managing resources, and recommendations for routes and route management. Many of the subgroup's recommendations overlap both groups.

"Manage the designated trails. No more lip service" (Ed Waldheim, Subgroup Member)

A. Recommendations for Resource Management:

A1. Promote Volunteerism (and understanding for desert users).

Discussion: The BLM should proactively promote resource management of biological, cultural, paleontological and mineralogical resources by encouraging volunteerism among professionals

and avocational individuals in the fields of biology, geology, economic geology, paleontology, archeology, and history. Such citizen owners can assist with inventory, monitoring, curation and development and enhancement of resources. The results of welcoming active volunteers in the field will provide additional ears and eyes which will be invaluable in providing the continued and persistent monitoring required to keep public lands accessible to the public. These volunteers, with minimal instruction, can provide additional monitoring capabilities. All government agencies have been encouraged by statute to engage in partnerships when possible. It is important to recognize that providing access for individuals and volunteers with a viable limited route policy that requires reporting or feedback will provide valuable information on the conditions of remote areas where the BLM cannot adequately monitor.

A1a. Establish a WEMO Implementation Subgroup: To avoid conflicting interests, this public committee will suggest areas and programs where volunteers would be of cost effective assistance to the BLM.

The Desert Advisory Council periodically, and in accordance with its bylaws, establishes both ad-hoc and standing subgroups to assist it in formulating recommendations to the BLM. The West Mojave (WEMO) Route Designation Project subgroup is an ad-hoc committee comprised of DAC members and the public for the purpose of compiling detailed recommendations with regard to the BLM's efforts to designate routes under the 2011 U.S. District Court order. Although the WEMO subgroup is set to expire once its report is accepted by the DAC, the DAC could act to extend its mission to include functioning as a Plan Implementation committee as an option for meeting this recommendation.

This new subgroup would annually review status reports of volunteer project accomplishments and would also review specific BLM management programs that might benefit by use of volunteers.

A1b. Promote Public volunteerism in user groups and individuals: Recruiting and promoting volunteers can be further extended to programs that encourage the BLM to better understand its OHV 'customers.' Knowledge of demographics such as ages, group size, family size, vehicle preference, where they get their information, who they respect, attitude toward BLM, extent of knowledge about desert issues, distance from home to favorite riding areas, amounts spent on equipment spent on an outing, can help the BLM manage public lands proactively. Product-oriented companies do this routinely, to avoid making blunders in designing and marketing their products. BLM is in a similar situation – desert management is its product, and OHV visitors are its customers. Understanding the customers will be a positive move to recruit the OHV community as active volunteers in enforcement of rules that mitigate the impacts of the "bad actors" and "outlaw" riders. An operating phrase could be "Engage, Involve and Support." The best example of such successful programs is the Jawbone Route Management System, which

has spread from Jawbone Canyon to Dove Spring, El Paso and Red Mountain – all popular OHV destinations.

Volunteers can maintain open crossings through sensitive riparian or similar habitats as an alternative to closure. Routes that are in danger of being closed due to lack of BLM enforcement resources or impact mitigation should be clearly posted on the BLM website and at trailheads in order to encourage recreational and professional groups to accept responsibility and the opportunity to keep trails open.

Climate change affects desert biotic communities as well as nonrenewable resources. Biotic resources need annual and seasonal inventory to determine health of populations. Nonrenewable paleontological resource degradation may increase or change with different weather patterns. These fragile resources that describe 200 million years of past life history need inventory, management and, often, removal to a curation facility. Volunteer groups can help monitor and report on these fragile resources.

Discussion: Resource inventory and management using volunteers is cost effective and has the additional benefit of being educational public outreach that promotes user involvement, teaches "appropriate" desert usage, and places observers in remote places to record inappropriate resource compromise.

Teaming volunteers with the agency is an all-win accomplishment. The subgroup encourages the BLM to incorporate the assistance of avocational volunteer groups in programs for proactive management of resources.

A2. Develop Resource Polygons as layers in the BLM Data Resources.

Discussion: In conjunction with the new GTLF data layers that document map data (which can be posted on the web, and amended with explanation) the BLM should consider developing detailed, high-resolution resource polygons as GIS layers. These layers will assist resource management in monitoring changes on the ground, both natural and manmade. The subgroup's own findings support the premise that people use lands as "areas," not "linear features." GIS layers of natural resource polygons (biologic, paleontological, cultural, hobby collecting, mineral exploration, photography etc.) will help assure resource management that promotes flexible, resource-sensitive access by the least-disruptive means and routes.

A3. Integrate data in GIS layers onto publicly accessible databases.

Discussion: The move of the BLM to the new GTLF standard for route inventory and management is a positive step toward the integration of the variety of data in the BLM database. Available GIS technologies allow such integration. The BLM should integrate data from other credible data sources into their database (including web sites such as mojavedata.com; US Geologic Survey [USGS]; California Division of Mines and Geology [CDMG]; US Fish & Wildlife

Service [USFWS]; County Planning Departments, curatorial repositories at museums, CA cultural resource data centers). This task can also benefit from cooperation with other knowledgeable professionals. The use of current GIS technologies could also allow coordination with other “smart” technologies to assist the public in complying with route designations. Posted signs, for example could have “QR code”(Quick Response barcode – a 2 dimensional barcode that contains a URL to a webpage and that can be read by a variety of imaging devices such as a smart phone or camera) for use by smart phones with mapping applications. As the BLM transitions to the GTLF standard, the new (and continually revised) maps should be posted as geocoded PDF's on the website with dates of revision clearly shown.

A4. Provide access to resource areas, including sensitive areas and guzzlers, via designated routes for resource inventory, monitoring or other studies (Biological/Paleontology/Geology/Exploration/Seismic Safety).

Discussion: Members of the U.S.G.S. Geological and Academic communities commented (Appendix 4) about the importance of access to the areas in which they are working on mapping geological phenomena and geologic hazards. Areas under mining claim are, by definition, resource areas and are required to be maintained annually in California. Many areas of historical importance, or that host historic mineral occurrences are important to hobbyists and should have access (Appendix 4 comments from USGS geologists, academics, mining, collectors):

“...adequate access be maintained for paleontologists to assist the BLM with inventory and management of non-renewable resources. Internationally recognized fossil resources within WEMO are some of the most significant Quaternary (60-0.1 million) deposits on the North American continent. These fossils document faunal change in response to climate change. They also describe the time of the basin formation caused by faulting and structural events. Many of these faults are still active and pose hazards to populated areas.” (also see A5, below).

Nonrenewable resources within Wilderness or Wilderness Study Areas, or ACECs, need inventory and management. Limited access for management must be provided by Special or Limited Use Permits to evaluate impacts on these resource sites.

A5. Private vs. Public lands: Clarify responsibilities. The BLM managers must clarify responsibilities for routes that cross private lands.

Discussion: BLM should consider a policy that will designate trails through private or mitigated lands if a trail is a link to routes on public lands. Liabilities must be outlined and reduced. Strong consideration should be given to divesting lands with liability and sales or exchanges of lands within "checkerboard ownership" areas to increase effective management of other larger BLM holdings.

Desert Renewable Energy Conservation Project (DRECP) impacts: State and federal agencies, including the BLM, are deeply engaged in a planning process to develop a conservation plan that would minimize environmental and other effects of anticipated renewable energy development in the California desert. Although the Desert Renewable Energy Conservation Plan (DRECP) boundary includes the WEMO planning area, it is not expected to impact the BLM's current route designation effort.

The DRECP will not designate any open or closed routes. WEMO lands reserved for conservation under DRECP may employ elevated rule sets governing backcountry activities, such as camping, shooting, and parking along trails. Under principals of adaptive management, significant off-route travel could result in future trail closures.

It is anticipated that the DRECP will exclude OHV Open Areas and Special Recreation Management Areas (SRMA) from renewable energy Development Focus Areas, and should a project succeed in obtaining a permit within these areas, all losses to recreation would require mitigation.

As of this writing, a DRECP Draft EIR/EIS is expected to be released sometime this summer. Therefore, the above expectations and assumptions on the affect of DRECP on the WEMO route designation process are subject to change as the process progresses. For more information about the DRECP, visit: www.drecp.org

A6. No buffer zones. There should be no buffer zones around Wilderness, Wilderness Study Areas or Areas of Critical Environmental Concern (ACEC).

Discussion: Boundaries on maps and field signage must be accurately located to avoid public confusion and reduce incursion into sensitive areas. This should go without saying, as the even the official language of the Wilderness Act is clear on this, but it has been the experience of several subgroup members that the BLM has not always followed this mandate correctly.

A7. Consistent management policies: Route management policies in WEMO should be consistent over all BLM districts throughout California.

A8. Ample notification of changes: Assure that changes will not occur without notice to inholders, resource management groups, and traditional user individuals and groups (e.g. green routes will not alter to red without notice and public comment). The BLM should solicit and maintain an e-mail database or implement RSS feeds for this specific purpose, and consider partnering with an information-disseminating organization like DV.com or NPLnews for this purpose. The precedent is already set with the BLM's own News.bytes.

A9. Maintain roads created for sustenance living (mining, farming or grazing). Roads established for economic activity should not be subjected to analysis under recreational criteria (i.e. 43CFR 83421) (see A4).

Discussion: In general, access to active mining claims should be maintained as "Open," even if on a limited or permit basis. Areas that are under mining claim are, by definition, resource areas, and are required to be maintained annually by the State of California. Access can be established and maintained under the "limited" designation.

B. Recommendations for Routes and Route Management:

B1. Route Signage: All routes must be signed and posted with current status:

Open, Limited, or Closed (including seasonal – see B2).

Discussion: It is not logical to assume the general public (to whom these lands below) will recognize that a road with obvious recent usage (or not), or that are shown on topographic maps published by a Federal Agency (USGS) may be closed. Road markers sometimes go missing or are vandalized (see discussion in A6 & A7). Limited Routes should display clearly what type of authorized travel is allowed. Seasonal routes should have approved uses in addition to open dates for use.

The designation categories of routes within WEMO – Open, Conditional Limited Access, and Closed – is discussed above in “BLM Road Classification Policy.”

B2. Continued Maintenance Along Routes.

Discussion: If routes are designated closed or for limited access, and physical limits are installed (gates, restrictors, signs) then those should be monitored and repaired *promptly* as needed. Such strategies will obviously require continued staff field time and recruitment of volunteer partners. Though frustrating, these strategies should be regarded as a process with incremental results. Progress will come with continued public awareness and continued lead agency commitment and perseverance in educational outreach efforts (see A1a & A1b above).

Note that the use of dedicated citizens and citizen owner partnerships in this process can be extremely helpful and should be encouraged (Examples: The Friends of Jawbone; paleontological resource inventory and management supported by Barstow Field Office). The experience and successes of groups like the Friends of Jawbone, which produced and manages the Jawbone Route Management System, and the California Trail Users Coalition, which produces regional OHV maps, should not be underestimated. Currently, the DAC has several subgroups that utilize volunteers to assist in managing areas and projects within BLM managed lands. Perseverance and persistence are the keys to success.

B3. Implement Persistent Monitoring Strategies to determine effectiveness of existing strategies, and allow focused enforcement.

Discussion: Continued monitoring should assess not only the effectiveness of strategies (e.g. signing) but should look for indications that some designations should change. For instance, if habitat preservation is a priority (bighorn, tortoise) then in the face of potential climate change it is to be expected that some habitat migration or degradation will occur. The BLM managers should consult other monitoring agencies and have response strategies in place to open or close routes to alternate habitats. Continued monitoring and maintenance will also address the problems of proliferation of routes in certain areas. Monitoring strategies will include installation of physical limitations and monitoring partnerships (dedicated citizen volunteers and non-profit groups for monitoring public lands) (see recommendations on volunteerism, A1, A4).

Continue educating desert users and volunteers by web, kiosks, and other methods. In addition, provide special classes for volunteers on what to document when encountering evidence of illegal activity, and how/where to report such evidence.

Citations written by the BLM should be posted on the BLM website (by location and infraction) similar to the sheriff's blotter. This practice would warn potential violators and document the amount of violations within specific TMAs.

B4. Funding Commitments to Maintenance. Funding commitments to field monitoring and maintenance should be a priority in the BLM budget (See B5).

Discussion: Funding to continue monitoring resources, and to maintain routes is critical to retain access by the public to the public's lands, and to focus unconstrained aggressive uses and managed passive uses to appropriate, but separate, areas thereby avoiding conflicts. Conversely, adopting the recommendations of the subgroup without providing the means to implement *and sustain* its long-term strategies only guarantees that these issues will be revisited in court again and again.

B5. Permit Systems should be considered as a general management tool. Permitting systems should encourage resource management through Special Use permits, Limited access permits, and seasonal closures. A list of current BLM administered permits is in Appendix 3.

Discussion: Limited access could be seasonal, by permit, at lower speeds within habitats, etc. The process for limited access should be transparent and simplified (e.g. you should not need a Plan of Operation to gain access for claims maintenance when a simplified limited permit would suffice). An example would be routes that pass through bighorn sheep lambing polygons. Speed should be less than 30 mph. Birthing is in June, so roads can be open fall, winter, spring and closed in summer. BLM-sponsored outreach programs for resource management traditionally attach conditions specifying access routes in the Field Work Application Request (FWAR).

The movement of the BLM into digital products should also be useful in the adoption of GIS systems such as the OwlsheadGPS project to allow the public, land managers, and others with specific tasks (e.g. fossil resource monitoring or fault mapping) more accurate transverse across the WEMO lands.

"A permit beats outright closure" (M. Algazy, p. c., subgroup member, 12/14/12).

B6. Avoid proliferation by route design when alternatives are available.

Discussion: Single routes, particularly loop routes, are the preferred design of the subgroup. Single routes along self-repairing drainages, as opposed to cutting slopes, will reduce erosion and landscape degradation and maintain consistency with the "unnecessary degradation clause" (per the Federal Land Policy and Management Act, 1976 (FLPMA)).

B7. Single-Track Trails: Designate and maintain single-track trails using the successful strategies employed by the Jawbone Route Management System.

Discussion: One of the only formal ground surveys of single-track trails (one meter wide or less) was conducted in the 2001/2002 WEMO route survey. The area was limited to 5 subregions between Ridgecrest and El Mirage and centered along HWY 395. Single-track proponents on the WEMO subgroup indicate that the single-track trail provides a unique and integral part of the motorcycling experience unlike simply motorcycling on full width roads used by larger vehicles. Observations indicate that the single-track pressures are in areas near suburbs. Unrestricted single-track trails are eventually widened by the use of quads, UTV's, then 4 wheel drive vehicles. There are obviously "rebel" cyclists who go off trail. **Continued monitoring and maintenance** with physical barriers can offer the outdoor experience for motorcyclists, while dampening the impacts of bad actors. Reporting of off-trail incidents by single-track users is encouraged. Successes of the Jawbone RMS in establishing and maintaining single-track trails with monitoring, maintenance, and educational perseverance has shown that designations to serve all users are possible with continued commitment of field personnel. To reiterate, an effort to recruit the OHV community as active volunteers in enforcement of rules can mitigate the impacts of the "bad actors" and "outlaw" riders.

B8. Protect historic foot trails: Ensure that historic foot trails are protected from motorized incursions.

Discussion: There is concern from a cultural perspective that many historical trails (e.g. the "Slate Range crossing" in TMA 2) are being degraded by motorized incursions. Signage indicating limitations to foot traffic can help, but continued monitoring is the best way to guard against unlawful intrusions. Volunteer monitoring can provide useful information (see Budlong's reports, Appendix 4).

C. Recommendations for Long Term Monitoring

C1. Partnerships for monitoring routes and erosion within each TMA: Annual monitoring of cross-country routes that transect topography (cross hill slopes and terrace walls, but avoid self-restoring drainage bottoms) will allow development of a database that will assist analysis of exacerbated erosion caused by vehicular passage across specific terrain and topography. Such data will allow possible future redesign of transportation route systems within each of the eight WEMO TMAs.

C2. Partnerships for monitoring nonrenewable resources: Long-term monitoring records are required to evaluate the effects that changing climate and weather patterns have on nonrenewable resources such as paleontological and archaeological deposits within sediments, as well as standing historic structures or features. Examples of resource management techniques such as "Cyclic Prospecting" for nonrenewable paleontological resources are found in Appendix 3.1.

C3. Partnerships for monitoring biologic populations: Special interest groups and agencies (e. g., tortoise and turtle councils, Audubon Society, native plant societies, bat management programs, USGS Biological Service, US Fish and Wildlife Service, university desert study and research centers) monitor plant and animal populations within WEMO. Data from monitoring biologic populations act as a baseline with which to evaluate the effects of changing climate and weather patterns on the biologic communities within WEMO. The BLM should enlist such groups as formal partners, with memoranda of understanding (MOU) and encouragement for continued data collection with assurances of access.

C4. Establish a standing DAC Implementation Subgroup to monitor implementation of the new or modified WEMO Plan additions as they develop. This subgroup will examine the potential for partnerships for new and existing BLM resource management programs, not only for management of biological and nonrenewable resources, but to assist with erosion control and trail maintenance, and to monitor activities in remote areas, thus leaving BLM staff to focus on management issues near population centers.

Summary of Recommendations

A). The subgroup **strongly** recommends that the category of Conditional/ Limited Access be reviewed and expanded to encourage and facilitate volunteer resource management under conditions of Limited/Seasonal/Special Use permits. Permits should be considered as a general management tool. Permitting systems should encourage resource management through Special Use permits, Limited access permits, and seasonal closures of open areas.

B). The subgroup strongly recommends maintaining “routes for balanced resource use and management.”

C). The subgroup strongly recommends funding and long-term commitment to pro-active management programs like the Jawbone RMS near population centers.

D). The subgroup strongly recommends that citizen-involved twenty year programs for resource management will provide base-line data to allow annual documentation of change of resource status.

SUBGROUP RECOMMENDATIONS:

Range of Alternatives for WEMO Transportation Management

After much discussion it was agreed that one of the subgroup members would consider the data collected by the subgroup and draft a brief set of alternatives to be considered by the subgroup as supplement to the recommendations proposed in the report. Below is a list of the alternatives with a brief discussion of each.

Alternative A. 30,000 miles of routes (pre-1980 CDCA)

Discussion: If there are a greater number of miles over which to disperse recreational travel, the impacts on a given area are likely to decline. The converse is already known, and is considered to be a cornerstone of land use. It is called 'the tragedy of the commons.' Not only would lands become more accessible for recreation under Alternative A, but also for historic and pre-historic research, amateur rock and mineral exploration and collection, as well as wilderness studies that cannot currently be properly conducted because of poor access.

43 C.F.R.8342.1 has to do with the designation of trails for recreation. Since many of these routes were originally created for primary subsistence living, as well as access for commercial purposes, they should NOT, as a matter of principle, come under the same analysis for environmental concerns as a trail used solely for recreation. The 1980 Desert Plan (the Plan), at pg. 11, makes specific mention of "valid existing rights" that all actions under the Plan are subject to. Those are sections 601, 603, and 701 of FLPMA.

Further, there is something to be said for word choice. In the CFR, the agency is charged with "locating" recreational trails to minimize harms. The Bureau conversely would not locate a route that was already in existence. This charge is (proactive) looking forward, for routes yet to be made.

Alternative B: 13,000 miles of routes (resulting from either CDCA in 1980 or 1985-1987 route designation process)

Discussion: While this alternative does not enjoy the full benefit of dispersed recreation that Alternative A has, it does have the benefit of being the product of EXTENSIVE participation by all interested parties, making it a balanced and true compromise in the spirit of FLPMA. The court's logic that this is an unacceptable baseline is circular. In the 2009 SJ, the court indicates at pgs. 40-41 that the 2001 route inventory is unacceptable because it is larger than the 85-87 designated routes (see Summary Judgment at: http://www.blm.gov/pgdata/etc/medialib/blm/ca/pdf/cdd/west_mojave_plan_updates.Par.3964.File.dat/Summary%20Judgement.pdf).

But, if the 1980 baseline is no longer a valid baseline, what is to stop the bureau from choosing ANY inventory as their baseline? On what legal basis would one shift away from the multiple use, sustained yield balancing of interests required by FLPMA?

Also at pg. 40, the court compares, as a flaw, the BLM 's choice of an alternative that "increase in the amount of miles formally designated as open to OHV use" as if there could be no sound basis for doing so. Quite the contrary is true. Dispersed recreation again can lead to lower environmental impacts (see discussion in alternative A above). A greater number of recreational opportunities also demonstrate BLM's continuing reaction/response to the multiple use sustained yield balancing of interests envisioned in FLPMA.

The court acknowledged that the BLM had already closed approximately two thirds of the routes designated by the 85-87 process when they filed the Record of Decision (ROD). For WEMO, there is no accounting for the possibility that roads could have been added or substituted for other routes as changing conditions showed that either: A. a different route (previously closed) would provide a lower impact than one currently open, or that B. other information has come to light in the interim that would cause reconsideration and addition or replacement. **This observation was made many times during the subgroups examination of the GTLF-based TMA maps.** Requiring the bureau to document each and every one of these route replacements or reconsideration constitutes inefficient micro-management that the court gives lip service to trying to avoid.

From page 5 of the original Desert Plan of 1980, the BLM formally sets the tone and acknowledges the primacy of multiple use as a section 103 goal of FLPMA. Multiple use and sustained yield, in that order, are the original mandate. Sustained yield is to be of "the various renewable resources of the public lands consistent with multiple use." The fact that sustained yield is to be goal to the extent that it is "consistent" with multiple use means that it is a secondary goal, while multiple use is the primary goal.

Alternative C. 5,100 miles of routes plus all routes added by subgroup as open routes.

Discussion: This alternative incorporates the limited but extremely focused efforts of the subgroup, which, being faced with the option of embracing either Alternative A or B chose instead to propose a modest increase in the BLM's 2006 WEMO route network specifically focused on targeted recreational opportunities. The basic rationale for this alternative is that it is well within the range of balanced land use planning that contemplates increases in use of both alternative energy siting as well as 'reserve' lands to make a modest increase in officially designated routes of travel that have a long history of use as well as a rational basis.

Alternative D. 5,100 miles of routes plus addition of routes in an intermediate category of 'limited' access in keeping with a higher level of environmental concerns for the proposed additional routes.

Summary: Range of Alternatives for WEMO Transportation Management:

The subgroup sentiments expressed throughout this effort generally reflected frustration at routes, or parts of routes, closed often with no alternative for completing loops or logic (from the subgroup perspective) for closure. The Alternatives presented above provide several perspectives on managing lands for access for resource management, recreation of a variety of types. The subgroup's preferred

alternative is Alternative A. Alternative A provides the most and most varied access for the users identified by the subgroup's findings. Alternative A also allows implementation of the subgroup's management recommendations for WEMO.

SUBGROUP RECOMMENDATIONS: Specific Travel Management Areas

Each Travel Management Area (TMA) contains different resources, experiences, recreational usages that may require particular resource management strategies. Access to each TMA must be determined on a resource basis. The subgroup methods of examination (see Methods and Work Plan) of TMA routes are consistent with the Court's Summary Judgment and took into account the criteria for minimization of impacts and the recommendation that all designations shall be based on the protection of the resources on public lands, the promotion of safety of users of public lands, and the minimization of conflicts among various uses of the public lands. The findings of the subgroup are arranged in a general format as below:

Specific TMA and geographic area

General assets of each TMA: geologic, cultural, minerals, ecology and habitats.

Specific Management issues of the TMA (e.g. specific proliferation issues).

Specific Route Recommendations include:

- TMA specific recommendations: e.g. sale of small properties surrounded by private lands;
- Increased enforcement; outsourcing enforcement to private contractors;
- Mitigation of impacts on closed routes;
- Maintenance of existing installed mitigation strategies.

TMA 1: Afton Canyon-Cady Mountains

Assets:

- Famous and iconic gem and mineral collecting areas with family values,
- Nationally important Paleontology Resource Management Areas (PRMAs) need access,
- Most significant riparian corridor in WEMO,
- Historical trails and mining and mineral resource sites (e.g. The Mojave Trail, Hidden Valley, and Hector Road),
- Valuable active mining areas and mining claims (e.g. one of only 2 active iron mines in CA),
- Park service access (to the East Mojave National Preserve),

- Motorized backcountry recreation destination,
- Location of many family values for camping, enjoyment of aesthetics and solitude,
- Provides numerous educational opportunities in history, early settlement, biologic, cultural, historic trails and mining roads.

Management Issues:

- Protection of riparian habitat.
- Big Horn Sheep summer birthing along Afton riparian corridor. Limit summer travel and limit speeds to 30 mph.
- Resolve illegal crossing over railroad at Afton and Broadwell.

Recommendations:

- Designate historic routes and mining roads, including Hidden Valley Road from Hidden Valley wells to Mesquite Springs.
- Crossings at active washes should receive "Open" designation. Washes are "self-healing" with each rainy season and if travel is restricted to the wash road, slope and riparian degradation is minimal.
- Reevaluate the appropriateness of the 1994 WSA designation to stop a once proposed nuclear waste repository. Since the repository project is gone, what criteria remains for keeping the WSA? The WSA hampers access for resource management. In addition, the Cady Mountains do not have characteristics suitable for wilderness. This area is crossed by roads established before 1915, and are shown on 1950's series USGS 15' topographic maps. These roads lead to mines and active mining claims, hobby collecting areas, maintained guzzlers, plant populations under study and paleontological resource management areas accessed since the 1960s.

TMA 2: Slate Mountains/Manley Pass/Centennial Flat/ Darwin

Assets:

- Many Paleontology Resource Management Areas (PRMAs) require access,
- Hunting areas/aqueduct areas,
- Active mining areas: clay, perlite, pumice,

- Connectivity to Northeast Mojave Desert (NEMO) is needed via the Manley Pass Road,
- Many dual sport touring routes,
- Equestrian trails,
- Many existing mining and ranching roads in the Darwin/Centennial flats area.

Management issues:

- Manly Pass is the only dirt road that connects across Slate Range from WEMO into the Panamint Valley in NEMO. (<http://www.sccxterra.com/smf/index.php?topic=466.0>).
- The "Escape Trail" presents opportunities (see Budlong reports, Appendix 4) for illegal route proliferation.
- Illegal motorized use on historic foot trail south of Slate Range crossing on the Slate Range ridge. (see Budlong reports, Appendix 4)
- Many existing mining and ranching roads in the Darwin/Centennial flats area, some over 100 years, old have never been classified and it is recommended that they be classified as Open.
- Intense use by OHV traffic (legal and illegal); area needs increased frequency of signage.

Recommendations:

- Implement Jawbone RMS restoration strategies and barriers.
- Implement high density signing.
- Consider designating Manley Pass road as Open as it is the only road across the Slate Range.
- Inventory and evaluate public and private mining roads and designate as appropriate; specifically, Inventory 100 year-old roads around Centennial Flats, Darwin area. If historic roads were recognized as WEMO open routes, there would be little impact.

TMA 3: Juniper Flats Areas

Assets:

- Popular hiking and equestrian destinations (Pipes Canyon, Pioneertown, Arrastra Canyon).

Management Issues:

- Conflicts at urban interface (high volume OHV traffic).
- Illegal route proliferation issues; checkerboard public lands encourage trespass on adjacent private lands.
- Consider establishing a staging area with educational kiosk.
- Address ranching issues.

Recommendations:

- Increase law enforcement activities, and adequate signing.
- Implement Jawbone RMS restoration strategies and barriers/controls near staging areas.
- Seriously consider expedited sale of public lands: divest federal checkerboard properties and consolidate inholdings.
- Provide/maintain access for paleontologic and mineral resource management and research (even if by limited designations).
- Provide/maintain access for family values of hiking and camping.
- Specifically designate the road from Horse Springs to the White Mountain quarry as Open, or Limited.

TMA 4: Jawbone and Middle Knob Areas

Assets:

- The Jawbone RMS is an excellent and primary example of trail management successes and those strategies should be duplicated near population centers in other TMAs,
- Internationally significant Paleontology Resource Management Areas (PRMAs),
- Popular deer hunting area,
- Limited use area, over 65 miles of motorized recreation roads and trails,
- Pacific Crest Trail (PCT) crossing.

Management issues:

- Conflicts at urban interface (high volume OHV traffic).

- Kern Buckwheat Renewable area.
- Route proliferation on historical St. Johns Ridge.

Recommendations:

- Consider designating a trail system connecting along St John's ridge to alleviate proliferation in the St. John's Ridge Area.
- Provide access to Paleontology Resource Management Areas (PRMA).

TMA 5: Fremont Peak/Mud Hills/Calico

Assets:

- Internationally significant Paleontology Resource Management Areas (PRMAs),
- Mineral Resources and many patented mine lands,
- Hobby collecting areas,
- Calico Historical Mining Area,
- Access to cultural resources, historic areas and sites and historic routes,
- Mud Hills, Calico Mountains, Mitchell Range geologic education,
- Family camping and hiking,
- Single-track area at Gravel Hills, and Calico.

Management issues:

- Heavy motorized recreation in Fremont Peak, Gravel Hills, Calico Mountains area.
- WEMO Maps indicate single-track as roads.
- Irresponsible and hazardous target shooting in Calico area.
- Private Conservation Areas have repeated trespass issues at the boundaries of these specially managed private properties. The problems are most acute with roads that end at these properties as well as with some roads that parallel private/public boundaries, with potential degradation issues of the conservation lands.
- Checkerboard public/private lands; routes over private lands are a continuing trespass issue.

Recommendations:

- Consider designating an area for target shooting: set aside an easy to reach target range with appropriate safety precautions in an area away from vehicle recreation, camping, hiking and geologic education. Also consider adding target shooting information at kiosks, including cleaning up targets, shells and other debris.
- Install better signage at private lands and patented or active mineral claims.
- Consider showing single-track routes as a different color from double-track routes on GTLF-based TMA maps: TMA 5 & 6 were the subject of a motorcycle survey of single-track trails in 2002. The 2006 supplemental maps showed both single-track and double-track as the same color on the maps.
- Inventory of mileage on single-track trails might reduce the overall mileage in this TMA.
- Document proliferation of routes in the Coolgardie area.
- Seriously consider expedited sale of public lands; divest federal checkerboard properties and consolidate inholdings.

TMA 6: El Mirage

Assets:

- Dual Sport touring,
- Gem and mineral hobby collecting sites.

Management issues:

- BLM Maps show single-track trails as roads. Checkerboard public/private lands; routes over private lands are a continuing trespass issue.

Recommendations: Implement Jawbone RMS restoration strategies and barriers/controls

- Implement high density signing and Increase law enforcement activities.
- Consider showing single-track routes as a different color from double-track routes on GTLF-based TMA maps: TMAs 5 & 6 were the subject of a motorcycle survey of single-track trails in 2002. The 2006 supplemental maps showed both single-track trails and double-track trails as the same color on the maps.

- Inventory of mileage on single-track trails might reduce the overall mileage in this TMA.

TMA 7: Ridgecrest/ Randsburg

Assets:

- Internationally significant Paleontology Resource Management Areas (PRMAs) need access,
- Hobby collecting and prospecting areas,
- Numerous Cultural resource sites and districts,
- Geologic and biologic educational opportunities.

Management issues:

- Maps show single-track trails as roads.
- Closures in the West Rand Mountains continue to be a contentious issue and compromise a positive relationship between OHV community and the BLM managers.
- Many routes are not accurately portrayed on the GTLF-based TMA maps.

Recommendations:

- Develop special management permit for West Rand Mountains in the area enclosed by R50-R5-R10-R43.
- Continue working with Jawbone RMS groups to manage trails and to control route proliferation and erosion.
- Correct GTLF-based TMA maps by plotting trails accurately.
- Consider removing the opportunity for route proliferation by closing a portion of EP 499 crossing west end of the mesa.
- Resolve conflicts between WEMO and proposed Kern Co Off Highway motorized/non-motorized travel plan.
- Make TMA routes (as shown on GTLF-based TMA maps) compatible with the CAPA Routes.
- Consider showing single-track routes as a different color from double-track routes on TMA maps: TMAs 5 & 6 underwent a motorcycle survey of single-track trails in 2002. The 2006 supplemental maps showed both single-track and double-track as the same color on the maps.

TMA 8: Stoddard/Johnson/Lucerne Valleys

Assets:

- Paleontology Resource Management Areas (PRMAs) need access,
- Access for family values (camping, hiking), hobby collecting areas,
- Access to manage cultural resource values,
- Geologic and biologic educational opportunities,
- Access for educational opportunities by institutions,
- Access to historic routes and mining areas.

Management Issues:

- Maintain access on long established routes as Open for resource management.
- Maintain access on long established routes as Open to patented mining claims and private land.
- Maintain access on long established routes as Open for education, family values.
- Twenty-nine Palms Marine Base Expansion: The subgroup supports the DAC's February 2013 resolution and encourages the BLM to support Congressman Cook's legislation (HR 1676, "The Johnson Valley Off-Highway Vehicle Recreation Area Establishment Act"), which is backed by Armed Services Committee Chairman Buck McKeon.

SUMMARY – Subgroup Recommendations: Specific Travel Management Areas

Each TMA contains different resources, experiences, and recreational usages that may require particular resource management strategies. The findings of the subgroup as a result of its review of the TMA maps for each of the eight TMAs are grouped into three areas for each TMA: General Assets of the TMA, Specific Management Issues of each TMA, and Specific Recommendations for each TMA. The recognized assets of the TMAs range from backcountry destinations, iconic mineral collecting areas, historical or cultural areas, recognized habitats, important paleontological research and management areas, and famous dual sport routes. Management issues are recognized for each area that include protection of habitats, off-road route proliferation issues, closure of access to famous or iconic historical or mineral collecting sites, and management of public lands checker-boarded by private holdings.

The subgroup strongly recommends maintaining “routes for balanced resource use and management.” The recommendations of the subgroup attempt to address the identified management issues for each TMA. Each TMA seems to require recommendations for management that is TMA specific, however, some of the recommendations apply to many of the TMAs:

Implement the Friends of Jawbone’s restoration strategies and barriers, and increase law enforcement activities in areas of high OHV use that have proliferation and enforcement issues
Implement high density signing.

Provide access to Paleontology Resource Management Areas (PRMA)

Seriously consider expedited sale of public lands; divest federal checkerboard properties and consolidate inholdings in areas with existing checker-boarded private public lands

Consider showing single-track routes as a different color than double-track routes on GTLF-based TMA maps.

During review of the TMA maps, the subgroup identified many favorite family value areas that require access, but have route specific problems, or issues with routes both open and closed, the subgroup identified a few specific routes that need some attention from the BLM:

TMA 1: Designate Open the historic routes and mining roads, including the road through Hidden Valley from the Hidden Valley wells to Mesquite Springs.

TMA2: Consider designating Manley Pass road as Open as it is the only road across the Slate Range.

TMA4: Consider designating a trail system connecting along St John's ridge to alleviate proliferation in the St. John's Ridge Area.

Many of the recommendations of the subgroup would require an expanded category of "limited" to implement the recommendations. Many of the TMAs have assets that require access (such as for monitoring resources such as paleontological, biological or mineralogical). In addition, Federal "Sister Agencies" and other lead agencies require access to remote areas that may be inaccessible with the current transportation system. The subgroup recommends that the category of Conditional Limited Access be reviewed and expanded to encourage volunteer resource management under conditions of Limited/Seasonal/Special Use permits.

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