



Grand Canyon Chapter • 202 E. McDowell Rd, Ste 277 • Phoenix, AZ 85004
Phone: (602) 253-8633 Fax: (602) 258-6533 Email: grand.canyon.chapter@sierraclub.org

November 23, 2011

BLM Lower Sonoran Field Office
LS-SDNM RMP
21605 North 7th Avenue
Phoenix, AZ 85027
blm_az_ls_sdnm_plan@blm.gov

Re: Draft Resource Management Plan and Environmental Impact Statement for the Lower Sonoran Field Office and Sonoran Desert National Monument

Dear Ms. Garber and Mr. Hanson:

Thank you for the opportunity to provide comments on the **Draft Resource Management Plan and Environmental Impact Statement (DRMP/DEIS) for the Lower Sonoran Field Office and Sonoran Desert National Monument**. Please accept these comments on behalf of the Sierra Club's Grand Canyon Chapter and our 12,000 members in Arizona.

The Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments." The Sierra Club has long been committed to protecting wild lands, including national monuments and, specifically, the lands included in this planning effort. Our members have significant interest in this plan as many use the areas that will be affected for hiking, backpacking, wildlife viewing, and more and are involved in various programs to protect them. We have consistently submitted comments on the plans associated with Sonoran Desert National Monument (SDNM) and various lands throughout this planning area.

Of the alternatives provided in the Draft Plan, Alternative D comes closest to protecting the important monument objects and resources of the lands affected by this planning effort. We ask that the Bureau of Land Management (BLM) consider an alternative much like Alternative D but with additions to the wilderness characteristic lands and key wildlife linkages. This Resource Management Plan (RMP) represents a great opportunity to protect some of the most amazing Sonoran desert lands and important resources in the public trust. We ask that you take this opportunity to protect them now, for all Americans and for future generations.

Background

SDNM was designated to protect a diverse and spectacular array of Sonoran desert habitats and associated wildlife, plants, and human cultural history. The monument plays a critical role in preserving the ecology of this region, as it contains not only dramatic mountain ranges but also the lowlands connecting them and critical wildlife linkages. This area affords the opportunity to manage for the protection of migratory species; those with large home ranges, such as desert bighorn sheep and mountain lions; as well as species with smaller ranges or more specific requirements.

SDNM is both blessed and threatened by its geographical setting. Its diversity of soils and topography create homes for a rich diversity of both wildlife and native plants. This richness in turn provided a living for humans for thousands of years. However, these very values that make SDNM such a spectacular and special place also place it at great risk. It has become a desirable area for humans to recreate and live in, and it is easily accessible to hundreds of thousands of people living in nearby urban and suburban communities. Unfortunately, overuse and misuse threaten the monument resources. Illegally-created motorized and mechanized vehicle tracks and wildcat trash dumps have sprung up across the monument, often associated with irresponsible recreational shooting. Plants are destroyed, animals are injured or their movements impeded, and wildlife habitat is damaged. Random recreational target shooting, illegal dumping, and drug smuggling threatens the safety of residents, visitors, private property, and wildlife.

In this RMP, the BLM must take decisive action to protect this American treasure and the associated Lower Sonoran lands. The monument was created solely for protection of its valuable natural and cultural features, not to provide recreation for the public. The President of the United States conferred monument status on this area to protect its objects of scientific interest:

“untrammled Sonoran desert landscape...functioning desert ecosystem...distinct mountain ranges separated by wide valleys...saguaro cactus forest communities...spectacular diversity of plant and animal species...unique woodland assemblages...structurally complex examples of palo verde/mixed cacti association...tinajas...acuna pineapple cactus...rich diversity, density, and distribution of plants in the Sand Tank Mountains area...packrat middens...creosote-bursage plant community...rare patches of desert grassland...washes...Sonoran pronghorn...desert bighorn sheep...mule deer, javelina, mountain lion, gray fox, and bobcat...bat species [including] the endangered lesser long-nosed bat...over 200 species of birds...a diverse array of reptiles and amphibians...Vekol Valley and Sand Tank Mountain areas...significant archaeological and historic sites...[and] Vekol Wash.”¹

To protect these features against the onslaught of unmitigated recreation, sprawl, and motorized and mechanized vehicular abuses, the BLM must adopt a Transportation Plan that provides for reasonable visitor access while creating a manageable, enforceable network of designated roads. Numerous recreation opportunities can still be available while the archaeological resources, wildlife, and wild land qualities for which the monument was designated are given the protection required by law.

BLM must also carefully plan and manage recreation opportunities that do not conflict with the protection of the monument objects, including the Sonoran Desert ecosystem itself. Camping should be limited to designated, dispersed, undeveloped sites. Clear interpretive signing should inform all visitors of the transportation plan and designated campsites, as well as any other restrictions.

BLM has not demonstrated how each of the SDNM’s objects will be protected in the DRMP/DEIS. This analysis and demonstration must be completed prior to finalizing the RMP. Furthermore, BLM must present a range of alternatives, all of which protect the objects of the monument.

Air Quality

Air quality in and near the planning area is significantly affected by vehicular traffic. The Phoenix area exceeds federal health-based standards for both ozone and coarse particulates (PM10). Because of this, the DRMP/DEIS must carefully examine the air quality impacts of any planned actions, include any route designations. Transportation and off-road vehicle activities contribute significantly to PM10 emissions, and cars and trucks are also a major factor relative to ozone precursors. In addition to the specific public health issues, BLM must address any impacts to Class I airsheds.

¹ President William Clinton. 2001. Sonoran Desert National Monument Proclamation. The White House, Washington, D.C. January 17, 2001.

Livestock grazing can also negatively impact air quality. Livestock disturb the ground surface and remove vegetation, causing erosion and loss of soil and nutrients.^{2,3}

Alternative D would best protect the air quality in and around the planning area by eliminating livestock grazing and by reducing the number of routes open to motorized vehicles. Both of these components would be a significant benefit to air quality, and the overall negative impacts to air quality would be minor. Closure of existing and user-created routes will greatly benefit air quality, especially if it is coupled with revegetation of routes.

Cultural and Heritage Resources

As indicated on page 425 of the DRMP/DEIS, Alternative D would be most protective of cultural resources in both the Lower Sonoran and SDNM. This alternative would eliminate the impacts of trampling and erosion that is exacerbated via vegetation removal and soil disturbance associated with livestock grazing. Alternative D also closes the greatest number of transportation routes and, therefore, would be most protective of these resources. We do not agree that restricted motorized access would limit monitoring of archaeological sites, as indicated on page 427. Such monitoring can be accomplished via non-motorized access, and the benefits of reducing public access to these sites outweigh limited monitoring and scientific access.

Climate Change

The DRMP/DEIS does not demonstrate how the BLM will manage these lands within the broader landscape to promote ecological connectivity and resilience in the face of climate change and as directed in Secretarial Order 3289.⁴ This order requires that the BLM “consider and analyze potential climate change impacts when undertaking long range planning exercises...[and] developing multi-year management plans....” The DRMP/DEIS does not contain an analysis of the cumulative carrying capacity for the region and how the monument fits into that picture. There are also no decisions regarding managing the landscape during periods of stress so that the monument objects and ecological function and condition will not be irreversibly harmed. All of this should be addressed in the RMP.

Priority Wildlife Species and Habitat

Alternative D affords the greatest protections for priority wildlife species and habitat. As noted above, BLM must protect monument objects as indicated in the Monument Proclamation. The Proclamation identifies many important wildlife species and their habitat as objects of interest to be prioritized for protective management. These include, but are not limited to, Sonoran pronghorn; desert bighorn sheep; mule deer; javelina; mountain lion; gray fox; bobcat; lesser long-nosed, California leaf-nosed, and cave myotis bats; more than 200 species of birds, including raptors, the elf owl, and western screech owl; Sonoran desert tortoise; red back whiptail; and Sonoran green toads.

The RMP must prioritize and protect wildlife and habitat under the Proclamation and should restrict uses that cause or contribute to damage of the monument objects, including wildlife species listed in the Proclamation. Off-road vehicle use, certain designated routes, livestock grazing, and other uses that may lead to the damage of the wildlife

² Saab, V.A., C.E. Bock, T.D. Rich, and D.S. Dobkin. 1995. Livestock grazing effects in western North America, p. 311–353. *In* T.E. Martin and D.M. Finch [eds.], *Ecology and management of Neotropical migratory birds: a synthesis and review of critical issues*. Oxford University Press, New York.

³ Fleischner, T.L. 1994. Ecological costs of livestock grazing in western North America. *Conservation Biology* 8: 629–644.

⁴ Secretarial Order 3289. Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources. Available online at <http://www.doi.gov/archive/climatechange/SecOrder3289.pdf>.

resources in the monument should be limited. Again, Alternative D comes closest to providing these important protections.

The designation of wildlife habitat areas (WHA) and wildlife movement corridors (WMC) in the DRMP/DEIS is a key positive step that we strongly support. Alternative D establishes the Gila Bend Mountains WHA and protects the remaining WHAs as Areas of Critical Environmental Concern (ACECs).

We endorse the WMCs offered in Alternative D as depicted on Map 2-2d and appreciate that these corridors utilize existing wilderness areas or areas that contain wilderness characteristics as their termini. Activities that have the potential to damage these areas must be limited in order to provide for adequate wildlife movement. Such activities include utility-scale renewable energy development and exploration sites and all locatable and leasable mineral exploration and development sites. All WMCs must be withdrawn from mineral entry. Further, all linear and nonlinear land use allocations such as power lines and their attendant right of ways, communication sites, underground pipelines, freeways and parkways, and all new road construction need to be prohibited in these corridors. Existing gravel roads should be maintained at the status quo level with no widening or re-routing permitted.

In order to prevent degradation of the WMCs and ensure their use and viability in the long term, every effort must be made to keep them in a natural condition. Converting state trust land and private land into the public domain must be made a priority for these areas in order to maintain these areas' natural condition and to enhance their viability as WMCs.

The statement on page 64 (first paragraph, second sentence under Wildlife Movement Corridors) reads as follows: "The goal of identifying wildlife movement corridors is to maintain a belt of native vegetation between various habitats that is as nearly contiguous as possible while facilitating multiple uses." It is clear that "maintaining a belt of native vegetation" and "facilitating multiple use" can often be mutually exclusive, as multiple-use activities may result in the degradation of the habitat and the destruction of the wildlife movement corridors. Therefore, multiple use must be carefully managed in WMCs.

The WMC that extends from the Sierra Estrella Wilderness Area through Seven Mile Mountain and eventually connects with the SDNM is one of the most at risk WMCs in the decision area due to potential developments in the area. Innovative ideas and strong protections will be necessary to ensure that this WMC remains viable for wildlife. One possibility would be to close the redundant route between the existing Sierra Estrella Wilderness Area and Seven Mile Mountain and to expand the Sierra Estrella Wilderness Area to include Seven Mile Mountain. The remainder of this WMC from Seven Mile Mountain to the SDNM could be designated as an ACEC.

Soil

Alternative D affords the greatest protection for soil resources. By eliminating grazing, it reduces the impacts to soils and limits overall ground disturbance, plus allows for vegetation to hold the soil intact. This alternative would also decrease off-road vehicle activities on 378,300 acres that are designated as closed. The number of routes that would remain open would be about 200 miles, further reducing the soil impacts, especially to lands adjacent to routes where there tend to be additional off-road activities.

Sound

The protection of natural quiet has been recognized as a land resource for many years. In 1949, President Harry Truman issued an executive order establishing an airspace reservation for certain areas of the national forests. The order prohibited flights over specified regions of the forest below certain altitudes. Congress later incorporated this executive order into the Boundary Waters Canoe Area Wilderness Act. Congress first took specific action concerning natural quiet at Grand Canyon National Park (GCNP) in the Grand Canyon National Park

Enlargement Act of 1975. In 1987, President Reagan signed a much stronger law – The National Parks Overflights Act, which called for “substantial restoration of the natural quiet” at GCNP (Public Law 100-91).

We recommend that BLM address natural quiet as a resource to be protected within the monument and any lands with wilderness characteristics.

Vegetation

Alternative D would have the least negative impact on vegetation as it eliminates livestock grazing. The comments on pages 512 and 514 that indicate that the impacts to vegetation from eliminating livestock grazing would generally be small is indefensible. Livestock have a significant impact on vegetation, including on annuals,⁵ which is not really addressed in the DRMP/DEIS.

The comments regarding fire are also questionable. Elimination of livestock grazing primarily will affect native plant species. However, it is the non-native grasses that contribute to unnatural fire conditions. Eliminating livestock grazing can help reduce the spread of non-native species and provide a greater opportunity for native species to recover. Non-natives should be eliminated where possible, and their spread to a wider area must be carefully managed. Spot removal of species such as buffel grass can be very effective.

Buffel grass has invaded the monument but is still vulnerable to extirpation. Buffel grass removal efforts should have high priority. Every effort should be made to keep other exotic plants from entering or spreading within the monument. Removal of non-native invasive species programs should focus on non-toxic methods that will not damage monument water tables, wildlife, or native plants.

Desert soils are particularly fragile, and use, grazing, and development can have significant impact on the cryptogammic crust, which is primarily made up of cyanobacteria, mosses, and lichens. When these soils are disturbed, the desert land generates more dust and the area is more susceptible to invasive plant species. Many of these invasive species can have a significant negative impact on the native vegetation and wildlife. Buffel grass is a serious threat because it competes with native plants, but it also changes the ecology of an area to make it more fire prone. Buffel grass is fire adapted, whereas the desert vegetation is generally not.

Visual Resources

Alternative D will have the least impact on visual resources as the least amount of development will be allowed under this alternative. Nearly all of the land inventoried as Class I would also be managed as Class I, with only two percent managed at a lower level. Dark-sky-friendly technologies should be required within the planning area. Current installations that do not meet dark-sky-friendly technology should be converted to dark-sky-friendly standards whenever possible.

Water Resources

Under Alternative D, water resources would improve due to the elimination of livestock grazing and the reduction of surface disturbance. The ground cover of vegetation will be improved, and perennial and ephemeral vegetation will increase, thus increasing the water holding capacity of the land and improving infiltration (see page 555.)

Also, as noted in the DRMP, the route closures in Alternative D are primarily to protect wilderness characteristics and wildlife habitat. The closures will thus also reduce impacts to water resources.

Water Developments

⁵ Fleischner, T.L. 1994.

The DRMP/DEIS fails to address the impacts of the development of artificial waters on wildlife, nor does it make the case for additional construction of water developments. Studies have shown that artificial waters may have negligible or even negative effects on wildlife species.⁶ This document must include a full explanation of not only how water has been demonstrated to increase any bighorn sheep numbers, but also how these bighorn population increases will affect other flora and fauna, including bighorn, over the long-term. It should also include bighorn population trend data for all other Sonoran Desert mountain ranges in Arizona.

Moreover, the RMP should include a case-by-case description and evaluation of each existing, maintained, and newly proposed artificial water source. This description and evaluation should include, at a minimum which species use the source, how many animals use each source, in which seasons this use occurs, the effect on these species and individuals, an outline of each source's maintenance schedule and requirements, an analysis of whether each source should be retained or decommissioned, and a discussion of whether data regarding these individual sources could be gathered either remotely or by air. After collecting the foregoing data, the RMP should also address whether any of the existing individual water catchments should be either abandoned or removed.

In order to comply with the National Environmental Policy Act, the DEIS must fully disclose all relevant research and management information, such as annual data on bighorn surveys, annual and seasonal visitor numbers, numbers and categories of special use permits, citations and infractions, work projects, water hauls, budgets, staffing, etc.

The RMP should include a site-specific analysis of the use of, the need for, and the environmental impacts of each individual existing, upgraded, and/or potential future water development. The existing catchments and the environment surrounding each one should be examined in detail. Such an assessment of the individual catchments would go a long way toward ensuring that subsequent project-level decisions regarding these catchments are made in keeping with sound management practices.

Wildland Fire Management

We encourage the BLM to preserve and enhance wilderness characteristics across the landscape. As noted on page 615 under the heading of **From Wilderness Characteristics on Wildland Fire Management**, "These [wilderness characteristic] allocations would minimize the potential for non-native plant establishment and associated increases in fuel levels and fire intensities, as well as require restoration to a greater extent than under any of the other alternatives." Protecting wilderness characteristics helps protect soil, limits disturbance, and eliminates a major activity that spreads invasive non-native species, off-road vehicles, and vehicular traffic overall.

Lands Containing Wilderness Characteristics

The BLM must maintain an inventory lands for wilderness characteristics as directed by the Federal Land Policy and Management Act (FLPMA), 43 U.S.C. § 1701 *et seq.* Wilderness, both within the SDNM and the Lower Sonoran Decision Area, is a statutory tool that all federal land management agencies have at their disposal, and this tool needs to be used to protect the objects listed in the SDNM Proclamation. Almost all of these same "objects" also exist in the Lower Sonoran Decision Area, and utilizing the protection of wilderness characteristics is the best tool the BLM has at its disposal to protect these values.

We support the list of lands on page 301 in the DRMP/DEIS that the BLM has considered as qualified lands for potential inclusion in our system of wilderness lands given protection under the 1964 Wilderness Act. Map 2-4d shows these lands as part of Alternative D. We recommend that all of these lands be included for wilderness

⁶ Cain, J.W., P. Krausman, J. Morgart, B. Jansen, and M. Pepper. 2008. Responses of desert bighorn sheep to removal of water sources. *Wildlife Monographs* 171(1):1–32.

designation with the following exception: the Yellow Medicine Butte area needs to be broken down into two separate units. There is a heavily roaded corridor running down the approximate center of this unit. Inventoried routes 8223 and those portions of 8221 that are not located in desert washes have compromised the integrity of this area. We are proposing that the area east of inventoried route 8223 be listed as a separate area containing wilderness characteristics and that it be called the Dixie Peak wilderness characteristic area.

The lands listed in Alternative D represent an incomplete inventory of lands that contain wilderness characteristics, however. Perhaps that is due to the fact that BLM has not updated its wilderness inventory since the early 1980s. In developing the RMP, BLM should inventory and protect all lands with wilderness characteristics.

There are four areas in the Sentinel Plain lava field and two areas in the Painted Rock Mountains that warrant consideration as areas that contain wilderness characteristics – see below for these specific areas. Portions of the Sentinel Plain shield volcano north of Interstate 8, as well as portions of the Painted Rock Mountains, contain areas that are greater than 5,000 acres and also possess unique qualities. On page 434, under 4.5 IMPACTS ON PALEONTOLOGICAL RESOURCES, it states, “In the Lower Sonoran, the Sentinel Plain lava flow is considered geologically significant. No other geologically significant areas have been identified in the Decision Areas; however, locally significant areas may be present.” As a side note, we think that unique volcanic geological features should have a separate section rather than being listed under paleontological resources. While fossils are sometimes found in volcanic ash flows, they are never found in basalt rock that was once hot magma. The Sentinel Plain shield volcano and the Painted Rock Mountains are linked geologically. The 18 million-year-old Painted Rock Mountains formed a geological dam that prevented the eastward expansion of the 2 million-year-old Sentinel Plain shield volcano. While there has been more than one episode of shield-building volcanic activity on Sentinel Plain, all this activity is younger than the Painted Rock Mountains.

Wildlife Comments As They Relate To Wilderness

Please clarify the sub-section entitled **From Wilderness Characteristics on Priority Habitat and Wildlife Management** on page 459 of the DRMP/DEIS. The second sentence should read as follows: “Impacts are expected to be similar to Alternative C, except the intensity **of hunting activity may** increase slightly **in areas adjacent to wilderness characteristics areas** due to the larger area covered by the lands managed to protect wilderness characteristics allocation.” To the average reader of this document, it is unclear what the word “intensity” refers to. A similar clarification is needed on page 460 in the sub-section entitled **From Wilderness Characteristics on Priority Habitat and Wildlife Management**. The fourth sentence should read as follows: “Impact(s) would be similar to Alternative C, except the intensity **of hunting activity could** be greater **in areas adjacent to wilderness characteristic areas** due to the larger amount of lands managed to protect wilderness characteristics.”

Regarding both of these comments, is there any research that indicates that there is less hunting in areas that are designated wilderness areas or areas managed as wilderness characteristic areas? Many wilderness areas are rough topographically, and this may be a reason for less hunting in some wilderness areas. The conclusion that a special land classification tends to preclude hunting is questionable. It does mean less impact, however, due to the limits on motorized travel.

Lands managed for their wilderness characteristics need to be designated as closed to off-road vehicle activity. **Wheeled game carriers are unacceptable** in wilderness characteristic areas and should not be permitted. The minimum tool rule needs to be applied when removing game from public land, regardless of what that particular areas land classification may be.

Closed vehicle routes within wilderness characteristic areas could be converted to equestrian and hiking trails but will not be used for bicycles or wheeled game carrier devices. We find it odd that such an option was not offered in the block diagrams seen on pages 110–113.

Sentinel Plain Complex

The Sentinel Plain Complex meets all the requirements for protection under the Wilderness Act of 1964 and deserves the protection that only a wilderness designation can bestow. The unique geologic landscape is “untrammled” by human use and contains the wilderness characteristics that qualify it for consideration and protection as wilderness, including providing tremendous opportunity for solitude and remoteness. Sentinel Plain also offers great opportunities for research for those who are focused on geology, plus it is an area that offers the history of human use through the historic period.

Central Unit: The Southern Pacific Railway and Interstate 8 infrastructure corridor make up the southern boundary of this unit. The western boundary is formed by state trust lands and the gravel access road from I-8 to Oatman Flat. The eastern boundary from state trust land is the gravel access road from I-8 to the Painted Rocks Campground. The northern boundary is a gravel connector road between the Painted Rocks campground road and the access road to Oatman Flat.

Northeast Unit: A gravel access road from I-8 to Painted Rocks Dam Campground forms the eastern boundary. The southern boundary utilizes the gravel connector road from I-8 to Painted Rocks Campground and the gravel access road from I-8 to Oatman Flat. The northern boundary is where public land joins private and state trust lands, and the western boundary is private land, the I-8 to Oatman gravel access road, and its extension north across the Gila River. This is the Wild Horse Canyon area and has an intricate complex of shallow canyons eroded into the shield volcano. These shallow canyons flow northwest into the Gila River.

Northwest Unit 1: The eastern boundary is formed by the power line from I-8 to the gravel road at the base of Oatman Mountain. The northern boundary is a heavily used gravel road at the base of Oatman Mountain. The western boundary was principally determined to be where public lands meet state and private lands, and the southern boundary was largely determined to avoid two large state trust land parcels.

Northwest Unit 2: The eastern boundary is formed by the gravel access road from I-8 to Oatman Flat. The northern boundary is a heavily used gravel road at the base of Oatman Mountain. The western boundary is the power line that runs north from I-8 to the gravel road at the base of Oatman Mountain, and the southern boundary was largely determined to avoid two large state trust land parcels. This area has numerous historical artifacts that are associated with the Juan Batista de Anza National Historic Trail corridor, as well as numerous prehistoric artifacts along the Gila River corridor.

There are approximately 30 miles of recommended route closures, all of which receive light use and, due to the surface topography, will be relatively easy to reclaim. There is one cherry-stemmed road in the Northeast Unit.

All of these areas meet the minimum 5,000 acre requirement for wilderness.

Painted Rock Mountains

The Painted Rock Mountains wilderness characteristic areas are divided into two approximately equal-sized areas by an existing route.

Southern Painted Rock Mountains: The southern Painted Rock Mountains wilderness characteristic area is bounded by I-8 and state trust land. To the west, this area is bounded by inventoried route 8231. To the north, this area is bounded by the aforementioned existing route. To the east, this area is bounded by private land and state trust land. This area is characterized by highly tilted fault blocks that dip generally to the west with steep east-facing escarpments. There are panoramic views of the Sentinel Plain lava field. This area has at a minimum the 5,000 acre requirement for a potential wilderness area.

Northern Painted Rock Mountains: The northern Painted Rock Mountains wilderness characteristic area is bounded to the south by an existing route. To the north, this area is bounded by the Painted Rock Dam Road and state trust land. To the east, this area is bounded by private land. To the west, this area is bounded by inventoried route 8231 and the camping areas associated with the Painted Rock Park. This area is more gentle in nature than the southern unit and is characterized by numerous isolated peaks. It has excellent views of the Sentinel Plain lava field. There is what appears to be the remains of an ancient volcanic caldera in the southern part of this unit; however, this needs to be independently verified. The “Painted Benchmark peak” located at the north end of this unit has a small structure on its summit and two communication towers that were built in 1947 that have now fallen over. All of it has been out of use for many decades and now represents the historical past in this area and, as such, does not compromise the idea of wilderness. We have been unable to determine the purpose for these structures.

All six of the wilderness characteristic areas mentioned above were never properly inventoried by the BLM. We ask the BLM to include these areas as lands with wilderness characteristics in the final RMP. Generic reasons such as views of land disturbed by farming or solar installations or the visibility of cars, trucks, and trains on infrastructure corridors are not acceptable reasons for not listing these as areas that contain wilderness characteristics. These reasons have been used in the past by the BLM to exclude areas that are now officially designated wilderness areas. Areas being managed for their wilderness characteristics should be managed in such a way as to preclude practices that would compromise their wilderness potential.

Sierra Estrella Wilderness Area Expansion

There is an opportunity to expand the Sierra Estrella Wilderness Area by closing an existing but unmaintained route between Seven Mile Mountain and the Sierra Estrella Wilderness Area. This would make Seven Mile Mountain a part of the Sierra Estrella Wilderness Area. We recommend that BLM include this area as an area with wilderness characteristics to protect its “untrammeled” nature and unique values and to further protect the wildlife linkage in that area.

We believe that it is essential that minor and nonlinear land use allocations (LUA) be managed as exclusion areas for lands containing wilderness characteristic areas. We do not believe there should be any exceptions granted as these areas represent potential future wilderness areas. Linear land use allocations such as high voltage transmission lines and the attendant right of ways **must absolutely be excluded** from any lands that are to be managed for their wilderness characteristics. We do not understand why linear land use allocations are not included in the block diagram on page 110.

RESOURCE USES

Grazing

We support the grazing strategies as outlined in Alternative D on pages 660 and 661. This is similar to the strategy that was used to phase out grazing in Organ Pipe Cactus National Monument. Grazing of cattle in the Sonoran Desert is a marginal business proposition, at best, and is extremely harmful to the desert vegetation. It is easy to overgraze cattle on Sonoran Desert grazing allotments, where vegetation is already limited and rainfall is scarce. Loss of soils due to erosion is one of the most damaging aspects of overgrazing.⁷

The final two sentences of the final paragraph in section **4.15.6.1 Both Decision Areas** conclude that there would be dire economic hardships for towns and communities that are dependent on the ranching industry. We question this statement. What towns in the Decision Area are actually dependent upon the livestock grazing industry? The conclusion that the elimination of cattle from the Decision Area will result in a greater fire hazard is also open to serious debate, as noted in our comments previously. In fact, the opposite argument has strong foundations in science. When the soil surface is disturbed and native vegetation is removed by cattle grazing, it

⁷ Fleischner, T.L. 1994.

provides more opportunities for non-native species to gain a foothold. There is clear evidence that cattle grazing helps spread non-native invasive species.⁸

Cattle cannot be “used as tools” to improve the land because desert ecosystems are not adapted to livestock grazing. The Sonoran Desert is not the Great Plains. Cattle require a large investment in infrastructure in the form of fences and gates, stock ponds, and wells to exist upon the land.

Land Health Evaluations (LHE) on Map 5 show areas in brown as being unsurveyed or inaccessible. Unfortunately, much of these unsurveyed or inaccessible lands are quite easily accessible to cattle. We have observed numerous cattle ridge running in the South Maricopa Mountains, an area shown on Map 5 to be unsurveyed or inaccessible.

The BLM needs to institute a network of “grazing exclosures” similar to what the Forest Service has done on their lands. While the concept of “Key Areas” may be a good start, these “Key Areas” need to be upgraded into “grazing exclosures.” Simply calling Area A one huge “grazing exclosure” does not get the job done. Features such as soil type, plant community variations, percentage of rocky outcrops, exposure, and elevation, as well as past grazing history, call for an area-wide system of “grazing exclosures.”

Permitted use levels and actual use levels need to be clearly identified. Use of a chart that shows the percentage grazing reduction per allotment is not useful as this percentage reduction is not tied to permitted use levels or actual use levels. There is no way to determine which number is being used. The statement that permitted numbers and actual numbers are very nearly identical is open to serious question. The BLM seems to rely on the individual permittees to supply them with the number of cattle they have on the land rather than actual observation.

Travel Management

To comply with Proclamation 7397, BLM should develop a transportation plan that prioritizes protecting the objects of the monument. The Proclamation makes it clear that any motorized travel should not harm those objects and that, “[f]or the purpose of protecting the objects identified above, all motorized and mechanized vehicle use off road will be prohibited, except for emergency or authorized administrative purposes.”

As we noted clearly in our scoping comments, it is critical that the RMP include a legal definition of “road.” The transportation plan in the DRMP/DEIS should be revised to include a legal definition of a road and must prioritize protection of monument objects. To do this, BLM must clearly define what is on-road travel and what is off-road travel as cross-country travel is prohibited in the monument. BLM also has a responsibility per the monument proclamation to designate the minimum road network necessary to ensure protection of the monument objects.

We are appalled that BLM is not providing greater protection to desert washes within the monument. The washes provide important wildlife habitat and critical linkages and were recognized in the monument proclamation as a monument object. Driving in washes by motorized recreationists and the Border Patrol is especially egregious. Washes tend to have more cover and serve as areas where many animals, from quail to peccaries and deer, seek shelter to regulate their body temperatures and cover from predators. Stress caused by vehicles can impair their fitness. Mortality to tortoises that burrow along the banks of washes is yet another reason for closing washes to motorized and mechanized traffic. Washes are legally not roads, so vehicles should automatically be prohibited from using them. BLM must develop, consider, and choose an alternative that prohibits vehicles in the monument’s washes.

⁸ Pimentel, D., L. Lach, R. Zuniga, and D. Morrison. 2000. Environmental and economic costs of nonindigenous species in the United States. *BioScience* 50(1): 53–65.

Only roads that are consistent with protection of the monument objects should be maintained in the monument. Temporary road closures that were implemented in order to protect areas from degradation, including destruction of monument objects, should be kept closed unless the BLM can clearly demonstrate that there will be no harm to the monument objects and that off-road vehicle activities associated with those roads is no longer a problem.

BLM has an overarching responsibility to minimize the damage to any natural resources and to ensure that the monument's objects are not degraded. To help ensure that BLM is meeting its obligations, BLM should conduct a baseline inventory and analysis of the existing road network and density, plus evaluate impacts on wildlife and any fragmentation of wildlife linkages. BLM should consider current research on the effects of road densities on wildlife and include that in the RMP. In order to adequately conserve and restore wildlife and plant species, this will be an important and necessary step.

In addition to considering the travel issues in the monument, the BLM should be evaluating and designating a travel network for the Lower Sonoran Field Office concurrent with this RMP, in order to provide more comprehensive landscape-level management of these lands. There has been no demonstration by BLM as to why the agency cannot do this, and there are strong reasons for ensuring that it happens now.

Specific Route Issues

In addition to the recommendations in the comments we submitted with The Wilderness Society et al., we further recommend the following:

In an area just outside of the SDNM (along the gas pipeline road), there are a plethora of short roads that need to be posted as closed and then barricaded. It appears that some, if not all, of these roads are being used as access roads for user-created shooting galleries. The sights and sounds from these shooting areas impact the SDNM and also present a safety issue for other people who may be using that part of the monument.

In the Lower Sonoran area within the Face Mountain area of wilderness characteristics, there appear to be a number of inventoried routes that appear to exclusively follow washes. Inventoried route 8230 should remain. All other inventoried routes within the Face Mountain wilderness characteristic area need to be declassified as routes as they are nothing more than desert washes. It is our understanding that a number of these route designations were done by volunteers who had no BLM supervision and possibly had a predisposition to designate as many routes as possible.

In the Lower Sonoran area within the Yellow Medicine Butte wilderness characteristic area, inventoried route 8221A needs to be declassified as a route as is nothing more than a dry wash. Also, that portion of inventoried route 8221 that is a dry wash needs to be declassified as an inventoried route. It is our understanding that these two route designations were done by volunteers who had no BLM supervision and possibly had a predisposition to designate routes in dry washes.

The route that exists between the Sierra Estrella Wilderness Area and Seven Mile Mountain is redundant in nature and needs to be closed to all motorized use. An alternate route exists just to the west of Seven Mile Mountain that follows the power line corridor.

All motorized, non-motorized, and mechanical vehicles, **including wheeled game carriers**, should be prohibited in wilderness characteristic areas and these areas designated as closed to off-road vehicle use. When removing game from wilderness characteristic areas, the minimum tool rule should be enforced. Vehicle routes within wilderness characteristic areas must be designated as closed, and this must be reflected in subsequent travel management plans.

We cannot imagine any instance in which commercial, organized group and competitive activities and other activities that may require a special recreation permit would be allowed in wilderness characteristic areas. This would include vending operations and concession leases, as well. Such activities run counter to the very concept of wilderness. We cannot overemphasize the need to manage wilderness characteristic areas as wilderness to protect the wilderness qualities until a day when Congress acts to provide permanent wilderness protection. Future desired conditions for wilderness characteristic areas need to be the same as areas already designated as official wilderness areas. Short spur routes and routes located in desert washes need to be closed to vehicle use under all of the alternatives. Short spur routes most generally lead to user-created camp sites and/or user created shooting galleries, both of which represent undesirable land use allocations. Short spur routes may also be used as informal staging areas for off-road vehicle activities and, over time, these areas get expanded through inappropriate off-road vehicle activity.

Recreational Target Shooting

We support the prohibition on recreational target shooting in the SDNM. The visual blight from spent shell casings; litter from various targets, including dumped electronics; and sounds of recreational target shooting are not appropriate to the SDNM or the lands in the Lower Sonoran. This type of activity leads to user-created shooting galleries where massive amounts of littering take place in the form of shell casings and various objects used for target practice – televisions, computers, refrigerators, and more. These user-created shooting galleries are visible from some distance away as the darker desert varnish and dark mineral deposits that cover the surface of the rocks in the shooting backstop areas have been blasted away, leaving the rocks a lighter color. There is also a noticeable lack of vegetation in these backstop areas as all the vegetation has been blasted away. It is highly unlikely that the shooters would do a survey of the area to make sure there were no proclamation objects located here before they started shooting. In fact, as noted in the DRMP/DEIS, many of those objects have actually become targets.

BLM should also consider prohibitions on recreational target shooting within special designation areas, including all Areas of Critical Environmental Concern and the Saddle Mountain Outstanding Natural Area.

SPECIAL DESIGNATIONS

Areas of Critical Environmental Concern

ACECs are areas where the BLM has determined that special management is required to protect important resources. ACECs are established to protect wildlife and other natural and cultural resources and historic values.

We support the designations of the Coffeepot-Batomote, Cuerda de Lena, and Lower Gila Terraces and Historic Trails as Areas of Critical Environmental Concern (ACECs) as indicated in Alternative D. We also support the designation of the 48,500-acre Saddle Mountain Outstanding Natural Area as shown in Alternative D with the understanding that embedded within that Outstanding Natural Area is the 24,413 acre Saddle Mountain Wilderness Characteristic Area. As stated earlier, we support wilderness designation for the Saddle Mountain Wilderness Characteristic Area. All linear and nonlinear land use allocations such as electric transmission lines, communication sites, underground pipelines, freeways and parkways, and all new road construction must be prohibited in all ACECs and Outstanding Natural Areas. All existing gravel roads need to be maintained at the status quo level with no widening or re-routing permitted. Acquisition of state trust land and private land inholdings should be made a priority in order to enhance the integrity of these ACECs and Outstanding Natural Areas. These special areas need to be closed to mineral entry, and no portions of these areas should be leased out to renewable energy developments.

The Anza-Butterfield Interpretive Trail in the SDNM, as well as the section of it at the Oatman massacre site and Gila River Canyon, should be closed to all motorized entry. Some off-road vehicle users have demonstrated in the

past a complete disregard for staying on the designated road way, which was why a special closure order was necessary to protect resources in the SDNM. This National Historic Trail needs to be closed to all mineral entry and exploration, as well.

ACEC designations within the SDNM should be retained. Releasing these areas will not help to further the monument proclamation or protect the monument objects. Having layered protection of the land can enhance its protections, and there is precedent for it. For example, wilderness areas within the monument have layered protection. Monument status does not obviate the fact that these ACEC designations were done for a reason – objects within the boundary of the ACEC are at risk.

Maintaining special management for these areas is a way to ensure proper management of and attention to the unique resources. We ask that all ACEC designations within the SDNM be retained. Recreational shooting should be limited in the ACECs, as well as the Saddle Mountain Outstanding Natural Area, in order to protect the cultural and natural resources. Recreational shooters have destroyed 4–5 saguaros in the Saddle Mountain area in just the past couple of years. We cannot afford to lose more to these irresponsible activities.

National Conservation Areas

There have been citizen proposals for National Conservation Area (NCA) designations within the Lower Sonoran and the SDNM. We ask that the BLM establish NCA designations that are commensurate with citizen proposals. However, NCA designations should not be used instead of wilderness designations, where warranted. There may be designated wilderness areas embedded within NCAs just as there are embedded wilderness areas with the SDNM.

Fred J. Weiler Green Belt Resource Conservation Area

This area was given an administrative designation (RCA), but very little follow-up work was done to ensure that the area was managed properly. The Public Land Order 1015 lands are also an administrative designation. There is a mistake on page 982 in the glossary section where the definition of an RCA is a duplication of the definition for the RAC.

It appears there were a number of administrative exemptions granted relative to this area that guaranteed that this area could not be effectively managed for wildlife, recreation, and cultural resources. The segregation order exempted mineral leasing, grazing, and power purposes. The construction of the Painted Rock Dam, which was completed in 1960, rendered a large portion of this green belt a toxic belt as the contamination from DDT and toxaphene made the water unfit for human consumption or recreational opportunities or really even for wildlife.

These lands have apparently fallen into a managerial black hole as there is no clear management authority or lead agency between the BLM, US Fish and Wildlife Service, and Arizona Game and Fish Department. This RMP should establish a clearer and more protective management scheme for these lands and help clarify the relationship among the various agencies relative to their management.

Abbreviations and Acronyms

There is a mistake in the “A” section of abbreviations and acronyms that is located at the very end of Volume 3 but not assigned a page number: “ARS” is defined as “analysis of the management situation,” and “ATV” is defined as “Arizona Revised Statute.” Abbreviations and acronyms are also not listed in the Table of Contents. For individuals reading this document, it will help greatly to know where to look for an explanation of abbreviations and acronyms as there are so many of them.

Conclusion

We appreciate the effort that has gone into developing the DRMP and look forward to further discussing how to improve, strengthen, and make this RMP a plan that will be protective of the important and truly amazing resources contained in these Sonoran Desert lands.

Thank you for your time and consideration of these important issues.

Sincerely,

A handwritten signature in black ink that reads "Jim Vaaler". The signature is written in a cursive, flowing style.

Jim Vaaler, Chapter Chair
Sierra Club – Grand Canyon Chapter