



February 26, 2024

Shelly Lynch
District Manager
California Desert District
Bureau of Land Management
1201 Bird Center Drive Palm Springs, CA 92262
Via email to: mlynch@blm.gov

Re: Preliminary applications for 2024 off-highway vehicle grant funding from the Off-highway Motorized Vehicle Recreation Division of California State Parks.

Dear Ms. Lynch:

Thank you for the opportunity to provide input to help guide the Bureau of Land Management's (BLM's) preparation of preliminary applications for grant funding from the Off-highway Motorized Vehicle Recreation (OHMVR) Division of the California Department of Parks and Recreation. We plan to submit similar comments to the OHMVR Division once the preliminary applications are posted on its grant webpage. We have submitted similar comments and recommendations on previous preliminary grant applications submitted by BLM through its individual field offices.

This comment letter is submitted by Defenders of Wildlife (Defenders) and the Desert Tortoise Council (Council). Defenders is a national conservation organization founded in 1947 and dedicated to protecting all wild animals and plants in their natural communities. To this end, we employ science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions to impede the accelerating rate of extinction of species, associated loss of biological diversity, and habitat alteration and destruction. The Council is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing public understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and management and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

In BLM's press release announcing the opportunity for the public to provide input for development of 2024 preliminary grant applications, you stated, *These grant funds help us manage, protect, and maintain the many BLM off-highway vehicle recreation areas in the District and that We welcome public input on these important grant funds, as the input received at these meetings is used to develop our grant applications.*

Background

The OHMVR Division administers the Grants and Cooperative Agreement Program (Program) established by California's Off-Highway Motor Vehicle Recreation Act of 2003, as amended; and implemented under California Code of Regulations Title 14. Natural Resources Chapter 15. According to the Regulations, *The purpose of the Grants program is to provide for well managed OHV Recreation by providing financial assistance to eligible agencies and organizations that develop, maintain, operate, expand, support, or contribute to well-managed, high-quality, OHV Recreation areas, roads, and trails, **and to responsibly maintain the wildlife, soils, and habitat of Project Areas** (emphasis added) in a manner that will sustain long-term OHV Recreation in accordance with the legislative provisions and intent of the Act commencing at PRC Section 5090.01."*

The regulatory requirement that wildlife, soils and habitat of project areas be maintained is equal to that of providing for well-managed, high quality off-highway vehicle (OHV) recreation, and sustainable long-term OHV recreation. In addition, the Program requirements include the Habitat Management Program (HMP) that must be developed and implemented by grantees to ensure that areas within which OHV recreation occurs will continue to sustain viable populations of plants and animals. The Program provides grants to qualified entities for the purpose of providing funding in support of OHV recreation including operations and maintenance, planning, development, law enforcement, etc.

Comments and Recommendations

Defenders and the Council provide the following comments and recommendations to assist BLM in preparing preliminary grant applications for the California Desert District in general, and specifically for the Barstow and Ridgecrest field offices.

1. Status of the desert tortoise and its habitat in the Western Mojave Desert

The Mojave population of the desert tortoise is listed as Threatened under the Endangered Species Act (ESA) and California Endangered Species Act (CESA) and is a candidate for listing as Endangered under CESA (Defenders of Wildlife et al. 2020). Since its formal listing as Threatened in 1990 under the ESA and Threatened under CESA in 1989, the desert tortoise continues to decline throughout much of its range in California, with dramatic declines (over 90 percent)

documented in the Western Mojave Recovery Unit, including a decline of approximately 51 percent between 2004 and 2014 (Allison and McLuckie 2018; U.S. Fish and Wildlife Service 2018, 2019, 2020, 2022a, 2022b). The U.S. Fish and Wildlife Service (USFWS) determined that a viable tortoise population has a minimum of 3.9 adults/km² (USFWS 1994, 2011).

The densities of adult desert tortoises in all three designated Critical Habitat Units in the Western Mojave are below minimum viable density. The Desert Tortoise Recovery Office of the USFWS reported the following densities of adult tortoises in the Western Mojave based on the most recent annual line distance sampling:

Critical Habitat Unit	Adult desert tortoise density/km² (year)
Fremont-Kramer	1.7 (2020)
Superior-Cronese	1.9 (2019)
Ord-Rodman	2.5 (2019)

Allison and McLuckie (2018) analyzed adult desert tortoise trend data based on USFWS line-distance sampling surveys from 2004-2014 and concluded, *Declining adult densities through 2014 have left the Western Mojave [Recovery Unit] adult numbers at 49% and in the Eastern Mojave at 33% of their 2004 levels. Such steep declines in the density of adults are only sustainable if there were suitably large improvements in reproduction and juvenile growth and survival. However, the proportion of juveniles has not increased anywhere since 2007, and in these two recovery units the proportion of juveniles in 2014 has declined to 91% and 77% of their representation in 2004, respectively and, The negative population trends in most of the TCAs [Tortoise Conservation Areas or Critical Habitat Units] for Mojave Desert Tortoises indicate that this species is on the path to extinction under current conditions. This may reflect inadequate recovery action implementation, slow response by tortoises and their habitat to implemented actions, or new and ongoing human activities in the desert that have not been mitigated appropriately.*

2. Desert tortoise mortality due to OHV use

Biological opinions issued to BLM for the West Mojave Plan vehicle route designation amendments to the California Desert Conservation Area (CDCA) Plan include an annual reporting requirement for desert tortoises directly killed or injured as a result of casual OHV use on the designated open route network. BLM has not implemented and was not required under the terms and conditions of the biological opinions to perform systematic monitoring for desert tortoise mortality or injuries occurring on the designated open route network; the requirements are simply to report them based on opportunistic observations.

In the report on the status of the desert tortoise dated December 4, 2019, the USFWS stated, *Because carcasses on roads are quickly removed by scavengers or destroyed by other vehicles, we expect that far more desert tortoises are killed on roads than are reported.*

Defenders obtained desert tortoise mortality information from the BLM Desert District Office that was reported to the USFWS in late 2020. The mortality information was collected on an opportunistic basis by agency field biologists and utility company employees inspecting their facilities located within rights of way on public land. The report covered opportunistic observation of desert tortoise mortalities in the CDCA, but for the purposes of this letter we are limiting our comments to those that were found within the Western Mojave Recovery Unit. Below is a table summarizing those mortalities and reported to the USFWS by BLM in 2020. In the table, CHU=Critical Habitat Unit, WEMO=Western Mojave outside Critical Habitat.

Date	Tortoise Age Class	Location	Cause of Mortality	Source of Observation
4/26/2016	Subadult	Ord-Rodman CHU	Roadkill on BLM open route (casual use)	USFWS Raven Monitoring Crew
3/20/2017	Juvenile	Fremont-Kramer CHU	Roadkill on BLM open route (casual use)	USFWS Raven Monitoring Crew
10/14/2017	Adult	El Mirage OHV Area	Within OHV Open Area	Not specified
3/26/2018	Juvenile	Fremont-Kramer CHU	Roadkill on BLM open route (casual use)	USFWS Raven Monitoring Crew
3/30/2018	Adult	Fremont-Kramer CHU	Roadkill on BLM open route (casual use)	USFWS Raven Monitoring Crew
4/29/2019	Adult	Ord-Rodman CHU	Roadkill on BLM open route (casual use)	Not specified
8/26/2019	Adult	Ord-Rodman CHU	Roadkill on BLM open route (casual use)	So. Calif. Edison employee
9/5/2019	Adult	Ord-Rodman CHU	Roadkill on BLM open route (casual use)	
3/9/2020	Adult	WEMO	Roadkill on BLM open route (casual use)	BLM biologist
4/3/2020	Adult	WEMO	Roadkill on BLM open route (casual use)	So. Calif. Edison employee
4/20/2020	Juvenile	WEMO	Roadkill on BLM open route (casual use)	BLM employee
4/26/2020	Sub-adult	Ord-Rodman CHU	Roadkill on BLM open route (casual use)	USFWS Raven Monitoring Crew
5/5/2020	Juvenile	WEMO	Roadkill on BLM open route (casual use)	LADWP employee

Date	Tortoise Age Class	Location	Cause of Mortality	Source of Observation
8/8/2020	Adult	WEMO	Roadkill on BLM open route (casual use) in recently expanded Spangler Hills Open Area.	BLM employee

As noted above, the USFWS expects that a far greater number of desert tortoises are killed on roads than are being reported, and roads in this context are dirt routes comprising the BLM designated open route network in the West Mojave Plan area. Thus, a key unknown is what constitutes *a far greater number* if simple, opportunistic observations in the Western Mojave resulted in 14 desert tortoises observed as killed on the open route network from 2016-2020. Also of concern is that eight were adults, which are considered to be essential for rebuilding the population and preventing it from becoming extirpated. Finally, it has been our observation that OHV recreationists routinely use BLM-designated closed routes, so we have no data on how many tortoises are dying along closed routes that BLM has been unable to camouflage using vertical mulching or otherwise failed to achieve functional closure.

In addition, the potential for mortality/removal of tortoises from tortoise populations exists from collection and deliberate maiming or killing by humans as a result of road access, vehicles on paved and unpaved roads, and nonmotorized recreation (Grandmaison and Frary 2012).

As stated by Allison and McLuckie (2018), desert tortoise populations in most tortoise conservation areas in general, and those in the Western Mojave Recovery Unit specifically, are *...on the path to extinction under current conditions*. The desert tortoise population in the Western Mojave Recovery Unit was recognized as being in trouble in the Desert Tortoise Recovery Plan Assessment in 2004.¹

3. Loss and Fragmentation of Critical Habitat Due to Unauthorized OHV Use

Unauthorized OHV use on public lands in the Western Mojave was documented by BLM from 2011-2019 and summary reports were filed in Federal District Court/Northern District of California under court order.² The reports summarized the results of compliance monitoring and law enforcement actions, which documented that unauthorized OHV use was frequently ongoing, which contributes to the loss, degradation, and fragmentation of Critical Habitat for the desert tortoise. The reports indicate that the current level of BLM law enforcement is insufficient to curtail unauthorized OHV use.

¹ https://www.fws.gov/nevada/desert_tortoise/documents/dtrpac/dtrpac_report.pdf

² [West Mojave Route Network Project - Court Documents | Bureau of Land Management \(blm.gov\)](#)

4. Existing OHV use is inconsistent with purposes of the OHMVR Division grants program

There is ample, undisputed evidence that desert tortoise populations in the three Critical Habitat Units within the Western Mojave Recovery Unit are not being sustained; they are on a path toward extinction, and OHV use on BLM-managed public lands is contributing to their ongoing population declines. Thus, the current extent and intensity of OHV use on public lands is inconsistent with the legislative and regulatory requirements of the OHMVR Division grants program because desert tortoise populations and their habitats are not being maintained.

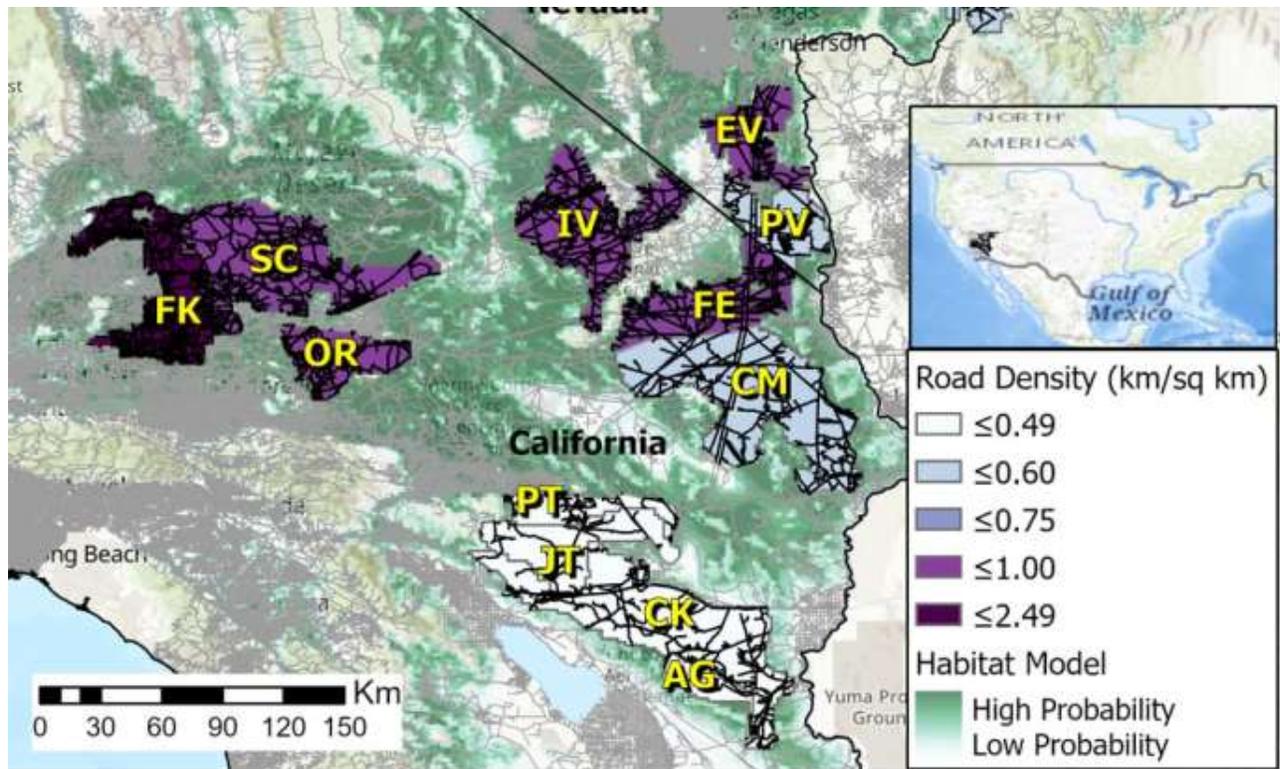
5. Route Density and Desert Tortoise Population Trends

Averill-Murray and Allison (2023), both from the USFWS Desert Tortoise Recovery Office, studied the relationship between vehicle route density and trend in desert tortoise populations within Tortoise Conservation Areas (synonymous with Critical Habitat Units) throughout the range of the desert tortoise. They reviewed and summarized existing literature that documented the effects of road density on wildlife populations and the benefits associated with lower road densities. They referred to all types of roads collectively as “roads” unless specifically described as paved or unpaved; and referred to unpaved roads and other trails used for motorized travel as “routes.” Below are key findings from their study:

- Forman and Alexander (1998) suggested a road density of 0.6 km/km² as the maximum that would support a naturally functioning landscape containing sustained populations of large predators and other species. We recommend this road density as a general target for travel management in areas where wildlife conservation is a priority.
- Road densities of less than 0.6 km/km² may be necessary in areas with particularly sensitive, declining, or threatened species.
- Desert tortoises are essentially absent from habitats within 1 km of areas with more than 5% development, including urban development, cultivated agriculture, energy development, surface mines and quarries, pipelines and transmission lines, and roads and railroads (Carter et al. 2020).
- Road-related threats contributed approximately 22% of the total impacts to the Mojave desert tortoise in an aspatial conceptual model of risk to the species, not including effects of population fragmentation (Darst et al. 2013).
- Recommendations in the Revised Recovery Plan for the Mojave Population of the Desert Tortoise (USFWS 2011) specific to roads include restricting, designating, closing, and fencing roads and restricting OHV events within desert tortoise habitat; and formally designating the conditions of use of existing roads, closing nonessential routes, establishing 40 km/hour (25 mile/hour) speed limits on unpaved and rural paved roads and maintaining berms along graded dirt roads so that tortoises do not get trapped in the roadbed.

- None of the 19 federal land-use plans that overlap the range of the Mojave desert tortoise explicitly describe road densities. We compared estimated annual trends in tortoise density within 17 TCAs between 2004 and 2014 (from Allison and McLuckie 2018) with the density of all roads in each TCA using data from the 2014 TIGER/Line layers including primary roads, secondary roads, local neighborhood roads, rural roads, city streets, vehicular trails (four-wheel drive), ramps, service drives, walkways, stairways, alleys, and private roads.
- Unpaved route proliferation and compliance with OHV travel regulations remain an ongoing challenge even in the absence of road density limits.
- The West Mojave Route Network Project designated 10,051 km of unpaved routes as open or limited; however, 24,518 km of ground transportation linear features (254% of the designated total) were mapped on the ground (BLM 2019a, 2019b). The total length of currently identified, unpaved routes across the entire planning area (which includes several TCAs and land between these units) equates to a density of 1.95 km/km², and the 10,051 km of unpaved routes actually designated as open or limited equates to a density of 0.80 km/km², noting again that these calculations underestimate true road density due to the exclusion of paved and nonfederal roads from the plan.
- Both calculated route densities exceed the published recommended maximum density of all roads (0.6 km/km²) and the density above which our results found only declining populations (0.75 km/km²). Before publication of the final plan, the Bureau of Land Management considered specific limits of 29.0–38.6 km of routes per township (93.2 km²) for desert tortoise habitat areas in the western Mojave Desert, which would have corresponded to 0.3–0.4 km/km². However, the Bureau of Land Management dismissed the suggested density caps, stating that they were arbitrary.

Below is a map from Averill-Murray (2023) showing route densities in TCAs (Critical Habitat Units). Note the very high densities in the entire Fremont-Kramer and in portions of the Superior-Cronese and Ord-Rodman TCAs. The route densities are significantly greater because the 2014 TIGER/Line layers used in their study did not account for motorcycle trails.



Averill-Murray and Allison (2023) made the following recommendations:

- 1) Identify the entire travel network, including paved, designated unpaved, and user-created routes, and open wash zones on all federal and nonfederal land within management areas.
- 2) Reduce total road density within the travel network to less than 0.6 km/km² in TCAs that currently exceed this threshold³ by administratively closing, signing, physically blocking, obscuring, and restoring excess unpaved routes.
- 3) Stratify road density thresholds in large TCAs based on habitat quality (Proctor et al. 2019; van der Marel et al. 2020). Many of the TCAs cover large landscapes (up to almost 4,100 km²) composed of areas with different road densities and variable habitat quality. Impacts to tortoises and their habitats within particular areas of a TCA that contain higher than the average recommended road density could compromise healthy population dynamics of the larger population. Nussear et al. (2009) modeled desert tortoise habitat probability based on several environmental variables. Using this model, managers could apply a maximum road density of 0.6 km/km² to areas predominately containing lower-probability habitat (e.g., probability values of less than 0.6 and further reduce road densities in higher-probability habitats (e.g., probability values of more than 0.6).

³ Road densities in TCAs (Critical Habitat Units) in the Western Mojave Recovery Unit are: Fremont-Kramer – 1.57 km/km², Superior-Cronese – 0.79 km/km², Ord-Rodman – 0.95 km/km².

- 4) Recognize that wholesale reduction of road densities across the entire landscape of some TCAs may be impractical within a short time frame. Reducing road densities to recommended levels initially within smaller focal areas in which managers are implementing other conservation actions, possibly in conjunction with the stratification recommendation above, could help more quickly stabilize tortoise populations in those areas.
- 5) Maintain population connectivity within habitat linkages between TCAs (Averill-Murray et al. 2021) by limiting road densities to less than 0.75 km/km² in large areas of potential tortoise habitat between TCAs.
- 6) Strategically acquire private inholdings not needed for public access to reduce road density and improve management capability of the surrounding area (USFWS 2011). Many routes on public land exist primarily as access roads to private lands and may not be intended for public use.
- 7) Increase law enforcement staff and patrols where necessary to enforce travel regulations (USFWS 2011).
- 8) A next step for Mojave desert tortoise conservation efforts, in general, is to look at TCAs with declining populations despite having road densities of less than 0.60 to 0.75 km/km² to identify threats that might be more prevalent there than in TCAs with increasing trends.

The tortoise is not the only species adversely affected by density of OHV roads. Jones et al. (2016) examined 11 environmental variables for models of space use intensity by the desert kit fox (*Vulpes macrotis*) and discovered that OHV road density negatively influences kit fox space use in winter months (October – March). Thus, the negative relationship between kit fox space use and road density shows that road networks may decrease the amount of habitat available to kit foxes. The authors postulated that this effect may be due to seasonally higher OHV activity levels during winter, greater sensitivity of kit foxes to disturbance during the breeding and pup-rearing season (winter), or a combination of these factors. The desert kit fox is protected under the California Code of Regulations, Chapter 5, section 460 (14 CCR § 460), which prohibits “take” of the species for any reason.

In summary, the high density of OHV routes in the deserts of the southwest are adversely impacting these two protected wildlife species.

6. Compliance with Desert Renewable Energy Conservation Plan (DRECP) Conservation Management Actions (CMAs)

The DRECP includes various Goals and Objectives that are achieved by applying and enforcing CMAs that are required for all activities⁴, including those involving motorized vehicle use. Casual OHV use, which was the subject of Endangered Species Act consultation under Section 7 is, by

⁴ Activity: Authorized projects and management activities conducted on BLM-administered lands. Activities include actions approved by permit or other authorization as well as actions conducted by the BLM.

definition, a federal action or activity. Below are the applicable Goals, Objectives and CMAs that BLM is required to enforce:

Goal 3/Desert Tortoise Conservation Areas: Within each desert tortoise recovery unit, on BLM land within the LUPA [Land Use Plan Amendment] Decision Area, maintain well-distributed populations through a network of conservation lands that provide sufficient contiguous size and configuration to provide long-term population viability, connectivity, growth in recovery unit population size, and increases in recovery unit population distribution.

- **Objective 3.1 (Tortoise Conservation Areas):** Maintain no net loss in the quantity of conserved desert tortoise habitat, on BLM land in the LUPA Decision Area, within each Tortoise Conservation Area in support of long-term desert tortoise population viability.
- **Objective 3.2 (Tortoise Conservation Areas):** Contribute to increasing rates of population change for desert tortoises over at least 25 years (a single tortoise generation).
- **Objective 3.3 (Tortoise Conservation Areas):** Increase in the distribution of desert tortoises throughout each Tortoise Conservation Area, on BLM land within the LUPA Decision Area over at least 25 years.

Goal 4/Desert Tortoise Linkages: Maintain functional linkages between Tortoise Conservation Areas to provide for long-term genetic exchange, demographic stability, and population viability within Tortoise Conservation Areas. Emphasize inclusion of high value contiguous habitats pursuant to Nussear et al. (2009) and minimization and avoidance of disturbance in habitat with high desert tortoise habitat potential.

Objective 4.1 (Desert Tortoise Linkages)⁵: Protect, manage, restore and acquire desert tortoise habitat within the following linkages with special emphasis placed on areas of high habitat potential and areas identified as integral to the establishment and protection of a viable linkage network. Ensure the long-term connectivity of Tortoise Conservation Areas by maintaining desert tortoise habitat that is of sufficient size and contiguity for maintenance of viable populations within each linkage.

- Ord-Rodman to Superior-Cronese to Mojave National Preserve
- Superior-Cronese to Mojave National Preserve to Shadow Valley to Death Valley National Park

Objective 4.3 (Desert Tortoise Linkages): Protect and manage intact habitat on BLM land within the following linkages to enhance the population viability of the Ord-Rodman Tortoise Conservation Area.

- Ord-Rodman to Joshua Tree Linkage

⁵ See Figure 4 (D-16) in DRECP for map of the desert tortoise linkages.

- Fremont Kramer to Ord-Rodman Linkage

CMA LUPA-BIO-IFS-1: Activities within desert tortoise linkages, identified in Appendix D, that may have a negative impact on the linkage will require an evaluation, in the environmental document(s), of the effects on the maintenance of long-term viable desert tortoise populations within the affected linkage. The analysis will consider the amount of suitable habitat, including climate refugia, required to ensure long-term viability within each linkage given the linkage's population density, long-term demographic and genetic needs, degree of existing habitat disturbance/impacts, mortality sources, and most up-to-date population viability modeling. Activities that would compromise the long-term viability of a linkage population or the function of the linkage, as determined by the BLM in coordination with USFWS and CDFW, are prohibited and will require reconfiguration or re-siting.

LUPA-BIO-IFS-2: Construction of new roads and/or routes will be avoided to the maximum extent practicable (see Glossary of Terms) within desert tortoise habitat in tortoise conservation areas or tortoise linkages identified in Appendix D, unless the new road and/or route is beneficial to minimize net impacts to natural or ecological resources of concern for desert tortoise. TCAs and identified linkages should have the goal of “no net gain” of road density.

Any new road considered within a TCA or identified linkage will not be paved and will be designed and sited to minimize the effect to the function of identified linkages or local desert tortoise populations and shall have a maximum speed limit of 25 miles per hour.

LUPA-BIO-IFS-9: Vehicular traffic will not exceed 15 miles per hour within the areas not cleared by protocol level surveys where desert tortoise may be impacted.

7. Recommendations

Given that desert tortoise populations within the three Critical Habitat Units within the Western Mojave Recovery Unit are below viable population densities and continue to decline due to a variety of threats, including mortality caused by OHV use, Defenders and the Council recommend that BLM develop applications for OHMVR Division grant funds in 2024 that will support the following actions:

- A. Develop and implement a science-based monitoring and reporting plan to document the location and extent of desert tortoise injury, mortality and habitat destruction and degradation caused by both authorized and unauthorized OHV use on public lands under the jurisdiction of the BLM's Barstow and Ridgecrest field offices.

- B. Increase law enforcement officer staff and require that they effectively enforce off-highway vehicle use restrictions throughout desert tortoise habitat and linkages in the Fremont-Kramer, Superior-Cronese and Ord-Rodman Critical Habitat Units.
- C. Utilize aerial reconnaissance (e.g., helicopters, drones, etc.) to enhance effectiveness of BLM law enforcement of OHV rules and regulations in all Critical Habitat Units.
- D. Develop, implement, and enforce an effective seasonal use restriction plan for OHV use in all Critical Habitat Units to minimize tortoise injury and mortality during high above-ground activity periods of the desert tortoise (e.g., spring, late summer and early fall seasons).
- E. Absent seasonal restrictions, develop and implement a plan to limit the number of OHVs that can be operated within Critical Habitat Units to reduce the frequency of desert tortoise injury and mortality to levels that will contribute to recovery of the species.
- F. Strongly encourage the use of non-street licensed off-highway vehicles in areas designated for unlimited use of off-highway vehicles within the western Mojave Desert, as follows: 1) Dove Spring, 5,000 acres; 2) El Mirage, 24,000 acres; 2) Jawbone Canyon, 7,500 acres; 3) Johnson Valley, 73,000 acres; 4) Olancha Dunes, 1,000 acres; 5) Spangler Hills, 96,000 acres; and 6) Stoddard Valley, 53,000 acres.
- G. In Critical Habitat, particularly adjacent to BLM open areas, monitor BLM-designated closed routes, and for those that are being used illegally, install vertical mulching or other methods (excluding installation of red Carsonite, which often prove more attractive than repellent) to effectively close those routes.
- H. Establish and enforce a 15 mile/per hour motorized vehicle speed limit in all Critical Habitat Units where desert tortoises not cleared by protocol level surveys may be impacted.

Conclusion

Defenders and the Council are fully committed to pursue our organizations' missions to protect and recover the desert tortoise through the use of science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions.

Please contact us if you would like to discuss our comments and recommendations regarding BLM's 2024 OHMVR Division preliminary grant funding applications. As Interested Parties, we also ask that BLM provide us with an annotated list of submitted grant applications so that we have an opportunity to review and comment on those proposed projects.

Sincerely,



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