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Via email only

28 February 2020

Mike Blanton, Rangeland Management Specialist
Bureau of Land Management, Kingman Field Office
2755 Mission Boulevard
Kingman, Arizona 86401
<https://go.usa.gov/xdgb2>

RE: Evaluation of Standards for Rangeland Health (BLM-AZIM-99-012) for the White Hills Evaluation Area, Mohave County, AZ

Dear Mr. Blanton,

The Desert Tortoise Council (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 the public's 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.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the White Hills Evaluation Area in habitats occupied by Agassiz's desert tortoise (*Gopherus agassizii*) (synonymous with "Mojave desert tortoise") and Sonoran desert tortoise (*Gopherus morafkai*) (synonymous with "Morafka's desert tortoise"), our comments pertain to enhancing protection of these species during grazing activities authorized by the Bureau of Land Management (BLM).

Proposed Action: The purpose of BLM's Evaluation of Standards for Rangeland Health (BLM-AZIM-99-012) for the White Hills Evaluation Area (Evaluation) is twofold: (1) to determine if Rangeland Health Standards (Standards) are being met within the White Hills Evaluation Area and (2) to solicit comments from the public on issues or concerns, in the context of the Standards, and describe the actions needed to resolve these issues or concerns for the White Hills

Evaluation Area. This information will be used to develop a proposed action and reasonable alternatives [i.e., a National Environmental Policy Act (NEPA) document] to address the issues and ensure that progress is made towards meeting the Standards. Although this Evaluation by BLM is not a NEPA document, we appreciate that BLM's policy is to involve the public in this process.

White Hills Land Health Evaluation Area: The White Hills Evaluation Area consists of 476,095 acres in the northwest corner of Arizona, south of the Colorado River in Mohave County, Arizona. Portions of the White Hills, Black Mountains, Detrital Valley, Cerbat Mountains, and Hualapai Valleys are included in this area. Elevations range from 1,700 feet to 5,400 feet. Vegetation is Mojave Desert Scrub with some desert grassland influences.

The White Hills Evaluation Area appears to be in/near habitats used by Mojave and Sonoran desert tortoises, which are special status species in Arizona. This would include linkage areas or habitats that are not occupied by tortoises all year. The southern portion of the Area is in the northwestern range of the Sonoran desert tortoise, and the Black Mountains are in the range of the Mojave desert tortoise. Edwards et al. (2015) describes a population of *G. agassizii* east of the Colorado River in the Black Mountains of Arizona. *Gopherus agassizii* is listed as threatened under the Federal Endangered Species Act (FESA) and *Gopherus morafkai* is a BLM sensitive species. *Gopherus agassizii* individuals in this area are part of an edge population that has not been fully studied or evaluated and may be of biological importance to the overall species, even though these populations are not federally protected under the FESA listing

Results of Land Health Evaluation and Next Steps: Most of the Key Areas (i.e., sample sites) in the White Hills Evaluation Area and all Key Areas near/within the range of desert tortoises did not meet Standards. Consequently, we are providing you with the issues and actions we believe are needed to improve the Standards and help BLM manage for Mojave and Sonoran desert tortoises and their habitats.

Issues and Recommendations: The Standards that BLM uses appear to be (1) focused on managing lands for livestock grazing; (2) designed for rapid qualitative data collection; and (3) infrequent in occurrence, analysis, and implementation of management changes to improve land health.

(1) Focus on Managing Lands for Livestock Grazing – Under 43 Code of Federal Regulation (CFR) 4180.1, BLM is directed to ensure that the following conditions of rangeland health exist:

- (a) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.
- (b) Ecological processes, including the hydrologic cycle, nutrient cycle, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.

- (c) Water quality complies with State water quality standards and achieves, or is making significant progress toward achieving, established BLM management objectives such as meeting wildlife needs.
- (d) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Federal candidate and other special status species.

Of these, (a), (b), and (d) apply to desert tortoises.

BLM in Arizona has developed Arizona Standards for Rangeland Health. We interpret the *Arizona Standards for Rangeland Health and Guidelines for Grazing Administration's* (BLM 1997, herein "Standards and Guidelines") as protecting habitats on which tortoises rely, as follows:

Standard 3: Desired Resource Conditions

Desired Resource Conditions – Productive and diverse upland and riparian-wetland plant communities of native species exist and are maintained.

Criteria for meeting Standard 3:

Desired plant community objectives will be developed to assure that soil conditions and ecosystem function described in Standards 1 and 2 are met. They detail a site-specific plant community, which when obtained, will assure rangeland health, State water quality standards, and *habitat for endangered, threatened, and sensitive species* [emphasis added], as the Mojave desert tortoise is threatened and the Sonoran desert tortoise is a BLM sensitive species. Thus, desired plant community objectives will be used as an indicator of ecosystem function and rangeland health.

Guidelines:

3-2. Conservation of Federal threatened or endangered, proposed, candidate, and other special status species is promoted by the maintenance or restoration of their habitats.

When examining the methodology used by BLM to determine rangeland health for the White Hills Evaluation Area, we were unable to determine how BLM evaluated specific attributes of the environment that are needed by tortoises for their survival, growth, reproduction, and recruitment, as required under 43 CFR 4180.1(d). For example, Mojave desert tortoises forage on native herbaceous vegetation and need plant species with a high water and protein content, but low potassium content (Ofstedal et al. 2002). However, BLM's methodology selected a few species of woody shrubs and perennial grasses as evaluation species and determined rangeland health from this information. It appears that BLM has selected certain perennial plant species as indicators of rangeland health that livestock forage on, but has neglected to include plant species needed as forage by special status species of animals in the White Hills Evaluation Area including desert tortoises. Because of this omission, BLM is not able to assess the effects of livestock grazing on special status animal species including desert tortoises.

In general, when given a choice between foraging on native annual herbaceous or woody plant species, cattle select herbaceous plants. We note that BLM issues grazing permits for ephemeral forage in certain allotments during some years. We conclude that it should be important to BLM to determine the species diversity and abundance of native annual herbaceous plants to accurately assess rangeland health for both tortoises and livestock. We request that an assessment of plant species diversity and abundance for native and non-native annual herbaceous plants be added to the methodology for determining rangeland health to comply with 43 CFR 4180.1(d).

(2) Collecting/Evaluating Data Using a Rapid Qualitative Data Collection Methodology – We understand that the methodology used by BLM to produce this Evaluation is a qualitative rapid assessment, one using a fast survey technique to rate site protection indicators, including both plant and soil components. It is designed to “provide a preliminary evaluation of soil/site stability, hydrologic function, and biotic integrity (at the ecological site level)” and “provide *early warnings* [emphasis added] of potential problems and opportunities by helping land managers identify areas that are potentially at risk of degradation or where resource problems currently exist” (Pellant et al. 2005).

While a rapid assessment of conditions is helpful, we urge BLM to substantiate its rapid assessment with implementation of a scientific methodology with statistical rigor (e.g., more than one sample site per allotment) to assess range health. The methodology should incorporate properly functioning ecological processes, biotic integrity, and soil stability at levels that reflect the needs of special status plant and animal species as well as livestock.

Most Key Areas used in this evaluation were established in the 1980s with “new sites added as necessary” (BLM 2019). Many plant and animal species have been added to the list of threatened and endangered species since the 1980s and BLM’s Manual 6840 on Special Status Species Management was updated in 2008. We would appreciate BLM providing information on how its methodology that evaluates the land health considers and complies with BLM Manual 6840 and BLM’s obligation to manage for the conservation of listed species under section 7(a)(1) of the FESA. We request this information specifically for Mojave and Sonoran desert tortoises.

(3) Infrequent Occurrence, Analysis, and Implementation of Management Changes – In the 2019 Evaluation, BLM reports it had completed previous evaluations in 2000, 2005, 2007, 2011, and 2017. If this is a rapid assessment methodology, we ask why there was a 6-year period of no implementation between 2011 and 2017. BLM should have a schedule of when evaluations are conducted, which should be dictated by the results of the previous evaluation. For example, if the previous evaluation did not meet Standards, the next evaluation should occur sooner to determine if management actions to improve Standards are successful.

As stated above, the results of the Evaluation show most of the Key Areas in the White Hills Evaluation Area and all Key Areas near/within the range of desert tortoises did not meet Standards. Fire occurred in the southern portion of the White Hills Evaluation Area in 2005. In summary, BLM states that perennial plant cover has declined and non-native red brome (*Bromus rubens*) is abundant.

The Evaluation mentions the presence of past fire and current presence of red brome. Red brome is a non-native annual grass that invades areas with soil surface disturbance and increases the intensity, size, and frequency of fire (Brooks 1999, Brooks and Esque 2002). As such, both fire and management of non-native invasive plants should be issues that are important components of grazing management. Actions to prevent the causes of fire (usually human-caused) and reduction of the presence of red brome, other non-native annual plant species, and their seed banks should be implemented, especially in habitats for tortoises.

Because Mojave and Sonoran desert plant species are not adapted to fire, their recovery is not likely to occur for decades or longer without the implementation of restoration efforts. Another action should be to substantially reduce or eliminate human-caused stressors on the native plant communities. Such stressors include but are not limited to plant predation (caused by livestock and burro grazing), activities resulting in surface disturbance (that bury/destroy seed banks, disrupt soil crusts, etc.), sources of non-native plant propagules (e.g., vehicles, etc.), and hazardous materials (from mining) that affect germination, growth, and forage quality of native plants. In addition, BLM should implement actions to restore the native annual and perennial plant species diversity, abundance, and seed banks and biotic soil components (e.g. soil crusts). To facilitate restoration of native plant species and soils, we suggest that BLM implement the actions described in Abella and Berry (2016), as this would facilitate restoration of native vegetation communities for desert tortoises, other wildlife species, and livestock. We have included a link to this publication in the **Literature Cited** section of our letter for your use.

We were unable to find information in the Evaluation whether BLM implemented management changes (e.g., adaptive management) to improve Standards soon after the 2005 fire. BLM's rapid response methodology to evaluate Standards should include adaptive management with its monitoring to ensure that on-the-ground management actions are effective, and if not, are modified quickly to ensure their effectiveness.

Sonoran Desert Tortoise Candidate Conservation Agreement: The Arizona BLM is signatory to the Sonoran Desert Tortoise Candidate Conservation Agreement (UFWS et al. 2015). One of the protective measures is to "Ensure adequate forage remains for SDT (Sonoran desert tortoise) following ephemeral use periods." The agreement has several other measures related to grazing and other land use and management activities. For example, we request that BLM explain how Desired Plant Community, Desired Future Condition, habitat connectivity objectives for tortoises, vehicle route closures and reclamation, invasive plant management, and maintenance or restoration of habitat connectivity (USFWS et al. 2015) are incorporated in the Standards. Through the range health evaluation procedures, BLM should specify how it is ensuring that there is adequate forage quantity and nutritional quality for the Sonoran desert tortoise so that growth, reproduction, and recruitment will occur for this species. For Agassiz's desert tortoise in the Black Mountains, we have the same request regarding forage quantity and nutritional quality and BLM's requirement to manage for its recovery.

Other Issues: We note that the Kingman Resource Area Management Plan (RMP; BLM 1993) describes forage allocations for livestock, burros, bighorn sheep, and deer, but does not mention tortoises. This oversight should be rectified in the RMP and the Standards and should include

both forage quality and quantity for tortoises. In addition, feral burro use in tortoise habitats can be a threat to tortoises from various stressors including soil compaction and vegetation change (Boarman 2002, Tuma et al. 2016). Action should be taken to prevent burros from accessing desert tortoise habitats by creating barriers around tortoise habitats and managing herds (e.g., reducing herd size to the minimum level that the habitat can support for all plant herbivory sources including tortoises and other special status species, reproductive controls, etc.).

Specific Comments

The January 27, 2020 cover letter from BLM's Kingman Field Manager, Amanda Dodson, states that interested parties should "review the Land Health Evaluation and provide comments on what issues or concerns, in the context of the Standards, you have for the areas within this Land Health Evaluation by the close of business on March 6, 2020." However, on the BLM eplanning website, BLM says that comments are due March 2, 2020. Because of this discrepancy, we trust that BLM will accept comments from interested parties through the later date of March 6.

We appreciate this opportunity to provide input and trust that our comments will help protect tortoises during any authorized project activities. Herein, we ask that the Desert Tortoise Council be identified as an Affected Interest for this and all other BLM projects that may affect species of desert tortoises, and that any subsequent environmental documentation for this particular action is provided to us at the contact information listed above.

Regards,



Edward L. LaRue, Jr., M.S.
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

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