DESERT TORTOISE COUNCIL
3807 Sierra Highway #6-4514
Acton, CA 93510
www.deserttortoise.org
eac@deserttortoise.org

Via email and BLM NEPA ePlanning webpage

Date: 27 September 2024

Michael Dixon, Manager
Ironwood Forest National Monument
Bureau of Land Management
3201 East Universal Way
Tucson, AZ 85756

Anthony (Scott) Feldhausen, District Manager
Gila District Office
Bureau of Land Management
3201 East Universal Way
Tucson, AZ 85756
mmccabe@blm.gov; blm_az_gdo_mailbox@blm.gov

RE: Comments on the Agua Dulce/Squabble Mine Water Distribution Rehabilitation Project Environmental Assessment (DOI-BLM-AZ-G030-2024-0001-EA)

Dear Mr. Dixon Mr. Feldhausen, and Mr. McCabe,

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 northern Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

Both our physical and email addresses are provided above in our letterhead for your use when providing future correspondence to us. When given a choice, we prefer to receive emails for future correspondence, as mail delivered via the U.S. Postal Service may take several days to be delivered. Email is an "environmentally friendlier way" of receiving correspondence and documents rather than "snail mail."

We appreciate this opportunity to provide comments on the above-referenced proposed project. Given the location of the proposed project in habitats occupied by the Sonoran desert tortoise (*Gopherus morafkai*) (synonymous with Morafka's desert tortoise), our comments include recommendations intended to provide protection and sustainability of this species and its habitat during activities authorized by the Bureau of Land Management (BLM), which we recommend be added to the authorizing document (e.g., range improvement authorization, amended grazing permit, etc.) for this proposed project, as appropriate. Please accept, carefully review, and include in the relevant project file the Council's following comments for the proposed project.

The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Sonoran desert tortoise, located in Arizona and Sonora, Mexico, to be Vulnerable at this time, but nearly qualifies as Endangered (Averill-Murray et al. 2023). "Steep declines of approximately 54% have occurred in recent years in several formally monitored local subpopulations in Arizona." "Despite evidence that several subpopulations have stabilized or increased, survival rates are predicted to decline with future drought conditions, which are expected to intensify with global climate change." In Mexico, "patterns of rainfall and drought across Sonora mirror those in Arizona and suggest that Sonoran subpopulations likely increased and decreased similarly over time." According to the IUCN, this designation of Vulnerable means that the species is "considered to be facing a high rate of extinction in the wild" and is one step above endangered.

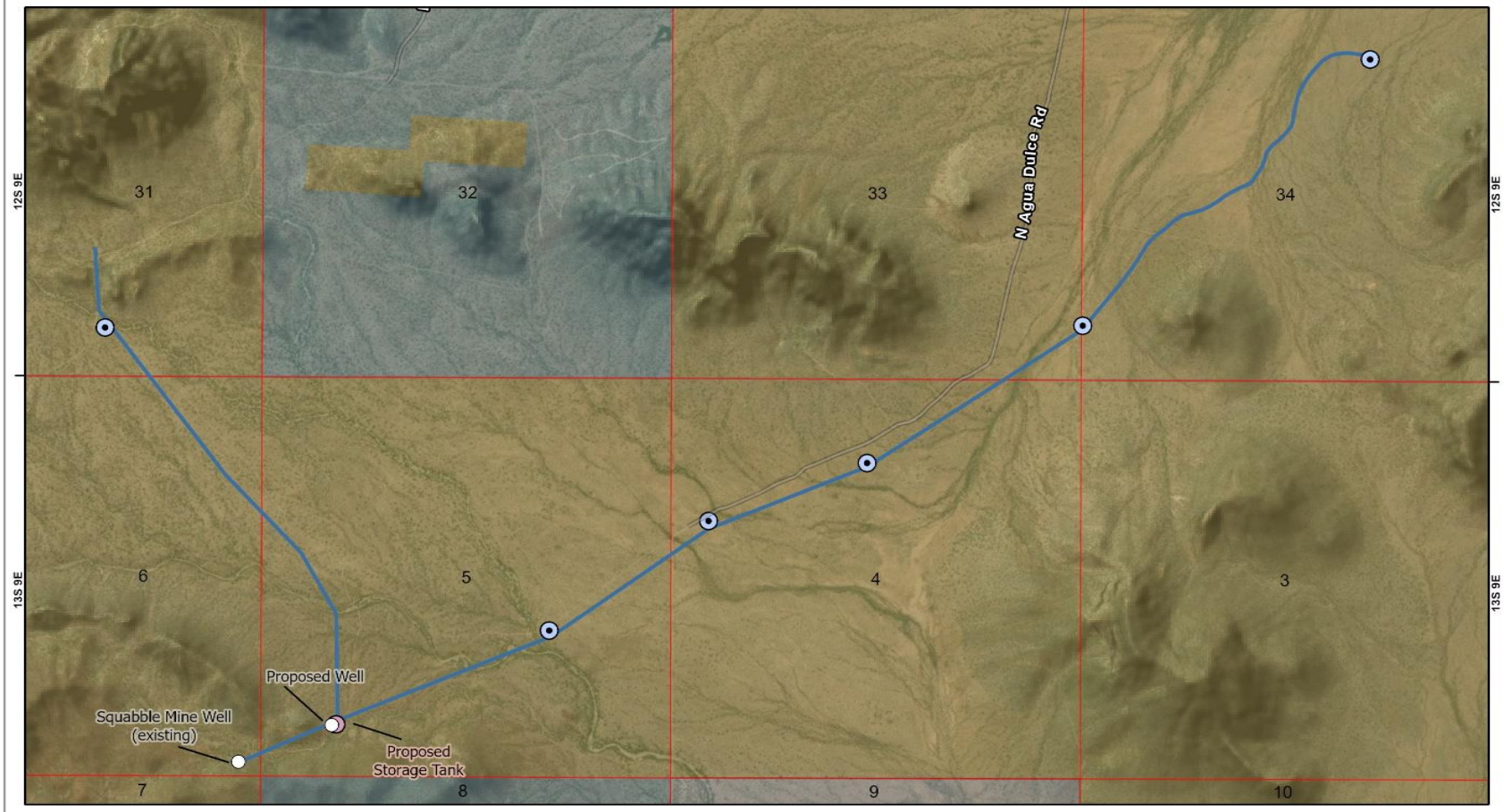
The IUCN identified several threats to the survival of the Sonoran desert tortoise including residential, commercial, and industrial development; ranching and farming; roads and railroads; hunting and trapping; recreational activities; wildfires and fire suppression activities; invasive non-native plant species; and drought/temperature extremes from climate change. The proposed project directly deals with management of ranching and indirectly wildlife, invasive non-native plant species, and drought/temperature extremes from climate change.

Description of the Proposed Project

In response to a request from the permitted livestock operator (Permittee) to install new, and replace/repair existing, water distribution infrastructure, the BLM has prepared the Agua Dulce/Squabble Mine Water Distribution Rehabilitation Environmental Assessment (Draft EA). The Draft EA analyzes the installation of a new well and rehabilitation of existing water distribution infrastructure to provide reliable water for livestock and wildlife on the Agua Dulce Grazing Allotment, located within the Ironwood Forest National Monument (NM).

BLM has analyzed two alternatives, the No Action Alternative and Alternative A, the Proposed Action.

No Action Alternative: Under this alternative, the existing water storage and distribution system would not be enhanced, leaving the unused infrastructure and the current livestock rotation and management as it currently exists with heavy use on the south end of the Agua Dulce Allotment and minimal use on the north side of the allotment.



Agua Dulce Water Distribution

Project Initiation

Range Improvement Features

- Storage Tank (proposed)
- Trough (renovation)
- Well
- Pipeline renovation

Surface Management Agency

- Bureau of Land Management
- Private
- State

GCDB Section

U.S. Department of the Interior
Bureau of Land Management
Tucson Field Office
Map Prepared: 9/12/2024

N

0 0.25 0.5 Miles

0 0.25 0.5 Kilometers

Township-Range Grid Coordinate System: NAD 1983 UTM Zone 12N

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Alternative A, Proposed Action: Under this alternative, BLM would authorize the construction, use/operation, and maintenance of a well, storage tanks, pipelines, and water troughs in the Agua Dulce grazing allotment.

Well: The well to be drilled would be in a canyon bottom, approximately 0.25 mile from the current Squabble Mine well. The well would be powered by solar energy using photo-voltaic panels. No energy storage (battery) is proposed, The new well and solar equipment would be located near a road and an existing water storage tank.

Storage Tanks: A new 20,000-gallon polyethylene storage tank would be placed an abandoned concrete ring storage tank. This storage tank would be connected to 1) the well head with new underground pipe (buried to 24 inches), and 2) existing underground pipe that feeds the remainder of the water system, and 3) the pipeline that leads to the abandoned well and an existing trough. Secondary 10,000-gallon polyethylene storage tanks would be installed at each water trough.

Pipeline: From the new well, most of the current 5 miles of pipeline would be reused. The last 0.5 mile of the pipeline would be replaced – buried on the north side of the road to avoid an existing cultural site. The pipeline would connect the new well to the storage tanks and troughs.

Troughs: Six new water troughs would be installed to replace existing non-functional troughs. One would be moved to the north side of the road to avoid a cultural site. The new troughs would be constructed using recycled mining truck tires (approximately 12 feet in diameter), with concrete floors poured in after the tires have been placed onsite. Wildlife approach and escape ramps would be installed to allow for small animals to access the water, and escape if entrapped.

BLM would retain all rights to the water and associated infrastructure. The Permittee's contractor would conduct the installation. Any installed infrastructure would be operated and maintained by the authorized permittee, under a cooperative agreement. The work would be completed as funding becomes available.

Installation of the well and solar equipment will permanently disturb approximately 2,500 square feet of surface (approximately 50 ft by 50 ft, or 0.05 acres). Installation of the troughs and tanks would permanently disturb approximately 33 ft by 33 ft at each site.

Alternatives Considered but Eliminated from Detailed Analysis

In addition to Alternative A, on the Silverbell and Blanco Wash Allotments the Permittee proposed to construct a barbed wire fence to control the movement of livestock between the two allotments, and reduce the access of livestock to Avra Valley Road. The alternative involves two permittees. BLM indicated the two current permittees on their respective allotments are not in agreement on this action; therefore, and this action will be considered as a separate action at a later time.

The project is located in the Ironwood Forest National Monument west of the Town of Avra Valley, in Pima County, Arizona.

Comments on BLM's Compliance with the National Environmental Policy Act Process Regarding Public Notification

The Council learned of the availability of this Draft EA and the opportunity to provide public comments from a third party. The Council has submitted numerous comment letters on BLM projects in Arizona for the past few years that included language identifying the Council as an Affected Interest and requesting notification of proposed actions that may affect the Sonoran desert tortoise and/or its habitat (including habitat for population connectivity). We have sent copies of these letters with this request to the Arizona State Director so he is aware of this ongoing request and will share this request with the BLM supervisors in the range of the Sonoran desert tortoise. Despite our best efforts to communicate with BLM management, BLM continues to ignore the Council's request to be considered an Affected Interest for BLM proposed actions in the range of the Sonoran desert tortoise by not notifying the Council of the availability of environmental documents for public comment for project in the range of the tortoise.

In 40 Code of Federal Regulations (CFR) 1500.1(b), the Council on Environmental Quality (CEQ) states, "NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." In addition, CEQ states in 40 CFR 1506.6 Public involvement, "Agencies shall:

(a) Make diligent efforts to involve the public in preparing and implementing their NEPA procedures.
(b) Provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected.
  (1) In all cases the agency shall mail notice to those who have requested it on an individual Action."

BLM's National Environmental Policy Act (NEPA) Handbook (2008a) says "For preparation of an EA, public involvement may include any of the following: external scoping, public notification before or during preparation of an EA, public meetings, or public review and comment of the completed EA and unsigned FONSI." "In addition to public involvement in the preparation of EAs, you must notify the public of the availability of a completed EA and FONSI." From the information we have gathered on this proposed action, BLM did not conduct external scoping, did not notify the Council before or during preparation of the EA, did not notify the Council if there were public meetings, did not notify the Council of the availability of the EA, and did not provide an unsigned FONSI with the Draft EA.

In reviewing the information BLM provided on their National NEPA Register webpage for this Draft EA (https://eplanning.blm.gov/eplanning-ui/project/2034511/510), we were unable to find a closing date for the public to comment on the Draft EA. In addition, we were unable to find information on the address to use to submit written comments or email address to submit comments electronically. Usually, for proposed actions posted on the National NEPA Register, BLM includes a paragraph with information on the date the public comment period closes and how the public can

submit comments. Given this absence of information and that the information on the Draft EA on the National NEPA Register page for this proposed action indicates a "Start Date" of September 12, we assume that BLM's standard 30-day public comment period for an environmental assessment is in effect with comments due by October 12, 2024.

In our search for information on the Draft EA and when public comments are due, we visited the Ironwood Forest National Monument, the BLM Gila District Office, and BLM Tucson Field Office websites. Our experience has been that when a NEPA document is available for public comment, that information is posted on the relevant BLM office's webpage. We found no posting of the availability of this Draft EA. We did find a posting on the Gila District Office website under "Latest News" of the public's opportunity to provide "input on plans to modernize management of Arizona recreation sites" (https://www.blm.gov/announcement/blm-business-plans-modernize-management-arizona-recreation).

BLM's failure to include necessary information on the National NEPA Register page for this proposed action, failure to notify the Council of the availability of this Draft EA despite several written requests to BLM offices in Arizona including the Arizona State Director, and failure to comply with BLM's NEPA Handbook on public involvement including no information found on the NM webpage or Gila District Office and Tucson Field Office webpages suggest that BLM did not comply with NEPA regulations. It also suggested that BLM does not want the public to know about/comment on this Draft EA. We are puzzled by BLM's unwillingness to engage interested and affected publics, such as the Council, in the development of this and other NEPA documents for proposed actions in the range of the tortoise. We request that BLM respond with their reasons for unwillingness.

Comments on the Proposed Action

Pages 5 - 6, Conformance with Land Use Plans: BLM states, "The Proposed Action is in conformance with the 2013 Ironwood Forest National Monument Resource Management Plan with Record of Decision. Applicable goals and objectives include:

- SW-003: Manage watersheds to maintain healthy conditions and restore degraded areas.
- VM-001: Assure adequate vegetative cover with an approximate mix of natural plant species that meet acceptable range health standards based on current ecological conditions.
- VM-004: Manage allowable and authorized uses of the Monument to minimize potential impacts on vegetation.
- WH-006: Manage for wildlife water availability to sustain optimal wildlife population sizes as determined by AGFD. Minimize adverse impacts of current and potential waters on all wildlife species.
- TE-011: Minimize livestock impacts on listed or candidate plants by providing water sources away from existing populations. Move or replace livestock waters that are found to be causing habitat deterioration near rare plants.
- LM-002: Manage grazing and range resources toward best possible ecological conditions for the local area given past uses and current potential.
- LM-011: Maintain yearlong water sources in all pastures for livestock to ensure safe availability of water to wildlife. Minimize livestock impacts on priority plant species and

habitats by providing water sources away from existing populations. Move or replace livestock waters that are found to be causing habitat deterioration near rare plants."

While the 2013 Ironwood Forest National Monument Resource Management Plan (RMP) may be the document that BLM refers to in its management of the NM, BLM should also refer to "Presidential Proclamation 7320—Establishment of the Ironwood Forest National Monument," signed June 09, 2000. This Proclamation established this national monument for the purpose of protecting the objects identified in the Proclamation, and directed BLM to implement "proper care and management of the objects to be protected." Named objects in the Proclamation that are biological resources include flora – ironwood, palo verde, and saguaro, ancient legume and cactus forests, associated understory plants, and Nichols turk's head cactus; fauna –lesser long-nosed bat, habitat for the cactus ferruginous pygmy-owl, desert bighorn sheep; and habitat components – "roosting sites for hawks and owls, forage for desert bighorn sheep, protection for saguaro against freezing, burrows for tortoises, flowers for native bees, dense canopy for nesting of white-winged doves and other birds, and protection against sunburn for night blooming cereus."

BLM should ensure that the goals and objectives in the RMP and the proposed action comply with the Proclamation. For example, "VM004-Manage allowable and authorized uses of the Monument to minimize potential impacts on vegetation" does not demonstrate compliance with the directive in the Proclamation to implement "proper care and management of the objects to be protected."

BLM's approach to management in the NM appears to be to manage for allowable and approved uses while minimizing impacts to the named objects, rather than manage for the named objects to assure their protection. An allowable or authorized use could result in substantial decline or extirpation of a named object in the NM because BLM is not focusing on managing for/protecting that named object. In the Draft EA, the question that BLM should be asking for the flora, fauna, and habitat components named in the Proclamation is are the ecological needs of these biological resources being protected under the proposed action in the Draft EA along with existing, ongoing impacts? If the answer is no, then the allowable or authorized use should be prohibited and the prohibition enforced rather than minimize the impact(s) tom the allowable use to the named object.

Although BLM is not revisiting the RMP in the Draft EA, the Council contends that BLM's first directive is to comply with the purpose and intent of the Proclamation, which is to protect the named objects and to demonstrate, using the best available information, that if the proposed action is approved, the results would be that the objects identified in the Proclamation will be protected.

Page 6, Relationship to Statutes, Regulations or Other Plans: This section should include a discussion of the Candidate Conservation Agreement for the Sonoran Desert Tortoise (USFWS et al. 2015) (Agreement) and how the commitments BLM made in this Agreement apply to and are being implemented with respect to the proposed project. Please add this information to the Final EA.

This section mentions Secretarial Order 3362 that requires the BLM to consider wildlife connectivity corridors and three wildlife species, mule deer, desert bighorn sheep, and Sonoran pronghorn. Please add to this section, the CEQ's (2023) directive "Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors" and apply it to the

special status species in the project area including the tortoise. In this document CEQ directs Federal agencies to consider "how their actions can support the management, long-term conservation, enhancement, protection, and restoration of year-round habitat, seasonal habitat, stopover habitat, wildlife corridors, watersheds, and other landscape/waterscape/seascape features and processes that promote connectivity."

In addition, please add to this section, BLM's Instructional Memorandum – Habitat Connectivity on Public Lands IM 2023-005 (2022a). This document applies to all species. In addition, please and describe and analyze how the proposed action complies with this directive, including for the tortoise.

We found no mention of the Migratory Bird Treaty Act or compliance with BLM's Information Bulletin No. 2022-036, Addendum to BLM and U.S. Fish and Wildlife Memorandum of Understanding To Promote the Conservation of Migratory Birds (BLM 2022b). Please add this information to this section of the NEPA document and clearly explain in the section on "Issue 5: How will the proposed action impact wildlife in the area?" how BLM is complying with these directives.

Page 6, Scoping and Public Involvement: In this section, BLM describes a process that it implemented to determine "the issues that may arise from the proposed action." The process that BLM describes appears to be one that included only BLM employees and no public involvement. While public scoping may not be a requirement for environmental assessments, this internal process of identifying issues for analysis in the Draft EA did not identify grazing as an issue.

We remind BLM that the analysis of impacts under NEPA includes beneficial and adverse impacts. BLM's absence of identifying any impacts to grazing as an issue to be analyzed in the Draft EA indicates that BLM does not believe that the proposed project will provide beneficial or adverse impacts to grazing. However, BLM states that one of the purposes of the proposed action is "to improve livestock distribution and minimize livestock use in areas that have received heavy use in the past." The absence of identifying grazing as an issue seems to contradict one of the purposes of the proposed action and indicates that BLM may have omitted an issue that should have been identified and analyzed in the Draft EA to comply with NEPA, its implementing regulations, and the BLM NEPA Handbook (2008a).

The Council requests that BLM include impacts to grazing as an issue in the Final EA and analyze these impacts, both beneficial and adverse. The Council strongly recommends that BLM include the public in future scoping efforts for its NEPA documents to ensure that that draft version of these documents identifies issues that should be included in the analysis and complies with NEPA and its implementing regulations.

Page 7, Issues Considered, but Eliminated from Detailed Analysis: "Will the proposed action negatively impact grazing resources and opportunities?" BLM"s response in the Draft EA is, "The project is specifically designed to improve grazing conditions on the allotment by allowing for better management of livestock throughout the allotment. This improved management will have the effect of lessening the impacts on those areas that are being more heavily used by dispersing livestock through the landscape. For this reason, this issue will not be analyzed in detail."

Please see our comments above on Page 6, “Scoping and Public Involvement."

Page 9, 2.5 Mitigation: BLM lists mitigation measures that would be implemented “if the proposed action is selected.” The mitigation listed for the tortoise is “Pre-work surveys will be conducted by qualified BLM wildlife biologist for any listed threatened or endangered species, or any BLM sensitive species along the survey route. Additionally, work crew will be instructed on safe handling of Sonoran Desert tortoise for relocation should they be present in work areas while construction activities are occurring.”

Our first concern is that the mitigation does not include the activities implemented in the use/operations and maintenance phases of the proposed facilities. Please correct this deficiency.

Our second concern is that BLM should as a minimum comply with the Arizona Game and Fish Department’s guidance for the Sonoran desert tortoise. This includes:

- Arizona Game and Fish Department. 2010. Desert Tortoise Survey Guidelines for Environmental Consultants.
- Arizona Game and Fish Department. 2014. Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects.
- Arizona Interagency Desert Tortoise Team. 2008. Recommended Standard Mitigation Measures for Projects in Sonoran Desert Tortoise Habitat. June 2008.

Our third concern is the mitigation does not comply with BLM’s commitment in the Agreement (USFWS et al. 2015). In this document BLM, committed to manage for the tortoise. BLM committed to implementing:

> (1) BLM Manual 6840 (BLM 2008b) that establishes procedures for managing the Sonoran desert tortoise. a BLM sensitive species, with the goal of conserving the Sonoran desert tortoise and its habitat on BLM-managed lands in cooperation with other agencies;
> (2) landscape level conservation measures (e.g., identifying areas of potential conflict between agency mission and Sonoran desert tortoise habitat and identifying and reducing or otherwise mitigating dispersal barriers between Sonoran desert tortoise populations, etc.); and
> (3) local level conservation measures (e.g., considering the effects of actions on the Sonoran desert tortoise during the planning process, and avoiding or minimizing impacts, or implementing mitigation measures to offset impacts to tortoise populations and habitat where practical and feasible, avoid, where practicable, or otherwise minimize or mitigate adverse effects of actions that could result in isolation of known Sonoran desert tortoise populations and/or landscape-level fragmentation of Sonoran desert tortoise habitat, etc.).

These three measures may only be effectively implemented when BLM knows the status and trend of the tortoise populations on the lands it manages and where the direct and indirect impacts to the tortoise are occurring, especially at a landscape level, and thus affecting tortoise populations. The Council is concerned about projects and management decisions that contribute to degradation and loss of tortoise habitat (including habitat needed for connectivity among populations) (CEQ 2023)

from habitat fragmentation, activities that introduce and spread non-native plant species and educe the availability of native herbaceous vegetation needed by all size classes of tortoises for adequate nutrition, non-native fuels that carry wildlife's and destroy tortoises/tortoise habitat, etc., which result in a reduction in tortoises. To conduct an accurate regional or cumulative effects analysis and comply with the Agreement, BLM would need to track these and other impacts to the tortoise at a local and landscape level using a geospatial tracking system for all management actions and projects that it authorizes, funds, or implements. Projects that alter grazing patterns and create piospheres, provide subsidized water for tortoise predators, contribute to the introduction and spread of non-native plants, and unless properly designed and maintained entrap and drown tortoises should be added to BLM's geospatial tracking system.

In the Agreement, BLM says, that through [its] Resource Management Plans (RMPs), BLM managers are directed to "[a]void, minimize or mitigate impacts associated with all BLM authorized activities including mineral material sales, rights-of-way [emphasis added], recreational use, travel management, and livestock grazing through project design and modifications to allowable uses in order to achieve Sonoran desert tortoise management objectives" (USFWS et al. 2015). BLM should explain and analyze in the Final EA how it will mitigate (avoid, minimize, and/or compensate) direct, indirect, and cumulative impacts associated with the proposed action at a local and landscape level to contribute to/achieve Sonoran desert tortoise management objectives, not minimize impacts. This analysis should include the direct, indirect, and cumulative impacts of the construction, operation/use, and maintenance of the proposed action.

Our fourth concern is that BLM should explain in the Final EA how it will comply with its Rangewide Plan (BLM 1988), Compensation for the Desert Tortoise (MOG 1991), Manual 6840 – Special Status Species Management (BLM 2008b) and BLM's Instructional Memorandum on Mitigation (BLM 2021a), Mitigation Manual (BLM 2021b), and Mitigation Handbook (BLM 2021c). Please address these four concerns in the Final EA and demonstrate how BLM's proposed action complies with these numerous documents.

Pages 13 – 17, Issues Analyzed in Detail: As mentioned earlier in this letter under "Mitigation", the Council is concerned that BLM did not identify and analyze issues in the Draft EA although it made commitments and has received directives including but not limited to: 1) for the tortoise, the Agreement, BLM's recognition of the tortoise as a special status species and implementation actions in BLM's Special Status Species Manual (BLM 2008b), and 2) for livestock grazing, compliance with the regulations for implementing NEPA to include analysis of beneficial and adverse impacts.

For livestock grazing, as identified above under "Scoping and Public Involvement," we remind BLM the NEPA analysis of impacts included beneficial and adverse impacts. BLM's absence of identifying grazing as an issue to be analyzed in the Draft EA indicates that BLM does not consider that the proposed project will provide beneficial or adverse impacts to grazing. However, BLM states in the Draft EA that one of the purposes of the proposed action is "to improve livestock distribution and minimize livestock use in areas that have received heavy use in the past." The absence of identifying grazing as an issue seems to contradict one of the purposes of the proposed action and indicates that BLM may have omitted an issue that should have been identified and

analyzed in the Draft EA to comply with NEPA, its implementing regulations, and the BLM NEPA Handbook (2008a).

The Council requests that BLM add analyses of the impacts of the proposed action to the tortoise/tortoise habitat and to livestock grazing with relevant scientific references to support the analyses and conclusions. Under the change in livestock grazing from baseline conditions, BLM should analyze the impacts to vegetation or soils that would occur from allowing perennial grazing in a pasture that has experienced ephemeral grazing for more than a decade. Please provide an analysis of these impacts in the Final EA especially with respect to increased surface disturbance in the north pasture and invasive plant species.

Page 15, Issue 3: How will vegetation be impacted by the project? In the "Impacts from the Proposed Action" section, BLM says, "In some circumstances, grazing can increase plant biodiversity, build soils, sequester carbon, increase soil nitrogen and water content, and overall, increase productivity and sustainability (Teague et al., 2016). " While as written this statement may be true, it is not applicable to grazing in the Sonoran Desert. Additionally, the authors in the cited publication are comparing grazing with intensive agricultural crop practices, not grazing versus no grazing. This citation and statement has no relevance to the proposed action and no relevance for the location of the proposed action. The Council requests that this misleading sentence be removed and replaced with the information from relevant scientific literature on the impacts of grazing in the Sonoran Desert where the vegetation has not evolved with large grazing animals.

In this section, BLM describes impacts to vegetation from the proposed action but provides no citations to support the statements. For example, BLM says "If removed, the tank/trough area footprint will take at least 30 years to recover naturally and would require active restoration to return to a native plant community." However, Abella (2010) reported that "colonization by early successional communities will facilitate the reestablishment of total perennial cover (to amounts found on undisturbed areas) generally within 100 years." Consequently, restoration would take longer as the establishment of early succession communities is not restoration of the existing vegetation.

We request that BLM provide relevant citations from the scientific literature to support the statements/conclusions made in the Final EA. This request is supported by 40 CFR 1502.24 on "Methodology and scientific accuracy" in which CEQ directs federal agencies to "insure the professional integrity, including scientific integrity, of the discussions and analyses" and "identify any methodologies used" and "make explicit reference by footnote to the scientific and other sources relied upon for conclusions."

Page 17, Issue 5: How will the proposed action impact wildlife in the area?: In the "Impacts from the Proposed Action" section, BLM says, "Sonoran Desert tortoise is known to occur in the project area; all attempts to avoid these animals will occur. Should a desert tortoise be found in the project area, it will be relocated to a safe area as close to the discovery location as possible."

We are surprised at the limited discussion in the Draft EA on the impacts to the tortoise or mitigation that woul d be implemented because it is a special status species and because of BLM's

commitment to manage for the tortoise in the Agreement. As a minimum BLM should ensure that the direction given in the following documents by the Arizona Game and Fish Department (AZGFD) is implemented during the construction and maintenance phases of the proposed action:

- Arizona Game and Fish Department. 2010. Desert Tortoise Survey Guidelines for Environmental Consultants. https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2010SurveyguidelinesForConsultants.pdf.

- Arizona Game and Fish Department. 2014. Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects. https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2014%20Tortoise%20handling%20guidelines.pdf.

- Arizona Interagency Desert Tortoise Team. 2008. Recommended Standard Mitigation Measures for Projects in Sonoran Desert Tortoise Habitat. June 2008. . https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/MitigationMeasures.pdf

BLM also says, "Additionally, the potential for mortality, particularly of small animals such as snakes, lizards, and rodents, exists from construction activities and vehicle and equipment use. These individual losses will be localized and insignificant to populations." Small animals would include the tortoise from hatchlings to adults.

BLM provides no information in the Draft EA on the status of the tortoise population in the NM or its trend to support the statement that these losses would be localized and insignificant to populations. Data are available from long-term study plots throughout Arizona including the West Silverbell Mountains plot in the NM that was surveyed in 1991, 1995, 2000, 2004, and 2007 (Zylstra and Steidl 2021) and the focused efforts across the NM reported by Averill-Murray and Averill-Murray (2002, 2006).

The analysis of the impacts from construction of the proposed action is minimal and for the most part lacks references from the available scientific literature to support the analyses and conclusions. Special status species in the project area are not identified and an analysis of impacts to them is not presented. For example, linear trenching would be conducted to install new pipeline and reconnect existing pipeline to wells and water troughs. Trench length in one location may be up to 0.5 mile long. These trenches may inadvertently trap small wildlife including tortoises and if they are unable to escape, result in their death from exposure or predators. We were unable to find this mentioned in the Draft EA. Rather, mortality from construction activities is mentioned with no mitigation proposed to minimize the loss of wildlife such as the standard practice of installing escape ramps in trenches. Other standard mitigation measures such as looking under vehicles and equipment before moving them to ensure that tortoises or other small animals are not present, and not moving vehicles or equipment if tortoises or small animals are present until they are out of harm's way should be required for the tortoise and wildlife.

We found no information on the time of year that construction would begin or how long it would take to complete the construction phase of the project. If construction occurs during the active

seasons for the tortoise, the proposed trenching is likely to entrap a tortoise in the area given their home range size and documentation of making periodic long-distance movements.

To minimize the likelihood of encountering a tortoise during the construction phase, the project should be constructed and completed in as short time as possible and when tortoises are less likely to be above ground or walk into the project area (e.g., January). This construction time would also occur outside the nesting time for most migratory birds protected under the Migratory Bird Treaty Act.

The operation/use of the proposed action is likely to result in several adverse impacts to the tortoise and other wildlife species. These impacts would be ongoing long-term impacts, unlike the impacts during the construction phase. These long-term impacts should be analyzed in the Final EA and appropriate mitigation implemented to fully offset these impacts.

According to the Draft EA, the water troughs will be accessible to wildlife, including small animals. Unfortunately, unless properly designed and regularly maintained, artificial waters can result drowning of small animals including tortoises.

We found little information on the design of the water troughs and access ramps for wildlife or the management and monitoring actions that would be implemented to ensure that the access ramps are not entrapping and drowning wildlife including the tortoise. While many designs that are implemented to facilitate small wildlife to escape artificial water features (e.g., the ramp and step designs) may seem effective, concrete drinkers promote algae buildup (Brigham and Stevenson 2003) making the rough surface slippery and impeding an animal's ability to escape the drinker. Hoover (1995) found tortoises dead in approximately 20% of the small game guzzlers inspected in the Mojave National Preserve during the 1990s. Following this discovery, ramps were modified and barriers installed to prevent tortoises from drowning. However, in 2004, Mojave National Preserve reported finding of 28% of the 32 guzzlers inspected had tortoise mortality (see Hughson to LaRue personal communication on 29 June 2011). This information documents that the ramps and blocking techniques that were implemented between the early 1990s and 2004 did not have the desired effect of eliminating tortoise mortality (rebar was placed in the openings to prevent animals entering the guzzlers and mesh was placed inside the guzzlers to allow animals to escape. Andrew et al. (2001) found animal remains in 13 artificial water features in the Sonoran Desert in California. This long-term impact of drowning from the operation/use of the artificial water features to the tortoise and other small animals should be discussed and analyzed in the Final EA.

We found no analysis of the impacts to tortoise /tortoise habitat from the change in use of the north pasture that would occur from implementation of the proposed action. Because BLM reported that the water infrastructure in the north pasture has not been functioning for more than a decade, limited ephemeral grazing use has occurred in the pasture during this time. The establishment of a functioning water distribution system would allow livestock to graze the north pasture year-round. This is a change in baseline conditions. The direct and indirect impacts to the tortoise from this change in use should be analyzed in the Final EA. These impacts would include but are not limited to trampling of tortoises, collapsing of tortoise and other wildlife burrows, soil compaction and disruption/destruction of soil crusts that affects seed germination and plant growth needed for forage and cover from temperature extremes and predators, trampling of vegetation needed for

forage by various size classes of tortoises making it unavailable, competition between tortoises and livestock for limited, and spreading invasive plants that compete with native vegetation and increase the potential for catastrophic fires. Please analyze these impacts in the Final EA.

The establishment of perennial water would result in increased water subsidies to predators of the tortoise (e.g., coyote, common raven, etc.). This subsidy may result in greater mortality to the tortoise population in the area from the increased occurrences of these predators using the troughs. This impact should be analyzed in the Final EA for the tortoise and other small animals in the project area.

Under the Proclamation, BLM is directed to protect the named objects in the Proclamation. These include ironwood, palo verde, and saguaro, ancient legume and cactus forests, associated understory plants, and Nichols turk's head cactus; fauna – lesser long-nosed bat, habitat for the cactus ferruginous pygmy-owl, desert bighorn sheep; and habitat components – "roosting sites for hawks and owls, forage for desert bighorn sheep, protection for saguaro against freezing, burrows for tortoises, flowers for native bees, dense canopy for nesting of white-winged doves and other birds, and protection against sunburn for night blooming cereus." In the Final EA, BLM should include these named objects and analyze how the construction, operation/use, and maintenance of the proposed action would or would not protect these objects. Minimizing impacts to these objects does not demonstrate that they are being protected.

Cumulative Impacts Analysis: We found no cumulative impacts analysis in the Draft EA.

Please see G*rand Canyon Trust* v. *F.A.A.*, 290 F.3d 339, 345-46 (D.C. Cir. 2002) in which the court decided that agencies must analyze the cumulative impacts of actions in environmental assessments.

In the cumulative effects analysis of the Final EA, please ensure that the CEQ's "Considering Cumulative Effects under the National Environmental Policy Act" (1997) is followed, including the eight principles, when analyzing cumulative effects of the proposed action to the affected resource issues. This CEQ document is referred to in BLM's National Environmental Policy Act Handbook (BLM 2008a).

CEQ states, "Determining the cumulative environmental consequences of an action requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern. The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects." The analysis "must describe the response of the resource to this environmental change." Cumulative impact analysis should "address the sustainability of resources, ecosystems, and human communities."

CEQs guidance on how to analyze cumulative environmental consequences, which contains eight principles listed below:

1. Cumulative effects are caused by the aggregate of past, present, and reasonable future actions.

The effects of a proposed action on a given resource, ecosystem, and human community, include the present and future effects added to the effects that have taken place in the past. Such cumulative effects must also be added to the effects (past, present, and future) caused by all other actions that affect the same resource.

2. Cumulative effects are the total effect, including both direct and indirect effects, on a given resource, ecosystem, and human community of all actions taken, no matter who (federal, non-federal, or private) has taken the actions.
Individual effects from disparate activities may add up or interact to cause additional effects not apparent when looking at the individual effect at one time. The additional effects contributed by actions unrelated to the proposed action must be included in the analysis of cumulative effects.

3. Cumulative effects need to be analyzed in terms of the specific resource, ecosystem, and human community being affected.
Environmental effects are often evaluated from the perspective of the proposed action. Analyzing cumulative effects requires focusing on the resources, ecosystem, and human community that may be affected and developing an adequate understanding of how the resources are susceptible to effects.

4. It is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.
For cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to the affected parties.

5. Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries.
Resources are typically demarcated according to agency responsibilities, county lines, grazing allotments, or other administrative boundaries. Because natural and sociocultural resources are not usually so aligned, each political entity actually manages only a piece of the affected resource or ecosystem. Cumulative effects analysis on natural systems must use natural ecological boundaries and analysis of human communities must use actual sociocultural boundaries to ensure including all effects.

6. Cumulative effects may result from the accumulation of similar effects or the synergistic interaction of different effects.
Repeated actions may cause effects to build up through simple addition (more and more of the same type of effect), and the same or different actions may produce effects that interact to produce cumulative effects greater than the sum of the effects.

7. Cumulative effects may last for many years beyond the life of the action that caused the effects.
Some actions cause damage lasting far longer than the life of the action itself (e.g., acid mine damage, radioactive waste contamination, species extinctions). Cumulative effects analysis needs

to apply the best science and forecasting techniques to assess potential catastrophic consequences in the future.

8. Each affected resource, ecosystem, and human community must be analyzed in terms of its capacity to accommodate additional effects, based on its own time and space parameters. Analysts tend to think in terms of how the resource, ecosystem, and human community will be modified given the action's development needs. The most effective cumulative effects analysis focuses on what is needed to ensure long-term productivity or sustainability of the resource.

Please add an analysis of cumulative impacts of each alternative to the Final EA for the resource issues carried forward in the Final EA following this guidance.

Note that CEQ recognizes that synergistic and interactive impacts as well as cumulative impacts should be analyzed in the NEPA document for the resource issues.

We request that the Final EA (1) include these eight principles in its analysis of cumulative impacts to the tortoise; (2) ensure that synergistic and interactive impacts from the proposed project are included in this analysis; (3) address the sustainability of the tortoise in/near the project area and connectivity within the population in the NM and between nearby populations; and (4) include effective science-based mitigation, monitoring, and adaptive management that protect desert tortoises and their habitats during BLM's management of the public lands on which it would authorized the construction, operation/use, and maintenance of the proposed action.

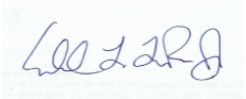
In addition, we request that BLM add this project and its impacts to a BLM database and geospatial tracking system for special status species, including Sonoran desert tortoises, that track cumulative impacts (e.g., surface disturbance, paved and unpaved routes, linear projects, invasive species occurrence, herbicide /pesticide use, wildfires, etc.), management decisions, and effectiveness of mitigation for each project. Without such a tracking system, BLM is unable to analyze cumulative impacts to special status species (e.g., desert tortoises) with any degree of confidence.

The Final EA should include an analysis of the action alternative and how the implementation of it would result in "no net loss in quantity and quality of Sonoran desert tortoise habitat" (USFWS et al. 2015) especially because grazing would change from ephemeral to perennial grazing in the north pasture.

We appreciate this opportunity to provide the above comments and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you notify the Desert Tortoise Council at eac@deserttortoise.org of any proposed projects that BLM may authorize, fund, or carry out in the range of any species of desert tortoise in the southwestern United States (i.e., *Gopherus agassizii*, *G. morafkai*, *G. berlandieri*, *G. flavomarginatus*) so we may comment on it to ensure BLM fully considers actions to conserve these tortoises as part of its directive to conserve biodiversity on public lands managed by BLM.

Please respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this Project.

Respectfully,



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

cc: Tracy Stone-Manning, Director, Bureau of Land Management, tstonemanning@blm.gov
Nada Culver, Deputy Director of Policy and Programs, Bureau of Land Management, nculver@blm.gov
Raymond Suazo, Arizona State Director, Bureau of Land Management, blm_az_asoweb@blm.gov

Literature Cited

Abella, S.R. 2010. Disturbance and plant succession in the Mojave and Sonoran Deserts of the American Southwest. International Journal of Environmental Research and Public Health 7.4 (2010): 1248-1284. https://www.mdpi.com/1660-4601/7/4/1248

Andrew, N.G.V., V.C. Bleich, A.D. Morrison, L.M. Lesicka, and P. Cooley. 2001. Wildlife mortalities associated with artificial water sources in the Sonoran Desert. Wildlife Society Bulletin 29:275–280. https://www.jstor.org/stable/3784009

Averill-Murray, R.C. and A Averill-Murray. 2002. Distribution and Density of Desert Tortoises at Ironwood Forest National Monument. Sonoran Herpetologist 15 (07) 2002: 78–79.

Averill-Murray, A. and R.C. Averill-Murray. 2002. Distribution and Density of Desert Tortoises at Ironwood Forest National Monument, with Notes on Other Vertebrates. Technical Report 193,Nongame and Endangered Wildlife Program, Arizona Game and Fish Department, Phoenix, Arizona. May 21, 2002. https://ironwoodforest.org/wp-content/uploads/2012/09/IFNM-DesertTortoiseDistribution.pdf

Averill-Murray, R.C., P.C. Rosen, C.A. Jones, T.R. Jones, R.A. Lara-Resendiz, T. Edwards, A. Karl, and K.H. Berry. 2023. *Gopherus morafkai*. The IUCN Red List of Threatened Species 2023: e.T97246109A97246177. https://dx.doi.org/10.2305/IUCN.UK.2023-1.RLTS.T97246109A97246177.en

[AZGFD] Arizona Game and Fish Department. 2010. Desert Tortoise Survey Guidelines for Environmental Consultants.

https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2010SurveyguidelinesForConsultants.pdf.

[AZGFD] Arizona Game and Fish Department. 2014. Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects. https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/2014%20Tortoise%20handling%20guidelines.pdf.

[AIDTT] Arizona Interagency Desert Tortoise Team. 2008. Recommended Standard Mitigation Measures for Projects in Sonoran Desert Tortoise Habitat. June 2008. https://s3.amazonaws.com/azgfd-portal-wordpress/PortalImages/files/wildlife/MitigationMeasures.pdf

[BLM] U.S. Bureau of Land Management. 1988. Desert Tortoise Habitat Management on the Public Lands: A Rangewide Plan. U.S. Department of Interior, BLM. Washington, D.C. 36 pp.

[BLM] U.S. Bureau of Land Management. 2008b. Special Status Species Management. Handbook 6840. December 12, 2008. https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual6840.pdf

[BLM] U.S. Bureau of Land Management. 2008a. H-1790-1 - National Environmental Policy Act Handbook. National Environmental Policy Act Program, Office of the Assistant Director, Renewable Resources and Planning, Washington, D.C. January 2008. https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1790-1.pdf

[BLM] U.S. Bureau of Land Management. 2021a. Reinstating the Bureau of Land Management (BLM) Manual Section (MS-1794) and Handbook (H-1794-1) on Mitigation. Instruction Memorandum IM 2021-046. September 22, 2021.

[BLM] U.S. Bureau of Land Management. 2021b. Mitigation Handbook (H-1794-1). https://www.blm.gov/sites/default/files/docs/2021-10/IM2021-046_att2.pdf.

[BLM] U.S. Bureau of Land Management. 2021c. Mitigation Manual (MS-1794). Bureau of Land Management, September 22, 2021. https://www.blm.gov/sites/default/files/docs/2021-10/IM2021-046_att1_0.pdf.

[BLM] U.S. Bureau of Land Management. 2022. Habitat Connectivity on Public Lands Instruction Memorandum 2023-005. https://www.blm.gov/policy/im-2023-005-change-1

[BLM] U.S. Bureau of Land Management. 2022. Habitat Connectivity on Public Lands Instruction Memorandum 2023-005. https://www.blm.gov/policy/im-2023-005-change-1

Brigham, W.T. and C. Stevenson. 2003. Wildlife Water Catchment Construction in Nevada. Technical Note 397. Revised September 2003. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1024&context=usblmpub

[CEQ] Council on Environmental Quality. 1997. Considering Cumulative Effects under the National Environmental Policy Act. https://ceq.doe.gov/publications/cumulative_effects.html

[CEQ] Council on Environmental Quality. 2023. Guidance for Federal Departments and Agencies on Ecological Connectivity and Wildlife Corridors. March 21, 2023. https://www.whitehouse.gov/wp-content/uploads/2023/03/230318-Corridors-connectivity-guidance-memo-final-draft-formatted.pdf

[MOG] Desert Tortoise Management Oversight Group. 1991. Compensation for the desert tortoise. http://www.redcliffsdesertreserve.com/wp-content/uploads/2006/02/MOG-Compensation-for-the-desert-tortoise.pdf

Hoover, F.G. 1995. An investigation of desert tortoise mortality in upland game guzzlers in the deserts of southern California. Proceedings of the Desert Tortoise Council 1995: 36-43. https://deserttortoise.org/ocr_DTCdocs/1995DTCProceedings-OCR.pdf

[USFWS et al.] U.S. Fish and Wildlife Service, Bureau of Land Management, Bureau of Reclamation, National Park Service, Department of Defense, Customs and Border Protection, U.S. Forest Service, Natural Resources Conservation Service, Arizona Game and Fish Department, and Arizona Department of Transportation. 2015. Candidate Conservation Agreement for the Sonoran Desert Tortoise (*Gopherus morafkai*) in Arizona. May 27, 2015. https://www.blm.gov/sites/blm.gov/files/policies/IMAZ-2016-004-a1.pdf.

https://www.fs.usda.gov/research/rmrs/news/highlights/have-fire-regimes-and-fire-effects-changed-sonoran-desert-scrublands

Zylstra, E.R., and R.J. Steidl. 2021. Demography of Sonoran desert tortoises in Arizona, 1987-2020. Report submitted to Arizona Game and Fish Department, Phoenix, AZ. 28 May 2021.