



DESERT TORTOISE COUNCIL

3807 Sierra Highway #6-4514

Acton, CA 93510

www.deserttortoise.org

eac@deserttortoise.org



Desert Tortoise
Preserve Committee, Inc.

**DESERT TORTOISE PRESERVE
COMMITTEE, INC.**

P.O. Box 940

Ridgecrest, CA 93556

www.Tortoise-Tracks.org

roger.dale@tortoise-tracks.org



**MOHAVE GROUND SQUIRREL
CONSERVATION COUNCIL**

P.O. Box 1660

Wrightwood, CA 92397

ed.larue@mgsconservation.org

Via email only

August 18, 2025

Derek Newland

County of San Bernardino

Land Use Services Department, Planning Division

385 N. Arrowhead Ave 1st Floor

San Bernardino, CA 92415-0187

derek.newland@lus.sbcounty.gov

Re: Persistence Mine Reclamation Plan Notice of Availability (NOA) and Notice of Intent (NOI)
to Adopt an Initial Study/Mitigated Negative Declaration

Dear Mr. Newland,

The Desert Tortoise Council (DTC) is a non-profit organization comprising 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 DTC routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

The Desert Tortoise Preserve Committee (DTPC) is a non-profit organization formed in 1974 to promote the welfare of the desert tortoise in its native wild state. DTPC members share a deep concern for the continued preservation of the tortoise and its habitat in the southwestern deserts and are dedicated to the recovery and conservation of the desert tortoise and other rare and endangered species inhabiting the Mojave and western Sonoran deserts. The DTPC has a long track record of protecting desert tortoises and their habitat through land acquisition, preserve management, mitigation land banking, and educational outreach.

The Mohave Ground Squirrel Conservation Council (MGSCC) is a nonprofit organization established to assure the perpetual survival of viable populations of Mohave Ground Squirrels (MGS) throughout their historical range and any future expansion areas. The MGS, for the purposes of the MGSCC, means the mammal species known scientifically as *Xerospermophilus mohavensis*. Among our objectives pertinent to this letter is to support and to advocate for such legislative, policy, and conservation measures as will contribute to ensuring the continued survival of viable MGS populations, the connectivity of these populations, and the maintenance of their habitats in a natural condition.

Our physical and email addresses are provided above 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.”

The Mojave desert tortoise is among the top 50 species on the list of the world's most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), “... based on population reduction (decreasing density), habitat loss of over 80% over three generations (90 years), including past reductions and predicted future declines, as well as the effects of disease (upper respiratory tract disease/mycoplasmosis). *Gopherus agassizii* (sensu stricto) comprises tortoises in the most well-studied 30% of the larger range; this portion of the original range has seen the most human impacts and is where the largest past population losses have been documented. A recent rigorous rangewide population reassessment of *G. agassizii* (sensu stricto) has demonstrated continued adult population and density declines of about 90% over three generations (two in the past and one ongoing) in four of the five *G. agassizii* recovery units and inadequate recruitment with decreasing percentages of juveniles in all five recovery units.”

This status, in part, prompted the DTC to join Defenders of Wildlife and DTPC to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from Threatened to Endangered under the California Endangered Species Act (CESA) (Defenders of Wildlife et al. 2020). Importantly, following California Department of Fish and Wildlife's (CDFW) (2024a) status review, in their April 2024 meeting the California Fish and Game Commission voted unanimously to accept the CDFW's petition evaluation and recommendation to uplist the tortoise from threatened to endangered under the CESA based on the scientific data provided on the species' status, declining trend, numerous threats, and lack of effective recovery implementation and land management (CDFW 2024b). On July 15, 2025, the tortoise was officially uplisted to endangered status under the CESA.

On December 13, 2023¹, the MGSCC joined Defenders of Wildlife, DTPC, and Dr. Phillip Leitner in a petition to have the U.S. Fish and Wildlife Service (USFWS) federally list MGS as threatened and to designate critical habitat. On January 17, 2025, the USFWS published a 90-day finding in the Federal Register². In that document, the USFWS determined that the petition to list the MGS under the Federal Endangered Species Act (FESA) presented substantial scientific and commercial information indicating that listing the MGS as an endangered or threatened species may be warranted, pending a 12-month status review. If the USFWS's 12-month finding is that the listing is warranted, then the species becomes a candidate for listing. With the issuance of this 90-day finding, the USFWS's next step is to conduct a status review of the MGS and publish a 12-month finding. That 12-month finding will declare that listing is warranted, not warranted, or warranted but precluded.

We appreciate that we were contacted directly by the San Bernardino County Planning Department (County) in an email on 8/1/2025 providing us with an opportunity to comment on this proposed project. We sincerely believe that we are providing additional, new information for desert tortoises, Mohave ground squirrel, and western burrowing owl (*Athene cunicularia hypugaea*) that will cause the County to reconsider its determination that no significant impacts will affect these three species because the mitigation to be implemented will reduce the direct, indirect, and cumulative impacts to a less than significant level. We include the burrowing owl because in October 2024, the California Fish and Game Commission unanimously approved naming the western burrowing owl as a candidate for potential listing as a protected species under CESA. As a candidate for potential listing, western burrowing owl is temporarily afforded the same protections as a state-listed endangered or threatened species under CESA. We believe that the County has not considered the information we provide below in its preliminary decision that no significant impacts may occur or that the impacts can be mitigated in such a way as to avoid significant impacts to listed and other imperiled species.

From the summary document available at <https://lus.sbcounty.gov/planning-home/environmental/desert-region/> we read the following: "The applicant proposes to extract gold from semi to unconsolidated gravels, sands, and silts (sediments located within placer mining claims managed by the BLM [Bureau of Land Management]). The sediments have been extensively tested and show economic gold grades suitable for surface mining extraction down to a tested depth of 24 feet, covering approximately 106 acres on 267 acres, across two non-contiguous pits. These two pits are referred to as the western and eastern pits. The proposed operation capacity is to process up to 96,000 cubic yards of material per month.

¹ <https://www.dropbox.com/scl/fi/7h890e4r25lpyyhwq5c/Defenders-et-al.-MGS-Listing-Petition-12-13-23-FINAL.pdf?rlkey=f7ln6at8apxcovi8qgtr5g2qk&dl=0>

² <https://www.dropbox.com/scl/fi/iq0yvn5zd9mz5s7yn77wr/USFWS-finding-on-1-17-2025.pdf?rlkey=9arr6vzkq9td2ss9dggjln5nr&dl=0>

“The project is on BLM land and requires BLM approval. The Reclamation Plan IS/MND incorporates the mitigation from the BLM Environmental Assessment. The project may have potential significant effects on wildlife and vegetation. Proposed mitigation involves certified licensed experts on-site monitoring pre-construction, construction and decommissioning activities, pre-construction surveys, fencing, seed collection, avoidance and setbacks. Please see the Section IV: Biological Resources of the IS/MND for full details of all Mitigation Measures.”

Given the location of the proposed mining activities near Atolia, located approximately six miles south of Johannesburg in San Bernardino County, CA (APNs 0503-341-01 and 0503-081-13), the BLM Ridgecrest Field Office would serve as the responsible federal lead agency for this project. On August 13, 2025, a third party alerted us that the BLM posted an announcement for this project on its ePlanning website on July 31, 2025, but failed to contact DTC, which pointedly asked to be considered an Affected Interest for this project in our March 2023 letter. Herein, we are providing our comments to the BLM and expect to provide additional comments on the draft environmental assessment (DEA) by the comment deadline of September 2, 2025.

We suspect that this project is associated with a DEA issued by the BLM for Gold Discovery Group, LLC’s (GDG or Proponent) plan of operations for drilling and gathering samples, for which the DTC commented in March 2023³, wherein we specifically asked to be identified as an Affected Interest for this project (page 18). However, development of two mine sites on more than 106 acres [as per the summary; 125.5 acres as per the Initial Study/Mitigated Negative Declaration Environmental Checklist Form (IS/MND)] in suitable tortoise habitats is substantially different from drilling and exploratory activities, and definitely warrants its own DEA. Our many concerns expressed to the BLM in March 2023 have not likely been shared with the County, so we incorporate them by reference, provide the letter in the footnote, and request that the County address and analyze those concerns as they pertain to the current mining proposal with respect to the tortoise, MGS, and burrowing owl and their habitats.

Unless otherwise noted, the following page numbers refer to the 117-page IS/MND, dated July 2025. We note that, rather than 106 acres of impact given in the summary that the IS/MND reports that 125.5 acres would constitute the total surface disturbance (page 2), which we assume is the more accurate acreage. Note that, rather than provide an outline for the following comments, they appear sequentially as they appear in the IS/MND to enable the County, BLM, and Proponent to track our comments in the same order in which they are presented.

At the bottom of page 2 and top of page 3, we read “Construction and mining activities would occur for approximately 33 months, but reclamation monitoring would continue for as long as necessary to fulfill BLM and San Bernardino County reclamation requirements. Water for the Project would either be obtained from an existing well owned by Rand Communities Water District (RCWD), or GDG would develop two well sites with a total disturbance of 0.56 acres. The well sites would be located in Kern County and are not subject to permitting requirements of San Bernardino County.” If these well sites are used, has Kern County Planning Department been alerted to their use, and if so, is Kern County requiring any environmental analysis of potential impacts?

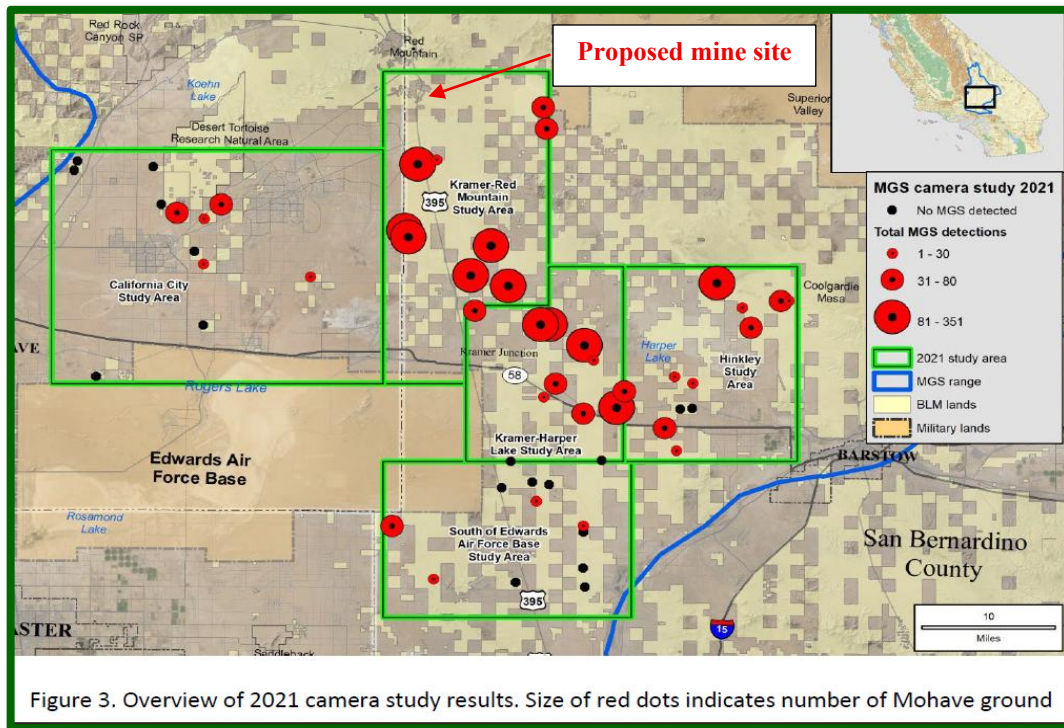
³ <https://www.dropbox.com/scl/fi/6inx3q8q3dfjwlpz32vyw/Gold-Discovery-Group-EA-BLM-CA.6-18-2024.pdf?rlkey=0j5buicrr2mzhychydrqa6prh&dl=0>

On page 28, the IS/MND states, “There are CNDDDB [California Natural Diversity Data Base] records of Mohave ground squirrel observations *more than four miles* from the proposed open pit areas” [*emphasis added*]. It is important that the County understands that there is a wealth of information about MGS occurrence in the area that the Proponent has either not divulged or is unaware of. We believe that this existing information, which is apparently new to the County and the Proponent, must be described and analyzed under the California Environmental Quality Act (CEQA) and that the County require formal MGS trapping surveys of both sites (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83975&inline>) before there is any ground disturbance to avoid violating the CEQA and CESA.

Some information on MGS sightings in the project area should be included in the analysis of impacts to the MGS in the CEQA document:

- Several years ago, Ed LaRue found a juvenile MGS crushed on Cuddeback Road 3.5 miles south of the project site, which has been submitted to the CNDDDB but apparently not yet published.
- Also, several years ago, MGS trapper, Rachel Woodard, observed an MGS struck by a vehicle on Highway 395 at the junction with Trona Road, approximately 3.5 miles north of the project site.
- Importantly, the following information was provided by an MGSCC Board member: “[One of our Board members] was scheduled to trap that location for the exploratory drilling phase in 2024, but the BLM made a determination that a presence/absence survey was not necessary. When we were contacted about the project, I was told that the site had been trapped in 2022 or 2023. I don't know by whom. An MGS was captured but apparently, it was trapped just off site because the grid was not established in the correct location.” Given this observation, we recommend that the County pursue this issue with the Proponent to determine where the MGS was located, but certainly it amends the statement that the only records are more than four miles away.
- MGS were captured at UTM 446867/3904544 (NAD 83) on March 26, 2024, which is 1.9 miles southeast of the eastern mine site and 447375/3904522 on May 1, 2024, which is 2.0 miles southeast of the eastern mine site.
- In 2024, MGSCC performed live trapping in the area and caught a juvenile male MGS at UTM 444933/3903604, which is 2.0 miles south of the mine sites.
- In their study documenting MGS at camera locations stationed in 2021 and 2022 (Leitner and Leitner 2022), they observed between 81 and 351 MGS camera detections (the highest incidences reported) at the camera location nearest to Atolia, which was about four miles south of the proposed mines.

After assembling the above information, we received an email that a reproductive male MGS was captured on April 15, 2022 *between the two sites, approximately 200 feet east of the proposed western pit* (UTM 444644/3906948). Given this information, alone, we can conclude that MGS have recently occurred in at least the proposed western pit area and that protocol surveys are required to ascertain absence, unless CDFW considers this 2022 observation sufficient, in and of itself, to trigger the need for an ITP?



It is the professional opinion of the MGSCC Board that the conclusion made by the County in the IS/MND of the absence of MGS from the proposed mine sites is due to the absence of protocol surveys rather than the absence of MGS. Given the location and available intact habitats as per Photos 1 and 2 on page 6 and new information given herein, MGSCC concludes that it is highly likely that MGS occurs within the mining impact footprint. In the absence of a protocol trapping survey, which is a CDFW requirement for this region, the County and Proponent cannot conclude the species is absent, regardless of BLM's suggestion that a survey is not needed.

On page 25, we see that there have been three desert tortoise surveys and one burrowing owl survey, but there is no mention of a formal MGS survey. Has the County required the proponent to perform protocol trapping surveys for MGS (CDFW 2023) within the proposed mining area to ensure that provisions under both CEQA and CESA will not be violated? We also note that only one of the three tortoise surveys reported on page 24 was made available at the County's website. Have tortoise signs been found during the other two surveys, which are not summarized in the ELMT Consulting (2024) document?

Given the location of the project and CDFW's current management requirements, which may be confirmed or refuted by CDFW biologists carbon copied in this letter, the mining proponent may (1) perform MGS protocol trapping surveys between March and July 2026 or thereafter with input from Region 4 of CDFW for grid configuration, and if no MGS are captured, have one year in which to perform ground disturbance, or (2) assume MGS are present and mitigate accordingly, which would likely require a minimum of 3:1 habitat compensation (e.g., for each acre of lost habitat, the proponent would acquire and manage in perpetuity three acres of MGS-occupied habitat) in a formal Section 2081 incidental take permit (ITP).

Until MGS protocol surveys are performed within the 125-acre impact area, with prior input from CDFW for grid configuration, we believe the IS/MND is erroneous in concluding that no significant impacts will adversely affect the MGS, which as a State-listed species under CESA may constitute a CEQA-significant impact especially when analyzed with the available data on MGS occurrence (Leitner 2021), population genetics and connectivity, occurrence of habitat, and direct and indirect impacts to habitat including climate change (Inman et al. 2016), and arrangement of habitats to form effective linkages among populations (Esque et al. 2013).

With regards to American badger, we read the following statement on page 28: “No observations of American badgers were made at the Project site and the burrows observed at the Project site during western burrowing owl surveys (ELMT 2024b) would be too small for American badgers.” Badgers are rarely observed but can be identified by diagnostic foraging digs, so concluding they are absent because they were not observed is misleading and problematic. Similarly, finding badger dens is relatively infrequent compared to diagnostic digs, so dismissing burrows due to size is misleading and problematic. Given our experience in the area, badgers undoubtedly forage within the 125-acre impact footprint and should not be dismissed as having a “low potential to occur.”

With regards to burrowing owl surveys mentioned on page 28, we read, “No observations of American badgers were made at the Project site and *the burrows observed at the Project site* during western burrowing owl surveys (ELMT 2024b) would be too small for American badgers” [*emphasis added*]. Page 30 then indicates, “The CNDDB records indicate that the nearest burrowing owl nests were observed approximately 9.5 miles southeast of the Project site. Burrowing owl surveys were conducted in 2024 at the Project site plus a 500-foot buffer. No burrowing owls or evidence of recent or historic use by burrowing owls were observed. In general, habitat in the Project site is shrub-dominated with few perennial herbs in the understory, which is marginally suitable for burrowing owls.”

In contrast to these reported results, Circle Mountain Biological Consultants, Inc. (CMBC) has consistently found burrowing owl signs just north of Cuddeback Lake, located approximately 8.9 miles east of the subject properties in 2017, 2018, 2019, 2022 (CMBC 2022) and 2025. But more importantly, since the information provided above indicates that burrows were found but considered to be too small to accommodate badgers, CDFW’s current policy is to require breeding bird surveys where there are suitable burrows for burrowing owls (CDFG 2012) even when no owl signs are found. We have carbon copied CDFW Region 4 personnel to confirm that it is prudent to conduct protocol breeding bird surveys for evidence of burrowing owl presence at the burrows found by ELMT Consulting before there is any ground disturbance.

Based on available information, the following statement on page 29 is incorrect: “Based on the Desert Tortoise Revised Recovery Plan (USFWS 2011), the Project site is located within the Western Mojave Recovery Unit but *is not located within designated desert tortoise critical habitat* [*emphasis added*].” The following image provided by the Ridgecrest Office of the BLM shows all the proposed drilling locations presumably associated with the proposed action. Our interpretation is that the two proposed sites correspond with the proposed drill sites shown south of Atolia. Whereas only those drill sites north of Atolia, which we understand are not part of the current proposal, are outside the Fremont-Kramer Area of Critical Environmental Concern (ACEC), all proposed drill sites south of Johannesburg are inside designated critical habitat (USFWS 1994).

Therefore, both proposed mine sites are inside designated critical habitat based on the following BLM map, noting that the green areas, which overlap the brown ACEC areas, signify critical habitat inside the square that otherwise excludes the mining district from the ACEC:

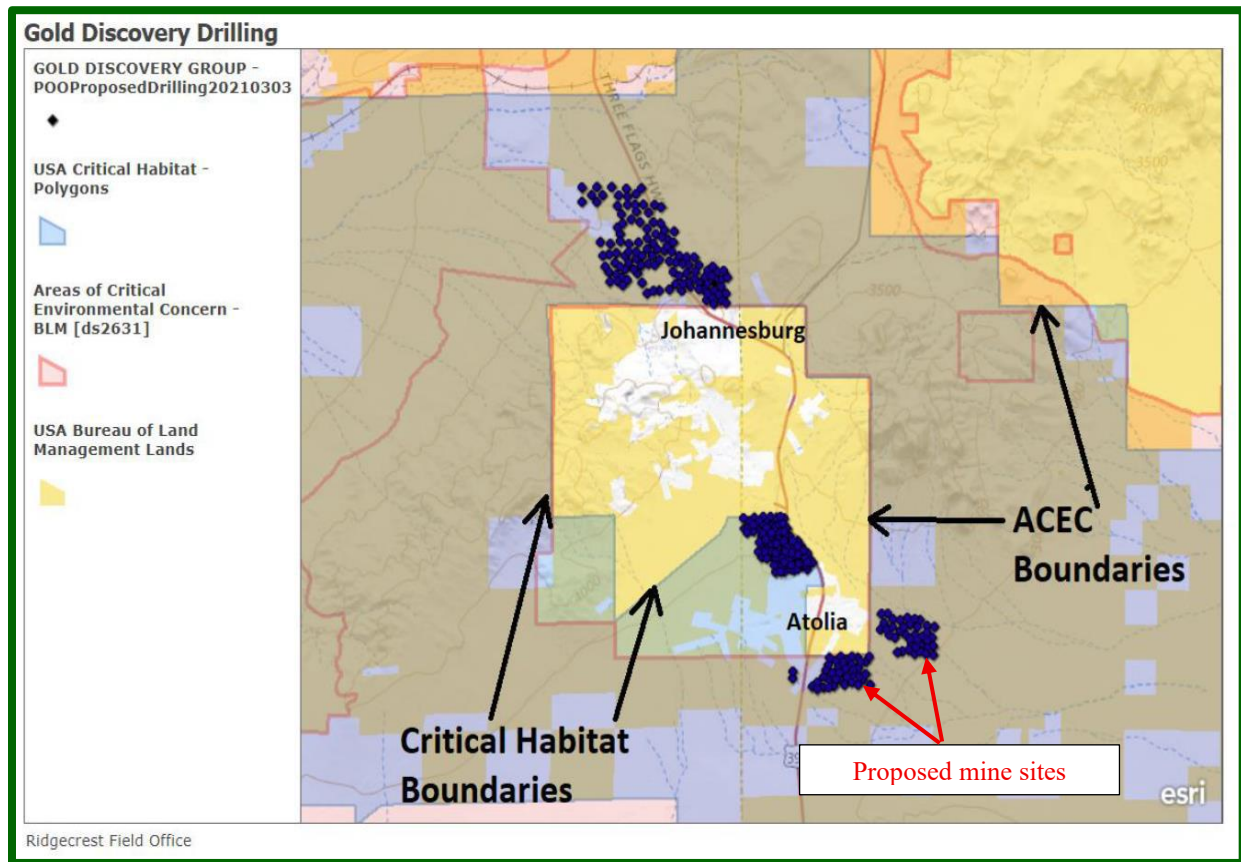


Figure 1. Relationship of drilling areas (black circles) to the Fremont-Kramer ACEC and Mojave Desert Tortoise Critical Habitat designated by the USFWS. The Kern – San Bernardino County boundary runs north-south through the middle of the figure.

Shifting to the June 23, 2024 ELMT Consulting (2024) report, we read on pages 1 and 2, “The action area is defined as all areas to be directly *or indirectly affected* by the project (50 CFR §402.02) [*emphasis added here and below with regards to indirect impacts*]. For this project, the action area includes the limits of disturbance and all areas that have the potential to be indirectly impacted by the proposed project. Site characteristics including topography, presence of suitable habitat, and human disturbance were utilized to determine the lateral extent of the action area beyond the project footprint. The proposed action area was determined to be confined to the 126.2 acres proposed Persistence Mine site.”

As such, the action area is the same size as the direct impact area, which does not by any means consider indirect impacts to the resource issues that include the tortoise, MGS, and burrowing owl. This paragraph that describes the action area for the proposed project is flawed because it fails to include the indirect impacts to these resource issues, and there is no scientific information provided to support this statement, which makes it an unsupported opinion.

Here we offer scientific information that describes the expected indirect impacts of the mining activity. The Revised Recovery Plan (USFWS 2011) describes some of the indirect impacts to the tortoise/tortoise habitat from mining (e.g., introduction of toxins, fugitive dust and soil erosion, hazards from refuse left after use in a mining operation, creation of disturbance zones for invasive plant species to establish, and roads). Kim et al (2014) and particularly Chaffee and Berry (2006) have shown that windblown and waterborne (from rain) toxic contaminants may settle miles downwind of mining activities. Speaking specifically of the mining district in which the two mines would be located, Chaffee and Berry (2006) reported that plant anomalies for Arsenic, Antimony, and (or) Tungsten extended as far as about 15 kilometers [9.9 miles] eastwards from the present mining areas and soil anomalies for Mercury were found at least 6 kilometers [3.7 miles] from old tailing piles.

In addition, two ill and dying tortoises found on the lower and southern slopes of the Rand Mountains north of Atolia were salvaged and necropsied (Berry et al. 2024). The tortoises had the highest outlying keratin values for Aluminum and Arsenic of any tortoise salvaged because of illness and near death within the State. Further, they had measurable levels of Cadmium Chromium, Mercury, Manganese, Molybdenum and Vanadium. The tortoise with high levels of Arsenic was salvaged from an active gold mine. Remember, tortoises live on and in the ground, breath in particles on the ground and in burrows, and their scute tissues and scales touch the soils. They are breathing in contaminants where they occur.

Besides the above-mentioned indirect impacts from the proposed project, there are other indirect impacts to the tortoise and tortoise habitat that occur because of surface disturbance and should have been described and analyzed in the CEQA document. These include human activities that result in the destruction, degradation and/or fragmentation of tortoise habitat; surface disturbance and introduction of non-native invasive plant species via construction equipment, vehicles, and other sources; replacement of native forbs with high nutritional and water value with low nutritional non-native invasive grasses (Drake et al. 2016); increased occurrence of fire size, intensive, and frequency of human-caused wildfires from fuels provided by non-native invasive plant species (Brooks and Esque 2002); increased predation from substantially increased numbers of predators that utilize subsidies of food, water, and nesting locations (Boarman 2003); and increased human access that provides opportunities for vandalism and collecting tortoises for pets (Lovich and Bainbridge 1999), and other impacts from the presence and use of roads (von Seckendorff Hoff and Marlow 2002, Peaden et al. 2017).

The primary reason for the substantial decline in the abundance and density of tortoise populations that has resulted in most populations with a density below the population viability threshold and low survival of juvenile tortoises is from (1) increased mortality caused by indirect impacts from human activities that are not analyzed in CEQA and National Environmental Policy Act (NEPA) environmental documents, and failure to require project proponents to implement effective mitigation to fully offset the indirect impacts.

Given the above information, we assume that the surveyors did not consult BLM, USFWS, or CDFW to determine using the best available scientific information what an adequate action area should have been for this project. Assuming that the BLM will require a Final DEA for this project, we recommend that the biological consultant coordinate a realistic action area with the BLM, USFWS, and CDFW and resurvey the entire action area, including the 125-acre mine sites, since it has been more than a year since tortoise surveys were initially performed.

We received an email from an anonymous source on August 14, 2025, that a Class 1 tortoise burrow was found between the two sites in the fall of 2021, in the same area as described for the reproductive male MGS reported on page 5, above. The “Class 1” designation means that the burrow was active and unambiguously assigned to a desert tortoise (i.e., Class 4 and 5 burrows may be occupied by tortoises but are not necessarily evidence they are present). This indicates that tortoises definitely occurred within several hundred feet of the site – and by extension given a tortoise’s mobility, likely on the site – within several years of the ELMT survey.

Given this information, we recommend that a neutral, third-party surveyor who is qualified and approved by the USFWS (2009) and CDFW perform these new surveys. We note in a recent 2021 survey near Twentynine Palms that the Proponent’s consultant failed to find tortoises on a site where both a hatchling tortoise and numerous other signs had been found on a portion of that same site 11 months earlier, erroneously concluding that tortoises were absent. The DTC’s 2023 comment letter providing specific details are footnoted below⁴.

Until adequate surveys are performed by experienced surveyors and within an action area determined using the extent of indirect impacts from the proposed action, we believe the IS/MND is premature and erroneous in concluding that no significant impacts will adversely affect the desert tortoise. We strongly recommend that the County revise its analysis of the indirect impacts to the tortoise in the Fremont-Kramer Tortoise Conservation Area (TCA) and the Western Mojave Recovery Unit using the currently available information on the demographic status and trend of the tortoise. We have attached “Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit” as an appendix to this letter to provide you with data on the population viability of the tortoise in Fremont-Kramer TCA where the proposed project would be located, the Western Mojave Recovery Unit, and rangewide for the tortoise. These data demonstrate that any additional impact to the tortoise or its habitat would have a significant impact on the survival of desert tortoises. The recent uplisting for the tortoise from Threatened to Endangered by the Commission as a result of the status review conducted by CDFW (2024a) provides supporting data that should be used in the analysis of the impacts of the proposed project on the tortoise.

With regards to mitigation measures listed on pages 32 and 33, we read for LUPA-BIO-2, “Required ~~pre-clearance~~ surveys and continued monitoring would take place during stated phases of the Project by a BLM- **and CDFW**-approved biologist per the monitoring plan provided by GDG [Gold Discovery Group] in the Plan of Operations. ~~Further mitigation would not be necessary in addition to the monitoring plan.~~ The project would comply with the CMA [Conservation Management Action]. Conducting preclearance surveys and monitoring during the Project would avoid impacts by identifying sensitive and protected species that require avoidance and minimization measures (individual measures are described in subsequent CMAs).” See the next paragraph for explanations of proposed revisions.

⁴ <https://www.dropbox.com/scl/fi/h8nmknaj3lqchw8micfp4/Wonder-Inn-Hotel-Resort.2-10-2023.pdf?rlkey=be2kd3l41ati0z89ihh3oav6y&dl=0>

Please note that “pre-clearance” as it regards surveys is not the technically correct term. Tortoise surveys include either “presence-absence surveys” (USFWS 2019) or “clearance surveys” (USFWS 2009). Whereas we assume that the term, “pre-clearance” surveys is a mistake and that “clearance” surveys are intended, it is important to use the correct term. Clearance surveys require that the impact area be surveyed twice along transects spaced at 5-meter intervals, constituting a single survey, and that at least two consecutive surveys be performed without finding any tortoises for the site to be considered devoid of tortoises. Note, also as given below, that if ANY tortoise sign is found during the clearance surveys, BLM consultation with both the USFWS and CDFW is required before ground disturbance may ensue. We note that the word, “clearance,” is used appropriately on page 49.

Since the desert tortoise is both federally- and State-listed and the MGS is State-listed, and because the County is serving as the CEQA Lead Agency, not only the BLM **but also USFWS and the CDFW** must approve Authorized Biologists and/or Biological Monitors before any ground disturbing activities occur (see bold addition given above). Furthermore, since the IS/MND is predicated on the assumption that no desert tortoises, MGS, or western burrowing owls occur on the site, if ANY evidence of these three species is identified by agency-approved biologists and/or monitors, all mining activity potentially harming any of these three species should cease and both the USFWS and CDFW should be contacted to see if ITP(s), including habitat compensation, and/or Section 7 consultation are needed or other unforeseen protection measures implemented before mining activities continue. For this reason, the following sentence should be struck from the prescription or modified to reflect current management: ~~“Further mitigation would not be necessary in addition to the monitoring plan.”~~ Note, too, that this requirement pertains to pre-mining activities, operations, and decommissioning, and habitat restoration, essentially for the life of the project.

As given on page 34, we appreciate that LUPA-BIO-5 will require a worker education awareness program (WEAP) that is to be administered to all project-related personnel. It is essential that the WEAP clearly inform all workers that observations of any tortoises, MGS, or burrowing owls are reported directly to the Authorized Biologist who will then be obligated to contact the BLM, USFWS, and CDFW.

With regards to LUPA-BIO-7 on page 36, we are pleased to provide the following resources to help accomplish successful arid lands restoration if the proposed mines are developed: Abella and Berry 2016 and Abella et al. 2023 (see the Literature Cited section for links to these and other cited documents).

With regards to LUPA-BIO-IFS-4 on page 49 concerning surveys, we read, “Exemption from desert tortoise protocol survey requirements can be obtained from BLM, in coordination with USFWS, and CDFW as applicable, on a case-by-case basis if a designated biologist determines the activity site does not contain the elements of desert tortoise habitat, is unviable for occupancy, or if baseline studies inferred absence during the current or previous active season.” Given the information in the IS/MND, consultant’s report (ELMT Consulting 2024), and the knowledge that given their mobility, tortoises are known to occur in even the most barren portions of mining sites, in tailing piles, and habitats otherwise “unviable for occupancy,” we believe that this exemption should be removed from the plan of operations, BLM stipulations, and any other documents regulating mining activity. Again, there is no scientific foundation provided for this statement, which is not based on facts.

With regards to LUPA-BIO-IFS-4 on page 49 concerning fences, we recommend that the following paragraph be removed: “After an area is fenced, and until desert tortoises are removed, the designated biologist is responsible for ensuring that desert tortoises are not being exposed to extreme temperatures or predators as a result of their pacing the fence. Remedies may include the use of shelter sites placed along the fence, immediate translocation, removal to a secure holding area, or other means determined by the BLM, USFWS, and CDFW, as applicable.” None of this information is pertinent for a project that is not agency-authorized for take of tortoises and MGS, including removing, handling, or translocating either species. These activities cannot be conducted lawfully without first obtaining an ITP from CDFW and a biological opinion from USFWS because the project located on BLM land requires authorization by BLM.

Consistent with other recommendations given herein, on page 50, the following prescription needs to be modified as take is not authorized for this project: “LUPA-BIO-IFS-5: Following the clearance surveys within sites that are fenced with long-term desert tortoise exclusion fencing, a designated biologist will monitor initial clearing and grading activities to ensure that desert tortoises missed during the initial clearance survey are ~~moved from harm’s way~~ **not harmed, that clearing and grading activities cease, and that the tortoise is reported to the BLM and CDFW for guidance before activities resume.**”

Similarly, the following statement needs to be removed from LUPA-BIO-IFS-8 on page 50, “If it [a tortoise] does not move within 15 minutes, a designated biologist may remove and relocate the animal to a safe location.” This activity would be unauthorized take of a listed species under CESA and FESA, and take is not authorized through CEQA documents.

Please require that the Authorized Biologist, BLM, and CDFW be contacted if any tortoises, MGS, and/or burrowing owls are observed at well sites, on mine access roads, or any other mine feature associated with the proposed project for the life of the project to see if these circumstances warrant an incidental take permit or revised biological opinion.

Since both the County and the BLM would be authorizing mine development, it is appropriate that the plan of operations, BLM’s stipulations, and any other pertinent regulatory documents clearly define whether a Section 10(a)(1)(B) ITP would be required due to County involvement or a Section 7 biological opinion would be required due to BLM’s involvement. As written, the IS/MND is not clear as to which federal authorization would be required. We assume that a State 2081 permit would be required for any impacts to tortoises, MGS, or burrowing owls.

With regards to LUPA-BIO-IFS-12, 13, and 14 on pages 51 and 52 concerning western burrowing owl, it is our understanding that until which time the California Fish and Game Commission accepts or rejects the petition to list the species, burrowing owl must be treated as if were already listed under CESA. This means that an ITP specific for western burrowing owl would need to be issued to the Proponent by CDFW before any mining activity that would adversely affect the burrowing owl may occur.

As we have stated herein, to our knowledge the Proponent has not followed current management regarding MGS, which requires either a Section 2081 ITP or protocol trapping that confirms MGS absence on the site. As such, most of the following measures given on page 52 are inappropriate: “LUPA-BIO-IFS-39: During the typical active Mohave ground squirrel season (February 1 through August 31), conduct clearance surveys throughout the site, immediately prior to initial ground disturbance in the areas depicted in Appendix D. In the cleared areas, perform monitoring

to determine if squirrels have entered cleared areas. Contain ground disturbance to within areas cleared of squirrels. Detected occurrences of Mohave ground squirrel will be flagged and avoided, with a minimum avoidance area of 50 feet, until the squirrels have moved out of harm's way. A designated biologist may also actively move squirrels out of harm's way."


The fatal flaws associated with this prescription are that neither the CDFW nor the BLM have developed an approved clearance survey for the MGS, nor can MGS burrows be identified. Unlike the desert tortoise where clearance surveys are well defined (USFWS 2009), no methods exist for conducting MGS clearance surveys. Leitner and LaRue (2014) have demonstrated that MGS burrows cannot be differentiated from other rodent burrows, so there is no way to perform burrow surveys to flag and avoid such burrows or designate a "minimum avoidance area of 50 feet." There have been authorized efforts to remove MGS from solar sites using Sherman live traps, when MGS are detected above ground during clearance surveys by an authorized biologist or during initial ground disturbance activities by the biological monitor, but such trapping may only occur after a Section 2081 ITP has been issued. So, this entire prescription should be removed from the plan of operations and any other regulatory documents.

For the same reasons, LUPA-BIO-IFS-41 on page 52 also needs to be removed.

We appreciate this opportunity to provide the above comments and trust they will help protect tortoises and MGS during any resulting authorized activities. Herein, we reiterate that the DTC, DTPC, and MGSCC want to be identified as Affected Interests for this and all other projects funded, authorized, or carried out by the County or BLM that may affect desert tortoises and/or Mohave ground squirrels, respectively, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we request that you notify the DTC (eac@deserttortoise.org), DTPC (roger.dale@tortoise-tracks.org), and MGSCC (ed.larue@mgsconservation.org) of any future proposed projects that the County or BLM may authorize, fund, or carry out in the ranges of the desert tortoises and/or Mohave ground squirrel, respectively.

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

Mohave Ground Squirrel Conservation Council, Ecosystems Advisory Committee, Chairperson



Roger Dale

Desert Tortoise Preserve Committee, President

Attachment: Appendix A: Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit

cc. Philip DeSenze, Field Manager, Ridgecrest Field Office, Bureau of Land Management, BLM_CA_Web_RI@blm.gov

Tom Bickaaskas, Associate Field Manager, Ridgecrest Field Office, Bureau of Land Management, tbickaaskas@blm.gov

Dana Stephenson, Assistant Field Manager, Ridgecrest Field Office, Bureau of Land Management, dstephenson@blm.gov

Brandon Anderson, Acting District Manager, California Desert District Office, Bureau of Land Management, BLM_CA_Web_CD@blm.gov

Craig Murphy, Director, Kern County Planning and Natural Resources, murphyc@co.kern.ca.us

Ann McPherson, Environmental Review, U.S. Environmental Protection Agency, mcperson.ann@epa.gov

Brian Croft, Assistant Field Supervisor, Palm Springs Fish and Wildlife Office, U.S. Fish and Wildlife Office, brian_croft@fws.gov

Julie Vance, Regional Manager, Region 4 – Central Region, California Department of Fish and Wildlife, Fresno, CA, Julie.Vance@wildlife.ca.gov

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Appendix A

Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit

Status of the Population of the Mojave Desert Tortoise: The Council provides the following information for resource and land management agencies so that these data may be included and analyzed in their project and land management documents and aid them in making management decisions that affect the Mojave desert tortoise (tortoise).

There are 17 populations of Mojave desert tortoise described below that occur in Critical Habitat Units (CHUs) and Tortoise Conservation Areas (TCAs); 14 are on lands managed by the BLM; 8 of these are in the California Desert Conservation Area (CDCA).

As the primary land management entity in the range of the Mojave desert tortoise, the Bureau of Land Management's (BLM's) implementation of a conservation strategy for the Mojave desert tortoise in the CDCA through implementation of its Resource Management Plan and Amendments through 2014 has resulted in the following changes in the status for the tortoise throughout its range and in California from 2004 to 2014 (**Table 1, Table 2**; USFWS 2015, Allison and McLuckie 2018). The Council believes these data show that BLM and others have failed to implement an effective conservation strategy for the Mojave desert tortoise as described in the recovery plan (both USFWS 1994a and 2011), and have contributed to tortoise declines in density and abundance between 2004 to 2014 (**Table 1, Table 2**; USFWS 2015, Allison and McLuckie 2018) with declines or no improvement in population density from 2015 to 2024 (**Table 3**; USFWS 2016, 2018, 2019, 2020, 2022a, 2022b, 2025).

Important points from these tables include the following:

Change in Status for the Mojave Desert Tortoise Range-wide

- Ten of 17 populations of the Mojave desert tortoise declined from 2004 to 2014.
- Eleven of 17 populations of the Mojave desert tortoise are below the population viability threshold. These 11 populations represent 89.7 percent of the range-wide habitat in CHUs/TCAs.

Change in Status for the Western Mojave Recovery Unit – California

- This recovery unit had a 51 percent decline in tortoise density from 2004 to 2014.
- Tortoise populations in all three TCAs in this recovery unit have densities that are below viability.

Change in Status for the Superior-Cronese Tortoise Population in the Western Mojave Recovery Unit.

- The population in this recovery unit experienced declines in densities of 61 percent from 2004 to 2014. In addition, there was a 51 percent decline in tortoise abundance.
- This population has densities less than needed for population viability (USFWS 1994a).

Table 1. Summary of 10-year trend data for the 5 Recovery Units and 17 CHUs/TCAs for Mojave desert tortoise. The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km² and standard errors = SE), and the percent change in population density between 2004 and 2014. Populations below the viable level of 3.9 breeding individuals/km² (10 breeding individuals per mi²) (assumes a 1:1 sex ratio) or showing a decline from 2004 to 2014 are in red.

Recovery Unit: Designated Critical Habitat Unit¹/Tortoise Conservation Area	Surveyed area (km²)	% of total habitat area in Recovery Unit & CHU/TCA	2014 density/km² (SE)	% 10-year change (2004–2014)
Western Mojave, CA	6,294	24.51	2.8 (1.0)	-50.7 decline
Fremont-Kramer	2,347	9.14	2.6 (1.0)	-50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	-56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	-61.5 decline
Colorado Desert, CA	11,663	45.42	4.0 (1.4)	-36.25 decline
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	-29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	-37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	-64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	-52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	-60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
Northeastern Mojave	4,160	16.2	4.5 (1.9)	+325.62 increase
Beaver Dam Slope, NV, UT, AZ	750	2.92	6.2 (2.4)	+370.33 increase
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
Eastern Mojave, NV & CA	3,446	13.42	1.9 (0.7)	-67.26 decline
El Dorado Valley, NV	999	3.89	1.5 (0.6)	-61.14 decline
Ivanpah Valley, CA	2,447	9.53	2.3 (0.9)	-56.05 decline
Upper Virgin River	115	0.45	15.3 (6.0)	-26.57 decline
Red Cliffs Desert	115	0.45	15.3 (6.0)	-26.57 decline
Range-wide Area of CHUs - TCAs/Range-wide Change in Population Status	25,678	100.00		-32.18 decline

¹ U.S. Fish and Wildlife Service. 1994b. Endangered and threatened wildlife and plants; determination of critical habitat for the Mojave population of the desert tortoise. Federal Register 55(26):5820-5866. Washington, D.C.

Table 2. Estimated change in abundance of adult Mojave desert tortoises in each recovery unit between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.

Recovery Unit	Modeled Habitat (km²)	2004 Abundance	2014 Abundance	Change in Abundance	Percent Change in Abundance
Western Mojave	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
Total	68,501	336,393	212,343	-124,050	-37%

Table 3. Summary of data for Agassiz’s desert tortoise, *Gopherus agassizii* (=Mojave desert tortoise) from 2004 to 2024 for the 5 Recovery Units and 17 Critical Habitat Units (CHUs)/Tortoise Conservation Areas (TCAs). The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km² and standard errors = SE), and percent change in population density between 2004-2014 (USFWS 2015). Populations below the viable level of 3.9 breeding individuals/km² (10 breeding individuals per mi²) (assumes a 1:1 sex ratio) (USFWS 1994a, 2015) or showing a decline from 2004 to 2014 are in **red**.

Recovery Unit: Designated CHU/TCA &	% of total habitat area in Recovery Unit & CHU/TCA	2004 density/ km ²	2014 density/ km ² (SE)	% 10-year change (2004– 2014)	2015 density/ km ²	2016 density/ km ²	2017 density/ km ²	2018 density/ km ²	2019 density/ km ²	2020 density/ km ²	2021 density/ km ²	2024 density/ km ²
Western Mojave, CA	24.51		2.8 (1.0)	–50.7 decline								
Fremont-Kramer	9.14		2.6 (1.0)	–50.6 decline	4.5	No data	4.1	No data	2.7	1.7	No data	1.8
Ord-Rodman	3.32		3.6 (1.4)	–56.5 decline	No data	No data	3.9	2.5/3.4*	2.1/2.5*	No data	1.9/2.5*	2.7
Superior-Cronese	12.05		2.4 (0.9)	–61.5 decline	2.6	3.6	1.7	No data	1.9	No data	No data	No data
Colorado Desert, CA	45.42		4.0 (1.4)	–36.25 decline								
Chocolate Mtn AGR, CA	2.78		7.2 (2.8)	–29.77 decline	10.3	8.5	9.4	7.6	7.0	7.1	3.9	7.4
Chuckwalla, CA	10.97		3.3 (1.3)	–37.43 decline	No data	No data	4.3	No data	1.8	4.6	2.6	No data
Chemehuevi, CA	14.65		2.8 (1.1)	–64.70 decline	No data	1.7	No data	2.9	No data	4.0	No data	No data
Fenner, CA	6.94		4.8 (1.9)	–52.86 decline	No data	5.5	No data	6.0	2.8	No data	5.3	No data
Joshua Tree, CA	4.49		3.7 (1.5)	+178.62 increase	No data	2.6	3.6	No data	3.1	3.9	No data	No data
Pinto Mtn, CA	1.98		2.4 (1.0)	–60.30 decline	No data	2.1	2.3	No data	1.7	2.9	No data	No data
Piute Valley, NV	3.61		5.3 (2.1)	+162.36 increase	No data	4.0	5.9	No data	No data	No data	3.9	4.0

Northeastern Mojave AZ, NV, & UT	16.2		4.5 (1.9)	+325.62 increase								
Beaver Dam Slope, NV, UT, & AZ	2.92		6.2 (2.4)	+370.33 increase	No data	5.6	1.3	5.1	2.0	No data	No data	1.7
Coyote Spring, NV	3.74		4.0 (1.6)	+ 265.06 increase	No data	4.2	No data	No data	3.2	No data	No data	2.7
Gold Butte, NV & AZ	6.26		2.7 (1.0)	+ 384.37 increase	No data	No data	1.9	2.3	No data	No data	2.4	No data
Mormon Mesa, NV	3.29		6.4 (2.5)	+ 217.80 increase	No data	2.1	No data	3.6	No data	5.2	5.2	No data
Eastern Mojave, NV & CA	13.42		1.9 (0.7)	-67.26 decline								
El Dorado Valley, NV	3.89		1.5 (0.6)	-61.14 decline	No data	2.7	5.6	No data	2.3	No data	No data	
Ivanpah Valley, CA	9.53		2.3 (0.9)	-56.05 decline	1.9	No data	No data	3.7	2.6	No data	1.8	
Upper Virgin River, UT & AZ	0.45		15.3 (6.0)	-26.57 decline								
Red Cliffs Desert**	0.45	29.1 (21.4-39.6)**	15.3 (6.0)	-26.57 decline	15.0	No data	19.1	No data	17.2	No data	No data	17.5†
Rangewide Area of CHUs - TCAs/Rangewide Change in Population Status	100.00			-32.18 decline								

*This density includes the adult tortoises translocated from the expansion of the MCAGCC, that is resident adult tortoises and translocated adult tortoises.

**Methodology for collecting density data initiated in 1999.

†Results from 2023

Change in Status for the Mojave Desert Tortoise in California

- Eight of 10 populations of the Mojave desert tortoise in California declined from 29 to 64 percent from 2004 to 2014 with implementation of tortoise conservation measures in the Bureau of Land Management's Northern and Eastern Colorado Desert (NECO), Northern and Eastern Mojave Desert (NEMO), and Western Mojave Desert (WEMO) Plans.
- Eight of 10 populations of the Mojave desert tortoise in California are below the viability threshold for density. These eight populations represent 87.45 percent of the habitat in California that is in CHU/TCAs.
- The two viable populations of the Mojave desert tortoise in California are declining. If their rates of decline from 2004 to 2014 continue, these two populations will no longer be viable by about 2030.

Change in Status for the Mojave Desert Tortoise on BLM Land in California

- Eight of eight populations of Mojave desert tortoise on lands managed by the BLM in California declined from 2004 to 2014.
- Seven of eight populations of Mojave desert tortoise on lands managed by the BLM in California are no longer viable.

Change in Status for Mojave Desert Tortoise Populations in California that Are Moving toward Meeting Recovery Criteria

- The only population of Mojave desert tortoise in California that did not decline is on land managed by the National Park Service, which increased 178 percent from 2004 to 2014.

Important points to note from the data from 2015 to 2024 in Table 3 are:

Change in Status for the Mojave Desert Tortoise in the Western Mojave Recovery Unit:

- The density of tortoises continues to decline in the Western Mojave Recovery Unit
- The density of tortoises from 2015 to 2024 continues to fall below the density needed for population viability.

Change in Status for the Mojave Desert Tortoise in the Colorado Desert Recovery Unit:

- Many of the populations in this recovery unit have densities that are barely above the threshold for population viability.

Change in Status for the Mojave Desert Tortoise in the Northeastern Mojave Recovery Unit:

- Two of the three population with densities greater than needed for population viability declined to level below the minimum viability threshold.
- Three of the four populations in this recovery unit have densities below the minimum density needed for population viability.

Change in Status for the Mojave Desert Tortoise in the Eastern Mojave Recovery Unit:

- Both populations in this recovery unit have densities below the minimum density needed for population viability.

Change in Status for the Mojave Desert Tortoise in the Upper Virgin River Recovery Unit:

- The one population in this recovery unit is small and appears to have stable densities after declining for several years.

The Endangered Mojave Desert Tortoise: The Council believes that the Mojave desert tortoise meets the definition of an endangered species. In the FESA, Congress defined an “endangered species” as “any species which is in danger of extinction throughout all or a significant portion of its range...” In the California Endangered Species Act (CESA), the California legislature defined an “endangered species” as a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant, which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes (California Fish and Game Code § 2062). Because most of the populations of the Mojave desert tortoise were non-viable in 2014, most are declining, and the threats to the Mojave desert tortoise are numerous and have not been substantially reduced throughout the species’ range, the Council believes the Mojave desert tortoise should be designated as an endangered species by the USFWS and California Fish and Game Commission. Despite claims by USFWS (Averill-Murray and Field 2023) that a large number of individuals of a listed species and an increasing population trend in part of the range of the species prohibits it from meeting the definitions of endangered, we are reminded that the tenants of conservation biology include numerous factors when determining population viability. The number of individuals present is one of a myriad of factors (e.g., species distribution and density, survival strategy, sex ratio, recruitment, genetics, threats including climate change, etc.) used to determine population viability. In addition, a review of all the available data does not show an increasing population trend (please see Tables 1 and 3).

Literature Cited in Appendix on Status and Trend of the Mojave Desert Tortoise

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