



**DESERT TORTOISE COUNCIL**

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**Via email only**

Date: February 28, 2024

Dr. David Housman

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Sent via email to: [david.c.housman.civ@mail.mil](mailto:david.c.housman.civ@mail.mil); [usarmy.jbsa.aec.nepa@mail.mil](mailto:usarmy.jbsa.aec.nepa@mail.mil)

Re: Scoping notice for translocation of desert tortoises from the Western Training Area, Fort Irwin

Dr. Housman,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public’s understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and 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.”

In a series of emails between 2/16/2024 when we learned from a third party that the Army was soliciting scoping comments on the translocation of desert tortoises from the Western Training Area (WTA), Fort Irwin (Project) with a deadline of 2/20/2024; to our request on that same date asking for an extension to 3/1/2024 to allow the Council to make scoping comments; to the Army’s response on 2/21/2024: “It was an inadvertent oversight not sending the Desert Tortoise Council a scoping letter for the upcoming Environmental Assessment (EA). To be clear, the EA has not

been completed nor gone out for public review; we have only sent scoping letters. When the EA is released for public comment that will afford the Desert Tortoise Council an opportunity to offer comment on the proposed action;” and your final response on 2/22/2024, “Although the scoping comment period has closed, if you have comments beyond the two documents you provided, send them and the comments will be given consideration.” So, we very much appreciate your willingness to allow us to provide new scoping comments that will not reiterate the earlier comments we provided on 9/8/2020 and 7/6/2021, in which we requested Affected Interest status.

Our only basis for comments is derived from a form letter the Army issued to Defenders of Wildlife and presumably other Affected Interests, dated 1/18/2024, which was shared with the Council on 2/20/2024, which was the official closing date for scoping comments; hence our request for an extension. We note that your letter, which was in a hard copy-only format for Military Training and Public Land Withdrawal Extension, references a Final Legislative Environmental Impact Statement (LEIS) dated 2023, a 2014 U.S. Fish and Wildlife Service (USFWS) Biological Opinion, and a 2021 Biological Opinion. We expect that the Army’s environmental document will include documentation of these discussions with USFWS, including their approval of the final translocation plan.

In addition, we expect that, if not already, the Army will provide a website and links to these three referenced documents, among others, to ensure that the latest, current best management practices are being implemented for this significant translocation project. We were unable to find ready access to any of these documents, and particularly the 2023 LEIS. We are concerned that the size and location of this translocation warrants an EIS, not a draft environmental assessment (DEA). We expect that the environmental document will include documentation of these discussions with USFWS and CDFW, including how their input on the final translocation plan was incorporated.

Given the location of the impact area entirely within designated critical habitat, the significant persisting declines of tortoises within critical habitats in the West Mojave (Allison and McLuckie, 2018, USFWS 2022a, 2022b), the certainty that translocated tortoises will be affecting tortoise populations outside the WTA, etc., it is our assertion that a supplemental EIS (SEIS), not an EA, is the appropriate National Environmental Policy Act (NEPA) document for this level of translocation. We note that the Marine Corps released a SEIS – not an EA – for their final translocation plan in 2016<sup>1</sup>, therein setting a standard that we believe the Army should follow.

We are concerned that the size and location of this translocation along with the history of successful implementation warrants an EIS. We assume that the Army will comply with the implementing regulations for the NEPA in making its determination whether the proposed translocation for the tortoise would result in a significant effect on the quality of the human environment and require the Army to prepare an EIS.

Significantly, as defined in 40 Code of Federal Regulations (CFR) 1508.27 requires considerations of both context and intensity. For context, the Council believes that analysis at the local and regional scales will show that any additional action that results in adverse impacts to the tortoise at the population and recovery unit levels would be significant because of ongoing substantial declines in density, numbers, and lack of recruitment of tortoises. For example, the density of adult

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<sup>1</sup> [https://www.dropbox.com/scl/fi/hc45osotb7qx333fh43f4/U.S.-Army-translocation-Marine-Corps-Final-SEIS\\_Appendices-Dec-2016.2016-Translocation-Plan.pdf?rlkey=ork7noil1pw6xok6bfnb9r3tl&dl=0](https://www.dropbox.com/scl/fi/hc45osotb7qx333fh43f4/U.S.-Army-translocation-Marine-Corps-Final-SEIS_Appendices-Dec-2016.2016-Translocation-Plan.pdf?rlkey=ork7noil1pw6xok6bfnb9r3tl&dl=0)

desert tortoises in the Superior-Cronese Tortoise Conservation Area (TCA) and Western Mojave Recovery Unit are below the density needed for a viable population (USFWS 1994, 2015, 2016, 2018, 2019, 2020a, 2022a, 2022b; Allison and McLuckie 2018). This minimum density of 3.9 adults per km<sup>2</sup> assumes an equal sex ratio of males to females. If the ratio is higher for males, the minimum viable density would be greater to achieve population viability (USFWS 1994). Although the translocation plan is an effort to mitigate the loss of tortoises from the Army's future training activities, the tortoise cannot afford to lose any more individuals from this TCA and recovery unit and survive.

Unfortunately, translocation efforts by the Army and recent solar energy projects have resulted in the loss of a high percentage of translocated tortoises. Mack and Berry (2023) analyzed the Army's translocation effort for the tortoise from the southern portions of Fort Irwin. They reported that mortality was high during the first 3 years at >50%. The cause was primarily from predation possibly facilitated from translocated tortoises not settling. Thereafter, mortality declined but remained high. Of the four translocation sites, survival was highest, 37.50% (15/40), on the plot closest to original home sites, although it was less than 50%. After 10 years the survival rate for translocated tortoises was 17.72%. Mack and Berry (2023) concluded the translocation study area appeared to be an ecological sink with historical and current anthropogenic uses contributing to habitat degradation and a decline in both the resident and released tortoises. Because >50% mortality occurred, Mack and Berry (2023) considered the translocation unsuccessful. Thus, this translocation effort was not effective mitigation.

Regarding intensity, this refers to the severity of impacts. Intensity includes the degree to which the action may adversely affect an endangered or threatened species, the degree to which the effects on the quality of the human environment are likely to be highly controversial, or whether the action is related to other actions which individually are insignificant but cumulatively are significant impacts. The Council believes that when the Army analyzes these considerations, the result will be one of significance. The myriad impacts to the tortoise that continue to impact this species (i.e., cumulative impacts) on both federal and non-federal lands continue to increase with resulting substantial declines in tortoise density, abundance, and recruitment.

In 2014, the tortoise density at the Superior-Cronese TCA was 2.4 adults per km<sup>2</sup> and in 2017 and 2019 densities were less than 2.0 adults per km<sup>2</sup>. This is well below the population viability threshold of 3.9 tortoises per km<sup>2</sup> (USFWS 1994). By 2014, abundance declined by 61.5 percent for this TCA, and 50.7 percent for the recovery unit. This decline continues. Allison and McLuckie (2018) reported that such steep declines in the density of adult tortoises are only sustainable if there are suitably large improvements in reproduction and juvenile growth and survival. However, the proportion of juveniles has not increased anywhere in the range of the Mojave desert tortoise since 2007 (Allison and McLuckie 2018).

The following description taken from the 1/18/2024 letter is the extent of information that is available to the public. We have inserted numbers (e.g., [1]) to correspond with the questions and concerns that follow, which we expect will be addressed in the DEA or SEIS. "The Proposed Action would be to implement the [1] Desert Tortoise Translocation Plan [DTTP] and would translocate desert tortoises that could be negatively affected by training activities in the WTA [Western Training Area]. The Proposed Action would implement [2] 100 percent [desert tortoise] clearance surveys in [3] suitable desert tortoise habitats (which includes southwest exposures,

loamy soils, adequate forage, and low predator densities) to detect tortoises in the WTA, translocate desert tortoises from the WTA to recipient sites, and monitor translocated tortoises. All [4] healthy desert tortoises detected during 100 percent clearance surveys would be translocated to the [5] WTA Translocation Site; sick and juvenile tortoises would be held temporarily in holding pens on Fort Irwin (or at a U.S. Fish and Wildlife Service approved headstart facility) prior to being translocated to the WTA Translocation Site.”

1. We ask that the DEA or SEIS provide sufficient detail to clearly document how the Army’s DTTP will follow the guidance provided in USFWS’s recent translocation documents (USFWS 2020, 2021) and how successes and failures of recent translocation efforts have informed the Army’s DTTP. Was the USFWS consulted in drafting the DTTP, or have they approved the final plan? We note the goal of the USFWS (2021) strategy is to use population augmentation to demonstrably help achieve recovery criteria in each of the five recovery units identified in the Recovery Plan (USFWS 2011), which in this case is the West Mojave Recovery Unit. This statement implies that the Army will know relative tortoise densities throughout the region in order to determine where depleted populations occur that need to be augmented, which we ask be documented in the DEA.

It also implies that the Army has data on the quality of the habitat especially information on the abundance and density of native forbs and invasive non-native annual plants. If an area is unable to support additional tortoises with forage of sufficient nutritional quality that result in growth and reproduction, the tortoise population would not be considered a depleted population.

In addition, the USFWS translocation guidance from 2020 may not contain the latest results of translocation studies including the ongoing study at the Marine Corps Air Ground Combat Center. Consequently, it is imperative that the Army coordinate closely with the USFWS (and perhaps directly with Dr. Brian Henen of the Marine Corps) in the design and implementation of the DTTP and include modifying the plan as new information on translocation becomes available. Of course, the Army’s translocation plan should include statistically robust monitoring and prompt implementation of adaptive management actions to ensure the greatest survival level for the tortoise at the translocation sites.

2. Both the tortoise translocation guidance (USFWS 2020) and Field Manual (USFWS 2009) describe clearance surveys as requiring 100% coverage of the project area; being conducted immediately prior to surface disturbance or following construction of desert tortoise-proof fences encompassing portions of the project area; consisting of at least two consecutive surveys of the site, the second walked in a perpendicular direction to the first; walking transects less than or equal to 15-ft (5-m) wide under typical conditions; reducing the widths of the transects accordingly in areas of dense vegetation or when conditions limit visibility of tortoises; and being conducted in April through May or September through October when desert tortoises are most active. Please be sure that the DEA or SEIS confirms the Army’s intended approach and commitment to implementing USFWS’s survey requirements.

The Council presumes that the Army’s goal is to find and relocate all tortoises regardless of size class in the WTA. To ensure that this occurs to the maximum extent practicable, the Council suggests conferring with the USFWS to see if using well-trained dogs to locate tortoises in addition to well-qualified tortoise biologists may be implemented. Dogs are particularly effective at locating smaller size classes of tortoises.

3. We are concerned that “suitable habitat” has been too loosely qualified as “southwest exposures, loamy soils, adequate forage, and low predator densities.” Several of our Board members conducted tortoise density estimate transects in the WTA between 1998 and 2000. Except for the surfaces associated with two of the three Superior Lake playas, ALL of the WTA is judged to be suitable tortoise habitat. Given the significance of the Proposed Action, on lands found entirely within the Superior-Cronese Critical Habitat Unit/TCA, it is essential that all lands to be surveyed are well delineated so that all tortoises may be detected and rescued. The exclusion of any lands must be supported by scientific justification for their exclusion. Again, the Council’s recommendation to use dogs under #2 above may be discussed with the USFWS.

4. Please be sure the DEA or SEIS describes how the Army intends to determine what comprises a “healthy” desert tortoise. We know from many years of studies that ELISA (enzyme-linked immunosorbent assays) tests may present false negative results, like seasonal considerations that may show negative results for tortoises with upper respiratory tract disease. As such, ill tortoises may be released into healthy populations, thereby further compromising this dramatically declined species. Please be sure the DEA or SEIS includes a detailed approach to determining the presence of diseased and mycoplasma-seropositive tortoises, and how those tortoises would be tested, isolated, and eventually translocated.

5. We are concerned that the statement “WTA Translocation Site,” which is singular, may imply that there is only one recipient site. Please be sure that the DEA or SEIS fully explains how many recipient sites are intended for the DTTP, where they are located, how they were chosen, what is known about the recipient tortoise population, etc. In speaking with Dr. Alice Karl (personal communication 2/25/2024), who helped design and implement the similarly extensive translocation efforts at 29 Palms Marine Corps Base, she indicated that recipient sites were studied for two to three years prior to translocating tortoises to those sites. They were chosen based on resident tortoise densities, resident tortoise health, habitat type, habitat quality, lack of anthropomorphic impacts, and isolation from human threats (e.g., not located near transmission lines to minimize raven predation, minimal dirt roads, etc.), among other considerations. Please be sure that the DEA or SEIS describes the selection process to identify recipient sites, tortoise population studies that have (or have not) been conducted, and the results of these efforts and studies.

Mack and Berry (2023) suggested parameters to consider for future translocation efforts based on the results of 10 years of data from the Fort Irwin translocation study:

- The season of release and whether a release is soft or hard may affect the extent of dispersal, survival, retention, and settlement of tortoises. A release prior to dormancy in early October could force construction of a burrow or shelter within 2–3 weeks and potential settlement before onset of cold temperatures. A soft release may result in higher survival.
- Translocation sites should be selected that enhance retention (i.e., suitable habitat with adequate native forage), reduce dispersal, and increase survival (i.e., minimal anthropogenic uses).
- In-depth evaluations of original home sites and comparisons with potential release areas should be conducted. In-depth evaluations include cover and diversity of native perennial shrubs, trees, bunch grasses, and biomass of annual plants by species. The proportion of annual biomass in nonnative species is crucial to the evaluation.

- Knowledge of the presence, distribution, and abundance of potential predators is essential to survival and long-term viability of translocated tortoises. Future planning for translocations would benefit from multi-year field evaluations of presence, abundance, and distribution of subsidized and other predators.
- Release sites highly fragmented by dirt and paved roads, routes, trails, campsites, and shooting areas are unlikely to support viable populations. Protection of selected release sites from vehicles, livestock, feral ungulates, and other related human activities, potentially by fencing or designation as a reserve (USFWS 1994).

We also assume that the DEA or SEIS will document tortoise density estimates recently performed within the WTA, in the last year or two. How many tortoises does the Army intend to translocate out of the WTA? What is the disease status of tortoises in the WTA based on recent health assessments, hopefully conducted within the last year?

We believe that the translocation plan implemented by the Marine Corps (2016) and the recommendations by Mack and Berry (2023) set the current standards for how the Army's translocation plan should be designed. Therein, they explain that the following extensive studies were performed at the recipient sites: Tortoise density studies, habitat analyses (including perennial and annual native vegetation and invasive non-native species), baseline disease status and behavior, predation, genetics analysis, and risk analysis in the recipient and control sites. Given the Army's intent to begin translocation in 2025, we expect that most, if not all, of these studies have already been performed, and ask that the results be documented in the DEA or SEIS. We expect that the environmental document will not be released until the previous studies and ongoing studies in 2024 are completed and documented in the NEPA document.

Importantly, when the Marine Corps impact area clearance surveys were performed, all adult and large subadult tortoises were fitted with transmitters and left in place until translocated. All juvenile tortoises too small to transmitter were moved to holding pens where they were isolated from other tortoises. No tortoises should be released until they are a minimum of 120 mm in length. Although the winter precipitation in 2022 and 2023 was above average, there is no guarantee that 2024 will be as wet. If drought conditions prevail in 2024, the Army should forego translocation in 2025, as drought conditions are known to seriously compromise the success of both clearance surveys (Dr. Karl personal communication, 2/26/2024) and mass translocations (Esque et al. 2010). The transmitters will allow the Army to find the tortoises when climate conditions are favorable for the tortoises to be safely translocated.

The translocation plan should include methods and their implementation to keep tortoise predations at low levels. Available information documents that 89 of 357 tortoises (25%) translocated from the Fort Irwin expansion area in the Alvord Mountains in 2005 died the first year, likely due to coyote predation (Esque et al. 2010), and that many more died in subsequent years (Mack and Berry 2023). By contrast, although coyote predation has been observed among translocated tortoises at the Marine Corps recipient sites since the first translocation in 2017, the annualized survival rate was 92.1% in 2023 and 88.2% in 2022 (Henen 2024), and not significantly different from resident and control tortoises since 2017.

We ask that there be a discussion in the DEA or SEIS as to the differences between the 2005 Fort Irwin translocation of 357 tortoises, which is judged by most as a failed attempt, to the 2017 translocation by the Marine Corps of more than 1,600 tortoises, which is judged to be successful, based on similar levels of mortalities in translocated, resident, and control tortoises. How has the Army's design of the proposed DTTP identified successes and failures of the Army and Marine Corps' translocation efforts, also taking into account the lessons learned from other efforts? For example, what is the pre-translocation predator monitoring program for the recipient sites, and the post translocation predator plan to prevent coyote predation observed at Fort Irwin in 2005 and badger predation at several sites, including the Marine Corps effort in one year.

We herein incorporate by reference the comment letter submitted by Defenders of Wildlife (2024) to the Army on 2/20/2024, which is provided in the footnote<sup>2</sup>. In their letter, they stated "The Army proposes to translocate desert tortoises from the 61,776-acre WTA..." requiring "...the translocation of approximately 1,100 adult and sub-adult desert tortoises off the site to adjacent lands owned by the Army and public lands managed by the BLM." Defenders (2024) further states, "Translocation would include mandatory monthly monitoring of approximately 660 individual desert tortoises which will continue for a period of five years," which must be a requirement in one of the Biological Opinions, as this information is not revealed in the Army's 1/18/2024 letter.

This statement implies that only translocated tortoises will be monitored. However in order to determine the success of the translocation effort, it is equally important that a portion of the resident tortoises on the recipient site(s) and tortoises on control site(s) where tortoises are not being translocated to are also monitored so that responses by translocated tortoise (e.g., mortalities, increased incidences of predation) can be compared to what is happening to the host and control populations of tortoises.

We note that the Marine Corps has committed to monitoring tortoises over the period of 30 years (Henen 2024), which is the guidance the USFWS recommends in their 2020 translocation guidance. We note that the Army has already committed to only five years of monitoring prior to and without benefit of public input, which seems predecisional. Hence, we question why the Army has not adopted a similar, 30-year time frame for monitoring? At the very least, we ask that independent reviewers, preferably knowledgeable scientists at a university or with the U.S. Geological Survey with firsthand knowledge of tortoise translocations review monitoring data collected during the first four years to see if the effort should be extended beyond the indicated five-year time period.

As given above, all recipient sites must be studied prior to tortoise translocation and the results of those studies documented in the DEA of SEIS. We question the Army's intent to place tortoises onto public lands administered by the BLM, with its mandated multiple-use requirements. Rather, we believe that it is prudent that the tortoises be translocated onto Army-owned lands that have historically supported medium to high tortoise densities (see BLM 2005, 2006) in an attempt to augment those populations and that can be fenced to preclude all human impacts from those lands, particularly cross country vehicle travel.

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<sup>2</sup> [https://www.dropbox.com/scl/fi/hb0kvjgzrkq52y37lq6zs/U.S.-Army\\_Desert-Tortoise-Translocation\\_Fort-Irwin-2\\_20\\_2024.Defenders.pdf?rlkey=4jxsbpqemtikx2bhlq9gq0wpm&dl=0](https://www.dropbox.com/scl/fi/hb0kvjgzrkq52y37lq6zs/U.S.-Army_Desert-Tortoise-Translocation_Fort-Irwin-2_20_2024.Defenders.pdf?rlkey=4jxsbpqemtikx2bhlq9gq0wpm&dl=0)

Our main reason for this recommendation is that the Army can likely install perimeter fences around its lands, which is not likely feasible on lands managed by the BLM. This recommendation is consistent with requirements of the CDFW in accepting and requiring higher level protection on mitigation banks, nearly all of which are encircled by three-strand wire, permeable perimeter fences.

Since the Mojave desert tortoise is also listed as a Threatened species under the California Endangered Species Act (CESA), please explain in the DEA or SEIS if the Army is required to secure incidental take permits from CDFW before any tortoises are handled, and if not, why not? Will the CDFW have an opportunity to see if the Proposed Action meets their “fully mitigate” standards, which would be better ascertained in a SEIS than in a DEA?

We appreciate this opportunity to provide the above scoping comments and the Army’s willingness to receive our comments after the published deadline. 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 Army that may affect desert tortoises, and that the draft NEPA document for this project is provided to us at the contact information listed above.

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

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