

DESERT TORTOISE COUNCIL

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Via email only

27 June 2018

Attention: Dr. Aaron Hebshi, Project Manager Naval Facilities Engineering Command Southwest 1220 Pacific Coast Highway San Diego, CA 92132 aaron.hebshi@navy.mil

RE: Environmental Analysis of the 2018-2022 Integrated Natural Resources Management Plan for the Marine Corps Air Ground Combat Center, Twentynine Palms, California

Dear Dr. Hebshi,

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.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Agassiz's desert tortoise (*Gopherus agassizii*) (synonymous with "Mojave desert tortoise"), our comments pertain to enhancing protection of this species during activities authorized by the U.S. Marine Corps (USMC) as they pertain to the current Integrated Natural Resources Management Plan (Draft INRMP) at the Marine Corps Air Ground Combat Center (MCAGCC) in Twentynine Palms, California.

As per the Notice of Preparation, the USMC encourages comments on this Proposed Action, along with supporting rationale that the responsible official should consider in reaching a decision. Comments will help USMC prepare an environmental assessment on the Proposed Action. The assessment will be used to determine whether to prepare an environmental impact statement (EIS) or a finding of no significant impact. Following this cover letter are our specific concerns that we expect will be addressed in the future Environmental Assessment (EA) or EIS.

In the attached table, the first section pertains to the "Draft Description of the Proposed Action and Alternatives for Implementation of the Integrated Natural Resources Management Plan 2018-2022" (DOPAA) followed by the second section pertaining to the actual "Integrated Natural Resource Management Plan, Fiscal Years 2018 through 2022" (herein referred to as "Draft INRMP," implying there will be a revised Final INRMP). Throughout the table, we reference the applicable page, section, figure, and table numbers followed by quotes from the text, a statement of our concern, and action items given in red font separated by a space from the stated concerns. So, importantly, the red-font items comprise our specific recommendations for information that should be included in the subsequent environmental document for the Draft INRMP.

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

Regards,

600 22RA

Edward L. LaRue, Jr., M.S.

Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

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	Comment Tracking Form						
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]	DOPAA: "]	Descri	ption of the Proposed Action and Alternatives for Implementation of the INRMP 2018-2022"		
1	1-4	1.4		1-1	We note on page 1-4 that USMC indicates that with regards to Land Use, there is no need to provide a detailed analysis in the EA "as there would be no effects, or only minimal effects, to these resource areas," which includes Land Use. However, please be aware in their recent Supplemental EIS, the Bureau of Land Management (BLM 2018) is justifying opening competitive recreational routes through the Ord-Rodman Critical Habitat Unit and promoting unrestricted vehicle use on two dry lakes located in tortoise critical habitats as follows. Taken from BLM (2018), page 2-114, item d, "Identify 'C' routes for competitive use, as a specific designation for routes so authorized outside of OHV Open Areas. The designation of 'C' routes requires an environmental analysis, appropriate consultations, and must be consistent with 'C' route requirements outlined in the Programmatic Agreement for protection of cultural resources. These routes provide OHV opportunities to partially offset activities impacted by the reduction in OHV Area acreage as a result of the Twenty Nine Palms Marine Corps Air Ground Combat Center (MCAGCC) Expansion, commonly known as the 29 Palms Marine Base [emphasis added]. In BLM (2018), see similar assertions on page 2-103, Item c. Given this new information, the Council feels that USMC should reconsider the statement on page 1-1 and include a Land Use element in their environmental document. We believe that the indirect off-site effects of increased OHV use in critical habitat attributed to the expansion project should be considered in the Draft EA.		
2	1-4	1.4			As given in the previous comment, please consider the following statement in BLM (2018, page 2-107, PA III): "This [preferred] alternative would specify a Johnson Valley race or speed-controlled route-connector loop between non-connecting portions of the remaining Johnson Valley OHV Recreational Area [through the Ord-Rodman Critical Habitat Unit] to provide a loop corridor that enhances organized vehicle riding opportunities within the Open Area, subject to		

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					additional consultations. This may require additional coordination with the Twenty-Nine Palms Marine Corps [emphasis added]." So, again, USMC's Draft EA should include the Land Use aspect as it affects public use on adjacent and distant BLM lands. The nature of the coordination between BLM and the USMC should be defined in the EA, and additional measures may need to be added to the Final INRMP.
3	1-4	1.4		1-1	"The following resource areas do not warrant detailed analysis in this EA as there would be no effects, or only minimal effects, to these resource areas from the proposed alternatives: Socioeconomic and Environmental Justice, Public Health and Safety, Visual Resources, Land Use, Transportation and Circulation, Air Quality, Noise, Airspace Management, and Cultural Resources. Table 1.1 briefly describes the basis for such exclusions." We note that many of the resource areas in the table do not describe the basis for exclusions from further analysis. Rather only a statement is provided that there would be no effect or minimal effect. Please provide information in the NEPA document that supports the conclusion of no effect or minimal effect for these resource areas.
4	1-5	1.4		2-1	Table 2-1 is a "Summary of Environmental Effects from the Proposed Action and No Action Alternatives." Although the no action alternative is the baseline for comparison, it is not presented first to serve as the baseline for comparison. We recommend that the no action alternative be presented first and followed by the proposed action (Alternative 1). The information presented in the table under the no action alternative does not describe what the current action is. It does not provide information that supports the table's title of summary of environmental effects. Instead, it would "continue to implement the current INRMP," which is uninformative. Please add information that summarizes what the actions are/have been implemented for the current INRMP for all

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					Resource Areas.
5	2-4	2.3		2-1	Under Biological Resources, the phrase, "training land management," should be clarified in the Final INRMP.
6	2-2	2.2			Alternative 1 would "Address management and monitoring requirements for Mojave desert tortoise and desert tortoise habitat, as outlined in the SEIS and BO." This sentence implies that the biological opinion has management and monitoring requirements for the tortoise and tortoise habitat. The purpose of a biological opinion is to minimize take, not to manage for desert tortoise and tortoise habitat. We suggest that you clarify this statement that refers to the biological opinion, explain that USMC's authority to manage MCAGCC for the tortoise and tortoise habitat is required under Section 7(a)(1) of the Endangered Species Act, and describe implementation of recovery actions identified in the recovery plan for the desert tortoise.
7	i, ii				Herein that Council states its support for the goals and initiatives identified in the Draft INRMP.
8	1-3	1.11			"Other pertinent laws and regulations applicable to natural resources management actions aboard the Combat Center are listed below in Table 1-1." We note that the Federal Water Pollution Control Act is included in the list but CERCLA, RCRA, and FIFRA are not included. The Department of Defense has a history of being a major polluter of the environment and this pollution in the past has adversely affected natural resources. We also note that the California Endangered Species Act is not mentioned. We suggest that the Final INRMP add these laws and regulations, or provide information as to why they are not applicable, including how pollution generated by the Combat Center is managed so that it is, or is not, affecting natural
9	1-8	1.4			resources. "The USFWS, Pacific Southwest region (Region 8), field office at Ventura, California, provides technical advice and regulatory guidance for the management endangered and threatened species aboard the Combat Center." The beginning of the Draft INRMP has a signatory page for USFWS Carlsbad, not USFWS Ventura.

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Comment #	Page Number	Section Number	Figure Number	Table Number	Comment and/or Reference
					We suggest that you update this information.
10	1-8 1-12	1.4.2 1.7			Although the "West Mojave Habitat Conservation Plan" (which more accurately should be "West Mojave Coordinated Management Plan") is cited on page 1-8, discussion of this plan is missing from the discussion on pages 1-12 and 1-13. Whereas the NEMO and NECO plans are summarized on pages 1-12 and 1-13, MCAGCC is physically encompassed within the WEMO planning area. We recommend that Section 1.7 of the Draft INRMP be modified to include discussion of the West Mojave Coordinated Management Plan (WEMO Plan), which is the most pertinent BLM management plan for the MCAGCC.
11	1-10 and 11	1.5			The Council supports the directive that the INRMP is "the primary vehicle to implement biodiversity protection" at the Combat Center, and that this "INRMP employs ecosystem management principles and an adaptive management framework to guide the Natural Resources Program" at the Combat Center.
12	1-11	1.6			"Environmental stewardship involves the management of natural resources in a way that protects and retains the intrinsic value of those resources to meet the needs of present and future generations. Environmental stewardship is critical for range sustainability because when properly implemented, it provides a means to meet ongoing training requirements through the sustainment of environmental quality over time. Several DoD instructions require an environmental stewardship ethic be incorporated into natural resources management plans" The Council supports the Combat Center incorporating environmental stewardship in this INRMP especially for the Mojave desert tortoise.
13	1-14	1.8.1			"The following drivers were identified for the Combat Center's Natural Resources Management Program: Maintain compliance with federal laws, such as the SAIA, ESA, Clean Water Act, and Clean Air Act, in such a fashion as to not impede mission activities" In the Final INRMP, please add applicable state laws such as the California Endangered Species Act.

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Comment #	Page Number	Section Number	Figure Number	Table Number	Comment and/or Reference
14	2-2	2-2			"The Combat Center has grown over time to reach the approximately 705,667 acres, or 1,102 square miles of land it encompasses today. Major acquisition and growth events are identified below: • Public Land Order (PLO) No. 985 withdrew 200 acres of public land for the Department of Navy to use as "an artillery and anti-aircraft weapons training area" (thought to be the area now occupied by Mainside)" This section does not provide a chronology of these land acquisition events and gives the impression that they all occurred since the last INRMP. In the Final INRMP, please provide dates next to these land acquisitions.
15	2-4, 2- 7			2-2	No Bessemer Mine Cleghorn Lake, Galway Lake, Means Lake (no acreage provided in narrative) found in Figure 2-2. In the Final INRMP, please provide these acreages.
16	2-8	2.5.2			"Sand Hill Training Area (16,786 acres) is off-limits to live-fire due to its proximity to Mainside and surrounding communities." The document describes the Sandhill Training Area but Figure 2-2 shows two Sandhill training areas, a Sandhill East and a Sandhill West. In the Final INRMP, please ensure that the narrative matches the figure. We suggest adding 'Sandhill Training Area (Sandhill East and Sandhill West) to the narrative on page 2-8.
17	2-8	2.5.2			"Tortoise densities in this area are predominately 21-50 animals per square mile. The Special Use Area is temporarily off-limits to some types of military operations, and off-road travel is not authorized." In the Final INRMP, please explain why this is not a permanent measure. Is this measure a voluntary commitment by the Combat Center or is it tied to past/ongoing military activities and mitigation measures?
18	2-8	2.5.2			"Tortoise densities in this area are predominately 21-50 animals per square mile." In the Final INRMP, please provide a citation for this and the same information given above.

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19	2-8 and 2- 9	2.5.2			"Restricted Areas - Restricted Areas are designated as no impact, no mechanized maneuvers, no bivouacs, no off-road vehicles, and no training involving vehicle activity. The Combat Center maintains approximately 3% of its training lands as a Restricted Area; a very small amount when compared to the overall size of the Combat Center." In the Final INRMP and Draft EA, please provide information on why restricted areas comprise only 3% of the Combat
20	2-9	2.5.2			Center's lands. "Environmentally Sensitive Areas - Environmentally Sensitive Areas do not have limitations to training, however military units are cautioned to be aware of sensitive natural and cultural resources. The CCO 5090.1D cautions that improper utilization may result in future environmental constraints." In the Final INRMP and Draft EA, please provide information on the acreages of these areas.
21	2-8 and 2- 9		2-2 and 2- 3		In the Draft INRMP, it is difficult to determine where various types of military use areas are in relation to Natural Resources Management Areas. Without this information, it is difficult to see the potential management conflicts and opportunities among these land uses which means it is difficult to determine whether the INRMP elements and tasks are adequate/appropriate or not. We suggest that the Final INRMP include a map that overlays the training areas with Natural Resources Management Areas and fixed ranges and this information be included in Chapter 3.
22	2-24	2.6.1			"Live-Fire and Maneuvers - Military training activities that employ live-fire and ground maneuvers represent the two major sources of natural resource disturbance at the Combat Center. These activities could injure or kill wildlife, disturb or damage soil structure and vegetation, and generate considerable dust" and "Potential effects of the military mission on wildlife include possible death or injury from direct contact with vehicles or munitions." This section describes some of the direct impacts to wildlife. In the Final INRMP and Draft EA, please include information on all indirect impacts to wildlife and their habitats such as

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					reduced cover leaving animals vulnerable to overheating and predation, etc.
23	2-25	2.6.2			"Benefits from the Military Mission" In the Final INRMP and Draft EA, we suggest that you add additional benefits that include no livestock grazing, recreational OHV activities, mining, energy development, and the enforcement of orders, policies, regulations, and laws by the military and expand on the benefits of no development by listing the associated direct and indirect impacts to wildlife from various types of human development.
24	2-25	2.7.1			"A pending Military Operations Area for the Giant Rock restricted airspace adjacent to the Combat Center to the west would result in increased use." This is a very general description. Please show the location of this Area on a map in the Final INRMP and indicate its size.
25	2-26 and 2- 28 Domes tic Waste water	2.8 and 2.8.2			"The Mainside cantonment area is built out to contain a full range of facilities, infrastructure and services that support an almost completely self-reliant human development, with industrial, utility, housing, and commercial elements. The roadway system and infrastructure are currently adequate for Mainside. Both utilities and roads have been expanded since the base's initial development. Utilities include distribution systems for non-potable water, potable water, sanitary sewer, sewer disposal, electricity, high temperature water, and natural gas." In Section 4 of the Final INRMP and in the Draft EA, please indicate how the functions of managing waste water and
26	2-27	2.8.1			utility poles are sufficient to prevent them subsidizing tortoise predators such as common ravens or coyotes. "Remnants of old jeep trails that are no longer used can be seen throughout the Combat Center." Depending on their locations, these old jeep trails should be restored to provide thermal cover and protection from predators, to limit the proliferation of non-native plants, and return native forage to wildlife. In the Final INRMP, please consider this as a management task that is implemented and funded in Appendix A.

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27	2-28	2.8.2			"Retention ponds contribute to biodiversity of wildlife species at the Combat Center (Section 29 3.3.1), and are heavily used by migratory birds." Please include in Section 4 and Appendix A of the Final INRMP the tasks that the Combat Center is implementing to successfully deter ravens from using these waters. If unknown, USMC should monitor the use of these surface waters by ravens as these birds will fly several miles from water sources to hunt wildlife including Mojave desert tortoises.
28	3-7 to 3-10	3.3.2			"Ground Water" Numerous ground water basins are described in the document but there is not map of their locations. In the Final INRMP, please include a map or figure in this section on ground water that shows where these basins are located. We wonder how recent and proposed groundwater withdrawals near the Combat Center (e.g., Cadiz, etc.) have affected or would affect availability of ground water for the future operations of the Combat Center. We suggest that you include information on this subject in the Draft EA and Final INRMP.
29	3-23 to 3-26	3.7.6			In the Final INRMP and Draft EA, please provide information on the population attributes of the desert tortoise at the Combat Center and expansion areas. Is there information on the size classes for tortoises so we can determine if reproduction/recruitment is occurring? Is there information on the trend of the population of tortoises at the Combat Center and southern expansion area? Are the populations increasing, decreasing, remaining stable? Were the results of the population surveys analyzed statistically? If so, what were the results?
30	3-23 3-24	3.7.6			We understand that studies by both Woodman (2001) and LaRue (2013), which are cited in this section but not included in Section 5.0., also performed disturbance analyses along the transects surveyed. Since both studies employed the same methodologies, there is an opportunity to see how military impacts have changed both in distribution and intensity during the intervening years. We ask that Section 3.7.6 be augmented in the Final INRMP to report the changes in military impacts that are documented in Woodman (2001) in the late 1990s and LaRue (2013) in 2011. These references, and any others that may be missing, should be added to Section 5.0 of the Final INRMP.

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31	3-24 to 3-26	3.7.6			Whereas there is an adequate documentation of tortoise abundance in MCAGCC expansion areas in this section, there is no documentation, whatsoever, on the subsequent translocation efforts within these areas. This information is available and recently made public at the Management Oversight Group in Las Vegas, NV on 6/14/2017 by Walter Christensen, who is listed in Section 6.0. Mr. Christensen indicated that 971 large tortoises and 150 small tortoises, for a total of 1,043 tortoises, were translocated. About 20% of the translocated tortoises were transmittered, or about 200. In total, 35 of 200 tortoises fitted with radios died; 15 translocated tortoises died compared to only 3 recipients; 8 tortoises died in the control populations. No tortoises < 160 mm died post translocation. We ask that Section 3.7.6 in the Final INRMP be modified to document and publish the specific information (like that provided by Mr. Christensen to the MOG on 6/14/2018) available on the short-term efficacy of the translocation effort from the expansion area. As given above, since these translocated tortoises were placed on public lands managed by the BLM, we believe that the legal status and authorized uses of these lands [e.g., U.S. Fish and Wildlife Service (USFWS)-designated critical habitat, BLM Areas of Critical Environmental Concern, etc.] be published in the Land Use section of the Draft EA that will be provided in the Final INRMP based on our request for additional information and analyses.
32	3-28	3.7.7			"MAGTFTC also cooperates with the regional, interagency Raven Project team led by USFWS Ventura Field Office." In the Final INRMP, please update this information to indicate the Palm Springs USFWS Field Office leads the Raven Project Team. Please continue to manage open water areas so they are not available for ravens, a predator of the Mojave tortoise and a species that prior to increased human habitation in the California desert with associated anthropogenic subsidies of water and food (Boarman et al.2006), was a non-resident of the California desert. From the 1920s to the 1970s, common ravens changed from a summer resident to a permanent resident (BLM 1990a).
33	3-28 and 3- 29	3.7.7			"The USFWS Migratory Bird Treaty Office (MBTO) - Region 8 in Sacramento has issued MAGTFTC MCAGCC a Special Purpose Permit. This permit allows the limited removal of nests of Mourning Dove (<i>Zenaida macroura</i>), Greater

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					Roadrunner (<i>Geococcyx californianus</i>), Common Raven, Mallard (<i>Anas platyrhynchos</i>), House Finch (<i>Carpodacus mexicanus</i>), Great Horned Owl (<i>Bubo virginianus</i>), and Barn Owl (<i>Tyto alba</i>), "when nests are built on or near tactical vehicles, pose a health or safety threat or the nests are in a location where birds are in danger."
					We request that MAGTFTC MCAGCC amend their permit to include removal of ravens and raven nests where there is evidence that ravens are preying on desert tortoises and suggest using non-lethal measure whenever possible. We also request that MAGTFTC MCAGCC implement non-lethal measures to prevent ravens from nesting and foraging in desert tortoise habitat within the boundary of the Combat Center and that these changes be analyzed in the Draft EA and added to the Final INRMP.
34	3-29	3.7.7			"A similar survey in 2010 by Boarman (2014) indicated the similar patterns of high Raven numbers near subsidies at Mainside, and high numbers near units training in some training areas."
					Same as Comment 33.
35	3-29	3.7.8			"The desert tortoise is the only federally-listed resident faunal species known to occur on the Combat Center." In the Final INRMP, please add that it is a state-listed threatened species under the California Endangered Species Act.
36	3-30			3-8	Only the Pacific Coast population of the western snowy plover is federally listed as threatened. This population does not occur at the Combat Center. In the Final INRMP, we suggest that you clarify the snowy plover's regulatory status and indicate that the plover at the Combat Center is not federally listed. Townsend's big-eared bat is no longer a candidate for state listing.
37	4-1	4.2			"Goal 1: Reduce Encroachment on the Military Mission - Activities performed under this goal guarantee that natural resources management efforts will ensure no net loss in the capability of installation lands to support existing and projected military training and operations."

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					We understand and appreciate the Combat Center's need to have this as its first goal. However, it means that areas where the military mission is not fully implemented to the potential detriment or decline of desert tortoise populations and habitats should be managed intensively and proactively to achieve population increases and improvement of habitat quality and quantity. We request that this be added to the Final INRMP as a goal with corresponding elements and objectives and be analyzed in the Draft EA.
38	4-2	4.2			We appreciate under "Disturbance Minimization" in Section 4.2 that USMC "will emphasize the use of already disturbed lands" for new Pre-designated Range Training Support Sites (PRTSS) and new range projects." Two bulleted items are then given, including maintaining and delineating road access and ensuring proper drainage. We see, too, that the USFWS is identified as an "External Stakeholder" on page 1-8 of the Draft INRMP. On page 4-2, we suggest that a third bullet be added to this section, such as: "USMC will require USFWS (2017) protocol surveys for all new PRTSS and range projects that may affect the desert tortoise, and using these data, select sites with the minimal impact to tortoises and their habitats. We believe this addition will help USMC achieve Goals 2 and 3 of its Goals and Management Initiatives given on page i in the Draft INRMP.
39	4-3	4.2			"Re-vegetation generally involves modifying the ground surface to decrease soil compaction and increases the amount of natural precipitation captured at the site. The greatest challenge to the success of revegetation projects is providing adequate supplemental water to ensure seedlings establishment." In the Final INRMP, please add that the goal of successful re-vegetation is establishment of native species of plants.
40	4-3	4.2			We appreciate that USMC understands creation of berms may create entrapment potential for juvenile desert tortoises, and recommend the following, additional measure to minimize impacts to tortoises. We recommend that the following wording (or similar) be added to the Final INRMP: "Insofar as possible, non-emergency road maintenance will occur when tortoises are relatively inactive, during non-rainy periods in July-August or during cold weather between November and January of a given year. Only heavy equipment operators who have

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					participated in a tortoise awareness program prior to beginning improvement activities will be authorized for this activity. If seasonal constraints are not possible, approved biological monitors should accompany the maintenance equipment."
41	4-4	4.2			"It is more cost effective to put use restrictions on areas to minimize disturbance than to mitigate damage." The Council agrees with this statement and management approach.
42	4-4	4.2			"The Pest Management Plan includes: Protecting native wildlife species." In the Final INRMP, please add following bold wording: "Protecting native wildlife species and their habitats."
43	4-4	4.2			Please note under Animal Control on page 4-4 of the Draft INRMP that it would be appropriate to add "Eurasian collared-dove" to the list of non-native species that are not protected by the Migratory Bird Treaty Act.
44	4-4 and 4- 5	4.2			"Animal Control" – "In the training areas, only feral or free-roaming dogs and Africanized honeybees are considered pests." "The spread of non-native fire ants (<i>Solenopsis invicta</i>) is also a major concern. Fire ants are slowly spreading northward from southern California. Their nests can be identified by mounds of excavated sand. The aggressive ants both bite and sting, leaving painful, infected pustules." In the Final INRMP and Draft EA, please add information that feral and free-roaming dogs are not allowed anywhere at the Combat Center and will be captured and given to animal control or animal control will capture them. Please add that the Combat Center is monitoring the abundance and spread of fire ants and implementing appropriate integrated pest management procedures to reduce their spread and numbers.
45	4-5	4.2			"A subsidy reduction program is maintained by the Combat Center to reduce the availability of sources for water, food, and shelter, but it is impossible for an installation of this size to completely eliminate these opportunities." We agree with this statement but believe that a subsidy reduction program should be monitored regularly and adaptive management implemented as new technologies or new problem areas for ravens and new technologies for their management are discovered based on raven monitoring. In the Final INRMP, please add that the Combat Center will implement this as an element. Implementing non-lethal measures would not require a migratory bird permit and would be

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					a supplement to obtaining the migratory bird permit.
46	4-7 and 4- 8	4.2			"Under Element 1.3 - Ensure NEPA Compliance aboard the Installation" the Draft INRMP mentions "completing NEPA analyses for several projects" and associated biological opinions. We request that these documents be available to the public on a Combat Center website and that future NEPA documents be provided to the Council as an interested party so we may provide comments on them.
47	4-9	4.2			"Coordination with outside interests provides a significant opportunity to share information, identify early issues and upcoming priorities, and ensure natural resources management strategies are appropriately crafted to best address issues of regional significance." Please consider the Council as an outside interest and include us whenever there is an opportunity to share, identify, and ensure appropriate resource protection, especially for Objective 2.1.1 - Develop management strategies and projects that provide local as well as regional benefits.
48	4-9	4.2			"2.2.1 – Use landscape level planning to alter limiting factors and promote priority endemic species; 2.2.2 – Manage for climate change by ensuring suitable habitat exists for species, including habitat connectivity across and beyond the base boundaries as appropriate, and is maintained under an altered climate regime." The Council supports these objectives.
49	4-10 and 4- 11	4.2			"Vegetation alliances will be monitored every 5 to 10 years to capture changes across natural communities. Vegetation monitoring will follow the installation's standardized protocol, which incorporates the state's VegCAMP mapping standards. Particularly invasive plants will be included in the mapping. Mapping will not provide the level of information needed to determine changes in habitat quality, especially regarding the nutritional needs of the Mojave desert tortoise. It is imperative that availability of native herbaceous annual and perennial vegetation be monitored and the density of nonnative species in addition to the spatial occurrence of non-native species. Please add this to this strategy in the Final INRMP. You may consider this more appropriate to add to Integrated Monitoring of Habitat.

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					"We will use existing thresholds (e.g., minimally viable densities, USFWS 2011)."
50	4-11	4.2			We strongly urge you to use the population viability information in the 1994 desert tortoise recovery plan as well (USFWS 1994).
51	4-11	4.2			In the section on Wildlife Management, there is no consideration of feral horses of burros should they occur at the Combat Center. The population sizes and ranges of these species are expanding, as BLM is not funded to manage them at their herd management levels. We suggest that the Final INRMP include measures that will be implemented if there is expansion of feral horses or burros onto the Combat Center, along with data on why this management is needed to protect the native vegetation and wildlife at the Combat Center. Or this could be discussed under Element 2.6 – Invasive Species beginning on page 4-15 in the Final INRMP.
52	4-12	4.2			"Negative data for target species (such as declines in abundance, changes/declines in behavior, etc.) will be used to justify development of management strategies." This sentence is not clear and makes no commitment for wildlife management. Does decline in abundance mean abundance in the number of species of the population size of each species? We suggest rewriting this sentence in the Final INRMP to clarify your intent and to document USMC's commitment to remedy pertinent declines. It should say, "Negative data for target species (such as declines in population size or numbers of populations, changes/declines in behavior, etc.) will be used to develop and implement management strategies." The reason for monitoring population size and recruitment is to determine as soon as possible that there is a decline. Appropriate management actions to reverse this trend, when implemented sooner, are more effective, usually cost less, and as you mention are key to preventing the addition of species to the list of threatened and endangered species at both the federal and state levels.
53	4-13	4.2			Desert Bighorn Sheep - To date a total of 8 drinker devices (guzzlers) are deployed on the landscape. While monitoring of use by wildlife is mentioned, there is no mention of whether these drinker devices are monitored to see if they are used by

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					or causing mortality of desert tortoises or other wildlife species.
					In the Final INRMP, please add this information and add a management task that these drinker devices will be monitored for use by tortoises and will be inventoried frequently (e.g., annually) for the remains of wildlife species including tortoises. If desert tortoises or other wildlife remains are found, the drinker devices will be modified and monitored as to their success in preventing mortality to ensure that they do not trap or drown tortoises or other wildlife. "MAGTFTC MCAGCC has installed four bat gates in three mines in recent years to allow bats access to roosts without
					disturbance from humans." We thank the Combat Center for doing this.
54	4-13	4.2			We would like the Final INRMP to include the number of adits, shafts, and pits that are not fenced and may serve as traps that unintentionally kill wildlife including desert tortoises. In the Final INRMP, please provide this information and a statement of the Combat Center's plan is to fence additional mine adits, shafts, and pits.
55	4-4, 4- 5, 4- 15, and 4-16	4.2			Pest Management and Animal Control actions and Element 2-6 should be integrated as much as possible and as a minimum cross referenced in the Final INRMP.
56	4-15 and 4- 16	4.2			Element 2.6 - Invasive Species Management. This section only discusses actions for invasive plants. There are, or in the future could be, additional invasive animal species that should also be managed to contain or prevent their occurrence at the Combat Center.
	10				In the Final INRMP and Draft EA, please add animals to this discussion, and provide examples (e.g., fire ants, etc.) and language that provides commitments of actions to monitor for, contain, and prevent their occurrence.
57	4-16	4.2			"The nonnative grass Mediterranean grass (<i>Schismus barbatus</i>) is pervasive across the Combat Center. The plant material burns well and when present, significantly increases the risk of wildfire. The pervasiveness of this species limits planning and control options."

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					In the Final INRMP, please state what the planning and control options are and where and when they will be used. As a minimum, they should be used in special use areas and natural resources management areas including areas managed for the tortoise and buffer areas. The Combat Center should test new methods for plant management such as use of directed energy/light waves to kill plants so there is no harm to other species or the environment. Invasive plant species management, especially for annual plants, is a pervasive problem for all military bases in the Southwest. Perhaps the Combat Center should form a team with other branches of the military to fund the testing of methods to control invasive plant species. This approach should be added to the Final INRMP.
58	4-20	4.2			We note on page 4-20 of the Draft INRMP that the biological opinions allow up to 150 acres of tortoise habitats to be impacted and up to 15 large tortoises per year, yet except for monitoring, the Draft INRMP fails to identify preconstruction surveys are requirements for new impact areas. We drafted a letter on 19 May 2016 for the Draft EA for ongoing training expressing our concern that USMC proposed to discontinue tortoise preconstruction surveys on the MCAGCC in areas where low tortoise densities were anticipated. Similar to Comment 58 given above, we believe the Draft INRMP should identify preconstruction surveys as being required for all new land disturbances, which is essential to determine if the maximum 150-acre habitat impact limit is being met or exceeded.
59	4-16	4.2			"Historically, fire is not common in Mojave Desert ecosystems but spread of nonnative grasses and increased soil disturbance has resulted in an increased incidence of wildfire events." In the Final INRMP, please change this sentence to read: "Historically, fire is not common in Mojave Desert ecosystems and most plants native to these ecosystems are not fire-adapted. Increased soil disturbance and the spread of nonnative grasses have resulted in increased fire frequency and fire size."
60	4-16	4.2			"Objective: 2.7.1 - Implement the Wildfire Management Plan for the Combat Center." We agree that development and implementation of this plan is necessary. However, there is no information on what is in the Plan so it is not possible to comment on the adequacy or effectiveness of the plan.

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					Please circulate the wildlife management plan for public review when it is available. We suggest that you add this action to the Final INRMP.
61	4-20 and 21	4.2	4-1		"Translocation – Areas identified as recipient areas for translocated tortoise (see Figure 4-1) should be protected from future human development and use in perpetuity. Translocation is a mitigation measures to minimize lethal take." However, if tortoise are placed in areas that can be impacted in the future from human use or development (directly or indirectly), the translocation mitigation accomplishes nothing for the long-term survival and recovery of the tortoise. The Combat Center should enter into agreements with the landowners of recipient areas to place permanent conservation easements on these properties and to fund their management as tortoise conservation areas. From the information provided in Figure 4-1, the landowners appear to be the USMC and BLM.
62	4-24	4.2			"Tortoise Mortality Minimization - Injury or death of desert tortoises can occur as a result of training activities." This discussion addresses only direct mortality from crushing tortoises. It does not address indirect mortality from human actions such as reduction of native nutritional forage because of surface disturbance that promotes the establishment of invasive annual plants or the tracking of these plants throughout the Combat Center by wheeled and tracked military and contractor vehicles or OHV activities other than for military training at the Combat Center, etc. Please add to the Final INRMP a description of all the indirect sources of mortality to the desert tortoise and the actions that will be implemented to reduce or eliminate them. Tortoise Mortality Minimization – This section does not address how the Combat Center is securing its new and existing borders from unauthorized human encroachment (e.g., OHV activity, mining, etc.) where there is tortoise habitat. Such encroachment (historically a problem on the Combat Center's south border with Twentynine Palms, Joshua Tree, and Yucca Valley) that results in habitat degradation of the tortoise and mortality from impacts with vehicles and equipment, collecting, and vandalism.

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					In the Final INRMP, please include a description of these unauthorized activities as sources of mortality for the tortoise and actions that the Combat Center will implement to reduce or eliminate these sources of mortality. We strongly urge the Combat Center to secure its borders with signed fencing that will keep people, vehicles, and equipment out of the Combat Center.
63	4-25	4.2			Although no portions of MCAGCC are within desert tortoise critical habitat, we understand that tortoises translocated off the western expansion area were placed in the Ord-Rodman Critical Habitat Unit. Given that USMC placed translocated tortoises into critical habitats, the Council asks that the critical habitat statement at the bottom of page 4-25 be expanded to indicate how many tortoises were translocated into critical habitat; how many resident tortoises received health assessments and radio transmitters; what the results of the translocation efforts into critical habitat have been so far; and what is being done to ensure the viability of these tortoises from human caused mortality.
64	4-25	4.2			We thank the Combat Center for its management activities to reduce predator subsidies and deter raven use around the installation. However, we believe the Combat Center can do more. The Final INRMP should identify efforts to reduce perch, roost, and nest sites on all utility poles. One way to mitigate for the regional and cumulative effects from raven subsidies and tortoise predation is for the USMC to contribute to the Raven Management Fund, which is managed by the National Fish and Wildlife Foundation for this purpose. We urge the Combat Center to include measures that will mitigate for these regional and cumulative effects and to include these measures in the Final INRMP.
65	4-26	4.2			Special Use Areas - (for desert tortoise) "These areas are being fenced and signed to prevent military vehicle transit into Special Use Areas." In the Final INRMP, please add that these areas (and Natural Resources Management Areas) will be fenced, signed, and

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					the fencing maintained to prevent unauthorized human access and use (e.g., incursions from adjacent BLM land).		
66	4-26	4.2			"Population augmentation strategies would be developed with USFWS and would be integrated with translocation and monitoring efforts to provide a comprehensive population sustainment and recovery strategy."		
					In the Final INRMP, please add CDFW to this sentence.		
67	4-29	4.2			"A Conservation Law Enforcement Officer (CLEO) is a Federal uniformed Conservation Law Enforcement Officer that conducts a wide range of complex law enforcement activities to enforce state and federal environmental laws and regulations."		
					In the Final INRMP, please clarify if a CLEO has the authority to arrest or detain a person suspected of violating law or regulation.		
10	4.00		4.2				"Ultimately, environmental awareness prevents damages to the natural resources base, and violations of environmental laws."
68	4-29	4.2			In the Final INRMP, please add the following bold wording to this sentence: "Ultimately, environmental awareness and enforcement of environmental regulations prevents damages to the natural resources base, and violations of environmental laws.		
69	4-32	4.3			We believe that the Natural Resources Management Program is inadequately staffed. Given the expansion of the Combat Center, the declines in the tortoise populations in the western Mojave Desert (USFWS 2015), and measures to be successfully implemented in this INRMP, the Combat Center should increase its staff by at least two above the recently lost GS 7/9/11 Natural Resources Specialist position, and the vacant GS 7/8/9 Biological Sciences Technician. If staff is asked to administer contracts, this increase in staffing level should be raised to three.		

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70		Throughout	document		We hope the following suggestions will help remedy some of the grammatical and spelling errors in the document: In the Final INRMP, the use of apostrophes when using plural nouns should be removed. The spelling of scientific names for some plant species is incorrect (e.g., Chilopsis, not Chiolpsis; tridentata, not tridentate; farinosa, not farinose, etc.). P. 4-27 "During the months of October through January, trimming without a nest-check is permitted as it will not to impact the nesting and breeding cycle." Suggest removing "to" from the Final INRMP.
71	A-4			A-1	"1.1.6-D. Ensure attendance at the Desert Tortoise Council's Handling Workshop is included in all NR individual development plans." In the Final INRMP, we suggest you change this wording to be broader as there may be other relevant workshops by the Council that you may want/need staff to participate. You may consider the following: "Ensure attendance at relevant Desert Tortoise Council workshops is included in all NR individual development plans."
72	A-4			A-1	"1.2.2-C. Identify and add road design elements to existing and planned roads to minimize erosion and facilitate safe passage of Desert Tortoise across the landscape." This should be funded and should be a minimization measure in a biological opinion. If it is not funded and is not discussed in the biological opinion, this means that any take associated with this situation currently or in the future is not covered under the biological opinion. We urge you to fund this task.
73	A-5			A-1	"1.2.3-A. Develop a uniform conservation marking system for signage to support requirements of military training." In the Final INRMP, please change this to say, "Develop and implement a uniform conservation marking system for signage and boundary delineation (e.g., fencing) to support requirements of military training."
74	A-5			A-1	"1.2.3-B. Identify sensitive areas where damage will trigger future encroachment." In the Final INRMP, please change this to say, "Identify and monitor sensitive areas where damage will trigger future

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					encroachment."
75	A-6			A-1	"2.1.1-D. Work with BLM to develop a cooperative resources management strategy for the SUA." Once this is developed, how will it be implemented and funded? If there is no funding or implementation commitment, there is no need to develop a strategy document that will be filed.
					We suggest that you add language in the Final INRMP that will commit USMC to implement/fund the strategy or remove it from the list of tasks.
76	A-8			A-1	"2.3.2-B. Collect baseline data at monitoring locations." In the Final INRMP, please add "Collect baseline data at monitoring locations and at control locations."
					"2.3.3-B. Install new guzzlers to support wildlife transit across the full extent of mountains on base, and monitor new guzzlers to confirm wildlife usage."
77	A-9			A-1	The Council emphasizes the importance of this task as there are accounts of tortoises becoming trapped or drowning in guzzlers. We want to ensure that existing and new guzzlers do not result in tortoise mortality either directly or indirectly. In addition, this is a FESA and CESA compliance issue.
78	A-9			A-1	"2.3.3-D. Evaluate mine entrances and caves in for wildlife activity to identify where the installation of bat gates may benefit existing bat populations." This task should be expanded in the Final INRMP to include desert tortoises and possibility of take, and that mine entrances included adits, shafts, tunnels, and pits.
79	A-9			A-1	"2.3.3-F. Maintain existing and install new fencing and signage in pre-identified areas to reduce encroachment and enforce management prescriptions."

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					This task should be expanded in the Final INRMP to include the Combat Center's boundary especially where tortoise habitat is present. The fence should impede human encroachment but allow the passage of desert tortoises onto and away from the Combat Center.
80	A-11			A-1	"2.4.4-B. Develop recommendations for any needed restoration efforts, at higher value locations, and include climate change considerations as applicable." In the Final INRMP, please add implementation language to this task so that higher value locations are funded to implement restoration of topography, soils, and vegetation.
81	A-11			A-1	"2.5.1-C. Annually monitor the use of natural and artificial water sources." This task includes guzzlers. As we mentioned in our comments above, in the Final INRMP, the Combat Center should add and fund a management task that these drinker devices will be monitored for use by desert tortoise and will be inventoried frequently (e.g., annually) for the remains of wildlife species including tortoises. If desert tortoises or other wildlife remains are found, the drinker devices will be modified and monitored as to their success in preventing future mortality to ensure that they do not trap or drown tortoises or other wildlife. Again this is a FESA and CESA compliance issue regarding incidental take.
82	A-13 to A- 15			A-1	Under Element 3.1 - Desert Tortoise Management: The Council believes the USMC should add an element and appropriate objectives and tasks in the Combat Center's Final INRMP that addresses the management of the Ord-Rodman Critical Habitat Unit. We note the following, "The [U.S. Fish and Wildlife] Service expects that proposed actions that are inconsistent with land management recommendations for DWMAs in the Draft Recovery Plan would likely be considered to adversely modify critical habitat constituent elements. Thus, livestock grazing and OHV activities would likely result in destruction or adverse modification of critical habitat, because such activities preclude the development of large, contiguous blocks of habitat (58 FR 45758 – USFWS critical habitat designation for the Mojave desert tortoise).

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					Because the expansion of the Combat Center may affect the Ord-Rodman Critical Habitat Unit and this was the second smallest unit in California and isolated from other critical habitat units by major highways and human development, it is important that the USMC facilitate recovery of tortoises in this adjacent critical habitat unit. The Council believes the Marines should provide sufficient management actions to secure the Ord-Rodman critical habitat unit and adjacent areas to provide for the long-term viability and persistence of the tortoise population in this area using conservation biology as the scientific framework. As such, the Final INRMP needs to ensure that the Ord-Rodman Critical Habitat Units is managed at the reserve level (conservation biology) for the benefit of the Mojave desert tortoise. Funding and implementation of on-the-ground management actions are needed.
83	A-14			A-1	"Objective 3.1.4 - Minimize tortoise injury and mortality aboard the Combat Center." There are only two tasks identified and they are for ravens; "Develop a Raven Management Plan" and "Apply for and maintain a MBTA depredation permit for ravens." The implementation of the raven management plan is not a task and no funding for implementation is included. If the Combat Center is serious about conserving the desert tortoise, it needs to reduce all forms of mortality and it needs to fund tasks that reduce the forms of mortality. In the Final INRMP, please revise the tasks under this objective to reflect the USMC's commitment to manage for the desert tortoise by implementing/funding tasks that reduce tortoise mortality.
84	A-14			A-1	"3.1.5- D. Develop a population augmentation initiative with USFWS." In the Final INRMP, please add California Department of Fish and Wildlife to this task and include funding in FY21 or FY 22.
85	A-17			A-1	"4.2.1-C. Monitor for natural and cultural resources degradation and exploitation, and reduce illegal trespass, OHV activity, and lawlessness in range training areas."

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					In the Final INRMP, please add after range training areas "special use areas, natural resources management areas, and any areas managed for the Mojave desert tortoise."
86	A-17			A-1	"4.2.1-F. Send CLEOs to the Desert Tortoise Handling Workshop." In the Final INRMP, please change this to say, "Send CLEOs to the Desert Tortoise Council's relevant workshops ."
87	A-18			A-1	"4.2.1-I. Develop an agreement with BLM regarding patrol of translocation recipient sites." In the Final INRMP, please add task 4.2.1-J Fund and Implement the agreement with BLM regarding patrol of translocation recipient sites" and have the funding occur in FY19, FY20, FY21, and FY 22.