UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

May 26, 2011

Mr. Chris Proudfoot
Naval Facilities Engineering
Command, Southwest
1220 Pacific Highway
San Diego, California 92132-5190

Subject: Draft Environmental Impact Statement, Land Acquisition and Airspace Establishment to Support Large-scale MAGTF Live-Fire and Maneuver Training at the Marine Corps Air Ground Combat Center, Twentynine Palms, California (CEQ # 20110051)

Dear Mr. Proudfoot:

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

The Draft Environmental Impact Statement (DEIS) evaluates the impacts from the proposed establishment of a large-scale training range facility at the Marine Corps Air Ground Combat Center at Twentynine Palms, California, involving the acquisition of adjacent public and private land, establishing and modifying special use airspace above the training range, and conducting sustained, combined-arms, live-fire, and maneuver training for all elements of the Marine Expeditionary Brigade.

Based on our review, we have rated the DEIS's Preferred Alternative 6 as Environmental Concerns – Adequate (EC-1) (see enclosed "Summary of Rating Definitions"). We have concerns regarding impacts to water and biological resources, including the threatened desert tortoise. We are also concerned that the exclusion of recreationalists from large portions of the heavily-used Johnson Valley Off-Highway Vehicle Area could result in transferred impacts to other more sensitive areas. We recommend that the Marine Corps give further consideration to Alternative 5, which the DEIS identifies as the Environmentally Preferable Alternative. Alternative 5 would meet the Marine Corps' minimum training requirements, potentially reduce transferred impacts from OHV users for most of the year, and result in lower adverse impacts than the Preferred Alternative.

EPA appreciates the opportunity to review this DEIS. When the Final EIS is released for public review, please send one copy to the address above (mail code: CED-2). If you have any

questions, please contact me at (415) 972-3521, or contact Karen Vitulano, the lead reviewer for this project, at 415-947-4178 or vitulano.karen@epa.gov.

Sincerely,

Kathleen Martyn Goforth, Manager
Environmental Review Office

Enclosure: Summary of EPA Rating Definitions
EPA's Detailed Comments

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

Category "1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category "2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category "3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

Water Resources

Water Quality

The DEIS discusses the Range Environmental Vulnerability Assessment (REVA) from 2008. This was a baseline assessment of the operational range areas which used a fate and transport modeling/analysis of munitions constituents based on site environmental conditions. This assessment did not appear to be based on any actual sampling data. The REVA concluded that there is potential for munitions constituents to be transported offsite, with the greatest potential occurring from the Lead Mountain area to Bristol Dry Lake and from the Prospect area to Dale Lake. Despite this, the DEIS concludes that, due to low potential for off-site transport, indirect impacts to off-site surface waters would be less than significant (p. 4.13-4). The model results predicted that concentrations of some munitions constituents would exceed trigger levels, but the DEIS states that the levels were below toxicity thresholds for sensitive indicator species (p. 4.13-4). The Executive Summary of the REVA references the toxicity threshold for reptiles, but does not mention other eco-receptors, such as wintering waterfowl or terrestrial birds and mammals.

The DEIS references DoD Instruction 3200.16 – Operational Range Clearance, and cites this as the basis for less than significant direct impacts to on-base surface waters (ephemeral washes and playas). This instruction states that the head of the DoD components shall "determine the frequency and degree to which range clearance is required to support operational range safety and sustainable use". No information is provided regarding the current frequency and degree of range clearance, nor the expected change to this frequency to correspond with greater use of training ranges and deposits of munitions.

> *Recommendation:* We understand that reevaluation of the REVA findings will occur every 5 years and that the first reassessment began in October 2010. We recommend that sampling be done to confirm or deny the modeled results of the REVA, and that the susceptibility of additional eco-receptors, including birds, be evaluated.
>
> The FEIS should discuss the current frequency and degree of Operational Range Clearance activities and identify how this would change under the selected alternative. We recommend that DoD commit to a frequency and degree of range clearance commensurate with the increased use of training ranges and munitions, and that this be documented as a special conservation measure in the FEIS.

Drinking Water Wells

Drinking water wells are screened in the Surprise Springs subbasin and provide all potable water to the base. The DEIS does not explicitly identify the location of the wells within this area, but states that the groundwater wells are located in a restricted area of the Combat Center where mechanized maneuvers, OHVs, and training with vehicles are not permitted (p. 3.13-10). It is unclear whether any new proposed training or deposition of munitions could occur in this area as a result of the project alternatives.

> *Recommendation:* The FEIS should include an assessment of the impacts of the alternatives on drinking water resources. We recommend that the well-field be assessed for and protected from

any threats from new sources of pollutants and contamination, including ammunition. A source water protection program addressing any threats to drinking water sources on the base should be developed and implemented.

Aquatic Resources

Clean Water Act, Section 404 applicability

Based on Figure 3.13-1 - Surface Water Features, ephemeral drainages are common throughout the entire study area and playas occur in all but the South Study Area. It is not clear whether these ephemeral drainages are jurisdictional waters under Section 404 of the Clean Water Act. Digging activities associated with staged training operations would create ground disturbances below the normal soil horizon of 12 inches. On average, an estimated 12% of the ground element forces will dig a fighting hole on any given day (p. 1-28). There is also reference to tank traps, trenches and obstacles being filled and graded (p. 4.12-15). If these activities result in dredged or fill material being deposited into waters of the U.S., they would require a 404 permit to be issued by the Army Corps of Engineers (Corps).

> *Recommendation:* The Marine Corps should contact the Corps about completing a jurisdictional delineation of aquatic resources in the project study area. Results of this delineation should be included in the FEIS. Any determination that aquatic resources are not jurisdictional should be provided to EPA.

Avoidance of playas and ephemeral washes

The DEIS references a 1994 waters of the U.S. study by the Corps that identified several types of "wet areas" that are of special concern at the Combat Center, including playa lakes, dry washes, seeps and springs, and man-made water bodies (p. 3.13-4). This report identified 11 important playas that are entirely or partially in the Combat Center. The playas maintain intra/inter-ecosystem integrity and were settings for prehistoric cultural activities. Following rain events, when surface waters are present, playas attract wintering waterfowl; when dry, they are often populated by terrestrial birds and mammals where adequate vegetative cover exists.

The DEIS states that impact avoidance is the preferred approach for management of biological resources (p. 4.10-17). It appears that the playas would be largely avoided from high impact areas of training, as shown in Figure 4.10-6. Additional refinement of training impact areas should attempt to further maximize this avoidance. For example, it appears that, for Preferred Alternative 6, the predicted medium disturbance area could be altered to avoid the Dry Lake (Lead Mountain). Alternative 5 would avoid this and other playas to a greater extent than would the Preferred Alternative.

Similarly, ephemeral drainages should also be avoided when possible, as they provide a wide range of functions that are critical to the health and stability of desert ecosystems and wildlife. The project would construct approximately twenty-five to thirty-five miles of new unpaved roads. It is not clear how sophisticated these roads would be, but improper design and maintenance of roads and road crossings can lead to excessive erosion and sediment deposition in ephemeral drainages and receiving water bodies.

Finally, the DEIS does not identify the timing of the two 30-day training events and there was no discussion of the practicability of scheduling events to avoid biologically active periods, such as when surface water is present in playas. This is a potentially effective mitigation measure.

> *Recommendation:* EPA recommends refining the training routes of the selected alternative to maximize avoidance of important playas. The FEIS should discuss avoidance of ephemeral drainages and ensure proper road design to minimize erosion and sediment deposition in drainages. Discuss the mitigation measure of avoiding biologically active periods when scheduling Marine Expeditionary Brigade exercises.

Transferred Impacts from Displaced OHV Users

The Preferred Alternative 6 would acquire the Bureau of Land Management's Johnson Valley Off-Highway Vehicle (OHV) Area. It would eliminate recreational access to this area for 2 months of the year during military training exercises, and allow restricted public access to 44% of this area the rest of the year. The Johnson Valley OHV Area is one of the most intensely used OHV areas in California (p. 3.2-17) and the DEIS acknowledges that this action may result in an increase in illegal OHV activity on nearby closed public land, private property, and local and regional wilderness areas as a result of recreationalists being restricted to smaller open spaces (p. 4.2-20). The BLM estimates that 90% of the displaced recreational users would go elsewhere in San Bernardino County, and the quality of the surrounding OHV resources may experience substantial physical deterioration. The Stoddard Valley OHV Area would likely experience the majority of this surge since it is closest, and increased OHV activity in this area may result in increased direct and indirect impacts to desert tortoises since the Stoddard Valley OHV Area has historically had higher tortoise densities than Johnson Valley (p. 4.10-12). Also, residents of nearby Wonder Valley have registered complaints with local authorities about OHV use, and this area is adjacent to a designated wilderness area (p. 4.2-1). The DEIS acknowledges that an increase in illegal riding would likely occur in Wonder Valley and lands adjacent to the south study area (p. 4.2-8).

Alternative 5 would allow restricted public access to almost the entirety of the Johnson Valley OHV Area when exercises are not occurring (approximately 10 months per year), thus reducing displacement of OHV activity to potentially more sensitive sites for most of the year. It would avoid acquisition of the southern study area, and the DEIS indicates that overall exercise design and direction of maneuver under that alternative would result in lower adverse impacts. Estimated "take" of the federally threatened desert tortoise is lower under Alternative 5, and it is designated as the environmentally preferable alternative.

> *Recommendation:* We recommend that the Marine Corps give further consideration to Alternative 5. While we understand that Alternative 5 is less favorable from an operations standpoint, the DEIS indicates that it does meet minimum training requirements and screening criteria.

Desert Tortoise

The project will significantly impact the federally threatened desert tortoise. Under the Preferred Alternative, the DEIS estimates that between 154 and 714 would be "taken". Tortoises could be crushed by wheeled or tracked vehicles, or crushed or buried from temporary construction and excavation, temporary bivouacs, helicopter landings, and foot traffic (p. 4.10-10). An estimated 128,386 acres of

occupied desert tortoise habitat would experience direct and indirect impacts, including loss of forage, nesting and cover sites, loss of dispersal areas, increased predation, impacts from increases in non-native plant species, inability to dig burrows from soil compaction and ordnance explosions, and stress and resultant dehydration (p. 4.10-11). The DEIS also acknowledges the potentially significant cumulative impacts that this species would experience from multiple solar energy projects in the Mojave Desert. The Marine Corps is requesting an incidental take statement from the U.S. Fish and Wildlife Service (FWS).

> *Recommendation:* The FEIS should provide an update on the Marine Corps's Endangered Species Act Section 7 consultation with the FWS. If the Biological Opinion is available, append it to the FEIS. All terms and conditions from the Biological Opinion should be incorporated into the project Record of Decision. The Marine Corps should commit to implementing any additional conservation measures recommended by the FWS since there is a strong potential for significant cumulative impacts to this species.

Cultural Resources/ Tribal Consultation

The DEIS does not provide any information regarding traditional cultural properties; it simply states that the Marine Corps is currently in the process of conducting government-to-government consultation with seven Indian tribes and that no major issues have been identified as of May 2010 (p. 3.11-7).

> *Recommendation:* The FEIS should provide an update on the tribal consultation process and potential impacts to traditional cultural properties. The consultation process should also be described. Key elements of consultation are direct interaction and an exchange of views.

Recreational Impacts

The DEIS proposes 3 special conservation measures to reduce impacts from illegal OHV riding, including educational outreach highlighting law enforcement penalties, signage, and coordination with law enforcement. These measures are listed in the chapter assessing impacts to recreation; however, they seem to address impacts to other resources from illegal OHV activity and do not address the loss of recreational sites. Input from the public during the scoping period included a suggestion to explore the release of other DoD or BLM-administered public land not currently open to recreation. The DEIS states that this would be analyzed as part of the impact assessment and mitigation development (p. 2-99), but this analysis was not found. Instead, the DEIS simply states that the Marine Corps considered potential mitigation measures but determined none were feasible so none are recommended for the significant impacts to recreation.

The DEIS does not discuss the timing of when the 2 month-long training exercises and closure of the Johnson Valley OHV Area would occur. A potential mitigation measure would be to time the closures to correspond with times of minimal recreational user demand, consistent with Marine Corps training needs and avoidance of impacts to other resources.

> *Recommendation:* In the FEIS, discuss the possibility of releasing other public land for recreation if the preferred alternative is selected. If this was considered but deemed infeasible, the FEIS should discuss this is more detail, especially since it is identified as within the scope of the EIS (p. 2-98). Explore timing/scheduling of OHV Area closures as mitigation.