

DEPARTMENT OF DEFENSE

Department of the Navy

Record of Decision (ROD) on the Supplemental Environmental Impact Statement (SEIS) for Land Acquisition and Airspace Establishment to Support Large-Scale Marine Air Ground Task Force Live-Fire and Maneuver Training at Marine Corps Air Ground Combat Center, Twentynine Palms, California

AGENCY: Department of the Navy (DoN), Department of Defense

ACTION: Record of Decision.

SUMMARY: The DoN, after carefully considering the environmental consequences of the proposed action and alternatives analyzed in a January 2017 Final SEIS, announces its decision to translocate a population of the federal-listed threatened Agassiz's desert tortoise (*Gopherus agassizii*, hereinafter "desert tortoise") from high- and moderate-impact training areas at the Marine Corps Air Ground Combat Center at Twentynine Palms, California (hereinafter, "the Combat Center"). The DoN has selected the preferred alternative (Alternative 2) from the Final SEIS, which provides for the implementation of a June 2016 Desert Tortoise Translocation Plan. The Plan will guide translocation of desert

tortoises in accordance with requirements of a January 2017 United States Fish and Wildlife Service (USFWS) Biological Opinion (hereinafter the "2017 BO," which superseded a previous 2012 BO), and a 2013 DoN ROD associated with the 2012 Final EIS for Land Acquisition and Airspace Establishment to Support Large-Scale Marine Air Ground Task Force Live-Fire and Maneuver Training at the Combat Center (hereinafter the "2012 Final EIS").

This ROD documents why the DoN has chosen to implement the preferred alternative as described in the 2017 Final SEIS. This decision adopts all of the special conservation measures that were identified in the Final SEIS to avoid or minimize adverse environmental impacts from the preferred alternative. The ROD also includes descriptions and discussions of the anticipated environmental impacts of the proposed action.

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SUPPLEMENTARY INFORMATION: Pursuant to 42 United States Code (U.S.C.) §§ 4321 *et seq.* (section 101 *et seq.* of the National Environmental Policy Act (NEPA)), the regulations that implement NEPA procedures (40 CFR §§1500-1508), and the applicable DoN

environmental regulations and instructions that implement these laws and regulations, the DoN announces its decision to implement a desert tortoise translocation plan within and in the vicinity of the Combat Center. This decision will enable the DoN to comply with conservation actions required in the 2017 BO and the 2013 ROD to mitigate potential adverse effects on desert tortoises while accommodating the required Marine Expeditionary Brigade (MEB) training program at the Combat Center.

Potential impacts from two action alternatives and a No-Action Alternative were analyzed in the Final SEIS. The DoN has decided to implement the Preferred Alternative (Alternative 2), as described in the Final SEIS, which is also the environmentally preferable alternative. Under the Preferred Alternative, the Marine Corps would conduct translocation of desert tortoises from specific training areas within the Combat Center's Western Expansion Area (WEA) and Southern Expansion Area (SEA) to selected tortoise recipient areas located both within and in the vicinity of the Combat Center, as identified in the Final SEIS. In addition to NEPA, the DoN considered other applicable laws, regulations, and Executive Orders during the preparation of the SEIS.

BACKGROUND: On February 11, 2013, the DoN signed a ROD (78 *Federal Register* [FR] 11632) regarding the 2012 Final EIS. The 2013 ROD documented the DoN's decisions regarding establishment

of a large-scale training range facility at the Combat Center that would accommodate sustained, combined-arms, live-fire, and maneuver training for all elements of a MEB, including large-scale MEB exercises involving three battalion task forces and associated MEB Building Block training for participating units up to a single battalion task force. To implement that 2012 proposed action, the Marine Corps required additional land adjacent to the existing Combat Center, the establishment and modification of military Special Use Airspace above the proposed MEB-sized training range, and the implementation of the specified MEB training operations.

A General Translocation Plan (GTP) for Desert Tortoises was prepared in 2011 in support of both the 2012 Final EIS and a 2011 Biological Assessment (BA) (hereinafter the "2011 BA"). The 2011 BA and 2012 BO found that, because military training in the expansion areas would not be compatible with tortoises in the medium- and high-intensity MEB operating areas, translocation was necessary to support the population by maintaining tortoise abundance and genetic integrity. If not translocated, an estimated 1,105 adult tortoises and potentially 2,100 juveniles would be lost from these zones of the WEA and SEA due to the intensity of training exercises. Such a loss of desert tortoises and tortoise habitat would not be compatible with recovery of this threatened species.

The 2012 BO identified conservation measures the Marine Corps would need to implement to minimize the rate of mortality or injury to resident desert tortoises, including developing a more detailed plan to translocate desert tortoises from areas that would experience impacts from training. Since the 2012 Final EIS and 2013 ROD, the Marine Corps has conducted detailed studies and has worked with USFWS and the Bureau of Land Management (BLM) to refine the translocation plan for the desert tortoise, as required in the 2012 BO. As a result of this effort, and in consultation with the USFWS, the Combat Center refined and developed two alternative desert tortoise translocation plans (provided, along with the original GTP, in Appendix A of the Final SEIS).

In light of new information gained from these efforts, the DoN elected to prepare an SEIS focused on the evaluation of potential environmental impacts associated with alternative tortoise translocation plans. The DoN issued its Notice of Intent (NOI) to prepare the SEIS on August 24, 2016 (81 FR 57891). In the NOI, the DoN identified two potential action alternatives and a No-Action Alternative for the translocation of desert tortoise from training impact areas. Under the No-Action Alternative, the Marine Corps would conduct translocation of desert tortoises per the 2011 GTP at several recipient and control areas and identify translocation methods, post-translocation monitoring, and other research that would provide important information on desert

tortoise recovery methods. Alternatives 1 and 2 primarily differ from the No-Action Alternative in the size, number, and location of recipient and control areas. Compared to the No-Action Alternative, Alternatives 1 and 2 would include additional research studies and reflect updated information obtained from the post-2013 ROD three-year program of surveys. Alternative 2 differs from Alternative 1 in that in Alternative 2 one less recipient site would be used, the Bullion control site would be located on the Combat Center instead of within the Cleghorn Lakes Wilderness Area, pairing of control sites to one recipient site would be different, and translocation tortoise densities would be different.

The 2013 ROD committed the Marine Corps to implementing resource-specific mitigation measures and monitoring. Those specific to the desert tortoise included the following measures from the 2012 BO, which were included and extended in the 2017 BO:

Establish New Special Use Areas: These are areas that had not been identified as part of the 2012 EIS training scenarios but that contain habitat supporting moderate densities of desert tortoises. The Marine Corps committed to placing all newly established Special Use Areas off-limits to mechanized maneuvers, Off-Highway Vehicle (OHV) travel, bivouac sites, and any other military training involving OHV activity. The Marine Corps committed to marking these Special Use Areas with signs, and

fencing them on the sides near proposed maneuver areas and the Johnson Valley OHV Area, to reduce the potential for adverse effects from training activities and unauthorized access. Some Special Use Areas were selected as recipient sites for desert tortoises translocated under the SEIS proposed action.

Translocation Program: The Combat Center committed to translocating tortoises from heavy and moderate disturbance areas before the first MEB exercise. As part of this measure, the Marine Corps committed to performing extensive pre-translocation surveys of potential recipient sites to provide information that may be critical to the final translocation plan developed by the Marine Corps and USFWS. The Marine Corps also committed to providing increased law enforcement in all areas, constructing tortoise exclusion fencing to restrict movement of desert tortoises into disturbance areas, conducting predator management activities, performing enhanced post-translocation clearance surveys, and closing unauthorized routes and constructing barrier fencing to reduce OHV impacts.

Desert Tortoise "Headstarting" and Population Augmentation: The Marine Corps committed to developing and integrating population augmentation strategies into translocation and monitoring efforts. As part of this measure, the Marine Corps committed to implementing research on population augmentation within designated Special Use Areas and/or other recipient sites for

translocation. The Marine Corps committed to coordinating with the USFWS in developing a population augmentation strategy.

Monitoring: Monitoring will occur over 30 years to ascertain the long-term effects of translocation and augmentation upon resident, translocated, control, and headstarted tortoises. Results of translocation and monitoring efforts will be reported annually to USFWS and summarized for other interested parties. This monitoring will be accomplished via health assessments, mark-recapture studies, and electronic tracking by authorized biologists.

The 2017 BO also required Reasonable and Prudent Measures intended to further minimize the impacts of implementing the Preferred Alternative. These additional measures and associated Terms and Conditions are listed below.

The Marine Corps must ensure that it adaptively manages the translocation to ensure that elevated mortality within translocated desert tortoises or within any individual translocation site is quickly identified and addressed.

The Marine Corps must perform an annual analysis of survival probability using known fate models⁵¹ to determine if survival probabilities for desert tortoises in translocated and resident groups are statistically different ($\alpha = 0.05$) from each other

or from the control groups. This analysis must control for variables such as MCL in order to ensure accurate comparison. The Marine Corps must perform this analysis for the entire translocated population for each individual translocation site to determine if site-specific differences are evident. If, at any point, the Marine Corps' analysis shows that survival in translocated and resident groups are statistically different from each other or from the control group for the monitored population as a whole or for any individual translocation site, it must contact the Service to discuss the information collected up to that point to assess the reasons for differences in survival and apply appropriate adaptive management.

PURPOSE AND NEED: The purpose of the proposed action evaluated in the January 2017 SEIS is to study alternative translocation plans in support of the project that was described in the 2012 EIS, selected in the 2013 ROD, and authorized by the Fiscal Year (FY) 2014 National Defense Authorization Act. The 2011 GTP (Appendix A in the SEIS), developed during the section 7 Endangered Species Act (ESA) consultation on the 2012 Final EIS proposed action, identified proposed recipient areas, translocation methods, and research treatments based on information available at the time of publication. Studies were conducted over the following three years to provide information necessary to refine these areas, methods, and treatments. The 2011 GTP explicitly recognized that as a result of these studies,

the Combat Center could refine these areas to specific sites and determine better recipient sites not considered in the 2011 GTP. The results of these efforts, and further consultation and coordination with USFWS and California Department of Fish and Wildlife (CDFW), identified refinements to translocation methods, recipient sites, and research treatments that could better support the goals of the translocation effort (and became the basis for the action alternatives considered in the SEIS). The alternative selected in this ROD for the SEIS will be implemented prior to conducting the sustained, combined-arms, live-fire, and maneuver field training for MEB-sized Marine Air Ground Task Forces contemplated in the 2012 Final EIS.

The Marine Corps needs to implement the proposed action to satisfy requirements identified in the 2012 Final EIS and associated 2012 BO. The 2012 BO concluded that the implementation of the Preferred Alternative would likely result in the "take" of desert tortoises associated with military training, tortoise translocation efforts, and authorized and unauthorized OHV use by recreationists displaced from former areas of the Johnson Valley OHV Area.

PUBLIC INVOLVEMENT: The DoN initiated a mutual exchange of information through early and open communications with interested groups and individuals starting on August 24, 2016, with the publication of a Notice of Intent (NOI) in the Federal Register

(81 FR 57891). The DoN published a notice of availability (NOA) and notice of public meetings (NOPM) in the Federal Register on September 30, 2016 (81 FR 67334) announcing the availability of the Draft SEIS and times, dates, and locations of three public meetings. The notice also provided an overview of the proposed action and potential environmental impacts as presented in the Draft SEIS and stated that public comments must be received by November 14, 2016. In addition to the public meetings, the DoN provided various methods for the public to comment during the comment period including mail, publicly-available project website, and telephone. The DoN identified these methods in the NOA/NOPM, newspaper notification advertisements, and mass-mailings of letters and postcards to regulatory agencies, Native American Tribes, municipalities, elected officials, and to individuals who had requested copies during preparation of the 2012 EIS. The DoN also distributed press releases to the local media, Facebook and Twitter posts, and cell phone application notifications. The notices indicated locations (e.g., public libraries) where the Draft SEIS was available to be reviewed, the duration of the public review and comment period, the opportunities available for submitting comments, and the time and location of the public meetings.

The public meetings were held in Joshua Tree, California on October 25; in Palm Springs, California on October 26; and in Barstow, California on October 27, 2016, to inform the public

about the proposed action and the alternatives under consideration, and to provide an opportunity for the public to comment on the Draft SEIS. Informational posters, maps, and videos were displayed and subject matter experts were available during the open house to provide information about and answer questions on the Draft SEIS. Comment forms, a laptop computer, and a stenographer were available to receive written and oral comments from the public. A total of 4,713 comments were received from the general public and federal, state, and local agencies via the three official comment submittal methods (during public meetings, via the website, and by mail). Most of the comments received related to concerns about the potential impacts of translocation on the health and mortality of the desert tortoise population, but comments about the land acquisition and training exercises analyzed in the 2012 EIS and selected in the 2013 ROD were also common.

During the Draft SEIS public comment period, the U.S. Environmental Protection Agency (EPA) reviewed and commented on the Draft SEIS, and assigned a rating of "Lack of Objections." This rating by EPA also indicates (by definition) that "the EPA 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." The EPA recommended the preparation of a health and

safety plan to minimize safety risks to translocation biologists and removal of comparison between greenhouse gas emissions during the lifespan of the project to total annual GHG emissions of the entire U.S. The Final SEIS was prepared by incorporating responses to comments and additional analyses as applicable.

The NOA for the Final SEIS was announced in the Federal Register on January 6, 2017, local newspapers, and on the project website. The Final SEIS was circulated in the same manner as the Draft SEIS. The NOA of the Final SEIS was sent to regulatory agencies, Native American Tribes, municipalities, elected officials, and to individuals who had requested copies during preparation of the 2012 Final EIS and during the Draft SEIS public comment period. Postcards announcing the availability of the Final SEIS were again mailed to all individuals and groups on the mailing list. A copy of the Final SEIS was available on the project website during the 30-day waiting period. A total of 13 individuals or organizations provided comments during the 30-day waiting period, which ended February 6, 2017.

ALTERNATIVES CONSIDERED: Alternatives for implementing the proposed action must be considered in accordance with NEPA, CEQ, and DoN regulations for implementing NEPA, and Marine Corps Order P5090.2A. However, only those alternatives determined to be reasonable relative to their ability to fulfill/meet the purpose of and need for the proposed action require detailed analysis.

For the Final SEIS, the Marine Corps identified two action alternatives in addition to the No Action alternative.

Under the No-Action Alternative, the Marine Corps would conduct translocation of desert tortoises at recipient areas as identified in the 2011 GTP and the 2012 BO. The No-Action Alternative would include several recipient and control areas and identifies translocation methods, post-translocation monitoring, and other research that would provide important information about desert tortoise recovery methods. As discussed in Section 2.5.2 of the SEIS, an alternative involving training without translocation would result in a loss of tortoises and tortoise habitat that is not compatible with recovery of this threatened species and would not satisfy the measures outlined in the 2012 BO or the 2013 ROD.

As described in Section 1.3 of the SEIS, the 2013 ROD committed the Marine Corps to implementing a tortoise translocation program (in addition to other resource-specific mitigations) as required in the 2012 BO. The 2011 GTP described the specifics of the translocation program that was proposed at the time, but the ROD also committed the Marine Corps to performing extensive pre-translocation surveys of potential recipient sites to provide information that may be used to modify the GTP. The GTP itself discussed an approach for further investigation of those factors that are important for implementing translocation and are likely

to influence translocation success and tortoise recovery. The Combat Center has since conducted a three-year program of surveys, literature review, and consultation with resource agencies, resulting in the preparation of a desert tortoise translocation plan in March 2016 (Alternative 1), which was further developed in June 2016 (Alternative 2), based on internal USFWS development of draft revised translocation guidance (USFWS 2016a). Alternatives 1 and 2 primarily differ from the No-Action Alternative in the selection of recipient and control sites and in the distribution of desert tortoises at each recipient site. Compared to the No-Action Alternative, Alternatives 1 and 2 would also include additional research studies and reflect updated information obtained from the surveys conducted since the 2012 Final EIS. Alternative 2 differs from Alternative 1 in that one less recipient site would be used, the pairing of control sites to one recipient site would be different, the Bullion control site would be located on the Combat Center instead of within the Cleghorn Lakes Wilderness Area, and translocation densities would be different.

The proposed action includes four fundamental and interrelated components that are reflected in the alternatives:

- Recipient and Control Areas. The 2011 GTP (Appendix A in the Final SEIS) identified criteria for selection of recipient areas that should be met for successful translocation to occur.

These criteria are consistent with the goals, objectives, and recovery strategies of the 2011 USFWS revised recovery plan for the Mojave population of the desert tortoise (USFWS 2011) and the 2010 USFWS plan development guidance for translocation of desert tortoises (USFWS 2010b).

- **Translocation Methods.** Translocation methods would include handling procedures, fencing, translocation, and clearance surveys. All tortoise handling would be accomplished by techniques outlined in the Desert Tortoise Field Manual (USFWS 2009), including the most recent disease prevention techniques (e.g., USFWS 2016b). Juvenile tortoises that are too small to wear transmitters would be moved either to established juvenile pens at the Combat Center's existing Tortoise Research and Captive Rearing Sites (TRACRS), where they may become part of the headstart program (the Combat Center's tortoise rearing program), or to Special Use Areas. Tortoise exclusion fencing would be installed along certain borders of the new Special Use Areas near maneuver or high use areas. Under the No-Action Alternative, temporary fences would also be installed around six constrained dispersal sites. Although the precise locations of such sites have not been determined, they would all be located on the Combat Center. Under Alternative 1, temporary fences would also be installed at the constrained dispersal plot (Cleghorn Lake) and along the southern portion of the Bullion Range Training Area. Under Alternative 2, temporary fencing would be installed only at

the constrained dispersal plot (Cleghorn Lake). Tortoises would be moved under the handling constraints identified in Section 2.1.2.1 of the Final SEIS. Juvenile tortoises under 4.4 inches (11.2 centimeters [cm]) are highly subject to depredation by dogs/coyotes, badgers, and ravens. Tortoises below this size would be translocated to predator-proof enclosures until they are large enough to be released. Desert tortoises that exhibit moderate to severe nasal discharge would not be translocated, and may be sent to a USFWS-approved facility where they would undergo further assessment, treatment, and/or study. Following initial translocation, the Marine Corps would conduct additional clearance surveys of any square kilometer grid where two or more adult desert tortoises were found during the previous survey, until fewer than two adult desert tortoises are found in that square kilometer grid, or until diminishing returns are met as determined in coordination with the USFWS.

- Post-Translocation Monitoring. Because of the size of the translocated population, radio-telemetry tracking of all tortoises is impractical. However, 20% of translocated tortoises, and a similar number of resident and control tortoises, would be tracked using radio-telemetry. Substantial information on survival of translocatees, as well as on population demography, repatriation, and health, can be gathered by repeated readings of mark-recapture plots where tortoises have been translocated. Mark-recapture plots would be used to estimate the tortoise

population size by capturing, marking, and releasing a portion of the population, then later capturing another portion and counting the number of marked individuals. Capture, marking, and releasing activities would not involve any ground disturbance. Four subject areas would be investigated by monitoring, each of which is described below:

- o Survival: Survival of translocatees is the main metric for evaluating translocation as a take minimization measure. Survival of translocated tortoises would be measured using two methods: mark-recapture plots and tracking.

- o Threats to survival: Anthropogenic (i.e., human-related) disturbances and predator populations that cause potential risks to recovery and translocation success threats would be assessed both qualitatively and quantitatively and compared to current levels.

- o Habitat stability/changes: Habitat would be assessed to monitor changes or stability during each reading of the mark-recapture plots.

- o Health and disease: The incidence of disease and other health issues would be monitored using body condition indices, clinical signs of disease, serology, and visual inspection for injuries. This would be accomplished using both telemetered

tortoises and all tortoises captured on mark-recapture plots. Any health problems observed (e.g., rapid declines in body condition, perceived outbreaks of disease, and mortality events) would be reported to the USFWS such that appropriate actions could be taken in a timely manner.

- Other Research: The Marine Corps, in consultation with USFWS, identified a research program to benefit recovery of the species. Research topics include translocation effectiveness, constrained dispersal ("repatriation" in the 2011 GTP), stocking densities, habitat, and disease. The first two research topics summarized below would be implemented under any of the alternatives, both of which are anticipated to provide results that are topical and important for recovery. Additional information about these research topics is available in the 2011 GTP (Appendix A) of the Final SEIS.

- o Experimental Translocation Densities: The intent behind this research is to evaluate the capability of the habitat to sustain a certain density of tortoises.

- o Constrained Dispersal: Constrained dispersal (called "repatriation" in the 2011 GTP) is a technique wherein tortoises are translocated to a fenced site to encourage settling before the fence is removed.

Additional research that would be conducted under Alternatives 1 and 2 include the following:

- o Grazing: Data on tortoise populations and grazing practices would be collected, thereby permitting an analysis of both long-term and short-term effects of cattle grazing on tortoises.

- o Physical and Genetic Distance: Using data collected during monitoring, a comparison among the controls and translocatees would be used to determine patterns of mixing or segregation.

ENVIRONMENTAL IMPACTS: The DoN prepared the 2017 Final SEIS to evaluate the potential environmental impacts associated with implementation of each of the alternatives carried forward for analysis. Impacts were assessed for the following resource areas: biological resources, land use (including recreation), air quality, and cultural resources. The following discussion summarizes environmental impacts for the alternative selected for implementation in this ROD (Alternative 2) and focuses on those resources potentially subject to significant impacts, those with identified mitigation measures, and those that were strongly represented in public or agency comments.

Biological Resources

Vegetation: Impacts to vegetation would be less than significant because fence and road construction would impact approximately 0.1 acre (0.04 ha) of active and stabilized dune; 22.7 acres (9.2 ha) of badlands, rock outcrops, and cliffs; 82.7 acres (33.5 ha) of desert scrub; and 2.3 acres (0.9 ha) of desert wash.

Protected - Federally Threatened or Endangered Species:

Activities will result in potential impacts to translocated and resident tortoises as well as the overall tortoise population. The majority of these impacts are to translocated (rather than resident) tortoises, and the type and magnitude of the adverse effects vary depending on the distance of the translocation and environmental conditions.

Home Ranges - Physical: Physical impacts to desert tortoise home ranges would be adverse, but temporary, and may vary depending on the distance of the translocation. Impacts would increase tortoise movement that could result in a greater risk of predation and heat stress. These impacts would be minimized with implementation of Special Conservation Measures (SCMs).

Home Ranges - Social: The proposed translocation under all alternatives would compel translocated and resident tortoises to develop (and adjust to) a new social structure. The amount of time needed to adjust would increase with the amount of time

needed to establish new home ranges. These impacts would be adverse but temporary.

Population Viability: Population augmentation at the proposed recipient areas would neither exceed historic population levels supported at those areas nor result in population densities too low for viability. In addition, increased tortoise density could help desert tortoises spend less energy searching for mates.

Fence Construction: Fence construction would adversely affect desert tortoise habitat and prevent some resident tortoises from accessing some of their home range. However, construction of the fence along the northern edge of the WEA would prevent OHV users from entering this area of the WEA and tortoises from entering the OHV area, thereby protecting the habitat and tortoises within this area. Construction of OHV barrier fencing along sections of the Ord-Rodman and Daggett Ridge Monkey Flower Areas of Critical Environmental Concern (ACECs) boundary would minimize the effects of displaced OHV recreation, also protecting the habitat and tortoises within the Ord-Rodman and Daggett Ridge Monkey Flower ACECs, including the Lucerne-Ord recipient site and Daggett control site. An Authorized Biologist would be present during all fence installation activities to ensure that placement of the fence would adaptively avoid protected and special status biological resources (e.g., flora and fauna species) and long-lived woody vegetation.

Predation: The proposed recipient areas were selected in part based on distance from human subsidies to predators and on evidence of low predation. Impacts would be reduced further if potential mitigation measures regarding predator control are implemented (only applicable outside of wilderness and wilderness study areas).

Desert Tortoise Handling: Handling would create stress in translocated tortoises but these effects would be temporary and would be minimized by adhering to established handling procedures. The use of helicopters to transport tortoises would greatly reduce the amount of time they are handled as well as the stress associated with long handling and transport periods.

Additional Disease-Related Concerns: Translocated tortoises would experience higher levels of stress and would be exposed to new tortoises that would increase the susceptibility to disease and the risk of disease transmission. However, precautions would be taken and accepted guidelines would be followed to reduce stress and minimize the risk of spreading disease. Examples of these precautions include using one-time or sanitized equipment, performing health assessments on all tortoises, and isolating tortoises showing clinical signs of infection.

Grazing: Tortoises translocated to the active Ord Mountain Grazing Allotment may be adversely affected by ongoing cattle grazing due to adverse impacts to habitat and soil quality. These impacts are expected to be less than significant, however, because cumulative habitat effects from ongoing grazing operations would have already occurred by the time that habitat quality was assessed. Research on the effects of cattle grazing on desert tortoises may help inform future management actions regarding cattle grazing that could, in turn, have a beneficial impact to tortoises that extends well beyond the study area.

Regional Connectivity: Augmenting the recipient areas would help increase the connectivity at and around the recipient areas.

Genetic Considerations: Tortoises would be translocated less than 124 miles (200 km) to areas that are located within the same Recovery Unit, and therefore adverse genetic impacts are not expected to occur.

The selected alternative includes SCMs designed to minimize these impacts. Compared to other alternatives, this alternative includes density research methodologies that would be based on the latest translocation guidance from the USFWS. As a result, this alternative places greater emphasis on augmenting depleted populations.

Land Use

Land use impacts related to plans and policies, land ownership status, recreation and OHV use, grazing, conservation areas, and wilderness areas are considered to be less than significant.

Use of recipient and control sites would be consistent with existing plans and policies, including the Combat Center's Integrated Natural Resources Management Plan, San Bernardino County General Plan, California Desert Conservation Area Plan, West Mojave Plan, the Desert Renewable Energy Conservation Plan, and the Johnson Valley OHV Management Plan. Changes in land ownership status would not occur. The translocation of desert tortoises and post-translocation monitoring at recipient and control sites would not affect recreation in designated areas such as the Johnson Valley OHV Recreation Area. Land use impacts associated with incompatibility with grazing allotments would be less than significant because grazing of cattle would continue to occur and the total dry matter consumption by translocated tortoises would be less than the equivalent consumption of a single cow.

Project activities within conservation areas would be compatible with the purposes and management of such areas. Vehicle traffic on BLM-managed lands would be limited to routes that have been designated "open" by BLM. The proposed OHV barrier fencing and

route closures associated with the Ord-Rodman and Daggett Ridge Monkey Flower ACECs would be consistent with BLM's management goals of these ACECs to limit all vehicle traffic to roads and trails designated "open" (signed) by the BLM. The use of helicopters to translocate tortoises would result in negligible noise impacts and helicopters would only land on existing roads, outside of sensitive areas. The plan for translocation of desert tortoises was coordinated with the BLM to ensure that translocation and monitoring is consistent with the management plans for the ACECs and the Mojave Trails National Monument.

SCMs would be applied as part of the proposed action and would include a BLM Minimum Requirements Analysis; placing staging areas outside wilderness areas; and varying foot traffic ingress and egress routes to minimize development of trails. Fencing near the Cleghorn Lakes Wilderness Area would be on Combat Center land outside the wilderness area. All project activities within wilderness areas would be consistent with wilderness management goals, characteristics, and values, resulting in less than significant impacts to wilderness areas.

Air Quality

Estimated emissions of all criteria pollutants would be below conformity de minimis limits; impacts to air quality would therefore be less than significant.

Cultural Resources

Cultural and Spiritual Landscape: Desert tortoises are considered by the Colorado River Indian Tribes to be part of the cultural and spiritual landscape. Translocation would occur within this landscape, and benefit the long-term health of the population on the landscape compared to leaving the tortoise in place. Less than significant impacts to the cultural and spiritual landscape of the Colorado River Indian Tribes are expected to occur.

Historic Properties: With the implementation of SCMs, there would be no direct or indirect impacts from translocation, fencing, maintenance road construction, or helicopter landings to NRHP-eligible historic properties.

MITIGATION MEASURES AND MONITORING: The impact analyses described in the Final SEIS considered the influence of SCMs, which were included as integral components of the proposed action. SCMs are policies, practices, and measures that the DoN will adopt to proactively reduce the environmental impacts of proposed action. Although SCMs help to avoid, minimize, or reduce/eliminate impacts, they are distinguished from potential mitigation measures because they are: (1) included in the proposed action, (2) ongoing or regularly occurring practices,

and/or (3) they are not unique to the proposed action. In other words, the SCMs are proposed as part of the action and are not targeted mitigation measures identified in response to the findings of the NEPA environmental review process. Specific SCMs that were included in the proposed action are described in Section 2.6 of the Final SEIS, which includes conservation measures from the 2017 BO.

The SEIS recommended several resource-specific mitigation measures not already included as part of the proposed action. Mitigation measures are defined broadly to include measures to avoid, minimize, rectify, reduce, or compensate for adverse environmental impacts (40 CFR 1508.20). The following mitigation measures have been developed in consultation with regulatory agencies and based on public input through the public involvement process.

Biological Resources

The DON will implement the following additional mitigation measures to reduce project impacts to biological resources:

- Upon the eventual removal of tortoise exclusion fencing associated with the constrained dispersal site, the fence areas would be restored to pre-existing conditions to the maximum extent practicable; this may include filling the trench with

adjacent disturbed soil, revegetating the fenceline with native plants, and tilling the maintenance road (and potentially the access road) if sufficient evidence of compaction is observed.

- Perching deterrents would be installed on all fence and sign posts that could be used for perching to decrease the threat of raptor and raven predation on tortoises. Perching deterrents have been shown to decrease incidence and length of perching, and as a result, a decrease in predation (Dwyer and Doloughan 2014). Perching deterrents include specifically designed and engineered products, such as Nixalite® bird spikes and Bird-B-Gone bird spiders, and simple home solutions such as driving a nail into the top of a fence post and allowing it to protrude a few inches above the top of the post. These devices could be inspected and repaired or replaced as needed as part of the fence monitoring procedures described in Section 2.1.2.2, Fencing. Implementation of the BIO-2 mitigation measure applies only to fence and sign posts analyzed and included in the SEIS.

- The Combat Center would furnish all tortoise exclusion fencing with artificial shade structures and consult with USFWS on the specific design criteria (e.g., location, size). Implementation of the BIO-3 mitigation measure applies only to tortoise exclusion fencing analyzed and included in the SEIS.

- The Combat Center would consult with USFWS regarding the appropriate course of action to take for any desert tortoise repeatedly found fence-pacing.
- The Combat Center would collaborate with other researchers (e.g., data would be shared and/or access to the translocated, resident, and control tortoises would be allowed, subject to permit requirements) to increase the likelihood that lessons learned from this translocation effort would expediently inform future decisions pertaining to desert tortoise management.
- A network of rain gauges, with some as part of more sophisticated weather stations, would be established throughout the recipient and control sites as part of the post-translocation monitoring plans.

The SEIS also identified an additional biological resources mitigation measure, in which the Combat Center would control coyotes and free-roaming dogs (except in wilderness areas). Additional canid control measures were developed through the Section 7 consultation process with USFWS and included in the resulting 2017 BO and as SCMs in the SEIS. Therefore, although this measure will be implemented, it is not specifically called out as an additional mitigation measure in this ROD.

Land Use

No additional mitigation measures have been selected to reduce project impacts to land use.

The SEIS also identified a land use mitigation measure, in which the Combat Center would fence a smaller portion of the western WEA recipient area identified in the No Action Alternative. However, this mitigation measure is not applicable to the alternative selected in this ROD and so will not be implemented.

Air Quality

No additional mitigation measures have been identified to reduce project impacts to air quality.

Cultural Resources

No additional mitigation measures have been identified to reduce project impacts to cultural resources.

AGENCY COORDINATION AND CONSULTATION: The BLM has participated in the preparation of the SEIS as a Cooperating Agency. As defined in 40 CFR § 1508.5, a cooperating agency "means any federal agency other than a lead agency which has jurisdiction by law or special expertise with respect to any environmental impact

involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment." A cooperating agency's responsibilities include participation in the NEPA process as early as possible, participation in the scoping process, and upon the lead agency's request, development of information to be included in the EIS, and staff support during EIS preparation (40 CFR § 1501.6). Under 40 CFR § 1501.6, federal agencies with jurisdiction by law shall be cooperating agencies if requested by the lead agency.

The BLM's involvement as a cooperating agency in the development of the SEIS was triggered by its current jurisdiction by law and special expertise over a portion of lands considered for translocation of desert tortoises. The BLM has unique knowledge of the public lands under its control and has the expertise essential to help the DoN evaluate appropriate parcels of land to meet translocation requirements. Therefore, at the beginning of the SEIS process, the DoN requested that the BLM become a cooperating agency. The BLM signed a letter of agreement indicating their willingness to be a cooperating agency, and agreeing to specific roles and responsibilities for the lead and cooperating agencies (see SEIS, Appendix C, *Agency Correspondence*). As the lead agency, the DoN has met its obligations to the cooperating agencies, including routine and frequent coordination throughout the SEIS process. The

cooperating agency has also fulfilled their obligations as stipulated in their agreement.

Other Agency Coordination

The DoN consulted and/or coordinated with the USFWS, the State Historic Preservation Office, Native American tribal authorities, and the CDFW, as summarized below:

- The DoN has been in consultation with USFWS on the Translocation Plan since December 2015, formally reinitiating consultation in May 2016, after which USFWS issued a new BO in January 2017. The 2017 BO addressed the entire proposed action from the 2012 EIS, as well as the proposed action in the SEIS, and therefore superseded the 2012 BO. The DoN worked closely with the USFWS throughout preparation of the SEIS to ensure that the findings in the 2017 Final SEIS are consistent with the 2017 BO. The alternative selected in this ROD will be implemented in compliance with all of the required measures described in the 2017 BO.
- The DoN consulted with the California State Historic Preservation Office and tribes affiliated with Combat Center lands regarding signage and fence installation (February 2016)

and temporary helicopter landings (January 2017) in support of the tortoise translocation.

- The Marine Corps conducted government-to-government consultation with area tribal authorities. The Combat Center documented the government-to-government consultation with the Colorado River Indian Tribes in a Memorandum for the Record dated February 2, 2017.
- The DoN coordinated with the CDFW on the development of the translocation plans and on the analysis contained in the SEIS.

RESPONSE TO COMMENTS ON THE FINAL SEIS: The DoN reviewed and considered all comments that were received during the 30-day waiting period (from January 6 to February 6, 2017) following the issuance of the NOA of the Final SEIS. A total of 13 individuals or organizations provided comments or comment letters on the Final SEIS, including one comment letter from a government agency (CDFW). The majority of the comments received, particularly from individual members of the public, conveyed concerns about the need for training in affected areas, the need for tortoise translocation out of such areas, and the associated impacts on tortoises. Most of the comments received were previously addressed during development of the SEIS. The following summarizes substantive comments that were either not raised

previously or were reiterated but with a modified focus or additional information:

- Concern about including the Daggett Control Site due to potential for bias in metrics of translocation success based on the high incidence of known threats to tortoises at the site.

RESPONSE: As noted in the Final SEIS, all but one of the threats noted in the comment occur at similar rates to the recipient site paired with Daggett. The proposed action also includes a second control site paired with each of the recipient sites associated with Daggett, thereby providing a second source of control data should the Daggett data prove to be biased by threats present at the site.

- Concern about tortoises being released within 13 kilometers of two long-term research study plots without periodic re-survey to determine impacts of translocation on the resident populations in the plots. RESPONSE: The USFWS had no concerns about potential effects on the referenced study plots; however, the Combat Center will request study methodology information from the researcher. To the extent that information is provided, the Combat Center will consider re-surveying any affected research plots in 2017.

- Suggestion that impacts to tortoises would be less from medium intensity training than from translocation, and that

tortoises should therefore not be translocated from medium-impact training areas so that impacts from such training can be studied.

RESPONSE: As the Final SEIS discusses, studies show no significant effect from translocation on tortoise mortality. Further, the analysis methodology applied by the USFWS in the 2017 BO estimated that without translocation a substantial number of tortoises would be lost over the long term in medium-impact training areas, and the DoN considers such a risk to outweigh the potential benefits of data potentially indicating that training impacts are overestimated.

- Assertions that coyote control measures have been shown to be ineffective over the long term and that the impacts of proposed hunting on the coyote population are not adequately analyzed in the SEIS. RESPONSE: Long-term effectiveness of coyote depredation does not preclude short-term advantages from reducing predation on newly translocated tortoises. In addition, impacts from hunting coyotes is expected to have an insignificant impact on the overall coyote population as evidenced by California hunting regulations, which have no seasonal or bag limits on coyotes.

- Suggestion that OHV route closures should occur ahead of translocation and fencing should be increased to prevent OHV use everywhere possible. RESPONSE: The timing and specific locations

of proposed route closures and the types and placement of proposed fencing on public lands were developed in coordination with the BLM, and are intended to target specific threats to desert tortoises in certain areas. The Marine Corps does not manage these public lands, and is not responsible for all actions that may occur (or may need to occur) in these areas.

- Concern that the updated BO was not yet available when the Final SEIS was released. RESPONSE: The Marine Corps coordinated closely with the USFWS throughout the NEPA process to ensure the SEIS reflects the analysis and conclusions of the 2017 BO released by the USFWS in late January. As documented in this ROD, the DoN will implement the requirements of the 2017 BO as part of this project.

- Statements that grazing is incompatible with desert tortoises. RESPONSE: Limited information is available in the scientific literature supporting this conclusion. Both USFWS and BLM have indicated the value of this study to help inform future land management decisions.

CONCLUSION: After careful consideration of the purpose and need for the proposed action, the analysis contained in the Final SEIS, and comments received on the Draft and Final SEIS from Federal, State, and local agencies, non-governmental

organizations, and individual members of the public, I have decided to proceed with the implementation of Alternative 2, the Final SEIS Preferred Alternative, which will implement desert tortoise translocation according to the Translocation Plan dated June 26, 2016. This determination is based on the following factors representing notable advantages of Alternative 2 relative to the No-Action Alternative (2011 GTP):

- Tortoise recipient sites under Alternative 2 were identified based on recent data from an additional three years of research on population densities, disease status of both recipient and donor populations, present and future anthropogenic influences, predator effects, proximity to protected lands and to adjacent tortoise populations, and habitat structure. Data collection on tortoise density and habitat quality (including qualitative and quantitative habitat assessments) have been ongoing since 2012, allowing for further refinement of the recipient areas originally identified in the 2011 GTP.
- Research on translocation distance and population augmentation will be performed under Alternative 2 but not under the No-Action Alternative.

- OHV-barrier fencing would be constructed to protect tortoise habitat located within the Ord-Rodman and Daggett Ridge Monkey Flower ACECs from OHV users under Alternative 2.
- The Combat Center would implement a predator control program (outside of wilderness and wilderness study areas) under Alternative 2 that was not a component of the No-Action Alternative. This would include monitoring, education, and active control measures to reduce the number of subsidized predators.
- Research on the potential effects that grazing may have on desert tortoises would be performed under Alternative 2.
- The use of helicopters to transport tortoises under Alternative 2 would greatly reduce the amount of time they are handled as well as the stress associated with long handling periods.
- Physical and genetic distance research under Alternative 2 would help inform degree and timing of assimilation of translocatees with residents, helping to measure translocation effectiveness.

- Alternative 2 would also use a single, large constrained-dispersal site (rather than four smaller sites) that would better accommodate tortoise home ranges.

Although Alternative 1 also provides many of the relative advantages over the No-Action Alternative described above, Alternative 2 is the environmentally preferable alternative, and represents a better translocation plan than Alternative 1 because it would slightly reduce impacts to vegetation associated with fence construction, would reduce the overlap of project areas with designated wilderness, and is based on the latest translocation guidance from the USFWS which increases focus on augmenting depleted desert tortoise populations. The DoN will adopt and implement all practicable means identified to avoid or minimize environmental harm from the selected alternative.

2/10/17

Date



Steve Iselin

Principal Deputy Assistant Secretary of
the Navy (Energy, Installations, and
Environment)