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20 March 2024

Ms. Debbie Nethers
Environmental Division, Directorate Public Works
AMIM-WSP-E-CS
White Sands Missile Range, NM 88002

RE: Draft Environmental Assessment (EA) Addressing Operations and Training Support Facilities and Activities at White Sands Missile Range (WSMR), New Mexico. NMERT Project No. NMERT-3320.

Dear Ms. Nethers,

The New Mexico Department of Game and Fish (Department) has reviewed the above referenced Draft EA addressing operations and training support facilities and activities at WSMR (Draft EA).

As is described on page 2-2 of the Draft EA for Project 1 (construction of barracks and mobile shower facilities), the Department supports confining new construction to previously disturbed areas wherever possible throughout WSMR. To minimize potential negative impacts of exterior security lighting proposed for Project 1 on nocturnal migratory birds, the Department recommends that exterior lighting be designed in accordance with the New Mexico Night Sky Protection Act. This Act requires that outdoor lighting be fitted with shielding that directs light downward, rather than upward or laterally, to prevent sky glow. This aligns with the "outdoor lighting mitigations" mentioned in the Biological Resources section of Table 3-1 and the final Best Management Practice (BMP) outlined on page 3-34.

Open trenches excavated as part of the actions proposed in the Draft EA for Project 1 and possibly other projects, including Project 4 (renovation of North Oscura Peak buildings for bivouac area), can unintentionally entrap and cause the unnecessary mortality of amphibians, reptiles, and small mammals and can cause injury to large mammals. Trenching may be associated with activities including installation of underground water or septic pipelines, powerlines, or fiber optic communication lines. Trapped animals can die from exposure, starvation, crushing from pipe-laying, entombment from trenching backfilling, drowning, and predation. This unnecessary wildlife mortality can be avoided by implementing conservation measures including:

concurrent trenching, pipe-laying, and backfilling operations to minimize the amount of trench left open overnight or longer; construction of escape ramps; and employing biological monitors to remove trapped animals. Periods of highest activity for amphibians and reptiles vulnerable to entrapment include summer months and wet weather, and they can be active both day and night. Small mammals subject to entrapment are active year-round and generally most active at night.

The Department recommends implementing the general trenching conservation measures outlined in the Department's [Trenching Project Guidelines](#) to help minimize unnecessary mortality of wildlife. BMPs should include, at minimum, the following mitigation measures.

- Whenever possible, locate trenching activities within previously disturbed areas, such as existing road or pipeline right-of-ways. To the extent possible, avoid trenching in undisturbed habitat.
- Trench during the cooler months (October – March).
- Utilize concurrent trenching, pipe- or cable-laying, and backfilling. Keep trenching, pipe- or cable-laying, and backfilling crews as close together as possible to minimize the amount of open trench at any given time. When trenching activities are temporarily halted (e.g., overnight, weekends, holidays, weather shutdowns), protect wildlife from accessing any open trench between digging and backfilling operations by using one or more of the methods described below.
- Avoid leaving trenches open overnight. When trenches cannot be backfilled immediately, escape ramps should be constructed at least every 90 meters and preferably every 30 meters. Escape ramps can be constructed parallel or perpendicular to the existing trench. The escape ramp slope should be less than 45 degrees (1:1). If pipe or cable has been installed but backfilling has not occurred, escape ramps may need to be constructed on both sides of the trench, since, unless the pipe is elevated enough to allow animals to move underneath it, the pipe or cable may block access of amphibians, reptiles, and small mammals to the ramps if only constructed on one side.
- Trenches that have been left open overnight should be inspected the following day by a qualified biological monitor and trapped animals removed as soon as possible, especially where state- or federally-listed threatened or endangered amphibians, reptiles, or small mammals occur. Untrained personnel should not attempt to remove trapped wildlife because of the potential to injure animals and the possibility of injury from venomous snakes. Required tools for removal will include snake tongs for removing snakes and a dip net for capturing and removing amphibians and small mammals. Many animals trapped in a trench will burrow under loose soil. To the extent possible, the biological monitor should disturb loose soil in the trench to uncover and remove trapped animals. Animals should be relocated at least 50 meters away from the open trench in undisturbed habitat.
- When pipe has been laid in the trench, end caps should be placed on the open end(s) of the pipe to preclude animals from entering. Pipe staged outside the

trench should be capped until placed in the trench or checked for wildlife before being placed into the trench.

- Most wildlife can be protected by constructing silt fence completely around the open trench. Silt fence should be supported from sagging by t-posts, rebar, or stakes and buried at the base to preclude animals from moving below the fence. If construction of a silt fence is a required BMP for erosion control, then, to preclude the need for a biological monitor, escape ramps, and concurrent backfilling, the guidelines for silt fence installation and maintenance in the [Trenching Project Guidelines](#) should be followed.

The Department supports the intent of the proposed vehicle wash rack described for Project 3 (page 2-2), which is invasive species removal. However, the Department requests further clarification regarding how wastewater from the wash rack will be contained and treated and what actions will be taken to avoid spilling or otherwise releasing contaminated water into the surrounding environment.

Page 2-6 of the Draft EA states that the Thurgood site is located within a canyon that “drains into Salt Creek, which is White Sands pupfish habitat, and is very dynamic because of the amount of ephemeral water that moves through the system during periodic, intense rainstorms.” To avoid negative impacts to the White Sands pupfish (*Cyprinodon tularosa*) from use of this site, the Department recommends that all activities (e.g., off-road vehicle training) remain within previously disturbed areas and avoid driving in, or adding sediment to, the arroyo that drains into Salt Creek. The disturbance of or addition of sediment to this system increases the chances of sedimentation in Salt Creek following intense rainstorms, which would be detrimental to the White Sands pupfish.

Page 3-7 of the Draft EA states “Training areas may be closed to scheduled and unscheduled hunting to protect public safety. During these closures all persons, including hunters, would be evacuated from the areas and roadblocks would be established along roads to prevent access. Operational activities would be de-conflicted with hunting through scheduling.” The Department supports closing training areas to hunting as required to ensure public safety. The Department requests that WSMR coordinate these closures with the Department and share a schedule of anticipated closures so the Department can inform hunters as appropriate.

Page 3-19 of the Draft EA states that “Construction and operation of new infrastructure would result in increased impervious surface areas,” and that “Increased sediment may run off during construction, which could be harmful to stream ecosystems.” Construction areas and other impervious surfaces can have significant impacts on surface waters by increasing the amount of sediment and other pollutants that are washed into these waters, increasing the velocity and volume of water, and reducing infiltration into groundwater. Reducing the total area of impervious surfaces and phasing construction will reduce these impacts. The Department recommends developing a Storm Water Pollution Prevention Plan and provides the following additional recommendations to minimize or eliminate impacts to wildlife and wildlife habitat:

- Divert water around construction sites whenever possible.
- Preserve natural areas within the project site. Strive to maintain the natural drainage system of the site, including natural stream channels, wetlands, and floodplains. Design, construct, and maintain the site to protect (or restore) the natural hydrology.
- Following construction, disturbed areas should be re-vegetated using native species that approximate the pre-disturbance plant community composition or native plant communities appropriate for the site, including from a region that represents potential future climatic conditions at the site, whichever is more beneficial to wildlife. Short-term erosion control seed mixes are available for temporary control of surface erosion during project implementation; native mixes should be used for temporary as well as permanent erosion control. Native plants and materials should also be used for landscaping. All seed mixtures should be certified as weed-free. New Mexico grass ecotypes for commercial seeding are available through the Los Lunas Plant Materials Center and New Mexico State University. Seeding guidelines are available from the Natural Resources Conservation Service and the Colorado Natural Areas Program.
- If erosion control blankets are used post-construction, burying the blanket edges, and using blankets without fused mesh corners (e.g., use woven mesh) can reduce the chances of unintentional wildlife entanglement. Regularly check the erosion control blankets after applying them to identify and release any wildlife that does become entangled.
- Maintain a vegetated buffer zone along all watercourses, including ephemeral arroyos, sufficient to minimize erosion and sediment delivery.
- Use properly engineered drainage swales and other vegetated channel systems instead of storm sewers, lined channels, curbs, and gutters. Vegetated swales should be gently sloped (4:1) so that small wildlife is able to maneuver them.
- Efforts should be made during construction to minimize impacts on vegetative communities. Existing roads and rights-of-way should be used for all transportation. Off-road driving should be avoided. Staging areas should be located in previously disturbed sites, where possible, and kept as small as possible.

Page 3-22 of the Draft EA states “Additionally, four NMDGF listed plant species documented at WSMR include the Mescalero milkwort (*Polygala rimulicola* var. *Escalatorum*), Night-blooming cereus (*Peniocereus greggii* var. *greggii*), Organ Mountain pincushion cactus (*Escobaria sneedii organensis*), and Todsens pennyroyal (WSMR 2023).” The Department has no jurisdiction over state-listed endangered plants in New Mexico; it is the Forestry Division of the New Mexico Energy, Minerals and Natural Resources Department (NM EMNRD) that has the authority to list plants as endangered in New Mexico. Therefore, the Department recommends this statement be revised to say “four NM EMNRD Forestry Division-listed plant species documented at WSMR include...”

Section 3.7 of the Draft EA outlines the federally- and state-listed wildlife species that might be impacted by the proposed actions on WSMR. However, there is no mention of

the game species (e.g., elk, deer, cougar, etc.) or Species of Greatest Conservation Need (SGCN) that may be impacted by these proposed actions. Much of WSMR, including the San Andres and Organ mountains, constitutes important habitat for multiple big game species and SGCN. The Department recommends inclusion of game species and SGCN that occur on WSMR in Section 3.7 of the Draft EA, consideration of any impacts the proposed actions may have on them, and any mitigation measures that WSMR will adopt. For example, training activities adjacent to the San Andres and Organ Mountains could be avoided during the big game fawning/calving season (May – July).

While page 3-32 of the Draft EA references seasonal avoidance measures during construction and training activities, the Department recommends inclusion of more specific reference to migratory birds and additional seasonal and buffer distances as described below. All migratory birds are protected against direct take under the federal [Migratory Bird Treaty Act](#) (16 U.S.C. Sections 703-712), and hawks, falcons, vultures, owls, songbirds, and other insect-eating birds are protected under New Mexico State Statutes (17-2-13 and 17-2-14 NMSA), unless permitted by the applicable regulatory agency. To minimize the likelihood of adverse impacts to migratory birds, nests, eggs, or nestlings, the Department recommends that ground disturbance and vegetation removal activities be conducted outside of the primary migratory bird breeding season of April 15-September 1. Breeding season may begin earlier for raptors or when working in low-elevation habitats such as deserts. If ground disturbing and clearing activities must be conducted during the breeding season, the area should be surveyed for active nest sites (with birds or eggs present in the nesting territory) and avoid disturbing active nests until young have fledged. For active nests, establish adequate buffer zones to minimize disturbance to nesting birds. Buffer distances should be at least 100 feet from songbird and raven nests; 0.25 miles from most raptor nests; and 0.5 miles for ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chrysaetos canadensis*), peregrine falcon (*Falco peregrinus*), and prairie falcon (*Falco mexicanus*) nests. Active nest sites in trees or shrubs that must be removed should be mitigated by qualified biologists or wildlife rehabilitators. Department biologists are available to consult on nest site mitigation and can facilitate contact with qualified personnel.

The list of [New Mexico SGCN](#) (see link, page 14, table 5) and the federal list of [Birds of Conservation Concern](#) should be reviewed to fully evaluate potential effects to migratory birds from your proposed project. Federal agencies are also required under Executive Order 13186 to implement standards and practices that lessen the amount of unintentional take attributable to agency actions. These conservation measures are strongly recommended to ensure persistence of migratory bird species whose populations are small and/or declining within New Mexico.

Page 3-33 of the Draft EA outlines BMPs and mitigation measures that WSMR will take to avoid negative impacts to vegetation and wildlife. The Department recommends adding a new BMP stating that the WSMR Environmental Division will communicate with the Department regarding issues related to SGCN and state-listed or game species.

Section 3.10.2.1 of the Draft EA outlines the environmental consequences of hazardous materials and toxic substances that may be introduced by the proposed actions, including training activities such as small arms weapons training and maneuvering live fire training. However, this section does not address potential lead contamination from bullets and spent ammunition. The Department recommends inclusion of a description of how potential lead contamination associated with spent ammunition, and associated negative environmental impacts, will be mitigated within the sites where firearms training will be conducted on WSMR.

We appreciate the opportunity to comment on this Draft EA. Should you have any questions regarding our comments, please contact Jack Marchetti, Aquatic and Riparian Habitat Specialist, at (505) 479-1269 or jack.marchetti@dgf.nm.gov.

Sincerely,

Virginia Seamster, Ph.D.
Assistant Chief, Ecological and Environmental Planning Division