



**DEPARTMENT OF THE NAVY**  
HEADQUARTERS UNITED STATES MARINE CORPS  
3000 MARINE CORPS PENTAGON  
WASHINGTON, DC 20350-3000

IN REPLY REFER TO:  
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March 12, 2026  
Dr. Earl Campbell  
Field Supervisor  
U.S. Fish and Wildlife Service  
Pacific Island Fish and Wildlife Office  
300 Ala Moana Boulevard, Room 3-122 Honolulu, HI 96850

SUBJECT: FISCAL YEAR 2025 (FY25) ANNUAL REPORT FOR BIOLOGICAL OPINIONS 01EPIF00-2015-F-0025  
AND 01EPIF00-2016-F-0185

Dear Dr. Campbell:

This submittal satisfies the FY25 annual reporting requirements (Terms and Conditions L.5.a, p. 158) of the U.S. Fish and Wildlife Service (FWS) Biological Opinion (BO) for the Department of the Navy's (DON) Relocation of the U.S. Marine Corps from Okinawa to Guam and Associated Activities on Guam (Relocation), initially issued on July 31, 2015 (01EPIF00-2015-F-0025) with a re-initiation completed on July 19, 2017 (01EPIF00-2016-F-0185), an amendment completed on October 30, 2018, and clarifications completed on March 27, 2020 and June 24, 2020 for the period of October 1, 2024 to September 30, 2025.

Please note that our submission to you this year was delayed because of the 43-day long government shutdown in the fall of 2025.

If you have any questions regarding this annual report, the DON's technical point of contact is Ms. Jacqueline Rice. She can be reached at (571) 256-2796 or email at [jacqueline.rice@usmc.mil](mailto:jacqueline.rice@usmc.mil).

Sincerely,

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Mr. Todd Armsworth  
DPRI/Pacific Posture Branch Chief  
Marine Corps Installations Command

Enclosure 1. Annual Report of the Biological Opinion for the Department of the Navy's Relocation of the U.S. Marine Corps from Okinawa to Guam and Associated Activities on Guam

Copy to (via email):  
Headquarters Marine Corps (Plans, Policy & Operations)  
Joint Region Marianas  
Naval Facility Engineering Systems Command Pacific  
United States Fish & Wildlife Service

# **Annual Report for the Biological Opinion for the Department of the Navy's Relocation of the U.S. Marine Corps from Okinawa to Guam and Associated Activities on Guam**

**Reporting Period – October 1, 2024 to September 30, 2025 (FY 2025)**

**Introduction:** This annual report addresses the implementation of the conservation measures and terms and conditions in fiscal year 2025 (FY25) for the relocation of Marine Corps personnel from Okinawa, Japan, to Guam. The format of the annual report follows the format of the biological opinions, amendments, and clarifications previously published to document this undertaking (2015, 2017, 2018, and 2020).

The various conservation measures and terms and conditions are either programmatic or project-specific, with varying start requirements within the overall multi-year construction program schedule and into the operational phase of the Relocation efforts. Generally, programmatic measures are not specifically tied to construction activities while project-specific requirements involve measures that are prompted by construction activity or habitat removal (e.g., species translocation, green waste reuse, and marking of project limits). Construction-related ground disturbance for the Marine Corps Base Camp Blaz (MCBCB) main cantonment and ranges began in earnest in calendar year 2018. Although the relocation of Marines from Okinawa began end of calendar year 2024 with the arrival of 105 military personnel on Guam, peak operation and training activities corresponding with a population of 5,000 Marines is not anticipated to be reached until sometime closer to the end of the decade.

In FY25 the Department of the Navy (DON) successfully implemented multiple Biological Opinion (BO) requirements, including initiatives to effectively minimize the risk of invasive species spread through biosecurity programs and outreach which continued throughout this reporting period. An overall map view of BO-associated activities implemented at MCBCB is provided as Attachment 2. Post-Typhoon Mawar recovery of conservation infrastructure, such as ungulate fences, progressed significantly to the point that re-eradication of deer/pigs in sections of the Caiguat Forest Enhancement Site (FES) was completed, with other areas to follow in FY26. Although some listed plants were lost due to Typhoon Mawar, MCBCB continues to exceed the minimum 50% survival criteria for all plant species under its care. MCBCB's husbandry of 37 *Serianthes* seedlings continues to be a high priority, including the planned FY26 award of the associated long-term maintenance and monitoring of *Serianthes* trees project. Finally, through efficient use of space during program project designs, 233 acres of recovery habitat have been conserved, representing 23% of the area originally planned for removal. With only a few small-scale projects remaining, this outcome marks a significant conservation success.

## **No Reinitiation Required**

Reinitiation of formal consultation is not required in accordance with 50 CFR § 402.16. Reinitiation is not required because: (1) the DON has not exceeded the amount or extent of incidental take authorized in the BO; (2) there is no new information that reveals effects of the

SUBJ: FY2024FY2025 ANNUAL REPORT FOR BIOLOGICAL OPINIONS 01EPIF00-2015-F-0025  
AND 01EPIF00-2016-F-0185

action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the BO; (3) the proposed action has not been modified in a manner that causes an effect to listed species or critical habitat that was not considered in the BO; and, (4) there is no new species listed or new critical habitat designated that is affected by the proposed action.

**PART I: BIOLOGICAL OPINION 013P1F00-2015-F-0025 OF JULY 31, 2015 (2015 BO)**

**1. General Conservation Measures to Contribute to Recovery of Listed Species Forest**

**Enhancement:** Includes the installation of ungulate fencing, removal of ungulates and invasive plants, and outplanting of native plant species on approximately 1,000 acres in Finegayan Forest. Enhancement must begin commensurate with the amount of recovery habitat cleared by the Department of Navy (DON) related projects.

*Note: The 2017 BO later clarifies that the forest enhancement program, as a DoD commitment, will require at least a 30-year sustained effort and that the timeline of initiation of individual forest enhancement projects will be based on the construction program timeline as Military Construction (MILCON) funds for conservation measures become available through MILCON project awards (construction phase completion is anticipated by early 2030s). MCBCB has primary responsibility for implementing the forest enhancement projects funded by Marine Corps relocation funds.*

- a. Forest Enhancement:** Includes the installation of ungulate fencing, removal of ungulates and invasive plants, and outplanting of native plant species commensurate with the amount of recovery habitat cleared by Marine Corps relocation related projects.

Conservation Measure Implementation: As of September 30, 2025, the total clearing associated with Guam Micronesian kingfisher and Mariana fruit bat recovery habitat includes approximately 788-acres (318-ha) (Attachment 1) out of the approximately 1,021 acres anticipated to be impacted as part of implementation of the proposed action.

Caiguat FES fence repairs began in FY25 after two years of delay due to contractor staff shortages. Ungulate removals for the 262-acre Caiguat Phase 2 were completed in early FY25 and additional monitoring/response is in place to manage animals that re-enter due to breaches through typhoon-damaged fences and contractor staff failing to close gates promptly. Repairs to damaged fences are expected to be completed in December 2026 and continuing contractor training should reduce gate issues; MCBCB is evaluating potential solutions such as automatic gates to reduce risk of animals entering through unattended gates. Removals for the 417-acre Caiguat Phase 1 site will begin in FY26, with full eradication expected to be complete within 12 months of fence repair completion. Ungulate densities within Caiguat FES remain low and internal ungulate barriers are in place to protect outplanting sites and reduce movement of animals between sections of the forest while fence repairs are ongoing.

The 273-acre South Taguac FES site was completely enclosed in FY25. Ungulate eradication was completed in October 2025 with 245 deer and 138 pigs removed from the site.

Ungulate eradication for Mason Live Fire Training Range Complex (LFTRC), formerly Northwest Field (NWF), was completed in FY25 with 340 deer and 68 pigs

removed by December 2025. Increased monitoring was conducted throughout FY25, as ungulate depredation teams identified several areas with high risk of re-entry. Additional fencing installation for these sites began in FY25 and internal ungulate partitions were reinforced to limit movement of animals within LFTRC to facilitate faster removal in case of breaches.

Contracts for the propagation, planting, and establishment of dominant and rare native limestone forest species in Caguat FES Phase 1 were ongoing in FY25 and will continue through FY28. Based on lessons learned from these initial efforts, new contracts to remove invasive plants and establish native plants on additional acreage are anticipated in FY27. The DON estimated that forest enhancement work will require a commitment of at least 30 years. While current efforts indicate invasive plant removal and native outplanting projects can be completed at about 80 acres every three years, this timeline may be reduced as enhancement processes are refined and additional contract staff come on line. MCBCB biologists are actively working with industry and non-profit partners to build capacity for enhancement work.

- b. Guam *Serianthes nelsonii* Adult Tree:** Includes repair and maintenance of ungulate exclusion fencing around the adult *Serianthes* tree at Mason LFTRC (formerly Northwest Field) to protect it from ungulates as well as outplanting for survival into adulthood of at least 30 individuals of *Serianthes nelsonii* and access to the *Serianthes* adult tree at Mason LFTRC for seedling rescue and maintenance. Additionally, fencing and eradication within the overall Mason LFTRC provides secondary ungulate protection to the adult *Serianthes* tree and surrounding habitat.

The 2015 BO included a conservation measure to “ensure that seeds from the Guam adult *Serianthes* tree will be collected by entities specified on recovery permits, provide storage for these seeds, and provide funds for *Serianthes* seed viability testing.”

Conservation Measure Implementation: In March of 2022, 4.1 miles of ungulate fence installation was completed at Mason LFTRC, completing the fencing identified in the conservation measure to protect the *Serianthes* tree. Due to re-entry risk on some steep cliff line areas, additional fence installation began in FY25 and is expected to be completed in FY26. Neither Marine Corps relocation program personnel nor associated contractors collected seeds from the ground in the surrounding area this year due to the deceased trees inability to produce additional seeds.

The adult *Serianthes* tree sustained serious damage during Typhoon Mawar as previously reported to U.S. Fish and Wildlife Service (FWS) in 2023 and mortality was confirmed with no living tissue detected in 2024. The existing fencing shall be maintained to protect surviving saplings and seedlings in the protected area to facilitate ongoing conservation efforts. The scope development for the long-term seed storage project was solicited and negotiated in FY25 and the contract for the project is planned for award early FY26.

There are 37 individual saplings under DON control to satisfy the BO requirement of at least 30 tree individuals surviving into adulthood (i.e., flowering with production of fruit and seed). More saplings will be propagated to ensure an added buffer to the number of individuals surviving into adulthood.

- c. Sea Turtle Public Outreach and Coordination:** Reporting requirements are not applicable for sea turtles as sea turtles were addressed through informal consultation. Refer to FWS letter of March 27, 2020. DON has produced and distributed sea turtle conservation posters, brochures, and activity booklets as described in the conservation measures, and continues to participate in sea turtle conservation efforts to refine additional education materials for further distribution.
- d. Brown Tree Snake (BTS) Control and Suppression:** Includes implementation of projects collaboratively developed with the BTS Technical Working Group Strategic Plan and the installation of BTS barriers.

Conservation Measure Implementation: In accordance with the conservation measure for brown tree snake (BTS) control and suppression project implementation for 10 years starting from main cantonment construction, Joint Region Marianas (JRM) and MCBCB have continued to support selected projects identified as priorities in the BTS Technical Working Group Strategic Plan. BTS project funding support specifically for the Marine Corps Relocation began as early as FY13, which was well ahead of the main cantonment construction award in August 2017. Prior DON funding supported projects including artificial bait development, trial eradication of BTS via aerial toxicants, aerial toxicant bait manufacturing improvements, experimental full-scale landscape BTS suppression via aerial deployment of toxicants, bait tube trapping and dose improvements, optimized monitoring tools for low-density BTS populations, refurbishment of the USGS BTS Closed Population facility BTS exclusion fence, and fenced/unfenced landscape- scale BTS suppression efficacy studies. FY25 projects include the AAFB Habitat Management Unit (HMU) aerial baiting, use of live quail lures at the HMU, aerial bait procurement for HMU baiting and analysis of monitoring, suppression and eradication efforts on BTS populations in the HMU. Camp Blaz biologists are coordinating with USDA and other brown tree snake experts to design and implement BTS suppression efforts in FY26 and FY27.

## **2. Conservation Measures to Minimize the Effects of Construction**

- a. Contractor Education Program:** Ensure that construction contractor personnel are informed of the biological resources in the project area, including invasive species, special status species, avoidance measures, and reporting requirements.

Conservation Measure Implementation: Contractors from all active construction projects were provided training by the MCBCB Natural Resources staff in FY25.

- b. Contractor Plans and Specifications:** Construction will occur within the limits of construction shown in the plans and specifications.

Conservation Measure Implementation: Construction contracts include language which requires the construction contractor to stay within the limits of construction. This conservation measure is intended to reduce the number of listed species requiring translocation and to further reduce impacts to recovery habitat.

In FY25, there have been two instances of construction impacts outside of project limits that are in the process of contractual resolution.

On August 15, 2025, MCBCB observed as part of site inspections one host tree containing six *Tuberolabium guamense* that was damaged outside the J-200-II Communications Line project limits. In addition, work outside the project limits occurred, consisting of impacts to 2,996.4 sq. ft. (0.06 acres) of disturbed *Vitex* forest. A non-compliance notice (NCN) was issued on October 3, 2025 to the J-200-II project contractor. MCBCB will pursue restoration through contractual enforcement in FY26.

On August 28, 2025, MCBCB issued an NCN to J-200-II Communications Line construction project for work outside the project limits consisting of impacts of 1,543 sq. ft. (0.03 acres) of disturbed grassland. MCBCB will pursue restoration through contractual enforcement in FY26.

On September 19, 2023, MCBCB reported to FWS the overflow of silt-laden stormwater from the P-735 construction site that caused the mortality of five *Serianthes* seedlings within the fenced area of the mature *Serianthes* tree adjacent to the Multi-Purpose Machine Gun Range project. Restoration for the 2023 overflow commenced in May 2025 when the University of Guam provided the P-735 project contractor 20 *Serianthes nelsonii* seeds from the storage lab for propagation purposes to mitigate for impacts attributable to the stormwater overflow. Out of the 20 seeds provided, 13 have survived germination and are currently growing in the University of Guam nursery with saplings to be outplanted in the Caguat FES in FY26.

- c. Pre-construction Surveys for the Mariana Fruit Bat:** For projects within or in the vicinity of suitable fruit bat habitat, surveys following the FWS-approved Joint Region Marianas (JRM) protocol will be conducted one week prior to the onset of work.

Conservation Measure Implementation: In FY25, MCBCB staff continued to conduct fruit bat surveys prior to vegetation clearing for projects P-187 Multi-Species Barrier, J-200-II Communications Line, P-103 Water Wells, and P-290 Earth Covered Magazine. No fruit bats were observed during surveys.

The contractor daily fruit bat monitoring logs are large files and can be made available for all active construction projects upon request.

To further minimize potential impacts to Mariana fruit bats, MCBCB continued to provide natural resources awareness training to all contractor and DON personnel working within the proposed action footprint. Natural resource awareness training aids in the identification of Mariana fruit bats in the field and provides information on reporting protocols for sightings of Mariana fruit bats.

- d. Guam Landscaping Guidelines:** Native or non-invasive species will be planted in all new landscapes.

Conservation Measure Implementation: Guam Landscaping Guidelines are included in all construction contracts awarded to date. The Guam Landscaping Guidelines promotes the use of at least 50% native plants in project landscaping plans.

FY25 landscaping actions took place for the following horizontal and vertical projects:  
J-008, J-011015, J-017-I/III, J-017-II, J-023, J-025, J-031/033, J-032-I J-034,  
J-032/036/037/038/039, J-301, J-755, P-103, P-270, P-280, P-290, P-296, P-  
305, P-306, P-310, P-311, P-312/804, P-317, P-459, P-459B, P-735, P-802,  
P-803, P-804, and P-871U.

Oversight and monitoring for contractor compliance with the DON's Guam Landscaping Guidelines was conducted by MCBCB Natural Resources staff and contracted personnel for all active construction sites.

- e. LFTRC Range Berm Controls:** LFTRC range berms will contain native or non-invasive herbaceous vegetation, and other engineering controls.

Conservation Measure Implementation: Clearing and grubbing for all five ranges was completed in FY24. The conservation measure for the MILCON P-735 project berm was awarded in FY25 and work will continue through FY26. Outplanting of the first four ranges was completed in FY25 and outplanting for the fifth range is scheduled for summer 2026.

- f. Lighting Installation:** Hooded lights will be used to the maximum extent practicable at all new roads and facilities within fruit bat roost areas.

Conservation Measure Implementation: There are no known fruit bat roost areas in areas where new roads and facilities have been constructed. Hooded lights have been installed at all of the five ranges within the LFTRC.

- g. Monitoring Construction Contractors:** The DON will be responsible for oversight of avoidance, minimization, and conservation measure implementation by the contractors for projects associated with the proposed action.

Conservation Measure Implementation: Oversight for BO compliance for all active construction projects is ongoing. MCBCB staff continued to perform inspections of construction

equipment and supplies to ensure they are free of invasive species. MCBCB staff continued to inspect all active project sites to ensure impacts to listed species are avoided and impact to their habitats did not occur outside of the designated project footprints.

### **3. Conservation Measures to Minimize the Effects of Invasive Species:**

- a. Onsite Vegetation Waste Management:** Green waste is handled by the contractors at designated laydown areas within the limits of construction. Contractors are required to divert all green waste from disposal. Larger green waste, consisting of trees and stumps, is processed into mulch, while smaller green waste is processed into compost.

Conservation Measure Implementation: Onsite vegetation waste management procedures are included in all construction contracts awarded to date. All green waste generated has been successfully managed and re-used on-site as mulch or as composted material within the limits of construction. Over 300,000 cubic yards of green waste was generated in the Main Cantonment alone and required industrial-scale processing to achieve volume reduction. Conversion to compost and mulch is in place.

- b. DON's Final Guam Landscaping Guidelines:** The DON has developed a manual providing landscaping design guidelines specific to appropriate plant selection and establishment for all the DON construction activities on Guam.

Conservation Measure Implementation: Guam Landscaping Guidelines have been developed and are included in all construction contracts awarded to date. The most recent revision of the guidelines was distributed to all nurseries on Guam in October 2022 to support the use of native and non- invasive plants in landscaping for MCBCB facilities.

MCBCB staff continued to provide oversight for BO compliance, including Guam Landscaping Guidelines implementation for all active construction projects to ensure usage of native species, reduction of water consumption and reduction of the use of fertilizers. MCBCB staff continued to conduct inspections during construction landscaping phases to verify invasive species are not used, species selection at nurseries is correct, proper irrigation is supplied and nutrient requirements are met.

- c. Biosecurity Outreach and Education:** The DON has initiated and will continue to implement a targeted, comprehensive biosecurity outreach and education program for Department of Defense (DoD) and civilian populations. The biosecurity program focuses on prevention with a goal to minimize the effects of invasive species through awareness and outreach which educates individuals on prevention practices. The biosecurity program also addresses invasive species pathways and management techniques.

Conservation Measure Implementation: In FY25, the outreach and education project used TV, radio and social media platforms. Social media efforts exceeded contractual audience measurement targets.

The DON continued collaboration with Government of Guam's Department of Agriculture (DoAG) Biosecurity division linking social media ads to DoAG's homepage. The DON also initiated development of additional informational videos in anticipation of the future arrival of the first major influx of Marines at Camp Blaz.

- d. Hazard Analysis Critical Control Point (HACCP) Planning:** HACCP planning is a pathway management tool that provides a comprehensive method to identify risk and implement procedures to prevent spread of invasive species at critical control points along transportation pathways.

Conservation Measure Implementation: All construction contracts contain a requirement to develop a Hazard Analysis Critical Control Point (HACCP) Plan, which will identify risks and potential pathways for non-native species and outline procedures for controlling and removing the risks identified. MCBCB's in-house and contracted biomonitors regularly check all active construction sites for contractor implementation of project-specific control measures. HACCP Plan report files are large and will be made available upon request.

- e. Monitoring to Evaluate the Effectiveness of HACCP:** To document the effectiveness of HACCP implementation at construction sites, the DON has developed and implemented a long-term monitoring program for terrestrial vegetation. If new non-native, invasive plant species are detected, the DON will notify the FWS and will develop and implement an eradication plan or control effort to prevent infestation. In addition, the DON will implement an early detection and rapid response component covering the discovery of an incipient invasive species in the proposed action area.

Conservation Measure Implementation: The requirement to evaluate effectiveness of HACCP has been included in Unified Facilities Guide Specifications under Supplemental Temporary Environmental Controls DPRI Section 01 57 19.04 3.1.4 Biosecurity. All active construction contractors have implemented their approved HACCP plans per contract specifications.

In FY25, contractors conducted HACCP effectiveness evaluation surveys for five project sites (J-200-II, J-609, P-187, P-290, and P-735). A key finding of these evaluations was that no new non-native invasive species were detected. Per the established contractual protocol, rapid response actions (eradication) are contingent upon the detection of such species; therefore, none were initiated.

- f. Brown Tree Snake Interdiction:** The DON has committed to funding any increase of current federally funded BTS interdiction measures (in Guam, CNMI and Hawaii) where the increase is related to direct, indirect, and induced growth caused by the Marine Corps relocation to Guam.

Conservation Measure Implementation: The DON has worked with the United States Department of Agriculture (USDA) and the FWS to determine BTS interdiction cost increases. As of September 30, 2025, there has been no measurable increase in interdiction costs attributable to the Marine Corps relocation according to JRM and USDA.

- g. Coordination with U.S. Geological Survey (USGS) on BTS:** The DON will ensure through briefings or information packages that personnel using the LFTRC know the importance of the USGS facility and the critical importance of maintaining the integrity of the Closed Population Facility fence. Procedures developed as part of the MCBCB Range Regulations for the LFTRC will ensure range user awareness of protection requirements and the requirement that USGS be immediately notified in the event that the fence is accidentally damaged so the fence can be quickly repaired.

Conservation Measure Implementation: MCBCB has developed maps in support of MCBCB Range Regulations that delineate the USGS-operated research facility as an “off limits” area of the LFTRC. USGS personnel have coordinated with MCBCB Range Control regarding the importance of the USGS research facility, including the schedule of activities to maintain the integrity of the facility fence line. Should the fence sustain damage, the USGS will report the incident to both MCBCB Range Control and the Environmental Division for resolution.

#### **4. Conservation Measures to Minimize the Effects of Fire**

- a. Fire Management:** Fire management is a key component of range management. The Fire Management Plan will be finalized for the LFTRC prior to operation of the first range at the LFTRC. The Fire Management plan shall include seven elements: implementation of a Fire Danger Rating System, fuels management, locations and standards of fire breaks and fuel breaks, standard operating procedures for fire prevention and protected resource briefs, range control approval and guidance for pyrotechnics use, fire suppression capability, and FWS review of the plan.

Conservation Measure Implementation: The DON prepared an Integrated Wildland Fire Management Plan (IWFMP). Based on FWS July 2022 comments, revisions were made to the plan and it was approved by the FWS on September 29, 2023. The IWFMP has been incorporated into the MCBCB Commanding Officer-approved range regulations (Base Order 3550.1) on September 23, 2024. All required elements of the plan are addressed and implemented by MCBCB Range Control in coordination with MCBCB Environmental Division. The following planning elements are part of the completed IWFMP and have been established as part of the Base Order 3550.1: locations and standards of fire and fuel breaks, standard operating procedures for fire prevention and protected resources briefs, and FWS review of the plan. The following implementation elements within the IWFMP will be activated as the range is utilized: implementation of a Fire Danger Rating System, fuels management, range control approval and guidance for pyrotechnics use, and fire suppression capability.

**5. Conservation Measures Addressed under Part IV.**

**6. Other Actions Considered for Analysis**

- a. Guam Micronesian Kingfisher (GMK) Memorandum of Agreement (MOA):** Since the signing of the GMK MOA in 2015, the DON has funded a number of projects in support of MOA objectives, including brown tree snake eradication trials, allocating funds for staffing, and planning and compliance activities in support of management actions. In addition, in recognition of the need for long-term planning guidance, the DON awarded the 10-Year GMK MOA Implementation Plan project in FY17, which serves as a foundational reference for cooperative investment and risk management planning. The DON and FWS have relied upon this plan, in conjunction with annual BTS research updates and discussions held with BTS Technical Working Group, to address BTS issues.

Conservation Measure Implementation: In FY25, four BTS projects were funded for both fenced and unfenced landscapes: (1) BTS bait procurement, (2) HMU Aerial Delivery System (ADS) operations and monitoring (3) HMU BTS management/monitoring/analysis, and (4) live lure quail traps/automated self-resetting BTS kill traps.

- b. Terms and Conditions:** Terms and Conditions from the 2015 BO are superseded by the 2017 BO amendment.

**PART II: BIOLOGICAL OPINION 01EPIF00-2016-F-0185 OF JULY 19, 2017 (2017 BO)**

**1. General Conservation Measures to Contribute to Recovery of Listed Species**

- a. Fencing of the Haputo Ecological Reserve Area (HERA) Access Trail, Signage, and Education:** The fencing will prevent overuse by military and civilian personnel and potential damage to terrestrial biological resources within the HERA.

Conservation Measure Implementation: Fence sections to control access to the Haputo Beach trail remain in place to prevent entry to sensitive snail habitats.

HERA signage was installed in FY24 and focused on environmentally responsible and culturally sensitive recreational use of the HERA with instruction inclusive of, but not limited to, the following:

1. Respect latte stone areas;
2. Do not touch snails;
3. Do not touch turtles or their nests/eggs.

Additionally, installation at the trail head of four large educational signs, 28 trail signs and nine beach signs began in FY25 to promote awareness of natural resources and their protection along the trail and is expected to be completed in FY26.

- b. Pre-construction Survey, General Listed Plant Salvage and Translocation:** The DON will conduct pre-construction surveys to identify all listed plant species prior to the commencement of construction activities. If pre-construction surveys identify a listed plant species present in the construction area and the individuals cannot be avoided or translocated, then healthy plant material will be salvaged or available seeds will be collected, and such material will be housed in the native plant nursery or directly transplanted into protected habitat or forest enhancement sites.

Conservation Measure Implementation: DON compliance with the conservation measure continues. In FY25 the DON conducted pre-construction surveys for MILCON projects J-200-II Communication Line project, P-187 Multispecies Barrier project, P-103 Water Wells project, and P-290 Earth Covered Magazine. In FY25, salvage for J-200-II *Tuberolabium guamense* (31) and *Bulbophyllum guamense* (1) has been completed and is in the maintenance and monitoring phase at the Caguat forest. *Tabernaemontana rotensis* (66 seedlings; 356 cuttings from 27 parent trees) and *Cycas micronesica* (1) salvaged from the project are subject to ongoing maintenance and monitoring within the nursery prior to outplanting in the Caguat forest.

- c. Native Plant Nursery:** The native plant nursery was developed for the storage and propagation of native and listed plant species associated with the proposed action.

Conservation Measure Implementation: MCBCB's native plant nursery continued propagation and outplanting activities in FY25. For FY25, 12 *Heritiera longipetiolata*, two *Bulbophyllum guamense*, and 357 *Cycas micronesica* that were outplanted in the Caguat FES by the nursery contractor were turned over to MCBCB. Trees were accepted based on the success criteria established in the outplanting contract: trees must exhibit generally good vigor, trunk growth, canopy spread, and have no sign of mechanical, pest, or pathological damage twelve (12) months after outplanting.

The contract for native plant nursery management, and seed collection and propagation was active throughout FY25.

- d. Authorized Biologist Qualifications and Propagation/Translocation Authorization Process:** Prior to commencing transplantation of the listed species the DON shall submit a statement of qualifications for potential biologists to the FWS.

Conservation Measure Implementation: The DON did not submit any requests for authorized biologists for this fiscal year. All on-going projects are managed by previously-approved authorized biologists.

- e. **Annual Reporting of Conservation Measures:** The authorized biologist shall record each observation of each species handled in an annual monitoring report.

Conservation Measure Implementation: Salvage for J-200-II occurred in this reporting period based on **Table 2** below.

**Table 2.** Species salvaged from J-200-II under maintenance and monitoring (i.e. Pending Turn Over to MCBCB).

Species Salvaged from J-200-II	Salvaged	Under Maintenance and Monitoring	Turned over to MCBCB
<i>Cycas micronesica</i>	1 parent tree (17 Clones)	1 parent tree (17 Clones)	0
<i>Tabernaemontana rotensis</i>	66 Seeds; 356 cuttings from 27 Parent Trees	37 Seedlings; 60 cuttings from 15 Parent Trees	0
<i>Bulbophyllum guamense</i>	1	1	0
<i>Tuberolabium guamense</i>	31	26	0

- f. **Avoidance of Listed Orchid Species in Small Location at Finegayan:** The DON will not construct within the area designated as “No Construction Area” within the main cantonment because the location is not suitable for construction, as it serves as habitat for a large number of ESA-listed orchids. The area is known to contain approximately 816 *T. guamense* and one *D. guamense* orchids.

Conservation Measure Implementation: Consistent with the conservation measure, no construction has occurred within the area.

- g. **Forest Enhancement Sites, Ungulate Eradication Areas and BTS Exclusion Fences:** This conservation measure contributes to the recovery of listed species within two FES (Caiguat and Taguac FES as shown below), the Mason LFTRC (former NWF) Ungulate Control Area, and through the installation of two BTS exclusion fences (north and south unit). If BTS suppression is successful at the South Unit under construction as project P-187 (North Taguac), construction of the North Unit is proposed at Caiguat Phase I).



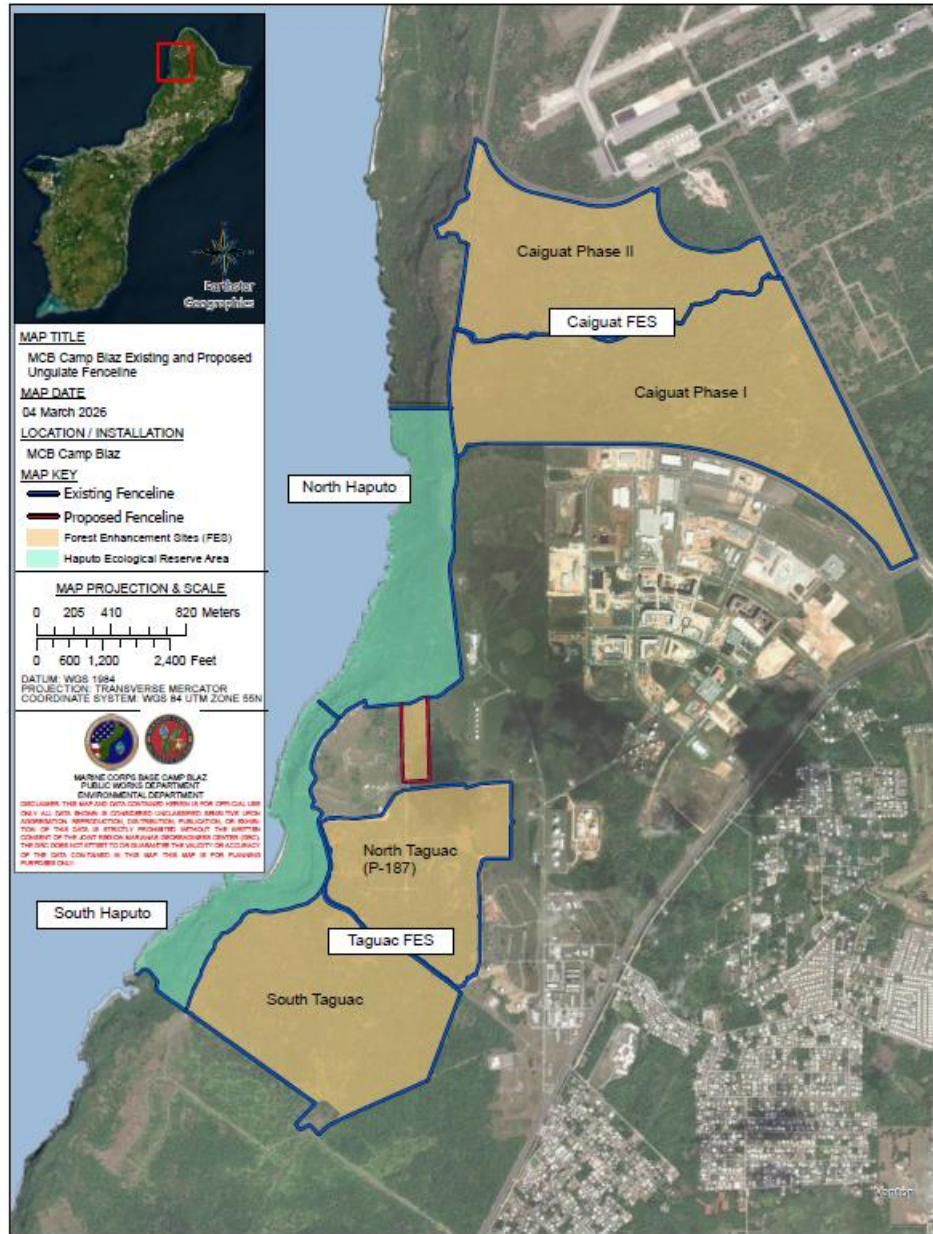
*T. guamense* juveniles from natural recruitment (Taguac FES)



*Ochrosia mariannensis* from naturally-dispersed seed (Caiguat FES)



Adult Mariana Eight-spot Butterfly within host plant area (Caiguat FES)



Conservation Measure Implementation: Forest enhancement and restoration activities conducted to date include:

1. Identification of forest restoration/enhancement blocks **(Complete)**;
2. Mapping the proposed forest restoration/enhancement area boundaries **(Complete)**;
3. Obtaining installation approvals for specific area of forest to be restored or enhanced and vegetation clearance approach for permanent ungulate fences, access-grid trails, and temporary cross fencing **(Complete)**;
4. Obtaining clearance for any ground disturbing activities from Unexploded Ordnance (UXO) specialist **(As Needed)**;

5. Performing forest inventory for species density and dominance (**Complete**);
6. Constructing permanent ungulate exclusion fence around perimeter of the enhancement sites. **Completed:** Caiguat Phase 1 ungulate fence installation was completed in FY20. Repairs from Typhoon Mawar in 2023 are ongoing. Caiguat Phase 2 ungulate fence installation was completed in FY21 and typhoon damages are currently under repair. Repairs to both Caiguat Phase 1 and Phase 2 fences are expected to be complete by December 2026. South Taguac FES fence was completed in July 2025. **Ongoing:** MILCON P-187, the multi-species barrier fence for North Taguac FES, will also function as a permanent ungulate exclusion fence. Construction is anticipated through FY26. As this fence is a much more robust barrier, designed to exclude snakes, rats, and cats as well as pigs and deer, the multi-species barrier fence requires significantly more time to construct due to exacting specifications and a need to test the fence's ability to exclude the target species. MCBCB has delayed completion of this fence to ensure that it is "snake-proof." Coordination of testing and evaluation of design effectiveness is ongoing with U.S. Department of Agriculture and U.S. Geological Survey BTS subject matter experts. Snake breach simulation activities will continue through FY26 prior to final acceptance of the fence.
7. When fencing is complete, begin the ungulate removal program. **Rework Required due to Typhoon Damage:** Ungulate removal in Caiguat FES Phase 1 was completed in October of 2020. Ungulate removal in Caiguat FES Phase 2 was completed in October 2021. However, catastrophic damages to both fences in Typhoon Mawar in 2023 led to re-occupation of both Phase 1 and Phase 2 by pigs and deer. **Ongoing:** Re-eradication efforts were required at both Caiguat FES Phase 1 and Phase 2 following ungulate re-establishment after Typhoon Mawar due to fence damage. By the end of FY24, 31 deer and 25 pigs were removed from Caiguat FES Phase 2. Increased monitoring for ungulates was conducted along fence sections with temporary repairs, leading to detection and removal of an additional 3 deer in FY25. Caiguat FES Phase 1 removals will begin after permanent fence repairs, which are expected to be complete in December 2026. Ungulate removal at Mason LFTRC was completed in December 2025 with the removal of 339 deer and 68 pigs.
8. Monitor ungulate removal program. Based on ungulate monitoring results, implement further ungulate control activities to achieve ungulate eradication. **Ongoing:** In addition to reports from outplanting teams, cooperators, contractors, and MCBCB biologists, a formal ungulate monitoring plan is under development. Additional options for rapid response for incursions are under development with removal contracts anticipated for FY26 execution.
9. Identify compatible invasive plant removal tools and native plant species planting palettes to be used for individual work plans for forest enhancement projects. **Response:** A contract for large scale invasive tree removal and native plant outplanting for the first two blocks of the Caiguat FES Phase 1 was awarded in FY23. MCBCB has approved the contractor plant list, and seed collection activities and propagation is ongoing at the contracted nursery. **(Ongoing)** Because tools to remove invasive plants may also harm native plants, invasive removal efforts must

- be carefully designed and implemented to protect native plants and federally listed species. Assessments to support protection of native species include extensive surveys to locate federally listed species and create safety buffers to prevent harm during invasive removal efforts and site preparation for ungulate removal, creation or maintenance of access trails, and outplanting of native species. **Completed:** Surveys for listed species within Caiguat FES Phase 1 were completed in FY22. Surveys for listed species in North Taguac FES were completed in FY23. Surveys for listed species in South Taguac FES were completed in FY24. **Ongoing:** Surveys for listed species in Caiguat FES Phase 2 are ongoing in FY25.
10. In FY25 invasive species removal commenced in Block 1 of the Caiguat FES with invasive removals in Block 6 slated for FY26 (**Ongoing**).
  11. Although planting during the wet seasons is preferred, irrigation is required for flexibility to perform forest enhancement work during the dry season or during a wet season with less-than-anticipated average rainfall. **Response:** Prior to outplanting, installation of irrigation lines and access paths to facilitate outplanting and invasive plant control were installed in Caiguat FES Phase 1 in FY23. Damage to this infrastructure occurred during Typhoon Mawar and a contract to restore the lines and paths was awarded in FY24. Installation of irrigation lines and access paths for Caiguat FES Phase 2 began in FY25. A contract for large scale invasive tree removal and native plant outplanting within the first two blocks of the Caiguat FES Phase 1 was awarded in FY23 and is ongoing in FY25. (**Ongoing**);
  12. Conduct vegetation and ungulate monitoring, repair fencing, implement further ungulate removal activities, control invasive plants, and outplant native species. (**Ongoing**); and
  13. If a typhoon occurs during the forest enhancement process, fences will be inspected, repaired and if fences have been breached, conduct necessary ungulate control. **Ongoing:** Contracts to repair typhoon-damaged fences were awarded within 150 days of Typhoon Mawar's passage in FY23. Permanent fence repair is now underway and targeted removal of pigs and deer is occurring to protect sensitive outplanting sites during the repairs. Permanent repairs are expected to be complete in December 2026, with full Caiguat Phase 1 and Phase 2 re-eradication anticipated to be completed within 12 months of the fence completion. The DON is currently exploring options to reduce future damages by hardening fences, creating more robust maintenance requirements for vegetation management, increasing monitoring, and establishing contracting mechanisms for more timely responses to incursions.

Incidental Impacts to Listed Species: On September 23, 2024, MCBCB notified FWS of branch pruning impacts to four *Tabernaemontana rotensis* that were cut by FES ungulate depredation contractors during emergency ungulate removals as part of recovery work after Typhoon Mawar in 2023. Since the incident, the following mitigation actions have been implemented: 1) demarcation quality checks by MCBCB in-house and contracted biomonitors, and 2) ESA-listed species awareness training for the ungulate depredation contractor. The contractor will outplant six *T. rotensis* in FY26, with 12 months of maintenance and monitoring.

Incidents of unplanned work impacts to species and habitat by the J-200-II contractor in separate events on August 15, 2025 and August 28, 2025 is earlier discussed in Part I, Sec 2.b.

**h. Brown Tree Snake Exclusion Fences:**

Conservation Measure Implementation: The BO commitment to install a brown tree snake (BTS) barrier to exclude BTS from approximately 160 acres (65 ha) of limestone forest was based on the current experimental suppression activities within the Habitat Management Unit

(HMU) having been determined to be successful. Although eradication efforts within the HMU has not been determined to be successful, the advancement of experimental suppression tools that can suppress BTS populations on a landscape-level supported the DON decision to proceed with obtaining Congressional authorization for the construction of an approximately 180 acre multi-species barrier to control BTS, ungulates, rats, and cats.

The MILCON P-187 Multi-Species Barrier (MSB) project awarded in FY24 is the largest single invasive wildlife exclusion barrier on Guam to date. Most of the fencing has been erected, but MCBCB has delayed project acceptance to conduct testing that confirms that the fence is snake-proof. The final snake-proof testing of pedestrian and vehicle gates is scheduled in FY26. Eradication efforts for BTS, rats, cats, and ungulates within the MSB-enclosed area will occur after project acceptance and based on the timing of funds availability.

**i. Northwest Field Ungulate Control Area:** Construct an ungulate exclusion fence to exclude feral ungulates from the LFTRC in NWF.

Conservation Measure Implementation: At the Mason LFTRC, 4.1 miles of ungulate exclusion fence installation was completed in March 2022. Eradication was completed in FY25 to exclude ungulates from a total of approximately 382 acres of ESA-listed species habitat consisting of 218 acre (88.2 ha), 66.7 acre (27.0 ha), and 97.1 acre (39.3 ha) of primary limestone forest, secondary limestone forest, and herbaceous scrub, respectively. Immediately after Typhoon Mawar, an assessment of LFTRC ungulate fencing was conducted. Repairs to the fence were completed in FY25. Ongoing ungulate monitoring in LFTRC has identified steep cliffline areas that ungulates are likely using to re-enter the ungulate-free area. Based on this information, additional fencing is planned to be installed in FY26 to prevent ungulate incursions.

**2. Conservation Measures for Specific Species**

**a. Mariana Eight-Spot Butterfly:** The DON will conduct pre-construction surveys to identify any stages of the Mariana eight-spot butterfly prior to the commencement of construction activities. If any life stage of the Mariana eight-spot butterfly is located within a project footprint, it will be relocated onto an appropriate host plant within similar sites away from the project footprint. In addition, DON will plant the Mariana

eight-spot butterfly host plants (*P. pedunculata* and *E. calcareum*) within the forest enhancement sites and on the backside of the earthen berms of LFTRC ranges.

Conservation Measure Implementation: Surveys, salvage, and translocation of Mariana eight-spot butterflies were completed in October of 2021, completing this portion of the conservation measure.

Four hundred and ninety eight (498) butterfly host plants were planted on the backside of four of the earthen berms of Mason LFTRC, above and beyond the number of plants removed by construction (57). In FY25, the contract for the placement of vegetation of the remaining berm for the Multi-Purpose Machine Gun Range was awarded. Work plan development and propagation of butterfly host plants occurred in FY25. Outplanting, monitoring and maintenance of a commensurate number of host plants on the P-735 project berm is slated to begin in FY26.

As a result of the ungulate fencing and eradication efforts to date, we have observed natural recruitment of host plants at the Mason LFTRC, Caiguat FES and Taguac FES along with adult Mariana eight-spot butterfly (ababang) sightings at Caiguat FES. As part of FY23 training, environmental staff voluntarily planted 2,500 Mariana eight-spot butterfly host plants (1,101 *Elatostema calcareum* and 1,399 *Procris pedunculata*) in the Caiguat FES to expand habitat corridors. Monitoring in FY24 and FY25 revealed that both larval and adult stages of the Mariana eight-spot butterfly (ababang) have successfully colonized the site, a critical outcome enabled by active ungulate management and expansion of butterfly host plant areas.

- b. Guam Tree Snails [*Guam tree snail, fragile tree snail, and the humped tree snail*]:** Pre-construction surveys will be conducted to identify any Guam tree snail, fragile tree snail, or humped tree snail within the project footprint prior to the commencement of construction activities. If any listed snail is found, the authorized biologist will translocate the listed snail away from the project footprint and into suitable habitat.

Conservation Measure Implementation: No tree snails were translocated in FY25 as none were identified within any project footprints during the reporting period.

- c. Mariana Fruit Bat:** Surveys following the FWS-recommended JRM protocol will be conducted one week prior to the onset of work.

Conservation Measure Implementation: Addressed in Part I. item 2.c.

- d. Listed Plant Species:** Healthy listed plants located within a project footprint will be transplanted into the FES or other suitable protected areas (e.g., NWF Ungulate Control Area) prior to clearing. Transplanted plants will be maintained and monitored for a minimum of 12 months.

Conservation Measure Implementation: DON committed to a minimum of 50% survivorship of listed plants transplanted. For all species salvaged and transplanted, the DON

has continued to exceed the 50% survival rate. **Table 3** identifies the number of individuals impacted by construction (Column B) and the survival rate by species (Column C). Individuals reported are broken down by those that have been out planted and completed maintenance/monitoring (Column E. Turned Over to MCBCB), and those still under active maintenance, whether in a nursery or outplanting site (Column F. No. Pending Turn Over to MCBCB). The twelve (12) month maintenance and monitoring period-post outplanting is integral to all MCBCB outplanting contracts to maximize survival and ensure the DON meets or exceeds the survival criteria. The highest MCBCB success rate thus far is the replacement of 340 *Tabernaemontana rotensis* with 987 *T. rotensis*, a 290% rate of survivorship.

**Table 3.** Provided below are the FY25 status of listed plant species cumulatively salvaged from various construction project footprints. Individuals turned over to MCBCB have met the success criteria outlined in the conservation measure and completed the contractual 12-month maintenance and monitoring period. Individuals pending turn over are at varying stages of contract completion, ranging from nursery maintenance to 12 months post-transplant monitoring.

A. Listed Plant Species	B. No. of Unique Individuals Subject to Removal	C. Survival Rate in Percent (Minimum 50% Required)	D. Total Under DON Control (Column E + F)	E. No. Turned Over to MCBCB	F. No. Pending Turn Over to MCBCB
<i>Bulbophyllum guamense</i>	74	100%	74	73	1
<i>Cycas micronesica</i> *	1342	65%	874	409	465*
<i>Dendrobium guamense</i>	46	96%	44	44	0
<i>Heritiera longipetiolata</i>	11	209%	23	23	0
<i>Tabernaemontana rotensis</i>	340	290%	987	890	97
<i>Tuberolabium guamense</i>	9329	79%	7367	7341	26

\* Number of *Cycas micronesica* pending turn over (Column F) include 210 germinated seedlings and 793 seeds in active propagation. Additionally, there are 0 seeds pending processing for propagation and not yet counted.

3. **Conservation Measures to Minimize the Effects of Construction:** Addressed under the response for the July 31, 2015 Biological Opinion on the Department of the Navy’s Relocation of U.S. Marine Corps from Okinawa to Guam and Associated Activities on Guam. See Part I, Paragraph 2 of this report.
4. **Conservation Measures to Minimize the Effects of Invasive Species:** Addressed under the response for the July 31, 2015 Biological Opinion on the Department of the Navy’s Relocation of U.S. Marine Corps from Okinawa to Guam and Associated Activities on Guam. See Part I, Paragraph 3 of this report.
5. **Conservation Measures to Minimize the Effects of Fire:** Addressed under the response for the July 31, 2015 Biological Opinion on the Department of the Navy’s Relocation of U.S.

Marine Corps from Okinawa to Guam and Associated Activities on Guam. See Part I, Paragraph 4 of this report.

## 6. Conservation Measures to Minimize the Effects of Training

a.& b. Addressed in Part IV.

c. **Designated No Wildlife Disturbance Areas:** To date there has been no MCBCB unit-specific training at Naval Base Guam Munitions Site. The DON will ensure that military training units work in close coordination with JRM MIRC Operations to clearly define authorized training restrictions, and where appropriate, designate No Wildlife Disturbance (NWD) areas or other designations to prohibit training in sensitive sites. The DON will work closely with DON biologists to identify new areas appropriate for designation as 'No Wildlife Disturbance' consistent with USMC combat readiness and training requirements.

## 7. Terms and Conditions:

a. **T&C 1 – Implementation of Conservation Measures:** Addressed in Parts I and II of this report.

b. **T&C 2 – Minimization of the level of incidental take of the Mariana fruit bat, Mariana eight-spot butterfly, Guam tree snail, humped tree snail, and fragile tree snail:**

T&C Implementation: [2.a] In FY25, MCBCB staff conducted fruit bat surveys prior to vegetation clearing for the P-187, J-200-II, P-290 and P-103. No fruit bats were observed during either morning or evening survey; therefore, no construction was halted in FY25 due to the presence of a Mariana fruit bat within 492 ft. (150m) of a construction site.

[2.b] Hooded lighting is being planned for construction actions within 492 ft. (150 m) of all potential Mariana fruit bat roost habitat. Post-construction hooded lights have been installed at the five ranges within the LFTRC.

[2.c] Educational materials regarding Mariana fruit bat appearance, behavior, and biology have been provided to all pertinent DON personnel so that they can correctly identify any Mariana fruit bats near or within the action construction and operation area.

[2.d] There have been no changes to noise contour as it relates to the action; and, to date, no Mariana fruit bat habitat has been subjected to increased noise levels from aircraft operations from relocating Marines. Quarterly fruit bat monitoring for maternity colonies began in FY23 to survey occurrence in areas of concern one year prior to start of full firing range and aircraft operations anticipated no earlier than calendar year 2026. No maternity colonies were observed in FY25 for LFTRC and aircraft noise-affected areas.

[2.e] There have been no changes to noise contour as it relates to the action; and, to date, no Mariana fruit bat habitat has been subjected to increased noise levels from aircraft operations. Quarterly fruit bat monitoring for roosting sites began in FY23 to functionally capture fruit bat occurrence in areas of concern one year prior to full range and aircraft operations. No roosting sites were observed in FY25 for LFTRC and aircraft noise-affected areas.

[2.f] Noise study at GNWR: The MPMG range at Mason LFTRC is pending certification; therefore, full operations have not started, and no noise studies at the GNWR and Ritidian Point have been initiated.

[2.g] Snail surveys at Andersen South (now MCBCB Skaggs Urban Training Complex) were completed in 2020.

[2.h] Conduct a biological survey, no less than annually, for the purpose of evaluating the use of sites where host plants with life stages of the Mariana eight spot butterfly (e.g., eggs, caterpillar, and chrysalis) were relocated onto an appropriate host plant (e.g., relocate prediapause larvae to *Procris pedunculata* or *Elatostema calcareum*) away from the project footprint.

T&C Implementation: A cooperative agreement for evaluating the use of host plants where the Mariana eight-spot butterflies were relocated in Mason LFTRC was awarded in FY23. A new cooperative agreement was awarded in FY25 and is ongoing. Host plants are monitored every two months over a twelve month period.

- c. **T&C 3 – LFTRC Fence:** The DON shall complete the NWF Ungulate Control Fence within two years of awarding a contract for construction of the portion of the LFTRC that removes the existing Ritidian Ungulate Fence.

T&C Implementation: At the Mason LFTRC (formerly referred to as NWF), 4.1 miles of ungulate fence installation was completed in March 2022, completing the fencing identified in the conservation measure and term and condition.

Immediately after Typhoon Mawar, an assessment of LFTRC ungulate fencing was conducted. While no significant breaches were identified, temporary repairs were completed during eradication efforts. Permanent repairs to the perimeter fence and internal net fencing partitions were also completed in FY25. Additional cliff line areas that may serve as ungulate pathways were identified during eradication. Installation of fencing to close off these paths is planned for completion in FY26.

- d. **T&C 4 – NWF Ungulate Control:** NWF Ungulate Control: DON shall remove all ungulates from the NWF Ungulate Control Area within six months after completing the NWF ungulate fence. The NWF area in the BO subject to ungulate control is now referred to as MCBCB Mason LFTRC.

T&C Implementation: The DON committed to removing all ungulates from the ungulate control area within six months after completing the ungulate fence; however, eradication has taken longer than anticipated due to factors such as site cleanup and construction-associated emergency explosive demolition activity, range activation operations, and recovery work from the catastrophic impacts of Typhoon Mawar. The pool of qualified people to conduct ungulate management is extremely small. During normal conditions, scheduling these teams is difficult given the volume of work to be completed, and after Typhoon Mawar, the work more than doubled to address damages to ungulate fences and previously eradicated sites such as the Caguat Forest Enhancement Site. Because of these delays eradication at Mason LFTRC was slowed, but full eradication was completed in FY25.

**e. T&C 5 – Take Monitoring Plan (TMP):**

T&C Implementation: DON completed the Take Monitoring Plan on September 19, 2017.

To date, 71 acres of snail surrogate habitat have been cleared out of the 212 acres anticipated to be impacted, 788 acres of bat surrogate habitat have been cleared out of 2,136 acres anticipated to be impacted, and 165 acres of butterfly surrogate habitat have been cleared out of 338 acres anticipated to be impacted under the incidental take statement. It is anticipated that no further vegetation clearing of snail and butterfly surrogate habitat is required to complete the proposed action, which represents a significant reduction from planned removal estimates.

**PART III: BIOLOGICAL OPINION 01EPIF00-2016-F-0185 OF OCTOBER 30, 2018**  
**(2018 BO AMENDMENT)**

**1. General Conservation Measures to Contribute to the Recovery of Listed Plants**  
Addressed in Part II.1.a.

**2. Pre-construction Surveys, General Listed Plant Salvage and Translocation**  
Addressed in Part II.1.b. The letter dated June 24, 2020 from FWS acknowledged that Section

10(a)(1)(A) permits are not required to implement the conservation measure. The Department of Interior (DOI) Solicitor clarified the definition of “remove and reduce to possession” of federally listed plants and indicated that because none of the transplantations in support of the DON actions would reduce a plant to possession, none of the transplantations would violate § 9(a)(2)(B) of the ESA.

**3. Native Plant Nursery** Addressed in Part II.1.c.

**4. Authorized Biologist Qualifications and Translocation Authorization Process**  
Addressed in Part II.1.d.

5. **Annual Reporting of Conservation Measures** Addressed in Part II.1.e.
6. **Avoidance of Listed Orchid Species in a Small Location of Finegayan** Addressed in II.1.f.
7. **Forest Enhancement Sites, Ungulate Eradication Areas, and BTS Exclusion Fences:** Addressed in Part II.1.i

**PART IV. CONSERVATION MEASURES FROM SEPARATE INFORMAL  
CONSULTATIONS:**

**1. Sea Turtle Lighting Installation, Public Outreach and Coordination and Mariana Swiftlet Aviation and Ground Training in Naval Munitions Site (NMS):** This reporting requirement not applicable for Mariana swiftlets and sea turtles as these species were addressed through informal consultation. Refer to FWS letter of March 27, 2020. The conservation measures identified by the DON will be implemented as stated in the informal consultation.

**APPENDIX I: ON-GOING OR INITIATED CONSTRUCTION PROJECTS**

The following list includes construction projects in support of the proposed action located at Marine Corps Base Camp Blaz (MCBCB) main cantonment, Andersen Air Force Base (AAFB), MCBCB Mason LFTRC (formerly Northwest Field), MCBCB Skaggs Urban Training Complex (UTC; formerly Andersen South), and Naval Base Guam (NBG) that were ongoing or initiated in FY25.

- 1) H-279/280/282 AAFB Housing Phases 1-3
- 2) H-366/283/375 AAFB Housing Phases 4-6
- 3) H-387/307 AAFB Housing Phases 7-8
- 4) J-014 Physical Training Complex
- 5) J-015 Dining Facility
- 6) J-017 I & III Area Distribution Nodes (ADNs)
- 7) J-018 Police Station
- 8) J-023 Bachelor Officer Quarters (BOQ) A
- 9) J-025 Medical Dental Clinic
- 10) J-031/033 Bachelor Enlisted Quarters (BEQ) D and F
- 11) J-032/036/037/038/039 (BEQ “5-plex”)
- 12) J-032-1 MCBCB Shared Parking Lot
- 13) J-034 BOQ B
- 14) J-035 Education Center
- 15) J200-II North Ramp Utilities Communications Line
- 16) J-301 Consolidated Headquarters
- 17) J-313 Corrosion Control
- 18) J-318 Public Works/Maintenance Shop
- 19) J-321 Corrosion Control Ground Phase II
- 20) J-323 Base Motor Pool
- 21) J-609 Apra Embarkation Facility
- 22) J-755 Urban Training Complex (UTC)
- 23) P-103 Water Wells
- 24) P-187 Brown Tree Snake (BTS) Exclusion Barrier South
- 25) P-270 Air Combat Element (ACE) Gym and Dining Facilities
- 27) P-280 Aviation Admin Bldg.
- 28) P-290 Earth Covered Magazine (MSA)
- 29) P-296 Ordinance Admin
- 30) P-305 4<sup>th</sup> Marine Regiment Facilities
- 31) P-306 CLB-4 Facilities
- 32) P-307 Consolidate Armory
- 33) P-309 Ground Combat Element – Infantry Battalion 1&2 Facilities
- 34) P-310 Infantry Battalion Company Headquarters
- 35) P-312/804 Distribution Warehouse/Central Issue Facility
- 36) P-314 Marine Expedition Brigade (MEB) Enablers
- 37) P-316 Artillery Battery Facilities
- 38) P-317 Consolidated Explosive Ordinance Disposal (EOD) Compound
- 39) P-324 9<sup>th</sup> ESB Headquarters
- 40) P-325 9<sup>th</sup> ESB Equipment and Maintenance Facility
- 41) P-326 PEI Warehouse
- 42) P-406 Recreation Center
- 43) P-408 Religious Ministry Services Facility
- 44) P-415 Child Development Center
- 45) P-459 BEQ
- 46) P-459B MCBCB Shared Parking Lot
- 47) P-735 Machine Gun Range (including UXO 4A Area)
- 48) P-760 Training Center
- 49) P-802 Base Warehouse
- 50) P-803 Individual Combat Skills Training
- 51) P-870 9<sup>th</sup> ESB Training Complex
- 52) P-871U Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Training Facility

## **MAPS**

