[redacted]

DRAFT Meeting Summary for DON and USFWS Consultation for the Military Relocation to Guam
Environmental Building MCBH Kaneohe
23-25 August 2016

Attendees

(b) (6) [redacted]

(b) (6) [redacted]

Tuesday 23 Aug – Environmental Bldg Marine Corps Base Hawaii Kaneohe

Opening Remarks and Introductions

- Welcome & Admin remarks – (b) (6) [redacted] provided the welcome and admin remarks
- Introductions – All
- Opening remarks – (b) (6) [redacted] provided opening remarks.
    a. **NAVY:** The Navy team expressed that they had questions on the biological opinion (BO); and would like to get a better understanding of FWS thoughts on these topics. Navy expressed a desire to discuss new information that may inform the FWS's analysis in the BO.
    b. **FWS:** The FWS team expressed appreciation for the Navy's concerns but emphasized that the FWS team was in listening mode at this meeting. The FWS also reemphasized that the current version of the BO was a working draft copy, and acknowledged that analysis and information on some of the species within the scope of the consultation was still incomplete. The FWS stated that they looked forward to receiving any additional or new information that Navy may be able to provide, and that they were there to help Navy better understand the information contained within the working draft BO.

Discussion on Assumptions in the Analysis

- Fire Management Plan (FMP)– Navy and FWS had a lengthy discussion on the FWS assumption in the BO regarding the FMP. Discussions had an emphasis on the certainty of not only the implementation of the plan, but also the effectiveness of the FMP.
    - **NAVY:** Navy identified the issue of concern that the draft BO did not consider the FMP conservation measure (CM) as part of their analysis. Navy opened the discussion with identifying that the FMP was discussed extensively during the 2014/2015 consultation. The language was developed in concert with FWS representatives and worked to develop the language that was ultimately

 [redacted]

included as the CM. Navy reaffirmed that having and implementing a FMP was not discretionary, but rather required under Marine Corps Order 3550.10. However, since the Live Fire Training Range Complex (LFTRC) has not been constructed a specific plan cannot be prepared but will be developed and implemented prior to using the range. Navy offered to provide a sample FMP from another Marine Corp range to FWS for their review. Navy noted that FMP's are specific to each range and that the sample FMP is just to demonstrate the type of information included in the document. Navy also offered some examples of the effectiveness, including protection measures that are included in a FMP, such as awareness through training and briefs, firefighting drills and training, fuel and fire breaks, military air on standby with fire bucket, constant monitoring of the impact area, constant communication with radio, and no open flames. In addition, Navy reaffirmed, as stated in the BO, that the FWS would have an opportunity to review the LFTRC FMP once it was developed.

- **FWS:** FWS requested more specifics about the effectiveness of the FMP. FWS expressed interest in fire response, management and emergency response in regard to listed species protection, and requested specific language that would include language that fire management crews be provided locations of critical species or host plants. FWS acknowledge that having a sample plan would be beneficial and would help them to develop an analysis to support implementation and effectiveness of the plan. FWS identified that they are concerned that they don't get to approve the FMP, but they did acknowledge they do get to review it for 30 days.
- **WAY FORWARD: Navy to provide FWS with a sample FMP and specific information to the LFTRC that is available at this time to support FWS analysis.**

- Salvage, captive propagation and outplanting – Discussions focused on clarifications regarding the level of implementation of the CM, the success of the methodology related to salvage, captive propagation and outplanting, especially as it relates to the butterfly, the ability of the CM to mitigate impacts, and the standard to apply in evaluating the success of this CM.
  - **NAVY:** Navy expressed concern that FWS did not include the CM regarding salvage, captive propagation and outplanting in their analysis. The Navy provided additional information that there has been recent success by (b) (6) at the University of Guam (UOG) with propagating rearing the butterfly eggs and larvae and (b) (6) (former botanist with GNWR) has had success propagating the host plants. Navy requested FWS consider the new information that supports the success of the methodology as part of the CM. Navy informed FWS that the Navy has a request for statements of interest (RSOI) advertised to survey for more host plants with the intent of gaining more information about occurrences of the host plant.

- Navy and FWS also discussed the potential of gaining knowledge of the species (butterfly) as the benefit since currently there is so much unknown and any knowledge gained will move us closer to survival and recovery.
- **Way Forward: Navy will provide additional information on the scope of the CM, including information on UOG's success for salvage and rearing to FWS. FWS will consider the new information in their analysis.**

- Conservations measures that include to the "maximum extent practicable"(MEP) – Discussions focused on FWS's concern that CMs that include to the "maximum extent practicable" are not reasonably certain to occur. Discussions emphasized that the analysis must not only look at the implementation of CM that includes MEP language, but also the commitment to the level or amount of implementation that FWS can count on in their analysis in the BO.
  - **NAVY:** Navy stated that the MEP language is included because of the unknown. As stated in the CM, the salvage of plants would be dependent on the health of the plant and whether or not it would survive transplantation. A qualified arborist or horticulturist will make the determination of "health." The MEP provides that Navy will do as much as Navy can within the parameters of our control.
  - **Navy**: Navy reaffirmed that there is already contract waiting to be awarded to implement this CM as soon as the BO is finalized, thus maximizing the amount of time available to salvage orchids. With respect to orchids Navy committed to salvage at least 2,000 plants and ensure successful translocation of at least 1,000 plants. Through discussions about the orchid CM, Navy answered many of FWS's questions about specifics to the CM with regard to MEP, focusing on the methodology/process and Navy's commitment to ensuring successful translocation of at least 1,000 plants. Navy also reaffirmed that monitoring after translocation is already addressed in the CM.
  - **FWS:** FWS expressed their issue is that MEP is used in a number of different contexts. After discussions specifically about the orchid salvage and translocation, FWS recommend to remove the term MEP, but where the MEP language remains, Navy should further define the meaning of MEP in each context.
  - **Way Forward: Navy will provide revised text on MEP to clarify some specifics of the intent and success in techniques.**

- Ritidian ungulate fence– Discussion on *Serianthes nelsonii* tree and ISR Strike fencing
  NAVY: Navy explained that though the fence at Northwest Field (NWF) was a CM of the 2006 ISR Strike BO, the action that warranted the CM was never implemented by the Air Force (AF). However, the AF received a non-compliance letter from FWS and the fence was constructed because it was assumed it was needed. Navy identified that two of the three actions addressed in the ISR Strike BO have been implemented through the Marine Corps relocation program (2010 and 2015 BO). Though the fence has been in place for 2 years, and ungulate removal has occurred for 1 year, the replacement of the fence is not warranted because the impact of the action never occurred. Navy is aware that the AF provided a letter to FWS in August 2016 that states the AF does not intend to take the third action before 2022. Navy noted that the BO should be revised to remove mention of replacing the ISR Strike fence and Navy requested that the FWS remove language in the BO citing the ISR Strike BO as an example of DoD not implementing its BO's.
  - **FWS:** FWS expressed the need for a fence in the area of Northwest Field to support ungulate management as it relates to the butterfly and explained the concern that removal of the fence and the clearing for various ranges provide avenues for ingress for ungulates to move around so they would need to be kept out of the area somehow to protect the remaining habitat. FWS agreed that a fence around the LFTRC will help the ungulate control concern and would serve as a replacement for the already constructed ISR NWF fence.
  - **Way Forward: Navy will assess the possibility installing an ungulate fence around the LFTRC. Concurrently, FWS will analyze the effects of including that CM on the butterfly.**

- "Notional as it related to host plants and MPMG design– Discussion on definition of "Notional" as it relates to the MPMG range
  - **NAVY:** Navy offered clarification of the term "notional" as it relates to host plants in the MPMG range. What was notional was the design of the range, because it has not been designed yet. However, what was not notional was Navy's commitment to avoid the host plants that were identified in the May 2016 Navy correspondence with FWS. Navy calls these the "cookie bites" out of the end of range construction footprint. These "cookie bites" would avoid impact to the plants in those areas. The design will include these cookie bites.
  - **FWS:** FWS expressed that they were previously unsure of what Navy meant by "notional". FWS accepted the explanation and affirmed they understood that the term "notional" only applied to the actual design of the range and that Navy is committed to avoiding the host plants identified at the end of the range on the northwest corner.
  - **Way Forward: All came to a consensus of what "notional" means in this consultation with regard to the LFTRC footprint.**

Discussion on Conservation Measures and how they are addressed in the analysis

- Overview: Discussion on how the CM are addressed in the analysis, including consistency of CM in biological opinions for the Guam relocation
    - **NAVY:** The Navy expressed concern that in this consultation, which is an amendment to the 2015 BO, the approach to CMs set up a situation of inconsistency of approach between the 2015 BO and this pending amendment to the 2015 BO. In addition, if additional CMs included in this amendment to the 2015 BO have the potential to affect the previously consulted on species, how will that be handled?
    - **FWS:** FWS provided that "housekeeping" would need to be done between the 2015 BO and pending amendment to the 2015 BO, and that the process to do that is not difficult. There are certain sections where FWS can cite the 2015 BO to reference and add clarification. FWS stressed that the important thing is make sure both sides are good with the changes addressed in the amendment to the 2015 BO.
    - **Way Forward: FWS and Navy will work together through the consultation process and regular meetings, and come to an agreement on the process that works best for everyone.**

Discussion on *Tuberolabium guamense* surveys and analysis

- Overview: Navy has new information and maps from recent orchid surveys
  Species Listing Discussion:
    - **NAVY:** The Navy expressed confusion and concern over the approach to survival and recovery of the species and the listing of the species less than one year earlier as threatened vice endangered at a much smaller population level. Navy asked how it is possible to support a listing of threatened with best available science at the time (Oct 2015) with a population on two islands totaling approximately 240 individuals (239 on Rota, and 1 on Guam), when now, through Navy surveys, there is a known population of over 8,000 on Guam, with more that are anticipated to be found. The surveys have only focused on DoD lands, and so it is extremely likely there are more orchids on non-DOD lands as well. Considering the listing criteria and result (1 on Guam), Navy asked FWS to provide the metric or criteria for the species population that would support survival and recovery. Navy recognized that there are two distinct processes of listing a species and determining the effects to the species within the context of a section 7 consultation, but offered that the science of the species should be the same for both of them.
    - **FWS:** FWS offered that there are two different processes – listing and jeopardy determination. However, FWS expressed that they did not have a lot of information on the species at the time of listing, and also identified that they do not have a recovery plan for the species.
    - **Way Forward: FWS provided that their goal is to have a recovery plan for the orchid within 3 years of listing.**

Criteria for Analysis

- **FWS:** FWS offered that they are happy that Navy found additional occurrences of the species, however that their analysis needs to look at the new baseline (adjusted to new population levels) and the relative impact to that population from the action. FWS is concerned with the population that is left, how it functions, and the impacts of edge effect and fragmentation. FWS expressed great interest in avoiding the northeast corner of Finegayan footprint.
- **NAVY:** Navy clarified that FWS had no "magic number" for the population of the species, and no recovery plan to help set that criteria. Navy expressed understanding of the analysis to look at "what is left" after the action and how it functions to determine whether there was a viable population remaining following construction..
- **Way Forward: Group agreed that further dialogue is necessary on this point.**

Discussion on edge and fragmentation effects for *Tuberolabium guamense*

- Overview: New information on existing orchids within a 150m buffer from habitat edge
  - **NAVY:** Navy provided new maps and empirical data that show that a significant portion of the existing orchids already exist within 150 m from the edge of the habitat (about 3700 of the 5000 at Finegayan exist within the 150 m from the edge). Navy also showed that over 98% of known occurrences of the orchid are on a non-native species of tree, *Vitex*. Navy provided historical information, including aerial photography showing the northeast corner of the Finegayan footprint was once a WWII encampment and contained extensive development to support that the species has adapted to the environment including habitat edge. Navy also noted that only one reference out of all the references made mention of a 150 m edge effect, and that this reference was not specific to plant species or the forest environment, but rather involved highly mobile animals.
  - **FWS:** FWS expressed interest in this new data and requested that the maps and GIS metadata be provided so that they could consider it in their analysis.
  - **Way Forward: DON will provide FWS the new data and maps, and provide revised Navy impact discussion based on the new information. FWS and Navy will discuss the information once received, and FWS will consider the new information in their analysis.**

Other Issues Discussed:

- Changing the action
  - FWS: Interest in discussing changes to the proposed action.
  - NAVY: Changing the proposed action is not up for discussion at this meeting. The meeting is focusing on the new data, assumptions and understanding the science behind the analysis based on the present proposed action.
- Participation in regularly scheduled meetings to continue consultation
  - FWS and NAVY: Agreed to participate in meetings every 2 weeks starting in mid September 2016.
- Timing of Consultation
  - FWS expressed concern about constant pressure to complete the BO within a designated time. Requested to determine a final date of new information to be submitted to FWS.
  - NAVY: Committed to providing a timeline and schedule and a final date of new information submittal.

Closing comments – (b) (6) [redacted]

DAY 2: Wednesday 24 Aug – Environmental Bldg MCBH Kaneohe

Opening Remarks and Introductions

- Welcome & Admin remarks – (b) (6) [redacted]

Discussion on Mariana eight-spot butterfly

- Overview: Mariana eight-spot butterfly discussion of metapopulation assumption and approach to analysis.
  - **FWS:** FWS provided a summary of what a metapopulation is and how it works and why it is assumed that the Mariana eight spot butterfly on Guam (four northern populations) functions as metapopulations. FWS emphasized that having a functioning metapopulation along with protection and removal of ungulates and the replanting of host plants is critical component for the species. FWS provided that currently there are existing corridors of habitat in the area of the LFTRC action that support the function of the metapopulations. The FWS explained that they will look at the impacts of the footprint of LFTRC first, then degradation of forest due to edge effects, followed by inclusion of an ungulate fencing, in their analysis for the butterfly.
  - **NAVY:** The Navy agreed with the assumption of the existing four northern populations of butterflies existing as metapopulations, and that there are currently corridors of habitat that support the function of the metapopulation dynamic. To address the 150m edge effect on butterfly host plants, the Navy provided new information and provided maps that showed known host plants

exist as close as 9m from the cliff edge. The Navy also clarified that the host plants in the northwestern corner of the construction footprint will be avoided. Navy noted that although the action will impact some limestone forest/karst environment, a corridor of habitat will remain on the northern edge of the range. In addition, the Navy clarified that the backside of the berm on the MPMG range will be revegetated and that provides an opportunity for host plant and/or food plant locations. This, coupled with the Navy's CMs (including fire management, salvage, rearing and release, and the LFTRC fence with ungulate removal), supports the analysis for the survival and recovery of the species.

- **Way Forward: Navy will provide all new maps, empirical data, and additional information on the butterfly to FWS. During the bi-weekly discussions FWS and Navy agree that there should be one dedicated solely to butterfly information and analysis. Both FWS and Navy agree more discussion needs to occur with regard to continued metapopulation function. FWS committed to examine the way they approached edge effect (how FWS applies it to different habitats and for different effects analysis) once they receive the new information/data from Navy. FWS specifically requested that they would like to have the actual survey tracks information in the data submittal as well.**

"Effects of the Action" and "Cumulative Effects" sections on -

- *Cycas micronesica*
- *Dendrobium guamense*
- *Heritiera longipetiolata*
- *Tabernaemontana rotensis*
- *Bulbophyllum guamense*
- *Psychotria malaspinae*
- *Eugenia bryanii*

- Overview: The analysis for the above seven species have not been conducted
  - **FWS**: FWS stated that they have not completed the analysis on the other species nor the cumulative effects because they were waiting to have this meeting. FWS surmised that they may hold off on completing those analyses until the orchid and butterfly analysis is resolved. FWS offered that they don't see huge "red flags' on the remaining species that need discussion. However, many utilize the same habitats so it would be prudent to complete the analysis on orchid and butterfly as it may provide benefits to the other species.
  - **NAVY:** Navy expressed concern that these species' analysis was not complete given the duration of the consultation thus far. Navy requested that they are able to review the next draft of the BO once it includes the cumulative effects and other species impact analysis.
  - **Way Forward: FWS and Navy will continue to consult on these species and Navy will be provided an opportunity to review a draft BO once the new analysis for all species is included.**

- **Inclusion of *Psychotria* and *Eugenia* in the consultation**
    - **FWS:** Given what little is known about those species and their distribution, FWS expressed similar concern for these species as for *T. guamense*. FWS recommended consulting on them would be a good idea. FWS stated they would need what amounts to a BA on the two species. The information provided needs to include the known distribution of the species within the action area and any new CM's, but it does not need to include the action description.
      NAVY: The Navy agreed to look into these species to determine if the species are within the footprint of the action area. The Navy staff on Guam has been conducting pre-construction surveys and there may be new information on the distribution of the species.

Discussion on Incidental Take Statement

- Overview- Discussion of how the incidental take statement for butterfly will be structured
    - **NAVY:** Navy inquired how the incidental take statement (ITS) for the butterfly would be structured. Navy inquired about the use of the host plant as a surrogate and how the take will be quantified. Navy stated that the ability to count eggs or larvae is difficult, and wondered what FWS anticipated as the metric for take for this species.
    - **FWS:** FWS offered that it is likely that the host plant will be used as a surrogate for the butterfly in the ITS. FWS also clarified that the courts require FWS to identify how take will be monitored.
    - **Way Forward: No timeline on completion of ITS as it depends on further consultation.**

Discuss info collection/dissemination

- Overview – How would FWS prefer to get the information and what is the timeline for consultation completion
    - **FWS:** FWS requested quality data that can be used to support the analysis. The type of information requested includes raw data in electronic format, spreadsheet or db file preferred, Lat/long for each individual occurrence, and maps. FWS did not want to commit to a timeline as it depends on when Navy provides the additional and new data requested over the last two days of meeting. FWS suggest that neither Navy nor FWS rush through the process. However, FWS did state that, 30 days following receiving data from Navy, FWS should be able to have a decision on the edge effect assumptions and analysis. FWS will need to re-read and reabsorb some of the literature and how they applied it to the analysis. FWS noted that conclusions of effects may not change, but they will consider the new information and the clarifications pertaining to the assumptions in their analysis.
    - **NAVY:** Navy does not want FWS to make a determination until they receive all of Navy's data.

- **Way Forward: Navy will determine the method and timeline for providing data.**

Wrap up – review action items / decisions

- Overview – Other discussions including bat analysis/amendment, and T&Cs in the working draft BO
- **NAVY:** Navy inquired about the pending bat amendment, and if it would be included in this same amendment or if it would be separate. Navy also inquired when they would get to review the draft bat amendment analysis. Navy indicated that some of the RPM's and T&Cs included in the working draft don't address impacts to butterfly. Navy requested the RPM's and T&Cs be revised consistent with these points to include removing any reference to the ISR Strike fence.
- **FWS:** FWS offered that the bat amendment would be separate and will address the request for re-initiation to increase their number. FWS stated that the Navy will not be getting a jeopardy for the bats, however changes to terms and conditions were unknown at this point. FWS committed to sharing the draft bat amendment by early FY 17.

Closing comments – (b) (6) [redacted]