Essential Fish Habitat

Potential impacts to Essential Fish Habitat from both training and construction would be the same as described under Section 4.4.3.4 Marine Communities. Alternative 1 would incorporate best management practices, standard operating procedures, and other measures to avoid or minimize impacts to marine resources and its crucial components, such as Essential Fish Habitat. These measures include erosion control measures during construction such as minimizing the ground disturbance area and adoption of a Stormwater Pollution Prevention Plan and a Hazardous Materials Management Plan that would prevent pollution in water sources and other habitats and fueling of any equipment occurring at least 120 feet away from the water and preferably on an impervious surface. New surfaces resulting from construction under Alternative 1 would be designed to minimize surface water runoff through implementation of low-impact development and best management practices for stormwater management systems. These measures would be developed in accordance with all applicable CNMI regulations for stormwater management and water quality, including applying the principles from the *CNMI and Guam Stormwater Management Manual* (Horsley Witten Group, Inc. 2006). Refer to Appendix D for a list of all best management practices that would be implemented during the Proposed Action. Therefore, potential adverse impacts would be minimal and temporary on water column and substrate Bottomfish Essential Fish Habitat and water column Pelagic Essential Fish Habitat. Bottomfish and Pelagic Habitat Areas of Potential Concern are outside the Action Area and would thus not be impacted. The USMC is consulting with the National Marine Fisheries Services on potential impacts to essential fish habitat under the Magnuson-Stevens Fishery Conservation and Management Act. The consultation will be complete and incorporated, as appropriate, into the Record of Decision.

4.4.4 Alternative 2

Under Alternative 2, impacts associated with construction would be very similar to those described under Alternative 1. Under Alternative 2, training would continue and would increase over the No Action Alternative by approximately 5 percent, compared to a 15 percent increase under Alternative 1. The types of impacts to both terrestrial and marine biological resources from training events would remain the same under Alternative 2. However, the decreased training tempo would reduce the frequency of temporary impacts (e.g., noise and visual impacts associated with human, vehicular, and aircraft presence) to both terrestrial and marine biological resources, specifically wildlife species or marine special status species. Therefore, impacts to biological resources from Alternative 2 would be less than significant.

4.5 Cultural Resources

4.5.1 Approach to Analysis

This analysis considers the impacts of the Proposed Action to cultural resources. Cultural resources include historic properties that are eligible for the National Register of Historic Places and other cultural resources that are not eligible for the National Register of Historic Places but still hold traditional, religious, or cultural importance to the community, such as cemeteries, memorials, and places for growing and/or gathering medicinal plants as discussed in both the Socioeconomics and Biological Resources sections. NEPA incorporates the National Historic Preservation Act analysis

of potential effects on historic properties as part of the evaluation of environmental consequences while also addressing environmental impacts to other categories of cultural resources.

NEPA and the National Historic Preservation Act are separate statutes that evaluate and address impacts differently. For example, the effects of an undertaking on a historic property can be adverse under the National Historic Preservation Act's Section 106 without triggering a determination of significant impacts for a Proposed Action under NEPA. Under Section 106, adverse effects to historic properties must be resolved through measures that avoid, minimize, or mitigate effects. Under NEPA, potential impacts can also be mitigated through avoiding, minimizing, or reducing impacts.

Impacts to cultural resources can occur both directly and indirectly, and result in the loss of character-defining features and/or aspects of integrity that convey a resource's significance. If the impact comes from the action at the same time and place with no intervening cause, it is considered direct regardless of its specific type (e.g., whether it is visual, physical, auditory). Indirect impacts are those caused by the action that are later in time or farther removed in distance but are still reasonably foreseeable. The assessment of impacts to cultural resources is based on the following considerations:

1) physically altering, damaging, or destroying all or part of a resource;
2) altering characteristics of the surrounding environment that contribute to a resource's significance;
3) introducing visual or audible elements that are out of character with the resource or that alter its setting;
4) neglecting the resource to the extent that it deteriorates or is destroyed; or
5) limiting access to resources and sacred sites where such access is currently available and important.

Additionally, Section 110(f) of the National Historic Preservation Act gives special consideration to National Historic Landmarks by requiring federal agencies, to the maximum extent possible, to minimize harm to any National Historic Landmark that may be directly and adversely impacted by an action. The Tinian Landing Beaches, Ushi Point Field, and the Tinian Island National Historic Landmark (hereafter called North Field National Historic Landmark) is within the area of potential effect. In accordance with Section 110(f), the USMC is, to the maximum extent possible, minimizing harm to the North Field National Historic Landmark from the Proposed Action.

Section 106 Consultation

Consistent with the National Historic Preservation Act, the USMC is conducting consultation on the Proposed Action with the CNMI Historic Preservation Officer, the National Park Service, the Municipality of Tinian, and the Advisory Council on Historic Preservation. The USMC initiated consultation in August 2023. The consultation included six in-person consultation meetings with the consulting parties through February 2025 to identify cultural resources, potential effects, and measures to avoid, minimize, and mitigate adverse effects to historic properties. Additionally, as part of this process, the USMC provided information and solicited input from the public in January 2024 to identify potentially affected cultural resources and again in tandem with the public comment period for this EIS in June 2025, which specifically requested feedback on the USMC's assessment of effects and proposed mitigation.

This consultation resulted in two documents that meet the USMC's Section 106 requirements. The first is an amendment to the 2022 Mariana Islands Testing and Training Programmatic Agreement that extends the coverage of ground training throughout the Military Lease Area and includes new live-fire training at the Multi-Purpose Maneuver Range and Explosives Training Range. The second is a programmatic agreement that covers the construction elements of the Proposed Action and includes alternate Section 106 procedures for those portions of the Proposed Action that could not be assessed for effects as well as those that may require modifications (Appendix H). Both programmatic agreements stipulate mitigations to avoid, minimize, or mitigate adverse effects. Minimization measures include limiting vehicle use to roadways, designating discrete training areas to allow for public access when compatible with training, and archaeological monitoring for ground disturbing activities. Additional minimization measures include cultural resources training for all personnel associated with training and construction activities, and painting of the surface radar towers and water tanks located south of the Multi-Purpose Maneuver Range to blend in with the surrounding landscape. Mitigation measures to resolve adverse effects include providing interpretive signage, a virtual tour focusing on the North Field National Historic Landmark and its contributing resources, an interpretive pamphlet on Chamorro history and culture, and a plan to develop an interpretive center on Tinian to display recovered artifacts. While the preference is to avoid and preserve in place, data recovery and recordation methods would be implemented when adverse effects to character-defining features are unavoidable.

4.5.2 No Action Alternative

Under the No Action Alternative, ground and aviation training would continue on lands in the Military Lease Area at the same tempos as evaluated in previous NEPA documents (DON 2010a, 2015b) and associated consultations. In addition, construction associated with the U.S. Air Force Divert project (U.S. Air Force 2016, 2020) would continue until complete, which is estimated to be by 2026. As part of a separate action, the U.S. Air Force would also conduct clearing of runways, aprons, and taxiways within the North Field National Historic Landmark. No other changes would occur under the No Action Alternative. Therefore, there would be no impact on cultural resources.

4.5.3 Alternative 1

4.5.3.1 Training

Alternative 1 includes potential impacts related to land-based training events (aviation and ground) and operations and maintenance (biosecurity activities, road transit, and vegetation clearing). Nearly all of the historic properties listed in Appendix H are situated where non-live-fire training would occur within the Military Lease Area. The USMC proposes to divide the Military Lease Area into eight smaller training areas that can be used individually or in groups, as required, to control public access and maintain a safe separation of the public from certain training activities. This dynamic training environment would allow for areas to remain safely open for public access while training is occurring. The USMC also plans to re-utilize runway Baker in a manner consistent with its historic nature while meeting the military need. This approach for the Proposed Action meets the Secretary of the Interior's Standards for Rehabilitation of historic properties as defined in 36 C.F.R. 68.3(b), "making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values."

In addition, the number of activities proposed to occur within the North Field National Historic Landmark have been reduced significantly from the previous iteration of the Proposed Action, in part as a response to the recommendations of the 2016 National Park Service's Section 213 report. The USMC redeveloped the training concept in order to effectively minimize harm, as required by Section 110(f) of the National Historic Preservation Act. As a result, the Proposed Action evaluated in this EIS would result in less widespread limitations to public access across the Military Lease Area by proposing locations for the two live-fire ranges that minimize public access restrictions affecting the North Field National Historic Landmark, removing high hazard impact areas, eliminating new amphibious training, and reducing construction within the North Field National Historic Landmark, among other factors.

Non-Live-Fire Training

Non-live-fire training, both ground and aviation, and associated ongoing operations (biosecurity, road transits, and vegetation clearing required to maintain the ranges and other training infrastructure in order to support continuing military training) currently occur within the Military Lease Area. The potential for impacts to cultural resources from non-live-fire ground training activities would be limited to air and surface activities, to include foot traffic and vehicle use. To minimize impacts to cultural resources, air and vehicular activities including biosecurity, and road transits, would be limited to established paved and unpaved roadways and airfield infrastructure (i.e., runways, aprons, and taxiways), with pedestrian training allowed in unimproved areas. Maintenance would include vegetation clearing along roads, live-fire ranges, Landing Zones, the North Field runways and a drop zone between runways Able and Charlie, and other components related to training, as needed. Vegetation clearing would not include discing or subsurface disturbance. Several proposed no training areas also prevent training impacts from occurring in these areas (refer to Figure 2.1-3). Alternative 1 would increase the tempo of existing ground and aviation training activities by approximately 15 percent above current levels, but would not change the type of training activities previously addressed by the 2022 *Mariana Islands Testing and Training Programmatic Agreement*. As described above, based on the nature of these training activities, less than significant impacts to cultural resources would result from implementation of Alternative 1. The potential for impacts would be further reduced through the application of avoidance measures included in the amendment to the 2022 training programmatic agreement.

Live-Fire Training

Proposed Live-fire training at two new ranges, the Multi-Purpose Maneuver Range and Explosives Training Range, represent new activities that are part of this Proposed Action. A surface danger zone would become activated during live-fire training at either range and explosive safety quantity distance arcs would be activated when ammunition is temporarily staged at an ammunition holding area during training events (refer to Section 2.1.6 Live-Fire Range Safety Areas and Section 2.1.7 Ammunition Holding Areas). When activated, temporary access restrictions would apply within these designated areas to ensure safe separation from the public. The Multi-Purpose Maneuver Range is aligned so that the proposed surface danger zone would not overlay the North Field National Historic Landmark and its contributing features like the Atomic Bomb Loading Pits - thus these areas could be open to public access during live-fire training. Additionally, the overall size of the surface danger zone would vary based on the type of ammunition in use, so the smallest

surface danger zone corresponding to the ammunition could be activated to further minimize the area where temporary restrictions would apply during live-fire training events.

Even though the location and operational design of the Multi-Purpose Maneuver Range minimizes the area where temporary restrictions would apply, the surface danger zone does overlap other cultural resources. However, several factors would further minimize potential effects to the character-defining features of these cultural resources should projectiles miss their targets and/or ricochet outside the boundary of the Multi-Purpose Maneuver Range to fall within the surface danger zone. These include: limiting the amount of vegetation clearing and ground disturbance within the boundary of the Multi-Purpose Maneuver Range; using small-sized ammunition; and directing ammunition use towards the designated targets within specific objective areas. On rare occasions, a projectile from the Multi-Purpose Maneuver Range may travel outside the target area but still land within the surface danger zone. In the unlikely event that a projectile enters coastal waters, the risk to cultural resources would remain very low. Specifically, after ricocheting, a bullet is deformed and loses considerable amount of velocity through air resistance. Due to this loss of energy, a cultural resource would have to be at or near the point of projectile impact to cause a measurable effect. Once a projectile enters the water, it would further lose energy and sink through the water column to settle on the sea floor. Therefore, it is unlikely that projectiles entering coastal waters would result in impacts to cultural resources. In the case of the Explosives Training Range, construction of the range itself would result in the removal of several contributing features within the associated cultural resource (see Section 4.5.3.2 below), thereby eliminating any potential impacts to the associated cultural resources from the training within the range itself. The overall size of the Explosives Training Range (1 hectare [2.5 acres]), combined with the size of the ammunition and the distance from the range boundary, where the proposed detonations would occur, would result in a very low likelihood that ricocheted materials would reach the surface danger zone.

Operational changes associated with the Proposed Action may introduce temporary noise and vibrations with the potential to impact cultural resources. Yet given the type of cultural resources and noise measurements, as described in Section 4.8 and illustrated in Table 4.8.5, noise and vibrations are not expected to impact cultural resources. Broadly, very high noise and vibration levels can, in extreme cases, cause physical impact to certain resource types while less intense noise levels can also impact resources, such as traditional cultural places, by altering their setting. According to a 2010 study of noise and vibration impacts to historic structures, the peak decibels where impacts occur to glass and plaster is 134 peak decibels (Naval Surface Warfare Center 2010). At 175 peak decibels, structural damage to lightweight superstructures such as wood, light-gauge steel, or composites is experienced. The type of cultural resources on Tinian are predominantly constructed of metal or concrete and do not fall under the material categories where noise and vibrations up to 140 peak decibels cause damage (refer to Section 4.8.1 for a description of the noise modeling and metrics used for the impact analysis). Even the Atomic Bomb Loading Pits, which are enclosed in glass panels, would experience 124 peak decibels from the Multi-Purpose Maneuver Range and 119 peak decibels from the Explosives Training Range, both of which are under the 134 peak decibels where glass cracks in a worst-case scenario. The proposed Explosive Training Range is located approximately 2,150 meters (7,050 feet) south of the National Historic Landmark and approximately 1,765 meters (5,790 feet) from the closest traditional cultural place. As shown in the noise analysis within Section 4.8 (see Table 4.8-5 and Figures 4.8-

1 through 4.8-5), noise decibels at these locations would be temporary, occurring intermittently and lasting for a fraction of a second, and each of approximately 130 peak decibels, which is equivalent to or less than a balloon popping 3 feet away. Due to the physical distance from cultural resources, the Explosive Training Range will not cause physical, visual, or audible impacts to these sites. The type and size of ammunition or explosives proposed for live-fire training is not large enough to produce strong noise and vibrations to impact cultural resources. Therefore, there would be less than significant impacts to cultural resources from live-fire training.

Public Access

Public access within the area of potential effects would be limited during some training events, as required to preserve public safety. The proposed range design has considered the importance of public access to cultural resources, including the North Field National Historic Landmark and three identified traditional cultural places. To minimize effects, several key range components were sited in areas to lessen access restrictions. For example, the Multi-Purpose Maneuver Range surface danger zone originally overlapped the North Field National Historic Landmark Atomic Bomb Loading Pits. The placement of the range was redesigned so the surface danger zone would not overlap this feature, thereby lessening access restrictions that would apply to the North Field National Historic Landmark when live-fire training occurs. Additionally, as described earlier in this section, the area of potential effects would be divided into eight distinct training areas that can be closed individually or in groups as required to preserve public safety from certain training activities. This allows for the remainder of the training areas to remain safely open to the public even while training activities may be occurring. An on-island Range Control office would actively engage with the CNMI and Municipality of Tinian to avoid scheduling training on holidays, festivals, or other important days when public access within the Military Lease Area is desired. Range Control would provide notification to the public in advance of training that requires temporary access controls to maintain safety. These notifications would include information on the dates, times, and locations of planned closures so the public can plan to access areas within the Military Lease Area accordingly. Thus, access limitations to cultural resources of community and public importance would be temporary and minimal, and the above measures would further minimize potential impacts from training. As a result of additional avoidance and minimization efforts described above, impacts to cultural resources would be less than significant under Alternative 1. The potential for impacts would be further reduced through interpretive mitigation measures included in the construction programmatic agreement, especially the virtual tour, which would provide the community and visitors with an additional way to learn and engage with the cultural resources.

4.5.3.2 Construction

To avoid impacting cultural resources, the USMC has sited construction components to avoid locations where cultural resources or contributing features are present. When impacts could not be avoided, locations were selected in areas containing the least amount of known cultural resources or contributing features in order to minimize impacts. The potential for direct impacts from construction activities may include ground disturbance (i.e., excavating, filling, grubbing), vegetation removal, vibrations from the use of construction equipment, or changes in setting through visual and audible intrusions to characteristics that are important to the significance of the cultural resources. There are aspects of the Proposed Action that would necessitate an assessment

of effects under alternate Section 106 procedures when designs are finalized. These alternate procedures are included in the construction programmatic agreement and the activities include collaborative and conservation efforts with the CNMI and Municipality of Tinian such as firefighting and security, and the installation of water wells to support the expeditionary Base Camp.

Other types of activities that would continue after the construction of the Proposed Action components are complete would include ongoing operations and maintenance needed to maintain the range complex and Proposed Action components to support continued training throughout the Military Lease Area. This includes activities related to biosecurity, road transits, and vegetation clearing. Transportation of military personnel and equipment prior to the start and at the conclusion of training events would use transportation routes from the points of entry at the Port of Tinian, TNI, or North Field, to reach training areas within the Military Lease Area. Transit would occur on existing or new roads established under the Proposed Action. No vehicle transit would occur off-road, either in association with or during training events. Maintenance vegetation clearing within the Military Lease Area would occur as needed to maintain access and the function of the training infrastructure (e.g., along paved and unpaved roads, Landing Zones, the North Field drop zone). Vegetation clearing would occur using hand or surface mechanical clearing only and would not include discing or subsurface disturbance. Vegetation clearing would visually restore the setting and feeling of cultural resources for which the character-defining features' related historic period is associated with widespread development and clearing. In other areas, vegetation would be left in place to screen construction activities. These types of operations and maintenance activities would not result in adverse physical, visual, or noise effects and would result in less than significant impacts to cultural resources.

Construction of the following Proposed Action components overlay one or more cultural resources but have been sited or would be designed to avoid impacts:

- The proposed location for the aircraft shelter is within an already disturbed portion of the U.S. Air Force's Divert lease area adjacent to TNI.
- The biosecurity facility at the Port of Tinian would be constructed on existing engineered surfaces, avoiding adjacent cultural resources.
- Facilities within the USAGM Tinian site would be reused to support Base Camp functions, including associated communication towers on both the USAGM Tinian and Saipan sites. New construction to install utilities, including a water storage tank, and to create the ammunition holding area within the USAGM Tinian site (AHA 2), would occur on previously disturbed land.
- Landing Zones 1 to 8 and 10 to 12 as well as the drop zone at North Field between runways Able and Charlie would require vegetation to be cleared and maintained.
- AM2 matting temporary airfield surface on Runway Baker at North Field National Historic Landmark would be placed over the runway and provides protection for the underlying surface—stakes to secure the matting would be placed within the associated engineered surface, but off the original runway surface, thereby not impacting this North Field National Historic Landmark contributing feature.

- Proposed water wells and tanks installed just south of the Multi-Purpose Maneuver Range in an area that is located within the most northeastern edge of the North Field National Historic Landmark boundary would be designed to have a low profile and mostly screened by existing vegetation as well as painted an inconspicuous color to blend in with the surrounding landscape.
- Utility lines (i.e., electrical, communication, and water) would be installed along either side of existing roadways in previously disturbed areas.

The construction of the Proposed Action components described above would not visually intrude on cultural resources given each project's small size relative to the existing expansive vegetation in the Military Lease Area and the lack of nearby character-defining features. Noise from construction equipment would be temporary and would not impact the setting and feeling or cause visual or physical damage to any of these resources from vibrations. Thus, impacts to cultural resources from the construction of these components would result in less than significant impacts to cultural resources under Alternative 1.

Construction of other training infrastructure would directly impact cultural resources. One cultural resource would be impacted by construction of the Multi-Purpose Maneuver Range, Landing Zone 13, and an ammunition holding area (AHA 1), the latter of which are located just south of the proposed range. The affected cultural resource is associated with the American Administration (World War II) period and includes remnant features such as concrete pads, ditches, and roads. Cultural surveys have identified many contributing features throughout the area covered by these three Proposed Action components. However, the overall impact from construction to the cultural resource would be less than significant as the area of disturbance would be minimal compared to the overall scale of the cultural resource. Only a small amount of vegetation would be cleared, representing approximately 13.5 percent of the total acreage within the Multi-Purpose Maneuver Range boundary. Across the disturbance area for the three components, only a small number of contributing features would be removed while many would be avoided.

Similarly, Landing Zone 9 overlays a small portion of a cultural resource associated with both American (World War II) and Japanese Administration (agriculture) periods. This cultural resource spans 163 hectares (403 acres) with over 250 contributing features, including large depressions, roads, earthen enclosures, berms, metal buildings, and a trench. There are 21 known contributing features within Landing Zone 9 that would be impacted by vegetation clearing and ground disturbance from the installation of temporary AM2 matting. However, the Landing Zone area comprises approximately 8 percent of the resource's total land area, and the removal of 21 features is relatively minor and would not diminish the resource's integrity or ability to convey its significance considering that it contains several hundred contributing features.

The Explosives Training Range is sited within one very large cultural resource that measures 170 hectares (420 acres) and is associated with the Japanese Administrative (agriculture) period. A cultural survey identified two cultural resource contributing features within the proposed range area—a concrete cistern and a dump with equipment and vehicle parts. Construction would result in the removal of these two features. The entire 1 hectare (2.5 acre) range footprint, however, comprises less than 1 percent of the expansive cultural resource site and would not adversely affect character-defining the features of the cultural resource.

Once construction is complete, the components described above (i.e., Multi-Purpose Maneuver Range, Landing Zones 9 and 13, ammunition holding area 1, and the Explosives Training Range) would have relatively low height profiles compared to adjacent vegetation, which would serve as a screen from most directions. Equipment used in the construction of these components would result in temporarily increased noise levels from the operation of machinery. However, there would be no visual or physical impacts to the setting and feeling or damage from vibrations to any cultural resources overlayed by the project components described above. Thus, despite the loss of some contributing features, the overall impact to these cultural resources would be less than significant. Impacts would be further reduced through the implementation of data recovery and recordation as stipulated within the construction programmatic agreement.

Surface radar tower 1 is situated within the southern edge of a cultural resource that measures 21 hectares (51 acres) and is associated with the Pre-contact period. Cultural surveys have recorded this area as disturbed, with surface scattered material and subsurface deposits identified closer to the middle of the cultural resource. The proposed location of surface radar tower 1 is also within the North Field National Historic Landmark, situated on the outskirts of the district's western boundary between Unai Babui and Unai Chulu. However, the proposed location for surface radar tower 1 does not overlap any known contributing features but would result in a visual adverse effect to the National Historic Landmark. Separately, the proposed location for surface radar tower 1 was also assessed for impacts to Unai Chulu, a traditional cultural place. The distance of the tower from the beach and presence of prevalent vegetation would negate any visual impact to the feeling or setting of this cultural resource, even though the tower would be located at a higher elevation than Unai Chulu. The presence of a new structure in this location, even when painted to blend in with the surroundings, would represent an adverse effect on the National Historic Landmark even though the overall impact to the cultural resource would remain less than significant for the reasons provided above.

The location of surface radar tower 2 is proposed within the boundary of a small cultural resource that measures 0.27 hectare (0.67 acre) at Puntan Taddong (also known as Ushi Point). The cultural resource is a remnant concrete pad associated with the American Administrative period. The proposed location is approximately 110 feet southwest of the Ushi Point Fisherman's Memorial and would be constructed on or near the remnant concrete pad. The tower would be set back from the northern tip of the point so it would not impede or affect the ocean view from the memorial. The reuse of the concrete pad is consistent with its historical use and the tower would be painted to blend in with the surrounding landscape. The presence of a new structure in this location would not visually affect cultural resources, but the physical construction on top of the American Administration cultural resource would cause adverse effects. The overall impact from the construction of surface radar tower 2 to the cultural resource, however, would remain less than significant because it is a historically consistent re-use and the tower would be painted to blend in with the surroundings. The interpretive measures stipulated in the construction programmatic agreement, like the virtual tour, would serve to further lessen these impacts in addition to the minimization and avoidance efforts already described in the siting and design of surface radar towers 1 and 2. Therefore, the construction of surface radar towers 1 and 2 would result in overall less than significant impacts to cultural resources.

Collectively, the proposed location and design of the Proposed Action components described above considered ways to avoid or minimize impacts to known cultural resources and their

contributing features (i.e., would be painted to blend in with the surrounding environment and/or concealed by existing vegetation). Further, mitigation stipulated in the construction programmatic agreement would seek to recover or record features that cannot be preserved in place to provide the community and public with interpretive tools that preserve the cultural importance of these resources. In total, construction efforts associated with the Proposed Action under Alternative 1 would result in less than significant impacts to cultural resources, and the implementation of avoidance, minimization, and mitigation measures, as referenced, would further ensure that impacts to cultural resources remain less than significant.

4.5.4 Alternative 2

Under Alternative 2, training would continue and increase over the No Action Alternative by approximately 5 percent, but this would represent a reduced tempo, approximately 10 percent less, than proposed training increases considered under Alternative 1. Impacts to cultural resources from training would be similar to those described under Alternative 1, as the types of impacts to cultural resources, namely foot traffic, would remain the same under Alternative 2. This training would occur across the broad landscape of the Military Lease Area and, given the types of cultural resources present as described under Alternative 1, would not degrade or impact character-defining features. The 5 percent increase in the frequency of temporary impacts (e.g., noise and visual impacts associated with human, vehicle, and aircraft presence) to cultural resources and particularly from public access controls to maintain safe separation during certain training activities (e.g., live-fire training at the Multi-Purpose Maneuver Range and Explosives Training Range) would remain similar to but less than those described for Alternative 1, but would not change the type of training activities previously addressed by the 2022 *Mariana Islands Testing and Training Programmatic Agreement*. Construction for Alternative 2 would be the same as described for Alternative 1 and would result in the same overall less than significant impact on cultural resources. Implementation of avoidance, minimization, and mitigation measures, as referenced in the construction programmatic agreement, would further ensure that impacts to cultural resources would remain less than significant under Alternative 2.

4.6 Visual Resources

4.6.1 Approach to Analysis

The analysis of impacts to visual resources considers changes to the visual conditions such as visual quality and viewer experience that could occur because of the Proposed Action. The analysis of visual impacts is based on the methodologies described in the National Park Service's *Guide to Evaluating Visual Impact Assessments for Renewable Energy Projects* (National Park Service 2014) and *Documenting America's Scenic Treasures: The National Park Service Resource Inventory* (Sullivan and Meyer 2016).

Five specific key observation points on Tinian (Figure 4.6-1) were selected from the seventeen viewpoints identified in Section 3.6 as representative locations for the development of visual simulations.

The following procedures were followed in selecting the key observation points:

1. Conduct a viewshed analysis that considers elevation, topography, and vegetative cover to determine the potential visibility from nearby lands. The viewshed analysis identifies areas with potential views of the Proposed Action, including sensitive scenic and cultural