

CHAPTER 19.

ENVIRONMENTAL JUSTICE AND THE PROTECTION OF CHILDREN

19.1 INTRODUCTION

This chapter focuses on the potential for racial and ethnic minorities, low income populations, or children to be disproportionately affected by project-related impacts. Normally an analysis of environmental justice is initiated by determining the presence and proximity of these segments of the population relative to the specific locations that would experience adverse impacts to the human environment. The situation on Guam is unique in this regard because racial or ethnic minority groups (as defined by the U.S.) comprise a majority of the Guam population, and the proportions of people living in poverty or who are under 18 years of age are also substantially higher than in the general U.S. population. The analysis is further complicated by the fact that Guam is a relatively small and isolated island, and certain types of impacts would be experienced island-wide. Accordingly, the analysis of environmental justice described in this chapter acknowledges the unique demographic characteristics of the island population and assumes that the project effects could disproportionately affect disadvantaged groups and children because they comprise relatively high proportions of the population. By the same logic, mitigation measures that would reduce the severity of any significant project impacts to a less than significant level would be expected to effectively mitigate the associated environmental justice impacts to a less than significant level. Consequently, a distinction is made between potential significant impacts that would be mitigated and those for which no mitigations have been identified. The focus of this analysis is on the latter type of impacts.

This chapter contains a discussion of the potential environmental consequences of the proposed action with regard to environmental justice and protection of children. For a description of the affected environment and a definition of the resource, refer to the respective chapter of Volume 2 (Marine Corps Relocation – Guam). The locations described in that Volume 2 include the ROI for the Army Air and Missile Defense Task Force (AMDTF); the chapters are presented in the same order as the resource areas contained in this volume.

This analysis of environmental consequences addresses all components of the proposed actions for the Army AMDTF. This includes the headquarters/housing component and the munitions storage component, each of which has three alternatives. A full analysis of each alternative is presented beneath the individual headings of this chapter. The weapons emplacement component has four alternatives. Detailed information on the weapons emplacements is contained in a Classified Appendix (Appendix L). A summary of impacts specific to each set of alternatives (including an unclassified summary of weapons emplacement impacts) is presented at the end of this chapter.

19.2 ENVIRONMENTAL CONSEQUENCES

19.2.1 Approach to Analysis

19.2.1.1 Methodology

Volume 5 of this EIS/OEIS examines the potential impacts that each alternative would potentially have on various environmental and human resources. Based on the conclusions reached in each resource chapter, the analysis of environmental justice sought to identify the adverse impacts that would

disproportionately affect racial minorities, children, and/or low-income populations, based on the following assumptions.

- Environmental justice policies are intended to analyze disproportionate impacts of potentially harmful environmental impacts on minority or other special status populations. However, the island of Guam is unique in that the majority of the population is a racial or ethnic minority, and low-income and child populations also comprise a relatively large proportion of the population (compared to the U.S.). Consequently, in this analysis it is assumed that any adverse impact that would affect the island as a whole, and any localized adverse impact that would affect a particular concentration of special-status residents, would have a disproportionate effect in terms of environmental justice.
- The region of influence (ROI) is defined as the area in which the principal effects arising from the implementation of the proposed action or alternatives are likely to occur. Those who may be affected by the consequences of the alternatives are often those who reside or otherwise occupy areas immediately adjacent to the alternative locations.
- Because the proposed actions are related either to construction or operations, impacts to the ROI would likely be either “spill over” effects that extend beyond an installation’s boundary line into the surrounding community, or impacts that directly affect minority populations in the ROI.

In Volume 5, components of the proposed action were determined to have potential adverse cultural resource impacts (Chapter 12) and noise impacts (Chapter 6), both of which have implications for environmental justice and protection of children. Volume 6 (Chapter 4) also identified traffic impacts associated with the action that are also applicable to this analysis (based on a Federal Highway Administration [FHWA] study). No other resource impacts identified in Volume 5 would have potential significant impacts with regard to environmental justice or protection of children. Therefore, this chapter focuses on significant adverse impacts to cultural resources, noise, and traffic as described in Volume 5 and Volume 6.

The analysis involved the application of three tiers of criteria to assess the environmental justice implications of each adverse effect identified in the relevant resource chapters:

- *Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?*
- *Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?*
- *Tier 3: Would the disproportionate adverse effects be significant?*

19.2.1.2 Determination of Significance

According to Section 1508.27 of the Council on Environmental Quality (CEQ) Regulations for Implementing National Environmental Policy Act (NEPA) (CEQ 1979), determining the level of significance of an environmental impact requires that both context and intensity be considered. These are defined in Section 1508.27 as follows:

- “Context. This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the

- case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant”.
- “Intensity. This refers to the severity of the impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action.” The following should be considered in evaluating intensity:
 - Impacts that may be both beneficial and adverse. A significant effect may exist even if the federal agency believes that on balance the effect would be beneficial.
 - The degree to which the proposed action affects public health or safety.
 - Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
 - The degree to which the effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.
 - The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
 - Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
 - The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
 - The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined critical under the Endangered Species Act of 1973.
 - Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.”

19.2.1.3 Issues Identified during Public Scoping Process

Concerns related to environmental justice that were raised by the public and regulatory stakeholders during the public scoping meetings were considered during the analysis of environmental justice and are discussed in Volume 2, Chapter 19, Environmental Justice.

19.2.2 Headquarters/Housing Alternatives

19.2.2.1 Headquarters/Housing Alternative 1 (Preferred Alternative)

According to Chapter 2 of Volume 5, Alternative 1 for the proposed headquarters/housing projects includes the construction of Army administrative buildings collocated with Marine Corps facilities at NCTS Finegayan and construction of Army housing collocated with Marine Corps housing at South Finegayan. Construction activities and operations would occur on base. The village located adjacent to NCTS Finegayan is Dededo.

Cultural Resources

According to Volume 5, Chapter 12, construction activities at NCTS Finegayan and South Finegayan are anticipated to have both direct and indirect adverse impacts on archaeological resources. Operations at NCTS Finegayan may have indirect impacts to an archaeological site.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

With only about 15% of its population being Caucasian and 58% of its population being Chamorro and Filipino, Dededo has a majority of racial minorities compared to the U.S. average (U.S. Census Bureau 2000a). Dededo has a similar percentage of households in poverty to other villages on Guam, which is higher than that of the U.S. (U.S. Census Bureau 2000b). Dededo also has a relatively high percentage of children relative to other villages on Guam, CNMI, and the U.S. average (U.S. Census Bureau 2000a; 2005 CNMI Department of Commerce).

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The proposed actions may affect resources of value to a particular racial/ethnic group on the island: the Chamorros. Therefore, there would be a disproportionate impact on a particular minority group. There would be no disproportionate impact to low-income populations or children.

Tier 3: Would the disproportionate adverse effects be significant?

While Section 106 would be adhered to and mitigation has been proposed to reduce the adverse effects, Section 1508.27 of the CEQ Regulations (1979) states that the following may be considered a significant impact: “unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas.” The impacts may affect the unique historic and cultural resources of a racial minority group. Therefore, the impact in terms of environmental justice is significant.

Chapter 12 proposes mitigation measures to reduce the significance of the anticipated impacts. If the mitigation measures in Chapter 12 are implemented, the cultural resources impact and environmental justice impact would be reduced to less than significant.

Noise

According to Chapter 6 of this EIS/OEIS, adverse noise impacts are anticipated during the construction phase in the communities adjacent to South Finegayan and along Route 3 from construction vehicles traveling and transporting materials and equipment.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

As with the rest of Guam, the village of Dededo has a high percentage of racial and ethnic minorities, as well as a higher poverty rate and a higher percentage of children than in the U.S.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The racial minorities and low-income populations that live closest to the installations and near Route 3 would be disproportionately impacted by noise generated by construction activities as discussed in Chapter 6 of this volume. There would be no disproportionate impact to children.

Tier 3: Would the disproportionate adverse effects be significant?

Heavy construction equipment would be used for at least 6-9 months during construction at NCTS Finegayan. This would generate some noise, although Chapter 6 anticipates that the noise from construction would not be loud enough off base to be a significant effect to the surrounding community.

Noise would also be generated by construction vehicles along Route 3, but with the implementation of BMPs in Chapter 6 of this volume, the impact should be less than significant.

The sensitive noise receptors are closer to the South Finegayan site than to NCTS Finegayan. Chapter 6 states that the low-density residential area across from South Finegayan and along the eastern side of Route 3 may experience noise levels higher than the 75 dBA U.S. Environmental Protection Agency (USEPA) acceptable level for residential areas during construction. This noise would likely have a disproportionate adverse effect on racial minorities and low-income residents of Dededo that live south of, and along, Route 3 across from South Finegayan. Due to the intensity of the anticipated noise level, the impact would be significant.

Implementation of the proposed BMPs in Chapter 6 of this volume would reduce the impact to less than significant.

Traffic

While traffic is typically light to moderate along Route 3, the construction vehicles associated with the proposed action would increase traffic along this route. During post-construction operations, Army personnel driving to and from NCTS Finegayan would likely increase traffic along Route 3. An increase in traffic would also be anticipated along with the military population that would occupy the housing at South Finegayan.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

As with the rest of Guam, the village of Dededo has a high percentage of racial and ethnic minorities, as well as a higher poverty rate and a higher percentage of children than in the U.S.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The racial minorities and low-income populations that live closest to the installations and near Route 3 would be disproportionately impacted by traffic generated by construction activities as discussed in Chapter 4 of Volume 6 and the FHWA study. There would be no disproportionate impact to children.

Tier 3: Would the disproportionate adverse effects be significant?

Construction-related travel and the transport of materials and equipment are anticipated to increase traffic along Route 3. The FHWA study uses a volume to capacity ratio (v/c ratio) to determine the anticipated level of traffic congestion by 2014. If a v/c ratio is greater than 1, the increased traffic is anticipated to reach a level that would cause congestion. The FHWA study projects that Alternative 1 would result in a v/c ratio greater than 1 along Route 3. Because the traffic increase along Route 3 is anticipated to lead to congestion, the impact would be significant.

With implementation of mitigation measures described in Volume 6, Chapter 4 of this EIS/OEIS, the impacts would be reduced to less than significant.

Alternative 1 Potential BMPs and Mitigation Measures

To reduce potential impacts from the implementation of Alternative 1, it is recommended that the BMPs and mitigation measures in Chapters 6 and 12 respectively of this volume, as well as those in Chapter 4 of Volume 6, be implemented. This would reduce impacts related to noise, cultural resources, and traffic on the surrounding community.

19.2.2.2 Headquarters/Housing Alternative 2

According to Chapter 2 of this volume, Alternative 2 includes the construction of Army housing, headquarters and support facilities near the northwest corner of Navy Barrigada. The village adjacent to this area is Barrigada. Construction would occur on base; however, the residential area of Barrigada Heights is across the street from the proposed construction site at Navy Barrigada. Proposed operations would occur on base and would be mainly housing and administrative. Volume 5, Chapter 2 states that the on-island Army population would be 50 by 2014, with all 630 personnel arriving by 2015. The total expected population increase from Army personnel and their dependents is 1,580. Therefore, over time there would be an increase in the number of people traveling to and from the base, which may affect traffic along Routes 15 and 16.

Cultural Resources

Chapter 12 of this volume has determined that construction work at Navy Barrigada may have an adverse effect on a potential traditional cultural property and archaeology. With the implementation of mitigation measures described in Chapter 12, this impact would be reduced to less than significant.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

As with the rest of Guam, the village of Barrigada has a high percentage of racial and ethnic minorities, as well as a higher poverty rate and a higher percentage of children than in the U.S.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The Chamorros would be disproportionately affected by potential impacts to the archaeological resources. There would be no disproportionate impacts to low income populations or children.

Tier 3: Would the disproportionate adverse effects be significant?

While Section 106 would be adhered to and mitigation has been proposed to reduce the adverse effects, Section 1508.27 of the CEQ Regulations (1979) states that the following may be considered a significant impact: "unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas." The impacts may affect the unique historic and cultural resources of a racial minority group. Therefore, the impact in terms of environmental justice is significant.

Chapter 12 proposes mitigation measures to reduce the significance of the anticipated impacts. If the mitigation measures in Chapter 12 are implemented, the cultural resources impact and environmental justice impact would be reduced to less than significant.

Noise

According to Chapter 6 of Volume 5, a few of Barrigada Heights' residents are located immediately adjacent to the DoD property line. Chapter 6 anticipates that construction would generate high noise levels that are just under the EPA limit for residential areas during construction. No noise impacts are anticipated from post-construction operations of the proposed facilities.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

As with the rest of Guam, the village of Barrigada has a high percentage of racial and ethnic minorities, as well as a higher poverty rate and a higher percentage of children than in the U.S.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The disadvantaged groups near the proposed construction site, including Barrigada Heights, would be disproportionately affected by the construction noise.

Tier 3: Would the disproportionate adverse effects be significant?

Racial minorities and low-income people that live near Routes 15 and 16 would experience noise levels up to the EPA acceptable level for residential areas during construction. This would last at least 6-9 months. Due to the intensity and duration of the anticipated noise level increase, the impact would be significant. However, implementation of the proposed BMPs in Chapter 6 of this volume would reduce the impact to less than significant.

Traffic

The main roadways for Navy Barrigada are Routes 8, 15, and 16. Construction-related travel and the transport of materials and equipment are anticipated to increase traffic along these routes. Post-construction, there would be an increase in the number of people traveling to and from the base, which may affect traffic along Routes 15 and 16 (refer to Volume 6, Chapter 4).

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

As with the rest of Guam, the village of Barrigada has a high percentage of racial and ethnic minorities, as well as a higher poverty rate and a higher percentage of children than in the U.S.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The disadvantaged groups near the proposed construction site, including Barrigada Heights, would be disproportionately affected by the increased traffic along Routes 15 and 16.

Tier 3: Would the disproportionate adverse effects be significant?

The FHWA study projects that Alternative 2 would result in a v/c ratio greater than 1 along Routes 15 and 16. Because the traffic increase along Routes 15 and 16 is anticipated to lead to congestion, the impact would be significant. With implementation of the mitigation measures in Chapter 4, Volume 6 of this EIS/OEIS, the impacts would be reduced to less than significant.

Alternative 2 Potential BMPs and Mitigation Measures

The recommended BMPs and mitigation measures associated with Alternative 2 are the same as for Alternative 1.

19.2.2.3 Headquarters/Housing Alternative 3

Under Alternative 3, Army administrative buildings would be collocated with Marine Corps facilities at NCTS Finegayan and accompanied personnel housing and related recreational and QOL facilities would be co-located with Marine Corps housing within Navy Barrigada and Air Force Barrigada. Proposed

actions and impacts at NCTS Finegayan would be the same as described above for that portion of Alternative 1, and impacts at Navy Barrigada would be the same as described above for that portion of Alternative 2. The additional unique feature of Alternative 3 is that construction of facilities would also occur at Air Force Barrigada. The following describes the additive environmental justice impacts for the project components at Air Force Barrigada only, which would occur in conjunction with previously described impacts at NCTS Finegayan (Alternative 1) and Navy Barrigada (Alternative 2).

Villages adjacent to Air Force Barrigada are Barrigada and Mangilao. There are residential areas in these villages that are adjacent to the proposed construction site. According to Chapter 12 of this volume, there would be less than significant impacts to cultural resources at Air Force Barrigada. Construction noise impacts would be similar to those anticipated at Navy Barrigada. Noise levels are anticipated to nearly reach the USEPA threshold for residential areas. The main roadways leading to and from Air Force Barrigada, Routes 10 and 15, would experience an increase in traffic related to construction.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

As with the rest of Guam, the villages of Barrigada and Mangilao have a high percentage of racial and ethnic minorities, as well as a higher poverty rate and a higher percentage of children than in the U.S.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The disadvantaged groups living adjacent to or near the construction site would be disproportionately affected by the construction-generated noise and traffic along Routes 10 and 15. Children would not be disproportionately affected by the components of Alternative 3.

Tier 3: Would the disproportionate adverse effects be significant?

Chapter 6 of this volume states that noise impacts at Air Force Barrigada would be similar to those at Navy Barrigada. Therefore, it is anticipated that the impact would be significant. However, implementation of the proposed BMPs in Chapter 6 of this volume would reduce the impact to less than significant.

The FHWA study projects that Alternative 3 would result in a v/c ratio greater than 1 along Routes 10 and 15. Because the traffic increase along Routes 10 and 15 is anticipated to lead to congestion, the impact would be significant. With implementation of the mitigation measures in Volume 6, Chapter 4 of this EIS/OEIS, the impacts would be reduced to less than significant.

Alternative 3 Potential BMPs and Mitigation Measures

The BMPs and mitigation measures under Alternative 3 are the same as for Alternative 1.

19.2.3 Munitions Storage Alternatives

19.2.3.1 Munitions Storage Alternative 1 (Preferred Alternative)

Three munitions storage magazines would be constructed in three non-contiguous areas near the Habitat Management Unit (HMU) in the southwestern part of Andersen AFB. No new operations are proposed at Andersen AFB under Alternative 1. This alternative would not result in any disproportionate impacts to racial or ethnic minorities, low-income populations, or children.

19.2.3.2 Munitions Storage Alternative 2

Munitions storage magazines would be consolidated at one site located north of B Avenue on Andersen AFB. No new operations are proposed at Andersen AFB for Alternative 2. This alternative would not result in any disproportionate impacts to racial or ethnic minorities, low-income populations, or children.

19.2.3.3 Munitions Storage Alternative 3

Munitions storage magazines would be consolidated at a site located northeast of the HMU and an unnamed road on Andersen AFB. No new operations are proposed at Andersen AFB for Alternative 3. This alternative would not result in any disproportionate impacts to racial or ethnic minorities, low-income populations, or children.

19.2.4 Weapons Emplacement Alternatives

The weapons emplacement component of the proposed Army AMDTF action has four alternatives. Detailed information on the weapons emplacements is contained in a Classified Appendix (Appendix L).

One or more alternatives were determined to have potential adverse impacts on Cultural Resources (Chapter 12), which would have a disproportionate impact on a disadvantaged group on Guam (as described below). No other potential impacts of the weapons emplacement alternatives would disproportionately affect any disadvantaged groups or children on Guam.

19.2.4.1 Weapons Emplacement Alternative 1

Cultural Resources

Chapter 12 of this volume (Cultural Resources) has identified significant but mitigable impacts to archaeological resources for all four action alternatives and to traditional cultural properties for all alternatives. With mitigation measures, the impacts to the resources themselves would be less than significant. However, because these resources are of value to a racial/ethnic group on Guam, and an action that may impact them is being proposed, this section analyzes the actions in terms of environmental justice.

Tier 1: Are there any racial minorities, low-income, or children populations adjacent to the proposed action site?

The value of these resources is tied to the Chamorro history and culture, rather than to a specific geographic area.

Tier 2: Are the applicable disadvantaged groups disproportionately affected by the negative environmental consequences of the proposed action(s)?

The proposed actions may affect resources of value to a particular racial/ethnic group on the island: the Chamorros. So there would be a disproportionate impact on a particular racial minority group. There would be no disproportionate impact to low-income populations or children specifically.

Tier 3: Would the disproportionate adverse effect(s) be significant?

While Section 106 would be adhered to and mitigation has been proposed to reduce the adverse effects, Section 1508.27 of the CEQ Regulations (1979) states that the following may be considered a significant impact: “unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wild and scenic rivers, or ecologically critical areas.” The impacts may

affect the unique historic and cultural resources of the Chamorros. Therefore, the impact in terms of environmental justice is significant.

Chapter 12 proposes mitigation measures to reduce the significance of the anticipated impacts. If the mitigation measures in Chapter 12 are implemented, the cultural resources impact and environmental justice impact would be reduced to less than significant.

19.2.4.2 Weapons Emplacement Alternative 2

Alternative 2 involves the same type of facility, construction, and operations as Alternative 1 and the effects to cultural resources would be the same. Therefore, the environmental justice impacts for actions proposed in Alternative 2 are the same as those discussed under Alternative 1.

19.2.4.3 Weapons Emplacement Alternative 3

Alternative 3 involves the same type of facility, construction, and operations as Alternative 1 and the effects to cultural resources would be same. Therefore, the environmental justice impacts for actions proposed in Alternative 3 are the same as those discussed under Alternative 1.

19.2.4.4 Weapons Emplacement Alternative 4 (Preferred Alternative)

Alternative 4 involves the same type of facility, construction, and operations as Alternative 1 and the effects to cultural resources would be the same. Therefore, the environmental justice impacts for actions proposed in Alternative 4 are the same as those discussed under Alternative 1.

19.2.5 No-Action Alternative

Under the no-action alternative, no construction or operations associated with the Army AMDTF would occur and existing operations at the proposed project areas would continue. There would be no noise or traffic impacts related to construction and no increase in military population. Cultural resources would not be impacted by construction. The no-action alternative would have no adverse environmental justice impacts on the villages of Dededo, Barrigada, and Mangilao.

19.2.6 Summary of Impacts

Tables 19.2-1, 19.2-2, and 19.2-3 summarize the potential impacts of each major component – headquarters/housing, munitions storage, and weapons emplacement, respectively.

Table 19.2-1. Summary of Headquarters/Housing Impacts – Alternatives 1, 2, and 3

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Construction		
<p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority population as a function of direct and indirect significant adverse impacts to two archaeological sites on NCTS Finegayan <p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from traffic impacts <p>NI</p> <ul style="list-style-type: none"> No disproportionate impacts to children <p>LSI</p> <ul style="list-style-type: none"> At South Finegayan construction noise impacts would be just over 75 dBA. BMPs would reduce the impacts to a less than significant level 	<p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority population as a function of direct significant adverse impacts to one traditional cultural property at Navy Barrigada <p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from traffic impacts <p>NI</p> <ul style="list-style-type: none"> No disproportionate impacts to children <p>LSI</p> <ul style="list-style-type: none"> Construction noise levels for Navy Barrigada would be approximately 74 dBA; therefore, would be less than significant. BMPs would further reduce noise levels 	<p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority population as a function of direct and indirect impacts to areas with two archaeological sites on NCTS Finegayan <p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from construction noise impacts <p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from traffic impacts. <p>NI</p> <ul style="list-style-type: none"> No disproportionate impacts to children <p>LSI</p> <ul style="list-style-type: none"> The impacts for Navy Barrigada and Air Force Barrigada would be the same as Alternative 2
Operation		
<p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority population as a function of indirect significant adverse impacts to one traditional cultural property on NCTS Finegayan <p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from traffic impacts <p>NI</p> <ul style="list-style-type: none"> No disproportionate impacts to children 	<p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from traffic impacts <p>NI</p> <ul style="list-style-type: none"> No disproportionate impacts to children 	<p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority population as a function of indirect significant impacts to one traditional cultural property at Navy Barrigada <p>SI-M</p> <ul style="list-style-type: none"> Significant but mitigable impact to minority and low-income populations from traffic impacts <p>NI</p> <ul style="list-style-type: none"> No disproportionate impacts to children

Legend: SI-M = Significant impact mitigable to less than significant, LSI = Less than significant, NI = No impact.

Table 19.2-2. Summary of Munitions Storage Impacts – Alternatives 1, 2, and 3

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Construction		
NI <ul style="list-style-type: none"> • No impacts to racial minorities. • No impacts to low-income populations • No impacts to children • No impacts to cultural resources 	NI <ul style="list-style-type: none"> • The impacts would be the same as Alternative 1 	NI <ul style="list-style-type: none"> • The impacts would be the same as Alternative 1
Operation		
NI <ul style="list-style-type: none"> • No impacts to racial minorities • No impacts to low-income populations • No impacts to children. 	NI <ul style="list-style-type: none"> • The impacts would be the same as Alternative 1 	NI <ul style="list-style-type: none"> • The impacts would be the same as Alternative 1

Legend: NI = No impact.

Table 19.2-3. Summary of Weapons Emplacement Impacts – Alternatives 1, 2, 3 and 4

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>Alternative 4</i>
Construction			
SI-M <ul style="list-style-type: none"> • Significant but mitigable impact to minority population as a function of significant adverse impacts to archaeological sites • Significant but mitigable impact to minority population as a function of significant adverse impacts to traditional cultural property NI <ul style="list-style-type: none"> • There would be no impacts to low-income populations or children 	SI-M <ul style="list-style-type: none"> • The impacts would be the same as for Alternative 1 NI <ul style="list-style-type: none"> • There would be no impacts to low-income populations or children 	SI-M <ul style="list-style-type: none"> • The impacts would be the same as for Alternative 1 NI <ul style="list-style-type: none"> • There would be no impacts to low-income populations or children 	SI-M <ul style="list-style-type: none"> • The impacts would be the same as for Alternative 1 NI <ul style="list-style-type: none"> • There would be no impacts to low-income populations or children
Operation			
NI <ul style="list-style-type: none"> • There would be no impacts from operations 	NI <ul style="list-style-type: none"> • There would be no impacts from operations 	NI <ul style="list-style-type: none"> • There would be no impacts from operations 	NI <ul style="list-style-type: none"> • There would be no impacts from operations

Legend: SI-M = Significant impact mitigable to less than significant, NI = No impact.

19.2.7 Summary of Potential Mitigation Measures

Table 19.2-4 summarizes potential mitigation measures for each component of the proposed action.

Table 19.2-4. Summary of Potential Mitigation Measures

<i>Headquarters/Housing Alternatives</i>	<i>Munitions Storage Alternatives</i>	<i>Weapons Emplacement Alternatives</i>
Cultural Resources		
<ul style="list-style-type: none"> DoD would implement the mitigation measures in Volume 5, Chapter 12 of this EIS/OEIS 	<ul style="list-style-type: none"> No mitigations needed 	<ul style="list-style-type: none"> DoD would implement the mitigation measures in Volume 5, Chapter 12 of this EIS/OEIS
Noise		
<ul style="list-style-type: none"> DoD would implement the mitigation measures in Volume 5, Chapter 6 of this EIS/OEIS 	<ul style="list-style-type: none"> No mitigations needed 	<ul style="list-style-type: none"> No mitigations needed
Traffic		
<ul style="list-style-type: none"> DoD would implement the mitigation measures in Volume 6, Chapter 4 of this EIS/OEIS 	<ul style="list-style-type: none"> No mitigations needed 	<ul style="list-style-type: none"> No mitigations needed

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