CHAPTER 19. ENVIRONMENTAL JUSTICE AND THE PROTECTION OF CHILDREN

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 Tinian is unique in this regard because racial or ethnic minority groups (as defined by the U.S.) comprise almost all of the Tinian 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 Tinian 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.

19.1 AFFECTED ENVIRONMENT

19.1.1 Definition of Resource

In 1994 President Clinton issued Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, in response to growing concern that minority and low-income populations bear adverse health and environmental effects disproportionately. EO 12898 requires federal agencies to assess the potential for their actions to have disproportionately high and adverse environmental and health impacts on minority and low-income populations. In 1997 EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, required a similar analysis for children.

EO 12898 authorized the creation of an Interagency Working Group on Environmental Justice, overseen by the United States (U.S.) Environmental Protection Agency (USEPA), to implement the EO's requirements. The Interagency Working Group and the USEPA developed guidance for terms contained in the EO. The USEPA (2009) defines environmental justice as, "The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

The USEPA (1995) defines "fair treatment" as follows: "No group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies." A "disproportionate share of the negative environmental consequences" is an adverse effect or impact that is predominately borne by any segment of the population, including a minority population or a low income population. It can also mean that the

suffering experienced by a minority population or low income population is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by a non-minority or non-low-income population (USEPA 2009).

The USEPA defines "meaningful involvement" as follows:

- Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that would affect their environment and/or health.
- The public's contribution can influence the regulatory agency's decision.
- The concerns of all participants involved would be considered in the decision making process.
- The decision makers seek out and facilitate the involvement of those potentially affected.

The Presidential Memorandum that accompanies EO 12898 cites the importance of National Environmental Policy Act (NEPA) in identifying and addressing environmental justice concerns. The memorandum states that, "each federal agency shall analyze the environmental effects, including human health, economic and social effects, of federal actions, including effects on minority communities and low-income communities, when such analysis is required by NEPA" (Presidential Documents 1994). The memorandum emphasizes the importance of NEPA's public participation process, directing that, "each federal agency shall provide opportunities for community input in the NEPA process." Agencies are directed to identify potential impacts and mitigations in consultation with affected communities and ensure the accessibility of meetings, crucial documents, and notices." The Presidential Memorandum includes four provisions that identify ways agencies should consider environmental justice under NEPA:

- Each federal agency should analyze the environmental effects, including human health, economic, and social effects of federal actions, including effects on minority populations and low-income populations, and Indian tribes, when such analysis is required by NEPA.
- Mitigation measures identified as part of an Environmental Assessment, a Finding of No Significant Impact, an Environmental Impact Statement (EIS), or a Record of Decision (ROD) should, whenever feasible, address significant and adverse environmental effects of proposed federal actions on minority populations, low-income populations, and Indian tribes.
- Each federal agency must provide opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of public meetings, crucial documents, and notices.
- Review of NEPA compliance must ensure that the lead agency preparing NEPA analyses and documentation has appropriately analyzed environmental effects on minority populations, low-income populations, or Indian tribes, including human health, social, and economic effects.

Neither the EO nor Council on Environmental Quality (CEQ) prescribes a specific format for environmental justice assessments in the context of NEPA documents. However, CEQ (1997) identifies the following seven general principles intended to guide the integration of environmental justice assessment into NEPA compliance, and that are applicable to the proposed project:

• Agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action and, if so, whether there may be disproportionately high and adverse human

health or environmental effects on minority populations, low-income populations, or Indian tribes.

- Agencies should consider relevant public health data and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards, to the extent such information is reasonably available. For example, data may suggest there are disproportionately high and adverse human health or environmental effects on a minority population, low-income population, or Indian tribe from the agency action. Agencies should consider these multiple, or cumulative effects, even if certain effects are not within the control or subject to the discretion of the agency proposing the action.
- Agencies should recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the agency's proposed action. These factors should include the physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community.
- Agencies should develop effective public participation strategies. Agencies should, as appropriate, acknowledge and seek to overcome linguistic, cultural, institutional, geographic, and other barriers to meaningful participation, and should incorporate active outreach to affected groups.
- Agencies should assure meaningful community representation in the process. Agencies should be aware of the diverse constituencies within any particular community when they seek community representation and should endeavor to have complete representation of the community as a whole. Agencies also should be aware that community participation must occur as early as possible if it is to be meaningful.
- Agencies should seek tribal representation in a manner that is consistent with current procedures and protocols between the U.S. and tribal governments, the federal government's trust responsibility to federally-recognized tribes, and any treaty rights.
- CEQ (1997) states that the identification of a disproportionately high and adverse human health or environmental effect on a low-income or minority population does not preclude a proposed agency action from going forward with an action, or compel a finding that a proposed project is environmentally unacceptable. Instead, the identification of such effects is expected to encourage agency consideration of alternatives, mitigation measures, and preferences expressed by the affected community or population.

The following assumptions apply to this chapter:

- This chapter defines a racial minority according to the 2005 Commonwealth of the Northern Mariana Islands (CNMI) Department of Commerce Household Income and Expenditure Survey's definition of ethnicity (the survey does not refer at all to race). This includes Chamorro, Filipino, Chinese, Asian, Pacific Islander, and Caucasian. The 2005 CNMI survey used U.S. Census racial and ethnic categories.
- Children are defined as people under the age of 18. However, because the CNMI Department of Commerce (2005) collected data from age 20 and younger, the discussion of children would involve this age group.
- According to the 2005 CNMI Department of Commerce Household Income and Expenditure Survey, the largest single ethnic group in the CNMI is Filipino (30%), followed by Chamorro

(23%), and Chinese (16%). The Carolinians are about 5% of the population. Asians comprise more than 53% of the CNMI's total population, Pacific Islanders approximately 37%, and Caucasian less than 2%. About 8% of the CNMI's total population is comprised of people with multiple ethnicities.

• According to the U.S. Census 2000, "Native Hawaiian and Other Pacific Islander" refers to any of the original peoples of Guam, Hawaii, Samoa, or other Pacific Islands. This category includes people who indicated their race or races as Native Hawaiian, Chamorro, Samoan, Carolinian, Chuukese, Tahitian, Mariana Islander, Kosraean, Marshallese, Palauan, Pohnpeian, Yapese, or Other Pacific Islander (Grieco and Cassidy 2001; U.S. Department of Commerce 2004).

The location of the proposed actions and alternatives is Tinian, an island in the CNMI. With an estimated total population of 2,829, Tinian contains about 4% of the CNMI's total population (CNMI Department of Commerce 2005). Tinian's population is concentrated in three villages in the southern portion of the island: San Jose, Marpo, and Carolinas (Figure 19.1-1). According to the CNMI Department of Commerce (2005), the majority of Tinian residents live in San Jose (76%), while about 20% live in Marpo and less than 3% in Carolinas. This section provides an overview of the racial composition, percentage of households in poverty, and relative percentage of children in each village.

Racial or Ethnic Minorities

The largest racial/ethnic group on Tinian is Chamorro (44%), followed by Filipino (32%) and Chinese (9%) (CNMI Department of Commerce 2005). Asians comprise about half (49%) of Tinian's total population, Pacific Islanders nearly the other half (42%), and Caucasians only 1%. People with multiple ethnicities comprise about 5% of Tinian's population (CNMI Department of Commerce 2005).

Low-Income Population

Of over 650 Tinian households that responded to the 2005 CNMI Department of Commerce Household Income and Expenditure Survey, 48% have an income less than \$20,000 per year, and 22% of those households have a household income below \$10,000. In the year that the CNMI survey was conducted (2004), the federal poverty line for a family of four was \$18,850 (U.S. Department of Health and Social Services [USDHSS] 2004). Therefore, nearly half of the households of Tinian were living near or below the federal poverty line in 2004, and almost one quarter of those households had an income of only \$10,000 (CNMI Department of Commerce 2005). Table 19.1-1 outlines the poverty rate on Tinian is nearly double that of Dededo, and more than four times the rate of the U.S.

Table 19.1-1. Comparison of Poverty on Timan				
Tinian	Dededo	<i>U.S.</i>		
48%	25.8%	11.3%		

Table 19.1-1. Comparison of Poverty on Tinian

Notes: Data for Dededo and the U.S. are for 2000. This is the most recent demographic data available for Dededo.

Sources: U.S. Census Bureau 2000, CNMI Department 2005.



Children

Approximately 28% of Tinian's population is age 20 or younger, and nearly 53% of Tinian's population is between the ages of 20–44 (CNMI Department of Commerce 2005). This is because there were a large number of migrant workers on Tinian who fell into the 20-44 age category when the CNMI Department of Commerce 2005 study was conducted. Compared to many villages on Guam, including Dededo, Tinian does not have a high percentage of children; however, it has a higher percentage of children than the U.S. (Table 19.1-2).

Table 19.1-2. Comparison of Percent of Children on Tinian				
Tinian	Dededo	<i>U.S.</i>		
28%	36%	21.4%		

m•••

Notes: Data for Dededo and the U.S. are for 2000. This is the most recent demographic data available for Dededo.

Sources: U.S. Census Bureau 2000, CNMI Department of Commerce 2005.

In summary, when compared to a village on Guam with a similar demographic profile (Dededo), and the U.S. population as a whole, Tinian has a high percentage of racial minorities and households living in poverty.

19.2 **ENVIRONMENTAL CONSEQUENCES**

19.2.1 **Approach to Analysis**

19.2.1.1 Methodology

Volume 3 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 Tinian 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 community on Tinian, would have a disproportionate effect in terms of environmental justice.
- The region of influence (ROI) is defined as the area that the principal effects arising from the implementation of the proposed action or alternatives are likely to occur. Those who potentially may be affected by the consequences of the alternatives are 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 ROL

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?

19.2.1.2Determination of Significance

According to Section 1508.27 of the Regulations for Implementing 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 that 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 that the effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.
 - The degree that 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 that 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 that 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

No issues specific to environmental justice or protection of children were mentioned by the public, including regulatory stakeholders, during the public scoping meetings.

19.2.2Alternative 1 (Preferred Alternative)

19.2.2.1 Tinian

Construction

The construction associated with this project should be minimal because proposed actions are focused on intermittent training operations that would be set up impromptu and would not have permanent support structures associated with them. Further, any construction that does occur would be done north of San Jose, and thus would not be in proximity to the local population. Therefore, there would be no impacts associated with construction.

Operation

Proposed operations as described in Volume 3, Chapter 2 include introducing live-fire weapons training into the Tinian Military Lease Area. There would be no permanent support facilities, equipment, or ammunition storage because the type of training conducted would require Marines to bring their own equipment and remove it when they are finished. During range operations, Marines would set up range flags and Safety Distance Zone operations points. Controlled access would be allowed to historic sites during training activities in accordance with procedures described in Section 2.3.4.4.

Marines who participate in the training would be transported to Tinian from Guam for the proposed 1 week per month company-level training exercises. Approximately 200-400 Marines would be expected to train at any one time.

As Chapter 2 describes, it is estimated that civilian access to and through the Range Training Area (RTA) would be affected approximately 12 to 16 weeks per year. The limit of the restrictions would depend on the training uses scheduled:

- When ranges are in use, all or part of the RTA would be closed for safety reasons. Access restrictions would potentially occur north of the existing Tinian International Airport (West Field) and south of the Shinto Shrine American Memorial Circle on Broadway, including all lands to the east of 8th Avenue, north of the Airport, and south of Unai Chulu.
- For larger exercises, the entire RTA would be closed to use except the International Broadcasting Bureau (IBB) property.
- Periods of closure would last from at least one day before the scheduled training through post-event clean up and transport back to Guam.
- According to Chapter 2, during periods of non-military use, it is anticipated that the RTA could be available for civilian purposes that are consistent with RTA policies and are subject to management restrictions to protect public health and safety. Periods of potential civilian use would need to be defined within RTA management procedures.

Recreational and Cultural Resources

The proposed actions are anticipated to have an adverse impact on recreational and cultural resources primarily through the restriction of access to historical and cultural sites in the military leased areas during training operations. This would include limitations of access through the RTA to historic sites that are part of the route of historic bus tours on the island.

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

The minorities and low-income populations are not located adjacent to the site, but the Chamorros currently have access to valued historic and cultural resources that are on the military leased lands. So this racial and cultural group would have the potential to be impacted by the proposed actions that would restrict this access.

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

Chamorros and those who work for the historic bus tour industry on Tinian (many of whom are likely to also be Chamorros) would be disproportionately impacted by the proposed actions. Due to the high poverty level on Tinian, these groups are also likely to be low-income. Children would not be disproportionately affected.

Tier 3: Would the disproportionate adverse effects be significant?

Restricted access would prevent the Chamorros from visiting cultural resources that are part of their history and heritage, as well as potentially impact the economic health of the historic bus tour industry on Tinian. As stated in Chapter 16 of this EIS/OEIS, about 70% of the toured and visited sites on Tinian are located within the military leased land. Controlled access during proposed training activities would allow civilian access to the most critical sites (e.g., North Field and the blowhole) at the northern portion of the island for tour operators. This would result in less than significant impacts to these groups.

Socioeconomics

Restricted access to the military leased land areas would also impede the work of Tinian ranchers and other local agricultural workers. The grazing rights of Tinian ranchers would be terminated and local workers who currently collect and sell wild chili-peppers in the leased area would be affected.

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

Nearly 99% of the Tinian population is a racial minority, and the island has a very high percentage of people living in poverty relative to the U.S. and Dededo (refer to Table 19.1-2). The disadvantaged populations are not adjacent to the site, but they access the leased lands for their work.

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

Tinian ranchers would be disproportionately impacted by the proposed actions because their grazing rights in the leased land areas would end. Local workers who currently collect and sell wild chili-peppers in the leased area (most of whom are presumably part of the low-income population of the island) would also be disproportionately impacted by the proposed operations because their access to these resources that they sell for income would be restricted. Children would not be disproportionately affected.

Tier 3: Would the disproportionate adverse effects be significant?

The proposed actions would have a significant adverse effect on the source of these groups' labor and income. Grazing opportunities in the more densely-developed south are limited.

Terrestrial Biological Resources

According to Volume 2 of this EIS/OEIS, the brown tree snake (BTS) is an non-native species that has been responsible for numerous impacts on Guam and could potentially be transported to Tinian. Because Marines and all of their equipment and gear would be transported from Guam to Tinian for range training, there is a chance that brown tree snakes could be transported with their luggage and/or gear.

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

Southern Tinian has a majority of racial minorities and a high poverty rate. Children also comprise 28% of the population.

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

The potential establishment of the BTS is of great concern on Tinian as a potential island-wide impact. If BTS were to become established (without immediate suppression) on Tinian as a result of the proposed action, the impacts would be significant in terms of economics and public health, both of which would disproportionately impact the predominant minority population, as well as the low-income segments of the population and children (particularly infants and small children who are most susceptible to health effects from the BTS). As described in Chapter 10 (Terrestrial Biological Resources), a comprehensive non-native species program would be implemented on Guam as a mitigation for this potential impact. With implementation of this plan, the potential environmental justice impacts would be less than significant.

19.2.2.2 Summary of Alternative 1 Impacts

Table 19.2-1 summarizes Alternative 1 impacts.

Table 19.2-1. Summary of Alternative 1 Impacts

Potential Impacts on Tinian by Resource

Recreational and Cultural Resources Access to some recreational and cultural resources on leased

Access to some recreational and cultural resources on leased lands would be restricted during training activities, but the most popular tourist destinations would be accessible. This would have less than significant impacts to a racial minority group and to low-income people who participate in the tour bus industry. There would be no disproportionate impact to children.

Socioeconomics

Ranchers and agricultural workers would lose access to leased lands needed to perform their work. This would result in a significant impact to these segments of the Tinian population, who also likely have a low-income. There would be no disproportionate impact to children.

Terrestrial Biology

The potential introduction and establishment of the brown tree snake on Tinian represents a potentially significant environmental justice impact because of the potential effects on the economy and public health, which would disproportionately impact disadvantaged populations (minority and low-income) and children. This potential impact would be mitigated to a less than significant level with the implementation of a comprehensive non-native species program.

Alternative 1

Impact Summary:

Recreational and Cultural Resources

• SI (racial minorities and low-income)

- NI (children)
- Socioeconomics
- SI (racial minorities and low-income)
- NI (children)
- Terrestrial Biology

• SI-M (all disadvantaged groups and children)

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

19.2.2.3 Alternative 1 Potential Mitigation Measures

The following mitigation measures are designed to address issues that often complicate the public participation of low-income people. These issues include lack of transportation, language barriers, and internet/computer access.

The following measures are recommended for public meetings and participation for actions proposed in Volume 3 of this EIS/OEIS:

- Public meeting notices, announcements, and documents should be posted in paper form as well as online and be located in multiple, frequently accessed public places.
- Written materials would be provided in the Chamorro and Filipino languages. Further, interpreters speaking Chamorro and Filipino would be used during meetings.
- A comprehensive non-native species program would be developed and implemented to minimize the potential for introduction of the brown tree snake to Tinian from Guam.

19.2.3 Alternative 2

19.2.3.1 Tinian

Construction

The impacts for this alternative are the same as for Alternative 1.

Operation

The impacts for this alternative are the same as for Alternative 1.

19.2.3.2 Summary of Alternative 2 Impacts

Table 19.2-2 summarizes Alternative 2 impacts.

Table 19.2-2. Summary of Alternative 2 Impacts

Potential Impacts on Tinian by Resource	
Recreation and Cultural Resources	
The potential impacts for Alternative 2 are the same as for Alternative 1.	
Socioeconomics	
The potential impacts for Alternative 2 are the same as for Alternative 1.	
Terrestrial Biology	
The potential impacts for Alternative 2 are the same as for Alternative 1.	

19.2.3.3 Alternative 2 Potential Mitigation Measures

Mitigation measures are the same as Alternative 1.

19.2.4Alternative 3

19.2.4.1 Tinian

Construction

The impacts for this alternative are the same as for Alternative 1.

Operation

The impacts for this alternative are the same as for Alternative 1.

19.2.4.2 Summary of Alternative 3 Impacts

Table 19.2-3 summarizes Alternative 3 impacts.

Table 19.2-3. Summary of Alternative 3 Environmental Justice Impacts

Potential Impacts on Tinian by Resource		
Recreation and Cultural Resources		
The potential impacts for Alternative 3 are the same as for Alternative 1.		
Socioeconomics		
The potential impacts for Alternative 3 are the same as for Alternative 1.		
Terrestrial Biology		
The potential impacts for Alternative 3 are the same as for Alternative 1.		

19.2.4.3 Alternative 3 Potential Mitigation Measures

Mitigation measures are the same as Alternatives 1 and 2.

19.2.5 No-Action Alternative

Under the no-action alternative, no training operations associated with the proposed training on Tinian would occur. Existing operations at the proposed project areas would continue. Historic and cultural sites currently open to the public would continue to be, and bus tour operators would continue their work unhindered. Ranchers would continue to utilize the more ample grazing land opportunities in the leased area. Therefore, the no-action alternative would not have significant impacts to minority, low-income, or children populations.

19.2.6 Summary of Impacts

Table 19.2-4 summarizes the potential impacts of each action alternative and the no-action alternative. The proposed action would have disproportionate impacts to racial minorities on the island of Tinian in terms of recreational and cultural resources, socioeconomics, and terrestrial biology. People with low incomes are likely to be adversely affected by restricted access to historic and cultural sites in the currently leased areas of the island, but impacts would be less than significant. Significant impacts could occur to Tinian ranchers and locals who pick and sell wild chili-peppers from the leased land would be restricted from accessing the land needed to perform their work. Disproportionate impacts to disadvantaged groups and children related to terrestrial biological resources (potential for establishment of non-native species such as BTS) would be potentially significant but mitigated to a less than significant level.

Alternative 1	Alternative 2	Alternative 3	No-Action Alternative
Recreational and Cultural	Recreational and Cultural	Recreational and Cultural	NI
Resources:	Resources:	Resources:	
LSI	LSI	LSI	
Racial Minorities	Racial Minorities	Racial Minorities	
NI	NI	NI	
Low-Income	Low-Income	Low-Income	
Children	Children	Children	
Socioeconomics:	Socioeconomics:	Socioeconomics:	
SI	SI	SI	
Racial Minorities	Racial Minorities	Racial Minorities	
Low-Income	Low-Income	Low-Income	
NI	NI	NI	
Children	Children	Children	
Terrestrial Biological	Terrestrial Biological	Terrestrial Biological	
Resources:	Resources:	Resources:	
SI-M	SI-M	SI-M	
Racial Minorities	Racial Minorities	Racial Minorities	
Low-Income	Low-Income	Low-Income	
• Children	Children	Children	

Table 19.2-4. Summary of Volume 3 Environmental Justice Impacts

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

19.2.7 Summary of Potential Mitigation Measures

Table 19.2-5 summarizes potential mitigation measures.

Alternative 1	Alternative 2	Alternative 3
• Public meeting	• Public meeting	• Public meeting
announcements would be	announcements would be	announcements would be
posted in paper form as	posted in paper form as	posted in paper form as
well as online and in	well as online and in	well as online and in
multiple places	multiple places	multiple places
• Written materials would	• Written materials would	• Written materials would
be translated into	be translated into	be translated into
Chamorro and Filipino,	Chamorro and Filipino,	Chamorro and Filipino,
and an interpreter would	and an interpreter would	and an interpreter would
be provided at public	be provided at public	be provided at public
meetings	meetings	meetings
• A comprehensive non-	• A comprehensive non-	• A comprehensive non-
native species program	native species program	native species program
would be developed and	would be developed and	would be developed and
implemented to minimize	implemented to	implemented to
the potential for	minimize the potential	minimize the potential
introduction of the brown	for introduction of the	for introduction of the
tree snake to Tinian from	brown tree snake to	brown tree snake to
Guam.	Tinian from Guam.	Tinian from Guam.