
CHAPTER 4 ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter describes potential environmental consequences associated with implementing the proposed action and no-action and alternatives. In accordance with National Environmental Policy Act (NEPA) guidelines, the scope of the Environmental Impact Statement (EIS)/Overseas Environmental Impact Statement (OEIS) was guided by emphasizing potentially significant issues and deemphasizing insignificant issues (40 Code of Federal Regulations [CFR] §1501.1[d]). The following topics provide an overview of Chapter 4 and are discussed below:

- Environmental Resource Sections
- Programmatic Analysis
- Section 4(f) Evaluation
- Summary of Impacts and Potential Mitigation Measures

Environmental Consequences

This chapter describes the environmental consequences that would potentially result from implementation of the alternatives described in Chapter 2, including the no-action alternative. This chapter also describes the analytical methodology used to develop the analysis.

4.1.1 Environmental Resource Sections

Consistent with the discussion of the affected environment (see Chapter 3, *Affected Environment*), this chapter is divided into 16 resource areas (Sections 4.2 through 4.17) to provide a framework for evaluating the impacts of each alternative. Each environmental resource section is divided into the following subsections.

4.1.2 Approach to Analysis

The *Approach to Analysis* section describes the methodology and impact assessment criteria used to identify and evaluate resource impacts in this EIS/OEIS.

4.1.3 Resource Management Measures

The *Resource Management Measures* section discusses applicable (1) avoidance and minimization measures and, (2) best management practices and standard operating procedures, and how they serve to lessen impacts to specific resources. Resource management measures include avoidance and minimization measures, best management practices, and standard operating procedures. Resource management measures would be incorporated into the proposed action and are common to all action alternatives.

Avoidance and minimization measures that further reduce environmental impacts are not necessarily required by law, regulation, or policy. However, they are incorporated into the site planning and design of the proposed action. Examples of avoidance and minimization include moving target locations, moving firing positions, adjusting engagement zones, limiting weapons deployment, adjusting High Hazard Impact Area boundaries, and adjusting use of tactical landing beaches.

Best management practices include standard operating procedures and commonly accepted practices routinely implemented by the Department of the Navy (DoN) in design, construction, and operations to provide for the safety of personnel and equipment, as well as aid with regulatory compliance. The EIS/OEIS impact analysis (Chapter 4) assumes that resource management measures are successfully incorporated into the proposed action. Best management practices and standard operating procedures are described in Appendix D, *Best Management Practices*.

4.1.4 Action Alternatives

Chapter 4 covers both the action and no-action alternatives. Each resource area includes analysis of impacts under the three Tinian action alternatives and the two Pagan action alternatives. The separate Tinian and Pagan presentations enable the unique characteristics of each island as well as distinct types of training venues to be clearly depicted. These separate presentations do not change the intent of the proposed action which is to establish Range and Training Areas (RTAs) on both Tinian and Pagan.

4.1.5 Construction and Operation Impacts

A separate discussion of the potential impacts resulting from both construction, and operational activities associated with implementation of the Tinian and Pagan action alternatives is provided. Some resource areas do not include discussion of either construction period or operations period impacts, as those activities are not applicable to the discussion. For example, there are no construction period impacts under Section 4.6, *Airspace*.

4.1.5.1 Impact Determination

A determination is made for each potential impact as to whether it would be significant or not, as appropriate. If the impact would be significant, a determination is made as to whether it could be mitigated to less than significant. If not, the consequences of the significant impacts are presented.

Significant Impacts

According to NEPA, a determination of significance requires consideration of both the context of the action and the intensity or severity of the impact (40 CFR § 1508.27).

4.1.5.2 Potential Mitigation Measures

For the purpose of this EIS/OEIS, mitigation measures are additional project-specific measures to actively minimize, rectify, reduce, or provide compensation for impacts identified through the NEPA environmental review process. Mitigation measures are implemented and monitored as practicable in addition to the avoidance and minimization measures, best management practices, and standard operating procedures that are included as part of the proposed action. Examples of potential mitigation measures include habitat restoration to mitigate for habitat removed during construction, and removal of existing non-native invasive species. Unlike resource management measures, which are incorporated into the proposed action, commitments to specific mitigation measures will be documented through the Record of Decision, a permit/approval, programmatic agreement or other formal agreement. Section 4.20 summarizes the impacts and potential mitigation measures for the Tinian alternatives and the Pagan alternatives analyzed in this EIS/OEIS. Table 4.20-1 and Table 4.20-2 provides a summary of the impacts for both construction and operation activities for the Tinian and Pagan alternatives.

4.1.6 No-Action Alternative

A discussion of impacts related to the no-action alternative is provided for each resource area as a basis of comparison of the potential environmental consequences of the proposed action alternatives. The discussions are presented in Sections 2.4.5, *Tinian No-Action Alternative* and 2.5.4, *Pagan No-Action Alternative*.

4.1.7 Programmatic Analysis

Section 4.18 provides a programmatic analysis of two additional projects that are not included within the proposed action: (1) relocation of the existing International Broadcasting Bureau (currently located on Tinian) and (2) construction and operation of a new dock and associated breakwater on Pagan. These two projects are presented and analyzed in a broader context than the proposed action analyzed in this EIS/OEIS.

4.1.8 Section 4(f) Evaluation

Section 4.19 provides a Section 4(f) evaluation of the Tinian International Airport improvements and associated historic properties. Section 4(f) of the Department of Transportation Act of 1966, codified in Federal law at 49 United States (U.S.) Code § 303, requires that the U.S. government endeavors to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.

4.1.9 Summary of Impacts and Mitigations

Section 4.20 summarizes the potential impacts and mitigation measures identified in Sections 4.2 through 4.17.