
Executive Summary

EXECUTIVE SUMMARY

INTRODUCTION

This document is a joint State of Hawaii and United States Navy Environmental Impact Statement (EIS) that provides a comprehensive environmental analysis to support State and Federal decisions concerning the use of State, Federal, and private lands to support range enhancements at the Pacific Missile Range Facility (PMRF) at Barking Sands, Kauai, Hawaii and on Niihau, Hawaii. Since the State and Federal actions and decisions are interconnected, the analyses will be documented in this joint EIS. By providing for joint preparation, excessive paperwork is reduced. In addition, since actions are proposed to occur both inside and outside U.S. territorial waters, this document complies with both the National Environmental Policy Act (NEPA) (2 United States Code 3 1) and Executive Order (EO) 12111 , *Environmental Effects Abroad of Major Federal Actions*. s 1.1

Hawaii Revised Statutes (HRS) Chapter 3 3 and its implementing rules (Title 11, Chapter 2 , Hawaii Administrative Rules, Department of Health) require that systematic consideration be given to the environmental and social consequences of any State agency action, including the use of State or county lands. Use of State or county lands includes any grant of title, lease, permit, easement, license, or entitlement to those lands. The proposed use of State lands includes modification of the existing lease of exclusive easement granted by the State of Hawaii in 1 3 to the Navy regarding lands adjacent to PMRF. This modification would address missile launches that generate the need to utilize State lands as a ground hazard area and extend the term of that existing easement from 1 January 2 3 to 31 December 2 3 . This extension would bring this easement in conformity with other existing PMRF leases expiring in 2 2 and 2 3 . Other actions involving the use of state lands are the expansion of the Kamokala Magazine Area to include approximately 2 hectares (ha) (acres ac) of state land to support the construction of additional ordnance storage magazines and the establishment of an associated explosive safety restrictive use easement encumbering approximately ha (12 ac) of state land. The expansion of the magazine area would be accomplished either by an amendment of the existing state lease to include the additional land or by conveyance of the lands to the government in fee simple. The restrictive use easement would permit continued agricultural use of the lands but limit the construction of new buildings or other structures and prohibit public access to the area. If the proposed expansion is leased, then the lease and the safety easement expiration dates would be 1 August 2 2 . s 1.1

The NEPA the Council on Environmental Quality (CEQ) *Regulations Implementing the Procedural Provisions of the National Environmental Policy Act*; (Code of Federal Regulations CFR 1 -1 8), Department of Defense (DOD) Directive .1, *Environmental Effects in the United States of Department of Defense Actions* and Naval Operations Instruction (OPNAVINST) .1B, *Environmental and Natural Resources Program Manual*, direct the Navy and DOD officials to consider environmental consequences when making decisions to authorize or approve Federal actions. In addition, EO 12111 requires consideration of environmental effects in decisions for actions outside the United States or its territories. EO 128 8, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires Federal agencies to s 1.1

analyze their programs as to disproportionately high and adverse human health and environmental effects on minority and low-income populations.

Since the Draft EIS was published, EO 13818, *Coral Reef Protection*, was signed to preserve and protect the biodiversity, health, heritage, and social and economic value of U.S. coral reef ecosystems and the marine environment.

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PURPOSE AND NEED FOR THE PROPOSED ACTION

This EIS analyzes the environmental impacts of the Navy's proposal to enhance the capability of PMRF to accommodate the [Navy and other DOD Theater](#) Missile Defense (TMD) testing, evaluation, and training. Congress has directed DOD to develop a highly effective TMD program to defend our armed forces abroad and our friends and allies from theater missile attacks. No fully effective defense against these missiles currently exists. However, theater missiles are being developed and/or purchased by many nations, some of which are not friendly. Congress tasked the DOD's Ballistic Missile Defense Organization (BMDO) to develop this system in cooperation with all elements of the U.S. Armed Services.

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Theater Ballistic Missile Defense (TBMD) is the name of the Navy program that is a part of the overall DOD TMD program. The Proposed Action would enable PMRF fully to accommodate the testing and training needs of the Navy's TBMD program and other DOD TMD programs as well. This proposed enhancement would also increase PMRF's viability in the future by providing increased capability for potential customers to develop, test, and train.

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The purpose of the proposed action is to comply with Congressional direction to enhance PMRF. This enhancement would provide PMRF with sufficient capabilities to allow development, testing, and evaluation of Navy TBMD and DOD TMD systems, as well as training of personnel in the use of these systems once they are introduced to the fleet. In order to evaluate the operational effectiveness of TBMD systems, the systems need to be tested against a simulated hostile environment. Targets are required which simulate the characteristics of incoming hostile missiles. Multiple simultaneous launches of airborne targets are required from different directions. To provide the correct target presentation, these target systems must be launched at distances up to 1,200 kilometers (km) (800 nautical miles (nmi)) from where TMD systems are located.

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Previous NEPA analyses supporting TMD extended test range decisions were conducted in 2011. The analyses focused on the Army's planned land-based interceptors and associated facility, instrumentation, and testing needs. PMRF was not carried forward because of limited instrumentation to support these land-based interceptor needs. This analysis focuses on those necessary instrumentation upgrades as well as conducting testing of ship-based interceptors. Subsequently, PMRF would then continue to support the normal fleet training missions of which TBMD intercepts will become a normal part. (U.S. Army Space and Strategic Defense Command, 10 January 2012)

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A requirements and range evaluation, which was conducted in 2011 (U.S. Navy TBMD Sea Range Requirements and Range Evaluation, revised July 2011) by the Navy Theater Air Defense Program determined that while all ranges lacked adequate instrumentation,

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overall, PMRF possessed the most capability to meet both the Navy's near-term and long-term technical TBMD test requirements.

No existing range can currently meet all Navy TBMD development, testing, evaluation and personnel training requirements. However, as published in Senate Report 113-321, of the Senate Appropriations Committee Subcommittee on Defense, stated:

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The Committee recognizes that the Pacific Missile Range Facility (PMRF) air, surface, and subsurface ranges and associated test and exercise infrastructure provide the unique capability to conduct virtually unrestricted test and evaluation in ideal conditions in support of the Defense Department, the armed services, the National Aeronautics and Space Administration, and U.S. friends and allies. Furthermore, the range is specifically equipped with the optical and radar tracking equipment, communications network, test control facilities, rocket launch infrastructure, and range support capability necessary to support tests of theater missile defense systems and concepts. Based on these unique assets and PMRF's demonstrated record of success, the Committee directs that the Pacific Missile Range Facility (PMRF) shall be designated the primary test range for the completion of Navy lower tier and upper tier missile flight tests.

In addition, in Report 113- , the House of Representatives, Committee of Conference indicated its agreement with the Senate initiative to improve the capabilities of the Navy's Pacific Missile Range Facility and provided funding specifically for that purpose.

This EIS describes and evaluates the environmental consequences of the variety of ways in which the capabilities of PMRF may be enhanced in order to support Navy TBMD and DOD TMD development, testing, evaluation, and training.

Continued use of some State and private land by PMRF is needed to fully accomplish these objectives. For State lands, (1) the term of an existing restrictive easement needs to be extended and (2) the acquisition of some additional State land is proposed.

Revision of the existing restrictive easement involves only changes in the types of missile launches for which the easement may be used and in the number of years that the easement is in effect. The number of times that State property would be closed to public access would not change and the amount of State land involved would not change. The proposed acquisition or lease of some other State land would provide for additional explosives storage facilities and an associated safety zone.

NO-ACTION ALTERNATIVE AND PROPOSED ACTION

The No-action Alternative is the continuation of (1) existing range and land-based training and operations, (2) existing research, development, testing, and evaluation (RDT & E) activities, and (3) ongoing base operations and maintenance of the technical and logistical facilities that support the training and operations missions conducted at PMRF.

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The Proposed Action assumes the continuation of existing activities at PMRF. The Proposed Action combines the activities of the No-action Alternative with slight increases in activities of a similar nature. The Preferred Alternative would include activities to enhance target and interceptor launch and instrumentation capabilities on air, sea, and

land. In addition, the Preferred Alternative would provide for support activities including construction and/or modification of land facilities, acquisition of real property, and transportation of liquid propellants.

Areas originally considered for the launch and/or instrumentation sites included: (1) Kauai and Niihau, (2) other Pacific land-based support locations (Tern Island and Johnston Atoll), and (3) ocean areas within and outside U.S. territorial waters. Any testing and training would comply with current U.S. policy concerning compliance with treaties and international agreements.

Areas analyzed as part of the No-action Alternative and Proposed Action included PMRF (PMRF/Main Base Restrictive Easement (ground hazard area) Makaha Ridge Kokee Kamokala Magazines and Port Allen, Kauai), PMRF support sites (Niihau Kaula Maui Space Surveillance System, Maui Kaena Point, Oahu Wheeler Network Segment Control/PMRF Communication Sites, Oahu Department of Energy Communication Sites, Kauai and Oahu) candidate sites (Tern Island and Johnston Atoll) and Ocean Area (outside U.S. territory). s 2.2.1 s 2.2.1.1 s 2.2.1.2

The Preferred Alternative includes construction and modification of target and interceptor launch facilities, launches of target and interceptor missiles, construction and modification of instrumentation facilities, construction of support facilities, and transportation of missile propellant. The Preferred Alternative also includes acquisition or lease of State lands adjacent to PMRF to support launch and storage requirements. Specifically, the Navy is considering launches of TBMD target missiles using Air Drop and Mobile Sea Platform capabilities from the open ocean area around PMRF, construction of new target missile launch facilities at one or more of five potential - by -meter (m) (1 - by 1 -foot ft) sites on PMRF with subsequent launches of TBMD target missiles from PMRF, and construction of up to two target and interceptor missile launch facilities on Niihau (- by -m (1 - by 1 -ft) with launches to the open ocean area. Instrumentation capabilities would be established on Mobile Sea Platforms as well as upgrade of the existing instrumentation capabilities at PMRF, Makaha Ridge, Kokee, and Niihau (up to 1 by 1 m by ft). A new Missile Assembly Building (MAB) (12 by 21 m by ft) would be constructed on PMRF, and new ordnance storage facilities (1 by 3 m by ft) would be constructed on up to 2 ha (ac) of leased or acquired state land near Kamokala Magazines. Road upgrades and relocation of the helicopter pad would occur at Makaha Ridge. On Niihau, two communication and control sites would be established, clearing and leveling would be conducted to establish up to two Aerostat sites of five potential sites (-m 1, -ft radius), and a 1,82 -m (, -ft) airstrip would be constructed. Liquid propellant would be transported from the mainland to PMRF by air, sea, or land. The Navy prefers transportation of liquid propellants by air and would pursue waivers from the Department of Transportation to allow this mode of transporting the propellant with sea transportation being considered next if waivers are not attainable. Ongoing activities would be continued at the other locations listed above as a part of the Preferred Alternative. s 2.3 s 2.3.3 s 2.3.1 s 2.3.1.3.2 s 2.3.1.3.3 s .2.1 s .1.1. .2.2

Although Tern Island and Johnston Atoll were originally site alternatives in the Draft EIS, the Navy has determined that they are not reasonable alternatives and therefore have been eliminated as proposed sites in the EIS. Review of the existing data available for Tern Island to support the assessment of the environmental effects of the Proposed Action at s 2.3. .3 s 2.3. . s 2.1 s 2.2.3

Tern Island, coupled with the comments received from government agencies and from the public, has led the Navy to eliminate Tern Island as a Proposed Action site. The lack of program requirements for the use of Johnston Atoll has also led the Navy to eliminate it from further consideration. The discussion and analysis on Tern Island and Johnston Atoll have been retained in the EIS, however, in order to preserve the work that has already been performed.

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The proposed use of State lands would occur under the Proposed Action. Under the Preferred Alternative, the use of State Lands would involve extending the term of the existing restrictive easement from 1 January 2003 to 31 December 2003. The basic conditions of the restrictive easement (3 activations per year) would not change from those in the current agreement, except it would allow for the activation of the easement during missile launches to support both TBMD and TMD activities. Acquisition of an additional parcel of land adjacent to the Kamokala Magazines, either by amendment of the existing State lease or fee acquisition, and a restrictive use easement are needed in order that the Navy may construct additional ordnance storage facilities necessary to accommodate missile launch activities and prohibit further development of the lands affected by the explosive safety quantity-distance (ESQD) arcs around those additional ordnance facilities.

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DECISIONS TO BE MADE

The decisions to be made by the State of Hawaii are (1) whether to revise the existing ground hazard area restrictive use easement with the Navy to expand the types of missile launches and extend the easement term from 1 January 2003 to 31 December 2003 and (2) whether to revise other Navy leases and/or convey land to the Navy and concur with or grant approvals as may be required for Navy use of lands to support the enhancement of PMRF to facilitate development and testing of TMD systems. The Department of Land and Natural Resources would be the accepting authority for the analysis, as well as the approval authority for the State Proposed Action.

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(2) s .1.

PMRF would revise the current ground hazard area restrictive easement with the State of Hawaii for the continued use of lands for safety purposes adjacent to the facility for missile launching activities. In addition, PMRF would acquire an additional parcel of land, either in leasehold or fee, and restrictive use easement for the construction and use of two new ordnance storage magazines on Kauai. Neither the No-action Alternative nor the Preferred Alternative conflicts with any land use plans, policies, or controls.

Based on congressional direction to enhance the capabilities of PMRF, the NEPA-related decisions to be made by the Federal Government are (1) how to enhance the capabilities of PMRF to allow TMD testing, evaluation, and training for both the Navy TBMD program and other DOD programs within U.S. territorial waters. This enhancement would include the consideration of placing additional assets at PMRF and at off-range locations to support PMRF activities and (2) which remote sites to develop to support testing and training scenarios for Navy and other DOD TMD systems.

Table ES-1 is a matrix of the various alternative locations and activities forming the major decisions to be made by the Deputy Assistant Secretary of the Navy for Installations and Facilities.

Table ES-1: Decision Matrix

PREFERRED ALTERNATIVE	ACTIONS			INTERCEPTORS		INSTRUMENTATION				FACILITIES						REAL ESTATE		PROPELLANT TRANSPORTATION					
	AIR	SEA	LAND	SEA	LAND	AIR	SEA	LAND	AEROSTAT	MAB	CONTR CTR	MAG STOR	FUEL STOR	AIRFIELD	HELOPAD	MOORING	ROADS	LEASE/ACQUIRE	EASEMENT	AIR	SEA	SEAROAD **	
LOCATIONS*																							
AIR	X																				X		
SEA																							
AEGIS					X																		
MATSS		X						X	X		X												
SLP		X						X															
BARGE																						X	X
LAND																							
PMRF																							
SITE A			X					X															
SITE B			X					X															
SITE C			X					X															
SITE D			X					X															
SITE E			X					X															
SITE G												X											
SITE H										X													
SITE I										X													
GHA																						X	
KAMAKOLA MAGAZINES STORAGE BUILDING (2) ESQD												X							X		X		
MAKAHA RIDGE																							
SITE A								X														X	
SITE B								X														X	
SITE C								X															
SITE D								X			X												
KOKEE																							
SITE A								X															
SITE B								X															
SITE C								X															
PORT ALLEN																						X	X
NAWILIWILI HARBOR																						X	X
NIIHAU																							
SITE A			X		X																		
SITE B											X												
SITE C												X											
SITE D																						X	
SITE E												X											
SITE F											X	X											
SITE G											X	X											
SITE H											X	X											
SITE I											X	X											
SITE J											X												
SITE K			X		X																		
SITE L																							
SITE M														X		X							

* Although Tern Island and Johnston Atoll were originally site alternatives in the Draft EIS, the Navy has determined that they are not reasonable alternatives and therefore have been eliminated as proposed sites in this EIS. Review of the existing data available for Tern Island to support the assessment of the environmental effects of the Proposed Action at Tern Island, coupled with the comments received from government agencies and from the public, has led the Navy to eliminate Tern Island as a Proposed Action site.

** Not part of the Preferred Alternative

SCOPE OF THE STUDY

The EIS evaluates the potential environmental effects of the No-action Alternative and proposed enhancement of test and training capabilities of PMRF, including additional launch, instrumentation, and support sites and various levels of testing and training intensities. The EIS also discusses the potential impacts of revising the existing easement with the State of Hawaii for land adjacent to PMRF for an additional 28-year period as well as other potential land use agreements to provide for buffer zones adjacent to PMRF and an off-site storage facility. The EIS addresses all of the measurably foreseeable activities in the particular geographical areas affected by the No-action Alternative and the Proposed Action and focuses on the activities ripe for decision. Because the Proposed Action requires the use of State of Hawaii lands (revision of the restrictive easement and the potential use of other land), this EIS also assesses the environmental consequences of the Proposed Action in accordance with Hawaii law. The EIS embraces both Federal and State requirements and provides necessary analyses to allow agencies at all levels to consider the environmental effects of their decisions.

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SUMMARY OF ENVIRONMENTAL IMPACTS

The EIS describes the potential environmental effects from implementing the No-action Alternative and the Proposed Action. The environment is analyzed in terms of 11 resource areas: air quality, airspace, biological resources, cultural resources, geology and soils, hazardous materials and hazardous waste, health and safety, land use, noise, socioeconomics, transportation, utilities, visual and aesthetic resources, and water resources. In addition, an evaluation of the ocean area outside the territorial limits of the United States and an environmental justice analysis were conducted. Each resource area is discussed at each location unless the No-action Alternative and Proposed Action activities at that location would not foreseeably result in an impact. The data presented are commensurate with the importance of the potential impacts in order to provide the proper context for evaluating impacts. For some locations, it was determined through initial evaluation that no impacts would occur. These sites are briefly discussed within the EIS and are summarized below. Table ES-2 provides a summary of the environmental consequences associated with the implementation of the No-action Alternative and Proposed Action at each of the locations evaluated. The environmental consequences of the State of Hawaii actions are included within the Restrictive Easement and Kamokala Magazines columns in table ES-2. Environmental consequences under the jurisdiction of EO 12111 are included within the Ocean Area. The information in the table is based on the environmental impact analysis presented in chapter 4 of this EIS. The levels of impacts shown in table ES-2 are defined as:

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- **No Impact** No impact is predicted.
- **No Adverse Impact** An impact is predicted, but the impact, as mitigated, does not meet the intensity or context criteria needed to trigger a regulatory requirement or impact the quality of the human or natural environment.
- **Adverse Impact** An impact is predicted that meets the intensity or context criteria necessary to trigger a regulatory requirement or impact the quality of the human or natural environment.

Table ES-2: Summary of Potential Environmental Consequences

LOCATION ³	PMRF/ Main Base		Restrictive Easement (Ground Hazard Area)		Makaha Ridge		Kokee		Kamokala Magazines		Port Allen		Niihau		Kaula		Kaena Point		Maui Space Surveillance System		Wheeler Network Segment Control/PMRF		DOE Comm. Sites		Ocean Area (Outside U.S. Territory)			
	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed		
Air Quality	△	△	△	△	△	△	△	△	□	△	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Airspace	△	△	□	□	□	□	□	□	□	□	□	□	□	■	□	□	□	□	□	□	□	□	□	□	□	□	□	△
Biological Resources	△	△	△	△	△	△	△	△	□	△	□	□	△	■	△	△	□	□	□	□	□	□	□	□	□	□	△	△
Cultural Resources	△	△	□	□	△	△	△	△	△	△	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Geology and Soils	△	△	□	□	△	△	△	△	△	△	□	□	□	△	■ ²	■ ²	□	□	□	□	□	□	□	□	□	□	□	□
Hazardous Materials and Hazardous Waste	△	△	□	□	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Health and Safety	△	△	□	□	△	△	△	△	△	△	△	△	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	△
Land Use	△	△	△	△	□	□	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	□
Noise	△	△	△	△	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Socioeconomics	+	+	△	△	□	□	□	□	□	□	□	□	□	+	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Transportation	□	△	△	△	□	□	□	□	□	□	□	△	□	+	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Utilities	□	□	□	□	■ ¹	■ ¹	■ ¹	■ ¹	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Visual and Aesthetics	△	△	□	□	△	△	△	△	□	△	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Water Resources	△	△	□	□	□	□	△	△	△	△	□	□	□	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Environmental Justice	△	△	△	△	□	□	□	□	□	□	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□

EXPLANATION

- **No Impact:** No impact is predicted.
- △ **No Adverse Impact:** An impact is predicted, but the impact does not meet the intensity or context criteria needed to trigger a regulatory requirement or impact the quality of the human or natural environment.
- **Adverse Impact:** An impact is predicted that meets the intensity or context criteria necessary to trigger a regulatory requirement or impact the quality of the human or natural environment, unless mitigated.
- + **Beneficial Impact:** An impact is predicted to have a beneficial effect on the quality of the human or natural environment.

Notes:

- ¹ Both on-going and proposed activities would continue to contribute to the existing water shortage until a new well is on-line within one to two years.
- ² Adverse impact due to permanent adverse soil and geologic effects from past ordnance explosions.
- ³ Tern Island and Johnston Atoll have been eliminated from this table.

- **Beneficial Impact** An impact is predicted to have a beneficial effect on the quality of the human or natural environment.

There are no unresolved issues to the No-action Alternative and Proposed Action.

A listing of State of Hawaii permits or approvals is contained in appendix H, Potential Permits, Licenses, and Entitlements Required. Laws and regulations considered are provided in appendix J. app H
app J

The complete list of potential mitigation measures proposed to avoid, minimize, rectify, or reduce the possible impacts of the Proposed Action and the No-action Alternative is provided in appendix L. Also provided is a matrix of locations and mitigations for the Proposed Action. app L

No-action Alternative

Under the No-action Alternative, activities at three locations (Makaha Ridge, Kokee, and Kaula) evaluated in this EIS were predicted to have adverse impacts (see table ES-1). For each location analyzed in the EIS, potential adverse impacts are discussed below. For all remaining locations, either no impacts or no adverse impacts were predicted to arise from implementation of the No-action Alternative.

Makaha Ridge. For utilities, on-going activities at Makaha Ridge would continue to have an adverse impact on the water shortage that exists in the water supply system that supplies water to Makaha Ridge from the State of Hawaii water main at Kokee State Park until a new well is on-line within 1 to 2 years. Currently a mandatory water conservation program is in effect. s .1.3.13.1

Kokee. For utilities, on-going activities at Kokee Park would continue to have an adverse impact on the water shortage that exists in the water supply system that supplies water from the State of Hawaii water main at Kokee Park, the same system that supplies Makaha Ridge. This is expected to continue until a new well is on-line within 1 to 2 years. Currently a mandatory water conservation program is in effect. s .1. .13.1

Kaula. The No-action Alternative is the continued use of the southeast end of Kaula to train aviators in air-to-surface weapons delivery. Authorized ordnance includes aircraft cannon rounds. Permanent adverse soil and geologic effects have been noted by the Navy resulting from rock shattering explosions and the possibility of both live and inert ordnance (duds) which may remain in the target area (U.S. Department of the Navy, 1 8). The Navy minimizes the impact by managing the targeting to the southeast tip of the island, which encompasses approximately 8 percent of the total land mass (U.S. Department of the Navy, 1 8). s .2.2. .1
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Proposed Action

Under the Proposed Action, activities proposed for five locations (Makaha Ridge, Kokee, Niihau, Kaula, and Tern Island) evaluated in the EIS were predicted to have adverse impacts. For each of these locations the adverse impacts are discussed below. Either no impacts or no adverse impacts to any of the environmental resources analyzed in the EIS

from implementation of the Proposed Action would be expected for the remaining locations.

Makaha Ridge. Proposed activities would not result in an increase in the amount of water use at Makaha Ridge. However, the existing adverse impacts to the water supply may continue until a new well is drilled. s .1.3.13.2

Kokee. Proposed activities would not result in an increase in the amount of water use at Kokee. However, the existing adverse impacts to the water supply may continue until a new well is drilled. s .1. .13.2

Niihau. Activation of the proposed operating area over either proposed Aerostat site or missile launch sites on Niihau would have the potential to impact the V-1 en route low altitude airway that crosses the middle of the island. The proposed 3-km (3-nmi) radius Restricted Area, from ground level to 182 m (598 ft) surrounding both proposed sites would lie within the boundaries of the airway, which extends from the surface up to, but not including 8 m (26 ft) mean sea level, and 3 km (2 nmi) either side of the airway's center line. Therefore, whenever an operation is scheduled, the proposed Altitude Reservation would be activated, and air traffic using the V-1 airway would be required to use an alternate flight course. This would represent a potentially adverse impact on other regional airways (such as closing a road and forcing traffic to use an alternate route). s .2.1.2.2.

Adverse impacts to marine biological resources may occur. Additional traffic at the existing logistics landing sites and other landing craft landing areas may disturb monk seals that haul out to bask, or possibly pup, on the sandy beach areas. Disturbance of green sea turtle nesting sites at the existing logistics landing sites and other sandy beach areas could also occur. However, the operational activities of the Proposed Action are not expected to affect viability or jeopardize the continued survival of either of these two sensitive species.

Kaula. Because no activities are planned for Kaula other than those described in the No-action Alternative, no additional soil and geologic impacts are anticipated. s .2.2. .2

Tern Island. Although Tern Island was originally a site alternative in the Draft EIS, the Navy has determined that it is not a reasonable alternative and therefore has been eliminated as a proposed site in the Final EIS. Review of the existing data available for Tern Island to support the assessment of the environmental effects of the Proposed Action at Tern Island, coupled with the comments received from government agencies and from the public, has led the Navy to eliminate Tern Island as a Proposed Action site. The determination that Tern Island is no longer a reasonable alternative takes precedence over the other discussions concerning Tern Island in the Final EIS. s .3.1