



Prepared for:  
 National Oceanic and Atmospheric Administration  
 National Marine Fisheries Service

# Programmatic Environmental Impact Statement

## Chapter 9: Index

### Final PEIS for Hawaiian Monk Seal Recovery Actions

March 2014



- Page Intentionally Left Blank -

## 9.0 INDEX

### A

#### Actions

Past Actions 4-78, 4-96, 4-106, 4-113, 4-133, 4-160, 4-181, 4-199, 4-213, 4-226, 4-234

#### Reasonably Foreseeable Future Actions

(RFFA) 4-2, 4-25, 4-27

Albatross, (Laysan, black-footed, short-tailed) 3-50, 3-51, 3-52, 3-53, 3-55, 3-56, 3-57, 4-22, 4-122, 4-123, 4-124, 4-125, 4-127, 4-135, 4-139

#### Alternatives

Alternative 1 2-1, 2-23, 2-27, 2-28, 2-29, 2-31, 4-47, 4-48, 4-56, 4-62, 4-63, 4-64, 4-65, 4-66, 4-67, 4-68, 4-69, 4-71, 4-74, 4-89, 4-90, 4-91, 4-95, 4-104, 4-105, 4-121, 4-122, 4-123, 4-124, 4-127, 4-128, 4-129, 4-130, 4-131, 4-140, 4-141, 4-142, 4-144, 4-154, 4-155, 4-156, 4-157, 4-175, 4-176, 4-177, 4-179, 4-193, 4-194, 4-195, 4-196, 4-209, 4-211, 4-222, 4-223, 4-230, 4-231, 4-232, 4-233, 4-241, 4-242, 4-244, 4-245, 4-249, 4-251, 4-252, 4-253, 4-254, 4-255, 4-256, 4-257, 4-258, 4-259, 4-260, 4-263, 4-264, 4-265

Alternative 2 2-1, 2-22, 2-27, 2-28, 2-29, 2-31, 4-48, 4-65, 4-66, 4-89, 4-90, 4-92, 4-95, 4-105, 4-127, 4-128, 4-129, 4-140, 4-142, 4-144, 4-155, 4-156, 4-176, 4-177, 4-194, 4-210, 4-223, 4-231, 4-242, 4-245, 4-246, 4-249, 4-251, 4-252, 4-253, 4-254, 4-255, 4-256, 4-257, 4-258, 4-259, 4-260, 4-263, 4-264, 4-265

Alternative 3 2-1, 2-5, 2-24, 2-25, 2-27, 2-28, 2-29, 2-30, 2-31, 4-48, 4-60, 4-66, 4-67, 4-68, 4-69, 4-70, 4-71, 4-73, 4-74, 4-75, 4-92, 4-95, 4-105, 4-112, 4-129, 4-130, 4-131, 4-132, 4-142, 4-144, 4-156, 4-157, 4-177, 4-178, 4-195, 4-196, 4-211, 4-224, 4-232, 4-233, 4-242, 4-243, 4-246, 4-247, 4-249, 4-251, 4-252, 4-253, 4-254, 4-255, 4-256, 4-257, 4-258, 4-259, 4-260, 4-263, 4-264, 4-265

Alternative 4 1-9, 1-16, 2-25, 2-26, 2-27, 2-28, 2-29, 2-31, 4-34, 4-48, 4-74, 4-75, 4-76, 4-92, 4-95, 4-105, 4-131, 4-132, 4-142, 4-144, 4-157, 4-158, 4-159, 4-178, 4-179, 4-180, 4-196, 4-197, 4-198, 4-212, 4-224, 4-233, 4-243, 4-247, 4-248, 4-249, 4-251, 4-252, 4-253, 4-254, 4-255, 4-256, 4-257, 4-258, 4-259, 4-260, 4-263, 4-264, 4-265

Animal Welfare Act 1-17, 2-35, 2-40, 2-44, 4-43

### B

Best Management Practices 3-40, 4-91

Birds of Conservation Concern 3-51, 3-54, 3-55, 3-57, 4-124, 4-127

Bottomfish 3-85, 4-23, 4-119, 4-165, 4-166, 4-167, 4-187, 4-188, 4-189, 4-205, 4-206, 4-207, 4-219, 4-220, 4-237, 4-238

### C

#### Cetaceans

humpback whales 3-43, 3-44, 3-65, 4-21, 4-105, 4-107

spinner dolphin 3-43, 3-45, 4-103, 4-105

#### Climate Change

sea-level rise 3-29

acidification 4-140

Contaminants 3-34, 3-38, 4-139

Cooperating agencies 1-23

Coral 1-19, 3-49, 3-57, 3-58, 3-85, 3-118, 4-21, 4-22, 4-116, 4-141

Council on Environmental Quality (CEQ) 1-10, 1-21, 2-1, 2-22, 3-113, 4-2, 4-3, 4-4, 4-16, 4-17, 4-18, 4-33, 4-239, 4-240

Critical habitat 3-41

Critter Cam 2-46

Cultural and historic sites 4-3, 4-15

Cumulative Effects 4-2, 4-17, 4-77, 4-85, 4-93, 4-96, 4-105, 4-113, 4-132, 4-159, 4-180, 4-198, 4-226, 4-234, 4-239, 4-243, 4-248, 4-249, 4-

251, 4-252, 4-253, 4-254, 4-255, 4-256, 4-257, 4-258, 4-259, 4-260, 4-263, 4-264, 4-265

Executive Orders 1-18, 1-19, 1-20, 3-55, 3-60, 3-113, 4-143, 4-239

## D

Department of Agriculture 1-18, 2-44, 3-59  
Department of Defense 1-24  
Department of Health 1-24, 3-4, 3-98  
Department of Land and Natural Resources 1-23, 1-24, 3-41, 3-59  
Department of the Interior 3-71  
Direct Effects 4-2  
Disease 2-9, 2-28, 3-32, 4-22, 4-116, 4-143

## E

El Niño 3-10, 3-11, 3-30  
Employment 33-77, 3-78, 3-80, 3-81, 3-82, 4-13  
Endangered and threatened species 1-11, 1-14, 3-55  
Endangered Species Act 1-1, 1-2, 1-6, 1-8, 1-10, 1-11, 1-12, 1-14, 1-18, 1-21, 1-22, 1-25, 1-27, 2-20, 2-23, 2-32, 2-33, 2-35, 2-37, 2-42, 2-43, 3-14, 3-22, 3-37, 3-41, 3-43, 3-44, 3-51, 3-52, 3-54, 3-55, 3-57, 3-59, 3-60, 3-63, 3-66, 3-119, 4-8, 4-29, 4-34, 4-47, 4-59, 4-95, 4-96, 4-105, 4-125, 4-142  
Enhancement 1-1, 1-21, 2-20, 2-27, 2-28, 2-29, 2-30, 2-31, 3-39, 4-37, 4-43, 4-47, 4-48, 4-55, 4-57, 4-60, 4-62, 4-63, 4-64, 4-65, 4-68, 4-71, 4-74, 4-121, 4-154, 4-175, 4-193, 4-244, 5-2  
Entanglement 3-27, 3-36, 3-38  
Environmental Justice 1-19, 3-113, 3-114, 4-16, 4-239, 4-240, 4-264, 4-265  
Environmental Protection Agency (EPA) 3-8, 3-9, 4-90, 4-91, 4-141, 4-240  
Essential Fish Habitat 1-15, 3-49, 4-111  
Ethnicity 3-115, 4-240

## F

Fisheries 3-48, 3-65, 3-84, 3-85, 3-86, 3-87, 4-23, 4-119, 4-166, 4-167, 4-188, 4-189, 4-206, 4-207, 4-257, 4-258, 4-259  
Foraging 3-23, 3-24, 4-21, 4-50, 4-98, 4-116

## G

Global Positioning System 2-10, 2-29, 4-43

## H

Habitat 1-15, 1-25, 2-49, 3-21, 3-22, 3-38, 3-53, 3-73, 3-77, 4-12, 4-28, 4-130, 4-139, 4-140, 4-254, 5-19  
Hawai'i, State of  
Department of Health 1-24, 3-4, 3-98  
Department of Land and Natural Resources 1-23, 1-24, 3-41, 3-59  
Hawai'i State Marine Life Conservation Districts 3-119  
Hawaiian Islands Humpback Whale National Marine Sanctuary 1-26, 3-65, 3-116, 4-28  
Hawaiian Islands National Wildlife Refuge 3-118  
Hawaiian monk seals  
abundance 2-3, 2-35, 2-46, 2-49, 3-1, 3-6, 3-13, 3-14, 3-15, 3-17, 3-18, 3-20, 3-25, 3-26, 3-42, 3-46, 3-65, 4-1, 4-6, 4-56, 4-61, 4-62, 4-63, 4-70, 4-72, 4-75, 4-77, 4-78, 4-103, 4-228, 4-249  
beach counts 3-1, 3-14, 3-15, 3-18, 4-1  
behavior modification 2-13, 2-15, 2-16, 2-17, 4-45, 4-53, 4-66, 4-67, 4-69, 4-70, 4-156, 4-157, 4-177, 4-178, 4-195, 4-196, 4-232, 4-233, 4-246, 4-247, 5-6, 5-8, 5-9, 5-18

biology	1-12, 2-34, 3-66	juvenile survival	1-1, 1-7, 2-12, 2-30, 3-20, 3-25, 3-26, 3-27, 3-29, 4-59, 4-60, 4-66, 4-71, 4-72, 5-5
breeding	1-1, 1-3, 1-15, 1-26, 2-35, 2-47, 3-3, 3-13, 3-24, 3-25, 3-31, 3-41, 3-42, 3-44, 3-48, 3-50, 3-52, 3-53, 3-54, 3-55, 3-118, 4-1, 4-4, 4-59, 4-94, 4-95, 4-229	male aggression/mobbing	2-4, 2-10, 2-11, 2-13, 2-17, 2-24, 2-30, 2-31, 3-30, 3-31, 3-32, 3-37, 3-39, 4-38, 4-33, 4-42, 4-46, 4-49, 4-52, 4-53, 4-59, 4-64, 4-67, 4-69, 4-70, 4-71, 4-85
capture and handling	2-6, 2-11, 2-14, 2-17, 2-32, 4-38, 4-40, 4-42, 4-62, 4-68, 4-69	marking, tagging, bleaching	1-6, 1-7, 2-6, 2-7, 2-8, 2-20, 2-21, 2-28, 2-29, 3-13, 3-19, 4-33, 4-36, 4-40, 4-42, 4-49, 4-55, 4-58, 4-67, 4-69
deworming	3-34, 44-66, 4-69, 4-70, 4-211, 4-224, 4-246	monitoring and reporting	5-18, 5-19
disease	1-1, 1-7, 1-9, 2-6, 2-9, 2-10, 2-12, 2-17, 2-20, 2-23, 2-28, 2-29, 2-35, 3-32, 3-33, 3-35, 3-42, 3-106, 3-109, 4-23, 4-21, 4-33, 4-44, 4-45, 4-46, 4-64, 4-68, 4-70, 4-71, 4-96, 4-127, 4-129, 4-130, 4-131, 4-132, 4-139, 4-143, 4-156, 4-177, 4-195, 4-246, 5-6, 5-7, 5-8	mortality	1-8, 1-9, 2-3, 2-11, 2-12, 2-15, 2-16, 2-17, 2-19, 2-21, 2-22, 2-31, 2-33, 2-36, 2-38, 3-19, 3-27, 3-28, 3-29, 3-31, 3-32, 3-35, 3-36, 3-37, 3-38, 3-63, 4-5, 4-8, 4-12, 4-36, 4-37, 4-48, 4-49, 4-53, 4-54, 4-55, 4-56, 4-57, 4-59, 4-62, 4-63, 4-64, 4-65, 4-66, 4-67, 4-68, 4-69, 4-70, 4-71, 4-74, 4-77, 4-85, 4-89, 4-94, 4-95, 4-104, 4-112, 4-123, 4-139, 4-140, 4-158, 4-167, 4-179, 4-189, 4-197, 4-207, 4-250, 4-251, 4-252, 4-253, 5-8
disturbance	2-4, 2-5, 2-6, 2-7, 2-9, 2-10, 2-12, 2-32, 2-39, 2-42, 2-43, 3-15, 3-31, 3-35, 3-39, 3-45, 3-52, 4-34, 4-37, 4-38, 4-39, 4-40, 4-41, 4-42, 4-43, 4-45, 4-47, 4-49, 4-53, 4-54, 4-55, 4-57, 4-58, 4-59, 4-77, 4-89, 4-93, 4-94, 4-95, 4-96, 4-103, 4-104, 4-105, 4-112, 4-123, 4-127, 4-128, 4-129, 4-140, 4-210, 4-249, 4-251, 4-252, 4-254, 4-262, 5-12, 5-13	population	2-4, 3-18, 4-5, 4-8, 4-39, 4-70, 4-74, 4-156, 4-157, 4-177, 4-178, 4-195, 4-196, 4-232, 4-233, 4-247, 5-5, 5-6
entanglement	1-1, 1-27, 2-6, 2-12, 2-15, 2-49, 3-28, 3-30, 3-36, 3-106, 4-39, 4-44, 4-57, 4-59, 4-65, 4-85, 4-89, 4-95, 4-96, 4-123, 4-124, 4-139, 4-249	prey species	2-32, 3-24, 4-113, 4-140
euthanasia	1-14, 2-18, 2-31, 2-39, 2-46, 4-53, 4-62, 4-67, 4-68	pups and juveniles	1-1, 1-6, 1-7, 1-22, 2-7, 2-8, 2-10, 2-11, 2-12, 2-13, 2-17, 2-23, 2-25, 2-28, 2-29, 2-30, 3-13, 3-14, 3-19, 3-20, 3-21, 3-24, 3-26, 3-27, 3-28, 3-29, 3-31, 3-32, 3-34, 3-39, 3-46, 4-7, 4-34, 4-40, 4-42, 4-44, 4-49, 4-56, 4-57, 4-59, 4-61, 4-64, 4-66, 4-67, 4-69, 4-70, 4-72, 4-75, <del>4-89</del> , 4-92, 4-104, 4-105, 4-111, 4-113, 4-131, 4-142, 4-158, 4-179, 4-197, 4-211, 4-224, 5-5, 5-6
genetics	2-9, 2-22, 3-21, 4-33, 5-7	reproduction	3-20, 4-7, 4-11, 4-56, 4-57, 4-58, 4-64, 4-89, 4-93, 4-103, 4-105, 4-249, 4-251
habitat	1-25, 3-33, 3-39	shark predation	1-7, 1-22, 2-4, 2-7, 2-12, 2-30, 3-19, 3-28, 3-29, 3-391, 44-42, 4-45, 4-52, 4-59
health	2-8, 3-126, 3-127, 3-128	stock structure	3-21
human interaction	2-12, 2-14, 2-15, 2-23, 2-30, 2-31, 3-108, 3-109, 3-110, 4-33, 4-38, 4-85, 4-106, 4-239	survival rates	3-13, 3-19, 3-20, 3-26, 3-34, 4-6, 4-8, 4-53, 4-57, 4-61, 4-73, 4-75, 4-112, 4-158, 4-179, 4-197
injury	1-8, 2-15, 2-17, 2-32, 2-36, 2-38, 2-43, 3-29, 3-31, 3-36, 4-13, 4-38, 4-40, 4-41, 4-46, 4-47, 4-48, 4-53, 4-57, 4-64, 4-105, 4-133, 4-140, 4-141, 4-143		

threats and stressors	1-1,2-4, 2-11, 2-30, 3-34, 3-37, 3-38, 3-55, 4-59, <u>4-89</u> , 4-96, 4-139, 5-7	Marine Mammal Health and Stranding Response Program	1-8, 1-9, 1-21, 1-27, -14, 2-22, 2-49, 3-122, 4-65, 4-90, 4-127, 4- 156, 4-177, 4-195, 4-244, 4-246
translocation	2-11, 2- 12, 2-13, 2-17, 2-23, 2-25, 4-52, 4-60, 4-61, 4-66, 4- 69, 4-70, 4-71, 4-73, 4-74, 4-75, 4-76, 4-157, 4-178, 4-196, 4-233, 4-247, 5-4, 5-5, 5-6	Marine Mammal Protection Act	1-1, 1-6, 1-8, 1-10, 1-12, 1-13, 1-14, 1-18, 1-21, 1-22, 1-27, 2-20, 2-22, 2-32, 2-37, 2-42, 2-43, 3-37, 3-45, 3-60, 3-63, 3- 66, 4-47, 4-95, 4-105, 4-142, 4-156, 4-177, 4-195, 4-246
vaccination	1-9, 1-22, 4-46, 4-47, 4-54, 4-70, 4-91, 4-92, 4-156, 4-157, 4- 177, 4-178, 4-195, 4-196, 4-211, 4-224, 4-227, 4- 232, 4-233, 4-234, 4-246, 4-247, 5-1, 5-7, 5-8	Meteorology	3-4
		Migratory Bird Treaty Act	1-17
		Mitigation	2-9, 2-28, 2-37, 3-31, 3-121, 4-104, 4-122
		Modeling	2-32, 2- 49, 3-18, 4-52, 4-60
<b>I</b>			
Income	3-81, 3- 82, 3-116, 4-239, 4-240		
Indirect Effects	4-2, 4-62, 4-65, 4-66, 4-74, 4-77, 4-91, 4-95, 4-104, 4-105, 4-112, 4-121, 4-127, 4-129, 4-131, 4-132, 4-141, 4-142, 4-143, 4-144, 4-154, 4-155, 4-156, 4-157, 4-159, 4-175, 4-176, 4-177, 4-178, 4-180, 4-193, 4-194, 4-195, 4-196, 4-198, 4-212, 4-225, 4-230, 4-231, 4-232, 4-233, 4-234, 4-241, 4-242, 4-243, 4-244, 4-245, 4-246, 4-247, 4-248		
Institutional Animal Care and Use Committee (IACUC)	1-17, 2- 44, 2-45, 2-46		
Intergovernmental Panel on Climate Change (IPCC)	3-30		
International Union for the Conservation of Nature and Natural Resources	2-11, 3- 51, 3-57		
Invasive species	4-27, 4- 139, 4-142, 4-143, 4-144		
<b>K</b>			
Kalupapa National Historic Park	3-118		
<b>M</b>			
Magnuson-Stevens Fishery Conservation Management Act	1-15, 3- 48		
Marine debris	2-14, 3- 28, 4-53, 4-95, 4-124, 4-139		
		National Marine Fisheries Service	1-1, 1-25, 1-27, 1-28, 2-1, 3-1, 4-1, 5-1
		National Oceanic and Atmospheric Administration (NOAA)	1-1, 3-8
		National Parks	3-102, 3- 103
		National Parks Service	1-23, 3- 103, 3-118, 3-119
		Native Hawaiians	33-44, 3- 87, 3-114, 4-169, 4-210, 4-241, 4-242, 4-243, 5-12
		NEPA	1-1, 1-2, 1-9, 1-10, 1-20, 1-21, 1-22, 1-22, 1-23, 1-24, 1-25, 1-27, 2-1, 2-2, 2-3, 2-14, 2-18, 2-19, 2-46, 2-47, 2-48, 3-36, 3- 78, 3-122, 4-21, 4-22, 4-28, 4-29, 4-30, 4-31, 4-32, 4-91, 4-142, 4-143, 4-239, 4-244, 5-1, 5-2, 5-3, 5-4, 5-7
		Record of Decision (ROD)	1-23, 3- 120, 5-2, 5-3
		Scoping	1-23, 2-1, 2- 46, 2-47, 3-36, 5-4
		NMFS	
		Office of Protected Resources	1-13, 2- 36, 2-38, 2-42, 2-43, 3-63, 4-24, 4-38, 4-40, 4-45, 4- 46, 4-47, 5-2, 5-3
		NOAA Fisheries	1-1, 1-2, 1-17, 1-21, 1-22, 1-24, 1-26, 2-42, 2-49, 3-8, 3-40, 3-60, 3-71, 3-74, 3-75, 3-98, 3-117, 3-121, 4-21, 4-22, 4-28,

4-29, 4-30, 4-31, 4-32, 4-91, 4-142, 4-143, 4-239, 4-244,  
5-12

## O

Oceans  
 acidification 4-140  
 circulation and currents 3-27, 3-47  
 temperature 3-7  
 Offshore Islet Restoration Committee 3-52  
 Outreach and Collaboration 2-48, 3-109, 3-110, 4-59, 4-65, 4-241, 4-243, 5-9, 5-13

## P

Pacific Decadal Oscillation 3-11  
 Pacific Islands Fisheries Science Center (PIFSC) 1-6, 1-9, 1-22, 1-27, 2-9, 3-86, 3-88, 3-107, 3-108, 4-49, 4-65  
 Pacific Islands Regional Office (PIRO) 1-23, 1-27, 2-48, 3-65, 3-107, 3-108, 4-42  
 Papahānaumokuākea Marine National Monument 3-39, 3-40, 3-50, 3-60, 3-65, 3-71, 3-73, 3-75, 3-85, 3-86, 3-117, 3-118, 4-13, 4-35, 4-141, 4-143, 4-144, 5-12  
 Papahānaumokuākea Marine National Monument, Co-Trustees 3-71, 3-74, 4-141, 4-143  
 Parasites 3-32, 3-33  
 Permits 1-10, 2-27, 2-28, 2-29, 2-31, 2-36, 2-37, 2-38, 2-39, 2-40, 2-41, 2-42, 33-60, 3-61, 3-71, 3-74, 3-118, 4-35, 4-47  
 Plants 1-16, 4-34  
 Pollution 1-16  
 Polluted Runoff Control Program 3-8  
 Poverty 3-116, 4-240  
 Public Safety 3-104, 4-229

## R

Recovery Plan 1-1, 1-10, 2-2, 2-24, 2-37, 3-37, 3-38, 3-39, 3-42, 4-7, 4-8, 4-59, 4-60, 4-64, 4-66, 4-71, 4-73, 4-76, 4-90, 4-249, 4-250  
 Recovery Team 3-37  
 Recreation & Tourism 3-2, 3-59, 3-71, 3-97, 3-98, 3-99, 3-101, 3-102, 3-104, 4-227, 4-228, 4-229, 4-239, 4-263  
 Regulatory Requirements  
 research and enhancement permit requirements 2-33  
 scientific research and enhancement permit issuance requirements 2-34  
 Reports 2-41, 3-18, 4-49, 4-106  
 Research 1-2, 1-20, 1-21, 2-12, 2-18, 2-19, 2-20, 2-21, 2-24, 2-27, 2-28, 2-29, 2-31, 2-40, 2-41, 2-45, 2-47, 3-10, 3-39, 3-65, 3-66, 3-71, 3-73, 3-118, 3-123, 3-124, 3-125, 4-8, 4-11, 4-21, 4-29, 4-34, 4-35, 4-36, 4-37, 4-38, 4-43, 4-45, 4-47, 4-48, 4-49, 4-55, 4-57, 4-62, 4-63, 4-64, 4-65, 4-68, 4-71, 4-74, 4-91, 4-105, 4-111, 4-121, 4-143, 4-154, 4-175, 4-193, 4-213, 4-223, 4-225, 4-244, 4-248, 5-2, 5-18  
 Research and Enhancement Activities 1-21, 2-19, 3-39, 4-49, 4-123, 4-124, 5-18

## S

Sanctions 2-42, 2-43, 4-45, 4-46  
 Seabirds 3-50, 3-52, 4-121  
 Sharks 3-28, 3-46, 4-34  
 Shorebirds 33-53, 3-54, 3-55, 4-124, 4-127, 4-128, 4-130, 4-131, 4-132, 4-254  
 Socioeconomics 4-13  
 Southwest Fisheries Science Center 3-64, 4-29  
 Species of Greatest Conservation Need 3-50, 3-51, 3-54, 4-124, 4-127, 4-128, 4-130, 4-132  
 Spinner dolphin 3-43, 3-45, 4-103, 4-105

Stakeholders 3-37, 5-1,  
 5-2, 5-4, 5-12, 5-18

Stranding 1-14, 1-  
 23, 1-27, 2-39, 4-41, 4-42

Subsistence 3-86, 4-  
 168, 4-190, 4-258

Surveys

aerial 2-5, 2-27,  
 4-33, 4-36, 4-41, 4-90, 4-104, 4-140, 4-254, 4-255

land-based 2-3, 2-27

vessel 2-5, 2-27

## T

Turtles

green turtles 3-41

sea turtles 4-94, 4-96

## U

U.S. Fish and Wildlife Service 1-11, 1-  
 17, 1-22, 1-23, 3-3, 3-4, 3-5, 3-7, 3-10, 3-42, 3-50, 3-51,  
 3-52, 3-53, 3-54, 3-55, 3-57, 3-59, 3-71, 3-117, 3-118,  
 4-11, 4-34, 4-96, 4-122, 4-125, 4-127, 4-128, 4-129, 4-  
 130, 4-131, 4-132

Unemployment 3-82, 3-  
 83, 4-262, 4-263

United Nations Education, Scientific, and Cultural  
 Organization 3-118, 4-  
 23

## W

Water quality 3-8

Weather 4-32

Western Pacific Regional Fishery Management  
 Council 3-48, 3-  
 49, 3-58, 3-85, 3-86, 4-23, 4-27, 4-167, 4-189, 4-207