

APPENDIX C: OVERVIEW OF MANAGEMENT PROGRAMS AND EXISTING REGULATIONS

A variety of land and water management programs and existing regulations protect Hawaii's native species and their habitats. This appendix provides an overview of these protections, first outlining the land and water management by Federal, State, county, and private entities, then describing existing regulations in order from international, Federal, State, and local protections.

LAND AND WATER MANAGEMENT PROGRAMS

National Parks

The National Park System, operated by the National Park Service of the U.S. Department of Interior, was established to preserve natural areas (including scenery, natural and historic features, and wildlife) in the United States so that they can be enjoyed by current generations and preserved for future generations. The protection, management, and administration of these areas are to be conducted in light of the high public value and integrity of the National Park System. There are eight national park units in Hawai'i: Haleakalā National Park (Maui); Kalaupapa National Historical Park (Moloka'i); Hawai'i Volcanoes National Park (Hawai'i); Kaloko-Honokōhau National Historical Park (Hawai'i); Pu'uhonua O Hōnaunau National Historical Park (Hawai'i); Ala Kahakai National Historic Trail (Hawai'i); Pu'ukoholā Heiau National Historic Site (Hawai'i), and the U.S.S. Arizona Memorial (O'ahu).

National Wildlife Refuges

Over 500 National Wildlife Refuges (NWRs) across the United States form a system of habitats managed by the U.S. Fish and Wildlife Service of the U.S. Department of Interior. Hawaii's Refuges were established to protect the Islands' unique native plants and animals and their habitats. There are ten wildlife refuges in Hawai'i: Hawaiian Islands NWR (Northwestern Hawaiian Islands, including marine waters), Hanalei NWR (Kaua'i), Hulē'ia NWR (Kaua'i), Kīlauea Point NWR (Kaua'i), O'ahu Forest NWR (O'ahu), James Campbell NWR (O'ahu), Pearl Harbor NWR (O'ahu), Keālia Pond NWR (Maui), Kakahai'a NWR (Moloka'i), and Hakalau Forest NWR (Hawai'i).

U.S. Military Installations – Integrated Natural Resources Management Plans

The Sikes Act Improvements Act of 1997 required every military installation containing land and water suitable for the conservation and management of natural resources to complete an Integrated Natural Resources Management Plan (INRMP). The purpose of these INRMPs is to integrate the mission of the military installation with stewardship of the natural resources found there. There are several INRMPs covering military installations in Hawai'i, including:

- Oahu INRMP (covers U.S. Army installations at Dillingham Military Reservation, Kahuku Training Area, Kawailoa Training Area, Mākua Military Reservation, Schofield Barracks East Range, Schofield Barracks Military Reservation);

- Pōhakuloa Training Area INRMP (covers U.S. Army installation at Pōhakuloa Training Area, Hawai‘i);
- Marine Corps Base Hawai‘i INRMP (covers Marine Corps installations on O‘ahu, including Mōkapu Peninsula (Kāne‘ohe Marine Base), Waikāne Valley, and Marine Corps Training Area – Bellows);
- Pearl Harbor Naval Complex INRMP (covers U.S. Navy installations at Pearl Harbor, O‘ahu);
- Naval Magazine Pearl Harbor INRMP (covers U.S. Navy installation at Lualualei, O‘ahu);
- Naval Computer and Telecommunications Area Master Station Pacific INRMP (covers U.S. Navy installation at Wahiawā and Lualualei, O‘ahu); and
- Pacific Missile Range Facility INRMP (covers U.S. Navy installation at Barking Sands, Kaua‘i).

National Marine Fisheries Service

The National Marine Fisheries Service (NMFS) is responsible for managing fisheries in Federal waters and protecting species under the Endangered Species Act, the Marine Mammal Protection Act, and other Federal legislation.

Western Pacific Fisheries Management Council

The Western Pacific Fisheries Management Council (WPFMC) is responsible for recommending fisheries management actions in Federal waters in the region including Hawai‘i, and works in concert with the National Marine Fisheries Service. WPFMC develops Fisheries Management Plans (FMPs) under the Magnuson-Stevens Fishery Conservation and Management Act for commercially harvested species. These plans must identify Essential Fish Habitat (EFH) that is necessary for “spawning, breeding, feeding, or growth to maturity” and enact actions to minimize threats to and conserve EFH. These plans also identify more limited Habitat Areas of Particular Concern that are key habitats for managed species. FMPs are developed for bottomfishes, coral reef ecosystems, crustaceans, pelagic fishes, and precious corals.

Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve

The Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve was established in 2000 by Executive Order. The Reserve protects the species in the marine waters and submerged lands of the Northwestern Hawaiian Islands, as well as the Hawaiian Islands NWR outside of State waters. It is managed by the National Ocean Service of the National Oceanic and Atmospheric Administration (NOAA-NOS). Only limited fishing that occurred before the Executive Order is allowed, and then only in areas not designated for complete protection from fishing and other consumptive uses. The Reserve is currently undergoing the public process to become a National Marine Sanctuary.

Hawaiian Islands Humpback Whale National Marine Sanctuary

Jointly managed by NOAA-NOS and Hawai‘i Department of Land and Natural Resources, Division of Aquatic Resources (DAR) to protect humpback whales in Federal and State waters. The sanctuary's goal is to promote comprehensive and coordinated management, research, education, and long-term monitoring for the endangered

humpback whale and its habitat. The Sanctuary includes waters around portions of all the Main Hawaiian Islands, centering on the key habitat of Maui County. Protections for the whales include increased fines for violations of the Endangered Species Act and Marine Mammal Protection Act and 100 yard approach rule to limit harassment of whales in the water. Funding and personnel for research, education, and enforcement also increase these actions in the State.

State Natural Area Reserves

The State Natural Area Reserve system (NARS) was established to preserve in perpetuity specific land and water areas which support communities, as relatively unmodified as possible, of the natural flora and fauna, as well as geological sites, of Hawai‘i (Hawai‘i Revised Statutes (HRS) Chapter 195). The NARS are managed by the State Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW). Each Natural Area Reserve was established based on the concept of protecting ecosystems rather than individual species, with the goal of preserving and protecting representative samples of Hawaiian biological ecosystems and geological formations. There are 19 NARS in Hawai‘i covering more than 109,000 acres. Hono o Na Pali (Kaua‘i), Ku‘ia (Kaua‘i), Ka‘ena Point (O‘ahu), Pahole (O‘ahu), Mt. Ka‘ala (O‘ahu), West Maui (Maui), Hanawā (Maui), ‘Āhihi-Kīna‘u (Maui) (contains both terrestrial and marine acreage), Kanaio (Maui), Oloku‘i (Moloka‘i), Pu‘u Ali‘i (Moloka‘i), Manukā (Hawai‘i), Kīpāhoehoe (Hawai‘i), Mauna Kea Ice Age (Hawai‘i), Waiākea 1942 Flow (Hawai‘i), Kahauale‘a (Hawai‘i), Pu‘u Maka‘ala (Hawai‘i), Laupāhoehoe (Hawai‘i), Pu‘u o ‘Umi (Hawai‘i).

State Forest Reserves

The State Forest Reserves were first established in Hawai‘i over a century ago to protect the water supply that was being threatened due to the destruction of the forest by cattle (HRS Chapter 183). The Forest Reserves are managed by DOFAW. Limited collecting for personal use (e.g., *ti* leaves and bamboo) and limited (no more than \$3,000 value per year) commercial harvesting of timber, seedlings, greenery, and tree ferns is allowed by permit. There are 49 forest reserves on the five major islands (Kaua‘i, O‘ahu, Maui, Moloka‘i, and Hawai‘i), totaling over 640,000 acres; most of the State land in the Conservation District is within a forest reserve.

State Restricted Watersheds

The purpose of a State Restricted Watershed is to regulate human use in areas where water supplies are vulnerable to contamination by public access (Hawai‘i Administrative Rules (HAR) §§ 13-105-1 et seq.). Six restricted watersheds on O‘ahu (3) and Hawai‘i (3) have been established and are managed by DOFAW.

State Wilderness Preserves

The purpose of a State Wilderness Preserve is to preserve and protect “all manner of flora and fauna” (HAR §§ 13-3-1 et seq.). The only wilderness preserve in the State is the Alaka‘i Wilderness Preserve on Kaua‘i, covering just over 9,000 acres on the summit plateau of Mt. Wai‘ale‘ale, and is managed by DOFAW.

State Wildlife Sanctuaries

Wildlife Sanctuaries are established by the State to conserve, manage, and protect indigenous wildlife (HAR §§ 13-125-1 et seq.). The Wildlife Sanctuaries are managed by DOFAW. There are four wildlife sanctuaries in the State: Paikō Lagoon Wildlife Sanctuary (O‘ahu), Kanahā Pond Wildlife Sanctuary (Maui), Kīpuka ‘Āinahou Nēnē Sanctuary (Hawai‘i), and the Hawai‘i State Seabird Sanctuary (multiple islands offshore of the Main Hawaiian Islands and two islands of Kure Atoll in the Northwestern Hawaiian Islands).

State Parks

There are 52 state parks encompassing nearly 25,000 acres on all the Main Hawaiian Islands. These parks are managed for outdoor recreation and heritage opportunities and range from landscaped grounds with developed facilities to wildland areas with trails and primitive facilities (HRS Chapter 183).

Leased and Unencumbered Lands

The State Department of Land and Natural Resources, Division of Land Management manages State lands not set aside to agencies or otherwise encumbered or designated for a specific land use. Some of these lands are leased by auction to private landowners, while lands that are not under lease are called “unencumbered lands.” Unencumbered lands are often beach or coastal areas in the Conservation District (see below – State Land Use Districting) but do not include parks, harbors, or forest reserves.

Hawaiian Home Lands

The Department of Hawaiian Home Lands manages approximately 200,000 acres in trust for Native Hawaiians. The mission of the Department of Hawaiian Home Lands is to manage the Hawaiian Home Lands trust effectively and to develop and deliver land to Native Hawaiians. The Department will partner with others towards developing self-sufficient and healthy communities.

Commission on Water Resources Management

The Commission on Water Resources Management within the Department of Land and Natural Resources is mandated by Chapter 174C of the Hawai‘i Revised Statutes to set policies, protect resources, defines uses, establish priorities while assuring rights and uses, and establish regulatory procedures for inland surface water and ground water resources. The Commission designates and manages water management areas and is responsible for protecting instream uses of water, including maintaining the biological integrity of aquatic wildlife.

State Marine Waters

DAR manages marine and freshwater areas throughout the State under general management authority from Hawai‘i Revised Statutes Chapters 188 and 190. These areas include 11 Marine Life Conservation Districts (MLCD), 19 Fish Management Areas (FMA), three Public Fishing Areas (PFA), two Wildlife Sanctuaries, and the South Kona ‘ōpelu Fishing Area.

Eight MLCDs include areas that are set aside as No Take Marine Protected Areas to protect sensitive species and habitats and other areas that allow a variety of forms of take but were set up to manage user conflicts or address other management issues. Some limitations on access (e.g., boats) also occur. FMAs were mostly set up to manage user conflicts. They have restrictions on gear, size of fish, access, season, etc., that differ from general fishing regulations. Only the Waikiki Shoreline FMA is completely No Take. Many FMAs are in harbors, bays, or canals. PFAs are managed areas with regulations to protect introduced freshwater gamefish and other fishes. Access, take, size, gear, and season limits are used. The Sanctuaries are limited access and take areas set up for conducting scientific research (Coconut Island) and conservation (Paikō Lagoon).

Bottomfish Restricted Areas

Bottomfish Restricted Areas (BRAs) are managed by DAR and were established in 1998 after encouragement by the Western Pacific Fisheries Management Council and consultation with an ad hoc committee and extensive public comment. Their goal is to protect stocks of bottomfish in the Main Hawaiian Islands. No fishing for state-defined bottomfish species is allowed in these areas. There are 18 BRAs.

Fish Replenishment Areas

Fish Replenishment Areas (FRAs) are managed by DAR and were established in 2000 in order to protect the stocks of marine aquarium fishes on the island of Hawai‘i and to manage conflicts among commercial aquarium fishers and other resource users. No commercial or recreational aquarium fish collecting or fish feeding is allowed. There are nine FRAs in West Hawai‘i.

Kaho‘olawe Island Reserve

In late 1990, the U.S. Department of Defense stopped using Kaho‘olawe for bombing and target practice and shortly thereafter began a Congressionally-funded clean-up of the island. In 1993, the Hawai‘i State Legislature established the Kaho‘olawe Island Reserve to protect the entire island and surrounding coastal waters extending two miles seaward and established the Kaho‘olawe Island Reserve Commission (KIRC) to manage the island. The U.S. Navy clean-up resulted in approximately ten percent subsurface clearance of the island and 69 percent surface clearance of unexploded ordnance from the island. In 2003, management and ownership of the island was officially transferred from the U.S. Navy to KIRC, a state agency administratively attached to DLNR. Kaho‘olawe Island Reserve is to be used solely and exclusively, in perpetuity, for: (1) the preservation and practice of all rights customarily and traditionally exercised by Native Hawaiians for cultural, spiritual, and subsistence purposes; (2) the preservation and protection of the Reserve’s archaeological, historical, and environmental resources; (3) rehabilitation, revegetation, habitat restoration, and preservation; and (4) education. Commercial uses are strictly prohibited in the Reserve (HRS Chapter 6K). Marine take is restricted to non-commercial catch for Kaho‘olawe visitors and open trolling for the general public in restricted areas and dates.

Division of Boating and Ocean Recreation

The aim of the Department of Land and Natural Resources, Division of Boating and Ocean Recreation (DOBOR) is to preserve Hawaii's natural and cultural resources while ensuring public access to State waters and enhancing the ocean experience. DOBOR manages 30 boat harbors and boat launching facilities as well as designated offshore mooring areas. DOBOR regulates commercial operations, events, placement of sinking vessels, pollution, anchoring, and user conflicts, all of which can affect wildlife conservation efforts.

Office of Conservation and Coastal Lands

The Department of Land and Natural Resources, Office of Conservation and Coastal Lands (OCCL) has a mission to protect and conserve Conservation District lands and beaches within the State of Hawai'i (including submerged lands) for the benefit of present and future generations, pursuant to Article XI, Section 1, of the Hawai'i State Constitution. OCCL plays an important role in determining shoreline boundaries for public access, shoreline encroachments, administers application for ocean aquaculture, and enacts beach restoration projects.

State Department of Agriculture

The State Department of Agriculture, Agricultural Resource Management Division operates the State's Agricultural Park program. This program makes land available to small farmers at reasonable cost with long-term tenure and provides irrigation water. There are ten agricultural parks: four on Hawai'i, four on O'ahu, one on Kaua'i, and one on Moloka'i. The lessees are all engaged in diversified agricultural crops or aquaculture and are small farming enterprises (under 20 acres). The Division also manages five irrigation systems, two on O'ahu, two on Hawai'i, and one on Moloka'i.

Board of Water Supply

The Boards of Water Supply in each county own and manage land in their island watersheds, typically in mountainous areas, in order to protect the county's supply of water.

Cooperative Efforts

Invasive Species Committees

Over the past decade, partnerships and groups have organized to address gaps in Hawaii's biosecurity system. These include the Hawai'i Invasive Species Council (HISC), to provide cabinet-level leadership, the Coordinating Group on Alien Pest Species (CGAPS), for interagency and non-governmental organization communications and collaborative projects, and the Invasive Species Committees (ISCs) for island-based rapid response.

HISC was created in 2003 to advise the Governor on issues regarding invasive species, create and implement an invasive species plan, review State agency mandates and commercial interests, and suggest appropriate legislation to improve the State's administration of invasive species programs and policies. HISC, under the co-leadership of the State Department of Agriculture and the Department of Land and Natural Resources, is comprised of the leaders of the

University of Hawai‘i, the State Department of Business, Economic Development and Tourism, State Department of Health, and State Department of Transportation, with an invitation to participate issued to the county mayors, State Department of Defense, State Department of Commerce and Consumer Affairs, State Department of Hawaiian Home Lands, Federal agency representatives and non-profit agency representatives. Hawai‘i is the sixth state in the nation to create this type of council.

CGAPS was formed in 1995 and is comprised of primarily management-level participants from every major agency and organization involved in invasive species work including Federal, State, county, and private entities. Members meet quarterly to discuss how to influence policy and funding decisions, improve communications, increase collaborations, and promote public awareness.

The first ISC was formed on Maui in 1997 in response to the need for an early detection and rapid on-the-ground response to an array of incipient invasive species, and one is now on every major Hawaiian island (Kaua‘i, O‘ahu, Maui, Moloka‘i, and Hawai‘i). The ISCs are voluntary partnerships of private, government, non-profit organizations, and individuals working together to address invasive species issues particular to the island. The overall goal of the ISCs is to prevent, eradicate, or control priority incipient plant and animal species that threaten Hawaii’s most intact Federal, State, and private conservation lands.

In addition, there are working groups specific to high-priority potential invasive species. Two examples include the West Nile Virus Prevention Group and the Brown Tree Snake Rapid Response Team. The West Nile Virus Prevention Group is composed of a broad coalition of government agencies and non-governmental organizations, including the State Department of Agriculture, Department of Land and Natural Resources, and Department of Health, the Federal Department of Agriculture, and the Department of Interior's Fish and Wildlife Service and U.S. Geological Survey Biological Resources Division, the U.S. Postal Service; the University of Hawai‘i, the Hawaiian Humane Society, the Honolulu Zoo, Ducks Unlimited, and the Nature Conservancy of Hawai‘i. The West Nile Virus Prevention Group has developed a plan to respond to, track, and limit the spread of West Nile virus in Hawai‘i. A multi-agency Brown Tree Snake Rapid Response Team has been formed to address potential brown tree snake sightings in Hawai‘i. Members travel to Guam for regular training in how to search for and capture brown tree snakes, as one method to prevent the establishment of this animal.

Watershed Partnerships

The first Watershed Partnership was established in East Maui in 1991 by the State Department of Land and Natural Resources, the National Park Service, the county of Maui, the East Maui Irrigation Company, the Nature Conservancy, Keola Hana Maui, and Haleakalā Ranch Company in recognition that active management was needed to sustain a healthy forested watershed and that effective management is

best achieved through coordinated actions of all major landowners in the watershed. Since that time, Watershed Partnerships have now been established on six islands: Kaua‘i Watershed Alliance (Kaua‘i, 2003), Ko‘olau Mountains Watershed Partnership (O‘ahu, 1999), West Maui Mountains Watershed Partnership (Maui, 1998), Leeward Haleakalā Watershed Restoration Partnership (Maui, 2003), East Moloka‘i Watershed Partnership (Moloka‘i, 1999), Lāna‘i Forest and Watershed Partnership (Lāna‘i, 2001), ‘Ōla‘a-Kīlauea Partnership (Hawai‘i, 1994), and the Kohala Mountains Watershed Partnership (Hawai‘i, 2004). Overall, these partnerships cover over 344,000 hectares (850,000 acres) of forested watershed, involving more than 50 public and private partners. The amount of land under active management varies between partnerships. In 2003, the individual watershed partnerships jointly formed the Hawai‘i Association of Watershed Partnerships, to support the statewide needs of watershed partnerships.

Endangered Forest Bird Conservation

The State has established a partnership of non-profit conservation organizations, private landowners, and government agencies including DLNR and the U.S. Fish and Wildlife Service to work cooperatively for the conservation of endangered birds. The Maui Forest Bird Recovery Project and the Kaua‘i Endangered Bird Recovery Team are two ongoing efforts. The goal of these cooperative efforts is to recover native Hawaiian ecosystems at the landscape level and to establish self-sustaining bird populations in the wild, using management programs that include captive propagation and reintroduction. Their efforts employ an integrated conservation strategy of research, habitat management, and public education, with a focus on ecosystem health and protection as a prerequisite to reintroduction. On Maui, the focus of the program is on conservation efforts in Hanawī NAR for the endangered po‘ouli, while on Kaua‘i, the focus of the program is on conservation efforts in the Alaka‘i Swamp for the endangered puaiohi.

Offshore Island Restoration Committee

The Offshore Island Restoration Committee (OIRC) is a cooperative effort made up of the U.S. Fish and Wildlife Service, State Division of Forestry and Wildlife, Bishop Museum, the University of Hawai‘i at Mānoa, The Nature Conservancy, and the National Park Service to inventory and restore high priority offshore islands and islets throughout the Main Hawaiian Islands. OIRC is currently in the process of inventorying, identifying, and prioritizing offshore islands and islets for restoration, management, and conservation activities.

Hawai‘i and Pacific Plants Recovery Coordinating Committee

The Hawai‘i and Pacific Plants Recovery Coordinating Committee (HPPRCC) was established by the U.S. Fish and Wildlife Service in 1993 to provide the Service with information and advice on the biology, current status, and management needs to recover the many listed endangered or threatened Hawaiian plant taxa. Current members of the HPPRCC include representatives from the U.S. Fish and Wildlife Service, DOWAW, The Nature Conservancy, U.S. Geological Survey, U.S. Army, Hawai‘i Biodiversity and Mapping program,

University of Hawai‘i, and the Hawai‘i Silversword Foundation. HPPRCC is currently developing a strategy for rare plant conservation and has identified “Genetic Safety Net” plants – plants for which there are less than 50 known individuals in the wild. The goal of the developing strategy is to coordinate and integrate existing plant conservation efforts.

Natural Area Partnership Preserves

Under the Natural Area Partnership (NAP) program, the State provides two-thirds of the management costs for private landowners who agree to permanently protect intact native ecosystems, essential habitat for threatened and endangered species, or areas with other significant biological resources (HRS Chapter 195). The NAP program can support a full range of management activities to protect, restore, or enhance significant native resources or geological features. There are seven NAP-funded preserves in Hawai‘i: Pu‘u Kukui (Maui), Kapunakea (Maui), Waikamoi (Maui), Mo‘omomi (Moloka‘i), Kamakou (Moloka‘i), Pelekunu (Moloka‘i), and Kanepu‘u (Lāna‘i). In addition, there is an application pending for an eighth NAP preserve in Ka‘ū (Hawai‘i).

The Nature Conservancy Preserves

The Nature Conservancy of Hawai‘i (TNC) is a private, non-profit affiliate of the national organization, with a mission to protect eight remaining, large native-dominated landscapes from further fragmentation and to sustain these areas as natural systems through coordinated, multi-partner conservation strategies. In addition to managing six of the seven NAP preserves, TNC also manages other protected areas: Honouliuli Preserve (O‘ahu), ‘Ihi‘ihilauakea Preserve (O‘ahu), Kona Hema Preserve (Hawai‘i), and Ka‘u Preserve (Hawai‘i). Additional conservation management is conducted through cooperation with private landowners on Kaua‘i.

National Tropical Botanical Gardens

The National Tropical Botanical Garden (NTBG) is dedicated to the conservation of tropical plant diversity, particularly rare and endangered species. The NTBG, which is supported by private contributions, operates three gardens on Kaua‘i: Limahuli Garden and Preserve (1,000+ acres), McBryde Garden (252 acres), and Allerton Garden (100+ acres).

Land Trusts

The State has several private non-profit organizations whose mission is to acquire lands for long-term protection and preservation for the enjoyment of current and future generations. Examples include the Trust for Public Land, the Maui Coastal Land Trust, and the Kaua‘i Public Land Trust. The Maui Coastal Land Trust is currently managing the Waihe‘e Coastal Dunes and Wetlands Reserve on Maui.

General Conservation Management on Private Land

Unlike the continental United States, most of the private land in Hawai‘i is owned by a few major landowners. Though nearly half of Hawaii’s lands are owned by either State or Federal agencies, the participation and involvement of private landowners, many of whose lands are adjacent to government managed areas, is critical for the conservation of

native species and habitats. Hawai‘i has several programs that provide financial and technical support for assisting private landowners interested in conservation on their lands. Examples include Federal programs offered through the U.S. Fish and Wildlife Service and the Natural Resources Conservation Service (within the U.S. Department of Agriculture), State programs through DOFAW (e.g., Landowner Incentive Program, Forest Stewardship program), and county tax incentives (e.g., island of Hawai‘i native forest tax exemption).

EXISTING REGULATIONS

Convention on International Trade in Endangered Species

The Convention on International Trade in Endangered Species (CITES) establishes import and export restrictions and regulations to protect living and dead animals and plants and their parts from excessive extractive use and international trade.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act is the domestic law that implements the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of migratory birds. Each of the conventions protect selected species of birds that are common to the U.S. and the other country (i.e., they occur in both countries at some point during their annual life cycle).

Federal Endangered Species Act

The Endangered Species Act was passed in 1973, to prevent the extinction of species. The current purpose of the Endangered Species Act (ESA) is to conserve the ecosystems on which threatened and endangered species depend and to conserve and recover listed species. A species may be listed as threatened if it is likely to become endangered within the foreseeable future, and a species may be listed as endangered if it is in danger of extinction throughout all or a significant portion of its range. In addition, listed species receive regulatory protection, as taking (which includes injuring or killing) a listed species is prohibited under the ESA. In addition, the ESA requires Federal agencies to consult with the U.S. Fish and Wildlife Service or National Marine Fisheries Service in order to ensure that activities they fund, authorize, permit, or carry out are not likely to jeopardize the continued existence of the species or result in destruction or adverse modification of critical habitat. The ESA allows the U.S. Fish and Wildlife Service (terrestrial and some aquatic species) or the National Marine Fisheries Service (marine species) to allow takes that would otherwise be prohibited, provided that such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity (“incidental take”), by permit and an accompanying habitat conservation plan (USFWS only). In addition to the protection offered by listing, many species in Hawai‘i have designated critical habitat, including most of the listed plants, the Blackburn’s sphinx moth, the Kaua‘i cave wolf spider, the Kaua‘i cave amphipod, the palila, Hawaiian monk seal, and the O‘ahu ‘elepaio. Subspecies and other populations may be listed separately if they are sufficiently distinct from their conspecific relatives. In Hawai‘i, such protections extend to bats, some birds, and many plants. Candidate species are those species which are under consideration for listing as threatened or endangered by the

USFWS. NMFS calls these “species of concern” when there is not enough information available to decide on a listing or they are not actively being considered. A number of species are candidates or species of concern in Hawai‘i. The ESA also authorizes U. S. implementation of CITES.

Marine Mammal Protection Act

The Marine Mammal Protection Act of 1972 protects marine mammals by prohibiting the take, harassment, and importation of marine mammals in the United States and by prohibiting the take of marine mammals by U. S. citizens anywhere in the world. Exceptions can be granted for scientific research, education, native subsistence, and take incidental to commercial fisheries. The Act also requires establishing stock assessments and research. Species which fall below their “optimal sustainable population” size are listed as “depleted”. Depleted populations must have a conservation plan to guide research and management actions to restore the health of the species.

The Clean Water Act

The Clean Water Act of 1977 established the basic structure for regulating discharges of pollutants into the waters of the United States. Its goal is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The Clean Water Act gives the Environmental Protection Agency the authority to implement pollution control programs such as setting wastewater standards for industry. The Clean Water Act also contains requirements to set water quality standards for all contaminants in surface waters. The Act made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. It also funded the construction of sewage treatment plants and recognized the need for planning to address the critical problems posed by non-point source pollution.

National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet this requirement, federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS). The Environmental Protection Agency reviews and comments on EISs prepared by other federal agencies, maintains a national filing system for all EISs, and assures that its own actions comply with NEPA.

State Species Protection

The State has established various laws and administrative rules to protect indigenous wildlife and plants. Hawai‘i Revised Statutes § 195-1 recognize that “[a]ll indigenous species of aquatic life, wildlife, and land plants are integral parts of Hawaii’s native ecosystems and comprise the living heritage of Hawaii, for they represent a natural resource of scientific, cultural, educational, environmental, and economic value to future generations of Hawaii’s people” and that “it is necessary that the State take positive actions to enhance their prospects for survival.” Administrative rules designed to conserve, manage, protect and enhance indigenous wildlife, endangered and threatened wildlife, and introduced wild birds contain a long list of prohibited activities, with

additional protections afforded threatened and endangered species (HAR Chapter 13-124). Similarly, administrative rules designed to conserve, manage, protect and enhance native threatened and endangered plants contain a list of prohibited activities, including a ban on the take of threatened or endangered plants (HAR Chapter 13-107). The State list of threatened and endangered species includes by reference species on the Federal list, as well as a few additional species, such as the 'i'iwi on O'ahu. "Incidental takes" of threatened or endangered species (plant and animals) are allowed subject to approved habitat conservation plans and Safe Harbor Agreements (HRS Chapter 195D).

State Protection for Caves

In 2002, special laws were enacted to protect the irreplaceable resources of cultural, spiritual, aesthetic, and scientific value contained in Hawaii's network of underground caves (HRS Chapter 6D). A cave is defined as any naturally occurring void, cavity, recess, or system of interconnected passages large enough for human entry beneath the surface of the earth. Hawai'i State law prohibits destruction of a cave or any part of the interior of a cave without the owner's written consent, prohibits removing, killing, or harming any native organisms within a cave, prohibits burning any material within a cave that may produce smoke that is harmful to naturally occurring organisms, and prohibits storage or disposal of garbage, dead animals, sewage, litter, or other toxic substances in any cave. However, State law does not prohibit these activities if they occur during permitted construction activities, provided that cave protection mitigation measures disclosed through the environmental review process and land-use permitting processes are adhered to. In addition, State law does not prohibit or constrain surface activities on the land above a cave.

State Land Use Districting

All lands in Hawai'i are allocated by the State into one of four districts: Conservation, Agricultural, Urban, or Rural. The State, through its Department of Land and Natural Resources (DLNR) and its Board of Land and Natural Resources (the Board), has primary land-management responsibility for activities and development in the Conservation District, while the counties have primary responsibility in the Urban, Rural, and Agricultural Districts. The purpose of the Conservation District is to conserve, protect, and preserve the State's important natural resources through appropriate management in order to promote the long-term sustainability of these natural resources, and to promote public health, safety, and welfare (HRS Chapter 183C). To this end, only limited development is allowed in the Conservation District. "Important natural resources" include the watersheds that supply potable water and water for agriculture; natural ecosystems and sanctuaries of native flora and fauna, particularly those which are endangered; forest areas; scenic areas; significant historical, cultural, archaeological, geological, mineral, and volcanological features and sites; and other designated unique areas. Permits are required for most activities in the Conservation District (HAR § 13-5-1 et seq.). As an additional measure of protection, all land in the Conservation District has been assigned to one of five subzones that reflect a hierarchy of uses from the most restrictive to the most permissive. These subzones are the Protective Subzone (the most restrictive), Limited, Resource, General, and Special. Except for the Special Subzone, all

uses and activities allowed in a more restrictive subzone in the hierarchy are allowed in the less restrictive subzones.

Introduction of Non-native Species

The Hawai'i Department of Agriculture is primarily responsible for regulating the introduction of non-native species. The Department's Plant Industry Division is responsible for protecting Hawaii's agricultural industries, natural resources, and the public from the entry and establishment of detrimental plants, animals, insects, weeds, and other pests and to assure the safe and efficient use of pesticides in Hawai'i (HRS Chapters 150A, 152, and 149A; HAR Title 4, Subtitle 6). The Department's Division of Animal Industry is responsible for controlling and preventing the entry and spread of pests and disease that may affect the poultry and livestock industries, operating the rabies quarantine program and the airport holding facility, conducting investigations into violations of animal quarantine/importations statutes, and providing veterinary laboratory support for diagnosing animal diseases (HRS Chapter 142).

State Water Quality

The State Department of Health is responsible for administering the Clean Water Act in Hawai'i. The Department administers the National Pollutant Discharge Elimination System (NPDES) permit program, issues Clean Water Act Section 401 Water Quality Certifications for federal permits for construction in nearshore and inland waters, and partners to develop best management practices for non-point source pollution control. The Department promotes community-based watershed management through education and voluntary compliance with environmental management standards.

State Environmental Review Requirements

Hawai'i State law establishes a system of environmental review to ensure that environmental concerns are given appropriate consideration in decision-making (HRS Chapter 343). Similar to the Federal National Environmental Policy Act (NEPA), Hawai'i law requires environmental assessments or environmental impact statements (depending on the impacts of the project) to be prepared for any project occurring in the Conservation District, as well as any project using State or county lands or funds. There are six other triggers for environmental review that more rarely operate to benefit native species (e.g., construction within the Waikiki Special District).

Enforcement of Conservation Regulations

The Department of Land and Natural Resources Division of Conservation and Resource Enforcement (DOCARE), the U. S. Coast Guard, the NOAA Office of Law Enforcement, the U. S. Navy, the U.S. Marine Corps Base Hawai'i, and the county police departments all play a role in enforcing the conservation regulations of the State.

Coastal Zone Management

The Federal Coastal Zone Management (CZM) Program was created through passage of the Coastal Zone Management Act of 1972. The program for Hawai'i was approved in 1977 (HRS Chapter 205A), and is administered through the Department of Business, Economic Development and Tourism Coastal Zone Management Program (CZM)

Hawai‘i). Within a framework of cooperation among Federal, State, and local levels, CZM Hawai‘i employs a wide variety of regulatory and non-regulatory techniques to address coastal issues and uphold environmental law. Among them are stewardship, planning, permitting, education and outreach, technical assistance to local governments and permit applicants, policy development and implementation, and identification of emerging issues and exploration of solutions. CZM Hawai‘i is leading the preparation of a framework for updating the Ocean Resources Management Plan. CZM Hawai‘i is mandated to develop and implement a Coastal Nonpoint Pollution Control Program which is to be approved by NOAA and the Environmental Protection Agency.

Special Management Areas

As mandated by the Hawai‘i Coastal Zone Management program, counties are responsible for administering permits for development in Special Management Areas (SMAs) located along the shoreline. The intent of this permitting process is to avoid the permanent loss of valuable resources and to ensure adequate access to beaches, recreation areas and natural reserves (HRS Chapter 205A). Although SMAs are defined to include all lands extending not fewer than 100 yards inland from the shoreline, counties can amend their boundaries to achieve certain Coastal Zone Management objectives. Amendments removing areas from an SMA are subject to State review for compliance with the coastal law.

County Zoning

Counties are responsible for reviewing development in the Agricultural, Rural, and Urban Districts. The Agricultural District includes both “good” farm land and “junk” land that is unsuitable for farming or ranching. “Junk” land includes gulches, steep hillsides, rocky land, and on Maui and the Big Island, even relatively recent lava flows having little or no topsoil. Crops, livestock, and grazing are permitted in the Agricultural District, as are accessory structures and farmhouses. Although land in the Agricultural District is not meant to be urbanized, it has, in practice, been used for large-lot subdivisions. These subdivisions can be designed for “residential” development (i.e., housing units targeted at Hawai‘i residents) or high-end “resort/residential” development (i.e., housing units targeted at non-Hawai‘i residents and associated with resorts). The Urban and Rural Districts in each county are subject to county land use and development (commercial, industrial, residential, etc.) regulations, including county community plans, zoning, and building code regulations.