

APPENDIX 2

HAWAII'S 5-YEAR FOREST STEWARDSHIP PLAN (2003 – 2008)

I. INTRODUCTION

The Hawaii State Forest Stewardship Program provides technical and financial assistance to owners of non-industrial private forestland, or formerly forested land, who are committed to the restoration, stewardship, enhancement and/or conservation of their forest resources. The information and assistance provided to landowners through the Forest Stewardship Program enables them to understand and implement management practices that will enhance and sustain the timber productivity, wildlife habitat, water quality, recreational values and/or native resource values of their forest properties.

The Forest Stewardship Program was adopted through Act 327 as enacted by the 1991 State Legislature. The Department of Land and Natural Resources (Department), Division of Forestry and Wildlife (Division) administers this Program under advisement from the Forest Stewardship Advisory Committee (Committee). The Committee is made up of resource professionals, state and federal agency program managers, and private landowners.

State funds are provided on a cost-share basis to private landowners throughout Hawaii who implement Forest Stewardship Management Plans that have been approved by the Forest Stewardship Advisory Committee and the Board of Land and Natural Resources.

Landowner Eligibility

To be eligible for the State Forest Stewardship Program, applicants must own at least 5 contiguous acres of forested, or formerly forested land, that they intend to manage according to an approved Forest Stewardship management plan. Applicants who hold long-term leases (>10 years) are also eligible. Landowners of adjacent holdings of less than 5 acres may be eligible, if the combined acreages to be managed form a contiguous area of 5 acres or greater.

Applicants may be individuals, joint owners, private groups or associations, or corporations.

II. HAWAII'S FOREST RESOURCES

Forest Coverage and Composition

The Hawaiian Islands support a wide variety of forest types, ranging from low elevation tropical rain forests to arid scrub forests to temperate subalpine woodlands to cloud forests. These forests still cover roughly 1.7 of Hawaii's 4.1 million acres, or about 41 percent of the state's total land area. Approximately 60 percent of this area is considered to be productive, healthy forest, covered primarily by ohia (*Metrosideros polymorpha*), ohia-koa mix and relatively pure koa (*Acacia koa*).

About 700,000 acres, or roughly 50 percent of Hawaii's relatively productive forestland are considered to be timberland, capable of producing timber and wood products on a sustainable basis. Only about 60,000 of these acres are currently being used for plantation forestry.

Because of historic watershed protection activities, Hawaii's upland forests remain relatively intact. However, the encroachment of invasive non-native plant species into native forest areas continues at rather alarming rate. Koa (*Acacia koa*) and ohia (*Metrosideros polymorpha*) dominate native forest areas, while mamane (*Sophora chrysophylla*) and naio (*Myoporum sandwicense*) appear more at higher elevations. Many lowland forest areas have been degraded by frequent wildfires and overgrazing, and non-native plants such as koa haole (*Leucaena leucocephala*) and kiawe (*Prosopis pallida*) have come to dominate the landscape.

In general, there are 4 native and 5 introduced forest cover types in Hawaii: 1) ohia/hapuu; 2) koa/ohia; 3) mamane/naio; 4) a mixture of species comprising the native dry land forest; 5) eucalyptus (*Eucalyptus* spp.); 6) mixed introduced hardwoods; 7) guava (*Psidium cattleianum*); 8) kiawe/*Leucaena*; and 9) mixed conifer plantations.

Forest Uses and Values

Hawaii's forests provide a multitude of important services and benefits. Most notably, they enhance and protect watersheds that are critical to all island inhabitants. They also provide an array of wood and non-wood products, unique habitat for rare and endangered species, and a number of recreational opportunities including public hunting.

Although forests still cover almost half of Hawaii's land area, many are in a state of decline due to land uses which prevent natural regeneration and result in the displacement of native forest species by invasive non-native introductions. This situation has historically been exacerbated by county property tax structures that encouraged forest conversion to agricultural land uses such as pasture. In addition, it has been difficult to control Hawaii's ubiquitous feral ungulate populations in ways that are both effective and acceptable to its large, well-organized hunting communities. Feral ungulates browse and knock down young tree seedlings or dig up the forest floor, destroying natural regeneration. Complete removal of these animals is not an acceptable alternative because hunting has become an important part of Hawaii's culture and many depend on its contribution to their subsistence.

The Forest Stewardship Program, along with innovative new tax codes in Hawaii and Kauai counties, encourages owners of pastureland and former sugar plantations to pursue forestry as an alternative, potentially more profitable land use. In addition, federal landowner assistance programs such as the Wildlife Habitat Incentives, the Forestry Incentives and the Environmental Quality Incentives Programs currently encourage private landowners, through cost-share assistance, to improve and manage their forest resources. As more and more landowners explore forestry as a viable, environmentally sound land use alternative, opportunities and benefits are becoming more apparent, and a new industry is forming.

Convincing hunters of the need to exclude feral ungulates from large tracts of forested land remains a formidable challenge. However, progress is being made in some areas. On Lanai, the hunting community is supporting a Forest Stewardship Management Plan that includes a perimeter fence to enclose 3,500 acres on Lanaihale, the island's only watershed.

Landowners who enroll in the Forest Stewardship Program seek assistance to restore or re-establish forest resources or values on their properties according to their individual land-use objectives. Some landowner participants want to re-establish forests on degraded pasture areas for the purposes of timber production and/or wildlife habitat enhancement. Others are attempting to reclaim degraded watersheds or simply to restore the health of native forest areas that have been invaded by non-native plant species. Others intend to combine forestry practices with current land uses such as orchard or agricultural crop production in order to achieve more ecological and economic diversity. Although all private landowners are naturally concerned primarily with their own objectives, Forest Stewardship Projects must produce significant public, as well as private benefits.

III. DIVISION OF FORESTRY AND WILDLIFE PROGRAM

The Division has a legal mandate to manage public lands for social, environmental and economic purposes. It has direct responsibility for approximately 800,000 acres of state trust lands, which it manages through an integrated system of forest and natural area reserves; plant and wildlife sanctuaries; and wilderness and game management areas. The Division accomplishes its mission with a comprehensive five-point strategy:

1. Watershed Protection
2. Native Resources Protection

3. Outdoor Recreation Resources
4. Forest Products Resources
5. Public Information & Stewardship

A strong emphasis on the conservation of natural resources is evident both in the historic placement of large areas in Forest Reserves and the current availability of resources to private landowners for forest conservation and management activities. Approximately one half of the forested land in Hawaii belongs to private landowners. The Division thus recognizes that private lands and landowner actions are indispensable in meeting Hawaii's overall natural resource management objectives and that cooperation with landowners is far more productive than restrictive zoning and regulatory control.

The Division administers a number of cooperative programs that support landowners who are committed to the stewardship of their forest resources. The newest programs and policies promote forestry as an alternative, environmentally sound form of agriculture. All programs encourage and support native forest restoration and sustainable timber plantation establishment and management on former pasture, sugar and pineapple lands, while striving to reduce pressure on remaining, relatively intact, native forests.

The USDA Forest Service provides the Division with financial assistance to administer the Forest Stewardship Program, and a number of other Cooperative Forestry Assistance Programs including Conservation Education, The Hawaii Forestry and Communities Initiative, Urban and Community Forestry, Forest Health Management, Resource Conservation and Development and Rural Fire Prevention and Control. The Division collaborates closely with a number of local organizations to implement these programs including: the Hawaii Forest Industry Association; the Hawaii Nature Conservancy, the Big Island, Tri-Island and Garden Island Resource Conservation and Development Councils; and the Society of American Foresters. Other cooperative partnerships have been formed with state and federal government agencies including the University of Hawaii Cooperative Extension Service, The Department of Agriculture, The USDA Natural Resource Conservation Service, the USDA Farm Service Agency and the USDI Fish and Wildlife Service.

IV. THE FOREST STEWARDSHIP ADVISORY COMMITTEE

The Committee was established to assist the Division and the Board of Land and Natural Resources in administering the Forest Stewardship Program. The Committee meets quarterly to review Forest Stewardship proposal and plan submittals, and to advise the Division and Board on program planning, implementation and policy issues. The Committee also periodically reviews the State 5-year Forest Stewardship Plan and the Hawaii Forest Stewardship Handbook. The 13-member Committee is currently chaired by the Director of the Hawaii Association of Conservation Districts. The membership includes: representatives of local, state and federal government agencies; consulting foresters; representatives of environmental and conservation groups; forest products industry representatives; and private landowners. A list of currently acting Committee members and terms is provided below:

Michael Tulang, Chairperson	Hawaii Association of Conservation Districts
Katie Friday	USDA Forest Service
Bill Cowren	Hawaiian Mahogany Company, Inc.
Margarita 'Day Day' Hopkins	Hawaii County Economic Development Board
J.B. Friday	UH Manoa Forestry Extension Specialist
Bill Sager	Conservation Council of Hawaii
Lea Hong	The Trust For Public Land
Betsy Gagne	State Division of Forestry & Wildlife
Craig Rowland	USDI Fish and Wildlife Service
Kip Dunbar	Private Landowner (Molokai)
Laura Brezinsky	Hawaii Community College, Private Landowner

V. HAWAII'S FIVE-YEAR FOREST STEWARDSHIP PLAN (2003 - 2008)

Goals, Objectives and Strategies

Hawaii's Forest Stewardship Program has expanded rapidly since its establishment. As of June 2008, forty landowners have received program assistance (34 currently or within the past 10 years) and roughly 8,000 acres of forestland are being managed according to approved Forest Stewardship management plans.

During the next five years, the Division of Forestry and Wildlife will continue to identify opportunities for forest stewardship on private lands throughout Hawaii, while working with the Forest Stewardship Advisory Committee and the Board of Land and Natural Resources to improve overall program effectiveness.

Program activities will target the following specific objectives:

1. Restore, enhance and conserve the values and benefits of Hawaii's forests:

- < Restore, enhance and conserve native forest species and ecosystems by using native species where possible and discouraging the use of potentially invasive non-native tree and herbaceous plant species.
- < Restore, enhance and conserve forested watersheds.
- < Restore, enhance and conserve the economically productive value of forests for timber production, traditional non-wood products, and recreation.
- < Restore, enhance and conserve native wildlife habitats.
- < Minimize the risk of wildfires, pests and diseases in project areas.
- < Encourage the planting of native and non-invasive introduced high-quality hardwoods for eventual harvest to reduce the demands placed on naturally occurring native timber species.
- < Encourage private nursery/landscape industry production of native and non-invasive tree seedlings and plant materials and develop assistance strategies where appropriate.
- < Encourage the planting of tree species that meet local demands for fuel, fiber, crafts wood and saw timber.

2. Adequately expand landowner and acreage enrollment:

- < Enroll at least 12 landowners per year and develop corresponding management plans.
- < Increase acreage under Program management to 15,000 acres by the year 2006.
- < Conduct a series of private landowner workshops on all major islands each year.
- < Promote the program through news releases, mailings and participation in landowner workshops, seminars and meetings.

3. Promote ethnic, geographical and scale diversity among program participants through public awareness campaigns.

4. Continuously tailor the program to meet changing landowner constraints, needs and objectives:

- < Periodically assess appropriateness of program guidelines and requirements in light of comments from landowner participants and branch service foresters.
- < Revise the Hawaii Forest Stewardship Handbook.
- < Periodically adjust allowable cost-share (hold-down) rates to reflect changing real costs/prices.

5. Develop and disseminate practical forest management information that is useful to program participants and all private forest owners and industry people throughout the State:

- < Develop more effective project monitoring methods and record keeping system.
- < Promote and facilitate information exchange between program participants.
- < Maintain and distribute detailed project summaries that include useful forest management information.
- < Publish Forest Stewardship Program web-page that includes “demonstration forest” database of all ongoing private landowner forest projects in the state.

6. Increase landowner ability to assess forest resources and identify forest management strategies to achieve individual forest management objectives:

- < Liaison between program participants, service foresters and the technical staff of various resource management agencies.
- < Provide information and technical assistance to landowners on continuous basis as requested.
- < Publish Forest Stewardship Program web-page that includes “demonstration forest” database of all ongoing private landowner forest projects in the state.

7. Improve quality of Forest Stewardship Management Plans:

- < Identify all resource management professionals who are qualified and willing to write Forest Stewardship Management Plans of acceptable professional standard.
- < Develop, distribute, and periodically update roster of resource professionals identified above.
- < Conduct yearly workshops to enhance management plan-writing skills of resource management professionals and landowners and to clarify current program guidelines and requirements.
- < Distribute Hawaii Forest Stewardship Handbook that contains all management plan writing guidelines and program requirements.
- < Encourage landowners to seek accurate economic and income projections based on supported assumptions if timber production is an objective.
- < Enlist assistance of UH-Manoa Cooperative Extension Specialist and Division’s branch service foresters to help landowners and consultants to develop their Forest Stewardship management plans.

Program Future Focus

The Hawaii Forest Stewardship Program will continue to provide financial and technical assistance to owners of non-industrial private forest land throughout the Hawaii. As more landowners apply to the Program and funding becomes limiting, it will be necessary to focus on those projects that will most effectively and efficiently contribute to the achievement of all program objectives. To this end, The Committee will maintain and periodically update a set of guidelines for reviewing Forest Stewardship

proposals. Such guidelines have in the past pertained primarily to potential public benefits, economic potential, forest health improvement, and management practice innovation. The Program will always strive to identify and support landowners with specific and achievable objectives that will somehow contribute to Hawaii's economic and resource needs.