



Hawaii



State & Private Forestry Fact Sheet

Investment in State's Cooperative Programs:

Program	FY 2011 Final
Cooperative Lands - Forest Health Management	699,696
Cooperative Lands - Forest Health Management - National Fire Plan	677,383
Forest Legacy	57,000
Forest Stewardship	582,516
State Fire Assistance	291,848
State Fire Assistance - National Fire Plan	887,552
Urban and Community Forestry	351,000
Volunteer Fire Assistance	96,750
Volunteer Fire Assistance - National Fire Plan	289,080
Total	3,932,825

This funding is for all entities within the state, not just the State Forester's office.

State & Private Forestry funding is for all entities within the state, not just the State Forester's office. The cooperative programs are administered and implemented through a partnership between the State of Hawaii, the US Forest Service, and many other private and government entities. In the process of completing Hawaii's Forest Action Plan nine priority issues were identified pertaining to forestry in Hawaii; 1) Water Quality and Quantity, 2) Forest Health: Invasive Species, Insects and Disease, 3) Wildfire Prevention and Suppression, 4) Urban Forest Health and Sustainability, 5) Climate Change/Sea Level Rise, 6) Conservation of Native Biodiversity, 7) Hunting, Nature Based Recreation and Tourism, and, 9) Regional Issues specific to the Pacific Islands. Currently, the largest initiative the State is undertaking is the establish of permanent State funding in support of watershed protection. The goal is to utilize up to \$11,000,000 of State funding per year to protect important upland forest areas (across land ownership boundaries) for the perpetuation of water filtration into aquifers that support our cities and agricultural areas. It is our hope that these State funds can leverage various federal funding that is used for a variety of important forest ecosystem services.

- Protect all forested lands to ensure the sustained production of ecosystem services for present and future generations.
- Protect and enhance forested watersheds for the sustained production of ample supplies of high quality water for human consumption, native ecosystems, traditional Hawaiian cultural practices, commercial agriculture and industry.
- Promote land stewardship practices that minimize negative impacts on coastal and near shore environments.
- Promote the sustainable production of a variety of forest products including timber, fiber, and biofuels.
- Preserve, enhance and restore habitat necessary to sustain native species and

ecosystems.

- Provide important recreation, education and research opportunities in order to connect people with the natural environment.
- Adopt new technologies and develop partnerships to increase efficiency and reduce costs for managing Hawaii's natural resources.
- Enhance voluntary collaboration and the use non-regulatory approaches where appropriate.
- Continue to improve the early detection network for incipient invasive plant species, forest pests and diseases and support effective rapid response efforts with the goal of eradication before the organism becomes permanently established.
- Develop new tools for managing established invasive species, including biological control.
- Prevent harm from new invasive species by developing stronger biosecurity policies.
- Maintain trails used for fishing, hiking, camping, hunting, wildfire presuppression and suppression, and search and rescue.
- Promote collaboration with public and private sector cooperators to improve the condition of our public parks and green spaces.
- Enhance awareness of threats posed by invasive species and facilitate methods for reporting sightings of incipient invasive species.
- Support use of native plants where possible for public and private landscaping.
- Improve the health of our urban forests through expanded tree planting, more community & organization partnerships, and educational activities.
- Assist in the development of forest product industries that will generate jobs and export value-added products.
- Build stakeholder awareness and support of the Division's activities and objectives through education and outreach (e.g., professional development opportunities for educators; service learning and classroom based learning opportunities for students, and outreach and learning opportunities for the general public.)
- Lead in the development and implementation of the State of Hawaii Environmental Literacy Plan in concert with the federal No Child Left Inside Act.
- Purchase land and develop conservation easements to protect native habitat and assure the sustained supply of ecosystem services.
- Reduce the impacts of wildfire on communities, native ecosystems, cultural resources and important watersheds.
- Continue to collaborate with our partners throughout the Pacific islands region to prevent the spread of invasive species between islands.
- Collaborate with federal, state and research institutions to identify impacts from climate change and to develop policies and procedures for adapting to predicted changes in climate and sea level.

Key Issues:

- Protection of watersheds to maximize recharge of groundwater supplies and aquifers remains one of the most important issues for forestry in Hawaii.
- The rate of introduction of new invasive plants, harmful organisms and disease is increasing. New partnerships and rapid-response initiatives have been developed to respond to these introductions, but decreased funding and staffing for these programs has seriously impacted the State's ability to prevent new introductions.
- With the increase in new invasive species, insects, disease and resulting displacement of native species by non-native species and wildfire, the threat to native species and ecosystems is increasing. Management of ecosystem-modifying species

to keep populations low and prevent further spread is an ongoing effort.

- Environmental literacy and awareness of environmental issues needs to be improved.
- All sectors of Hawaiian society are now implementing a core concept of native Hawaiian land stewardship practices which is based on the ahupua`a, or whole-watershed approach. The number and scope of public and private partnerships is increasing.

Forest Facts and Accomplishments:

Selected Facts		FY2011 Accomplishments	
Population	1,360,301	Landowners Receiving Educational or Technical Assistance (Each)	2,100
Acres of Forest Land	1,748,000	Acres Covered by New or Revised Forest Stewardship Plans	230
Acres of Nonindustrial Private Forest Land	1,155,000	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	230
Number of NIPF Landowners	25,000	Volunteer Fire Departments Assisted (Each)	145
Acres of Federal Land Under State Fire Protection	0	State Fire Communities Assisted (Each)	110
Acres of Private Land Under State Fire Protection	2,300,000	Coop Forest Health Acres Protected	712
Number of Rural Fire Departments	4	Forest Legacy Project Acquisitions (Acres)	9,000
Cities and Towns	5	Communities Provided Urban Forestry Program Assistance (Each)	70
Forest Based Employment	926	Population Living in Communities Provided Urban Forestry Program Assistance (Each)	1,162,458
Economic Impact of Forestry (by rank)	19	Urban Forestry Volunteer Assistance (Hours)	9,180
State Forestry Budget (All Sources)	14,330,000		

Program Highlights:

Conservation Education

Coordinated the funding and development of the state of Hawaii Environmental Literacy Plan (HELP). Hosted quarterly working group meetings and guided (through facilitation, coordination, and planning) the re-invigoration of the Hawaii Environmental Education Alliance(HEEA). HEEA assessed conservation education (CE) gaps and needs and three goals were set for HEEA in 2010: 1) professional development opportunities for educators, 2) coordinating the HELP; and 3) establishing a searchable database of state environmental education resources (www.heea.org). The Hawaii Environmental Literacy Plan (HELP) has been very active this year and has developed 6 comprehensive goals & objectives: 1)

Integrate EE in K-12 Schools for Environmental Literacy, 2) develop and support learning environments that promote environmental literacy, 3) improve professional development for environmental literacy, 4) monitor and assess environmental literacy, 5) make environmental education and environmental literacy a statewide priority, and 6) provide sustainable funding for environmental literacy.

Cooperative Fire Protection

- Provided technical assistance to the county fire departments and the Volunteer Fire Departments.
- Conducted interagency fire training courses including the basic wildland fire course, crew boss, basic ICS, initial attack incident commander, and strategy and tactics. Courses were taught to fire management agencies statewide.
- Maintained 18 Remote Area Weather Stations statewide.
- Provided outreach to 25 communities at risk from wildfires.
- Responded to 1 wildfires totaling 75 acres. Awarded 2 wildland urban interface grants totaling \$540,000 one of Kauai and the other on the Big Island.

Forest Health Protection

The Forest Health Protection program made progress on several strategies identified in the 2010 Forest Action Plan including prevention, early detection and rapid response, monitoring damage to forests, and outreach. A Forest Pest Pathway Risk Assessment was initiated to provide information for preventing new forest pests from entering Hawai'i. Early detection surveys for plants, insects and disease were conducted, and rapid responses eradicated several new island populations of invasive plants. Staff and partners monitored *Myoporum thrip* damage on native naio trees as this invasive insect spread across the island of Hawai'i causing tree death. Monitoring data indicated that native wiliwili stands are recovering from damage by the *Erythrina* gall wasp which has been greatly reduced in numbers by a recently introduced biological control agent. Myrtle rust was documented on two new host species in Hawai'i and the disease was found infecting native ohia trees in monitoring plots. Efforts to prevent more aggressive strains from entering Hawai'i were furthered by the completion of an economic analysis of the impact on the local economy by a quarantine rule restricting plant imports (results: the economic benefits of keeping out new strains vastly outweighs the cost to local businesses). Outreach to the landscape community alerted the industry to damaging pests that have not yet arrived in Hawai'i, as well as encouraged best management practices for preventing spread of pests.

Forest Legacy

In June 2011, Hawaii closed two conservation easements on the Kealakekua Heritage Ranch in the South Kona area of the Big Island. This 5 year 9,016 acre conservation easement is the first and largest the State has completed (State owning the title) utilizing the Forest Legacy funds. Recently, Hawaii was approved for a FY 12 grant for \$2,000,000 for the purchase of a conservation easement of over 3,000 acres on the Hamakua Coast on the Big Island. This program has been very important in Hawaii and has been successfully used with other State and Federal funds for the protection of private lands for conservation purposes.

Forest Stewardship

The value of this Program is being recognized in Hawaii, as it is being used to produce long-term high quality forest stewardship management plans that are being used for funding through other Federal programs. Formal agreements with this Program are being considered for funding through the USDA Natural Resource Conservation Service and the Farm Services Agency. In 2011 the State entered into a Memorandum of Understanding (MOU) with the USDA Forest Service, the Natural Resource Conservation Service, and the Hawaii Association of Conservation Districts to support a variety of forestry related programs and initiatives on private lands throughout the State. This MOU was based on the National MOU striving for more collaborative actions related to forestry practices and implementation across

the Nation.

Landowner Assistance

The State of Hawaii has a number of Landowner Assistance Programs including but not limited to those funded by the State, the USDA, USDOJ, and USDOD. There have been landowner assistance workshops conducted throughout the State during the past 4 years. This year we have been focusing on land acquisition programs for conservation purposes. Previous years we have focused on restoration, conservation and tree farm assistance programs. The State is interested in establishing permanent funds to support the conservation of water resources through a new Watershed Assistance Program. If funded, this effort would likely start in mid to late 2012.

Urban and Community Forestry

This Program successfully nurtured the use of the “Weed Risk Assessment”, which is now the number one tool to measure how invasive a non-native plants will be in Hawaii. The Program has also conducted some ground breaking research and development of the use of Bioshields as a defense for tsunami and hurricanes in the Samoan and Hawaiian archipelagos. The Kaulunani Urban and Community Forestry Program has continued to implement the recommendations developed at the public forum hosted in Puerto Rico by the National Urban and Community Forestry Advisory Council (NUCFAC/June 18, 2008). In 2009 Kaulunani hosted the Tropical Urban Forestry Summit that was proposed at the Puerto Rico meeting, bringing together representatives from the Caribbean, the Pacific Islands and the USDA Forest Service National Office. Currently, this program is funding new methods of using high tech imagery to support smart city growth in the Kapolei area on the Island of Oahu.

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