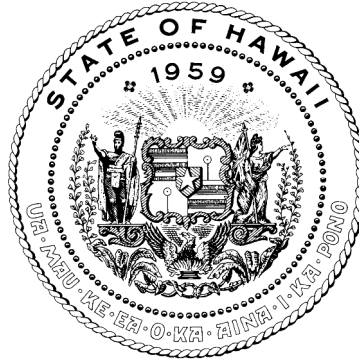


REPORT TO THE TWENTY-SIXTH LEGISLATURE
EXPENDITURE PLAN FOR WATERSHED RELATED APPROPRIATIONS



PREPARED BY
STATE OF HAWAI'I
DEPARTMENT OF LAND AND NATURAL RESOURCES
DIVISION OF FORESTRY AND WILDLIFE

IN RESPONSE TO
SECTION 134 of ACT 106, SESSION LAWS OF HAWAII 2012

HONOLULU, HAWAI'I
SEPTEMBER 2012

REPORT TO THE TWENTY-SIXTH LEGISLATURE

EXPENDITURE PLAN FOR WATERSHED RELATED APPROPRIATIONS

Act 106, Session Laws of Hawaii (SLH) 2012, requires a report detailing the expenditure plan for watershed related appropriations. These appropriations include \$2,500,000 in special funds and the sum of \$2,500,000 in general obligation bonds or so much as may be necessary for Fiscal Year (FY) 2012-2013 for watershed initiatives statewide to encourage public and private partnerships that enhances both public and private interests.

EXPENDITURE AND IMPLEMENTATION PLAN

The Department of Land and Natural Resources (Department) has selected multiple projects statewide that are critical for sustaining Hawaii's source of water. Projects implement actions prioritized in the Department's plan, *The Rain Follows the Forest*. All projects are ready for the immediate implementation necessary to secure Hawaii's water supply. These projects help reach the Department's ten-year goal to double the amount of protected watershed areas, estimated to require \$11 million per year and create 150 local jobs. The Department's programs to protect watershed forests are well-established and these projects are the result of many years of planning and community consultation.

PROJECTS

On August 25, 2012, Governor Abercrombie approved the release of \$2,500,000 in general obligation bond funds for the proposed project. All general obligation bond fund projects occur on state lands. Projects are listed below by island and funding source. Special funded-projects were selected using a competitive sealed proposal process and an evaluation committee representing a wide-range of expertise on Hawaii's watersheds. Watershed protection requires multiple actions, such as invasive species control, fencing, outplanting, maintenance, etc. The area protected category is the amount of acres impacted by the project type, and may overlap with other projects performing a different action in that area.

KAUAI

General Obligation Bond Projects:

Hono O Na Pali Natural Area Reserve

Project type:	Fence building to exclude non-native goats and pigs
Area protected:	2,200 acres upon completion
Proposed funding:	\$200,000

Special Fund Projects:

Kauai Watershed Alliance

Project type: Inspect and maintain 6.2 miles of fence
Complete compliance documents for 3 miles of new fence
Control invasive weeds on 510 acres
Aerial survey for invasive Australian Tree Fern on 1300 acres
Integrated Pest Management Strategy for Himalayan Ginger
Control feral animals on 9,258 acres
Monitor 3.1 miles of transects for weeds and feral animals

Area protected: 9,258 acres
Proposed funding: \$300,000

OAHU

General Obligation Bond Projects:

Ewa Forest Reserve

Project type: Fence building to exclude non-native pigs
Area protected: 1,500 acres upon completion
Proposed funding: \$500,000

Special Fund Projects

Kaluanui Natural Area Reserve*

Project type: Fence building to exclude non-native pigs
Area protected: Approximately 1.5 miles to protect 500 acres (Phase I)
Proposed funding: \$200,000
*Currently under the State Parks System, in the process of conversion to a Natural Area Reserve

Koolau Mountains Watershed Partnership

Project type: Inspection and maintenance of 8.3 miles of fence upon completion
Survey and control invasive species on 160 acres
Feral animal control on 2,932 acres

Area protected: 4,500 acres
Proposed funding: \$125,000

Survey and Control of Miconia and Pampas Grass, Oahu Invasive Species Committee

Project type: Aerial surveys and imagery analysis for invasive species
Area protected: 1,826 acres
Proposed funding: \$27,909

Waianae Mountains Watershed Partnership

Project type: Fence planning and compliance Mt. Kaala priority watersheds
Invasive weed control in priority watersheds
Feral goat control

Area protected: 4,190 acres
Proposed funding: \$160,000

MOLOKAI

Special Fund Projects:

East Molokai Watershed Partnership

Project type: Feral animal control, new Forward Looking Infrared (FLIR) technology
Area protected: 10,100 acres
Proposed funding: \$25,000

East Molokai Watershed Partnership Expansion

Project type: Management plan to include 10-14 new landowners
Area protected: 15,000 acres (to be added to the existing partnership)
Proposed funding: \$5,000

Molokai Forest Restoration, Kamakou Preserve

Project type: Fence construction at Kamakou, Molokai
Area protected: 800 acres
Proposed funding: \$70,000

LANAI

Special Fund Projects:

Lanai Forest and Watershed Partnership

Project type: Inspect and maintain 7 miles of fencing to exclude deer
Remove invasive species from 603 acres
Area protected: 1,800 acres
Proposed funding: \$90,000

MAUI

General Obligation Bond Projects:

Kahikinui Forest Restoration

Project type: Fence building to exclude non-native pigs, deer, cattle, and goats
Area protected: 4,420 acres upon completion
Proposed funding: \$415,000

Hanawi Natural Area Reserve

Project type: Fence building to exclude non-native pigs
Area protected: 3,150 acres
Proposed funding: \$200,000

Hana Forest Reserve

Project type: Fence building to exclude non-native pigs
Area protected: 3,000 acres upon completion
Proposed funding: \$225,000

Special Fund Projects:

East Maui Watershed Partnership

Project type: Inspect and maintain 7.8 miles of fence
Monitor and remove priority invasive weeds from 7,000 acres
Control feral animals on 7,000 acres
Coordination of Hana Forest Reserve fence protecting 3,000 acres
Area protected: 10,000 acres
Proposed funding: \$198,000

West Maui Watershed Partnership

Project type: Interagency wildfire coordination planning
Mapping fire infrastructure and important resources
Construct 0.6 miles of new strategic fencing in 9 areas
Brush and repair 1.75 miles of fence
Inspect and maintain 7.2 miles of fence
Aerial survey and ground control of 668 acres of invasive weeds
Control feral animals on 5,870 acres
Monitor weed and feral animal transects
Monitor Honuaula Stream water quality
Area protected: 21,084 acres
Proposed funding: \$330,000

Leeward Haleakala Watershed Restoration Partnership

Project type: Survey and flag 3 miles, Phase 2, Department of Hawaiian Home
Lands (DHHL) Kahikinui Fence
Inspection and maintenance of 22.6 miles of existing fences
Coordinate and produce feral animal control plan DHHL Kahikinui
Invasive weed control 708 acres
Revegetation of 30 acres
Utilize 300 volunteers in reforestation
Creation of a database management system
Area protected: 7,000 acres
Proposed funding: \$185,000

Forward Looking Infrared for Ungulate Control, Maui County

Project type: Purchase of at FLIR instrument for use in ungulate control
Area protected: Watershed Partnership lands in Maui County
Proposed funding: \$20,000

HAWAII

General Obligation Bond Projects:

Puu O Umi Natural Area Reserve

Project type: Fence building to exclude non-native pigs and goats
Area protected: 1,900 acres
Proposed funding: \$250,000

Mauna Kea Forest Restoration Project

Project type: Outplanting trees to restore forest.
Area protected: Planting will occur within a 5,200-acre fenced enclosure
Proposed funding: \$200,000

Kau Forest Reserve

Project type: Fence building to exclude non-native pigs and goats
Area protected: 3,000 acres upon completion
Proposed funding: \$510,000

Special Fund Projects:

Kohala Watershed Partnership

Project type: Inspect and maintain 12.8 miles of existing fence
Control feral cattle on 300 acres
Area protected: 2,000 acres
Proposed funding: \$115,000

Puu O Umi Natural Area Reserve Materials

Project type: Fence materials for 1.5 miles (labor provided by Division of Forestry and Wildlife staff)
Area protected: 1,900 acres (providing materials for Kohala Watershed Partnership project above)
Proposed funding: \$40,635

North Kona Fencing

Project type: Fencing at Lupea, North Kona, 1 mile to complete entire fence
Area protected: 6,000 acres
Proposed funding: \$100,000

Three Mountain Alliance

Project type: Fence inspection and maintenance
Conservation workline - Hawaii Community Correctional Center
Invasive species control on 2530 acres
Reforestation at Kulani
Data management development
Assist Big Island Invasive Species Committee Axis deer control
Area protected: 38,153 acres
Proposed funding: \$180,000

Feral Cattle Control, Hawaii Island Forest Reserves

Project type: Removal of feral cattle utilizing public and staff hunting
Area protected: 6,000 acres
Proposed funding: \$40,000

Puu Waawaa Fencing

Project type: Materials for completion of fencing 1.4 miles
Area protected: 3,806 acres
Proposed funding: \$37,000

Mauna Kea Watershed Alliance

Project type: Forest Reserve fence inspection and maintenance 63 miles
Feral animal control Kanakaleonui, DHHL, 525 acres
Gorse control 1200 acres Wailuku Headwaters (DHHL)
Area protected: 1,725 acres management, 60,525 acres fence inspection
Proposed funding: \$131,000

STATEWIDE

Special Fund Projects:

Integrated Pest Management of Naio Thrips

Project type: Augment populations of native parasitic wasps to control an insect that is attacking Naio
Area protected: Naio, now found only on Hawaii Island, is one of the most common native forest species, the impact will be statewide
Proposed funding: \$40,500

Building Watershed Data Management Capacity

Project type: Development of statewide data standards and reporting framework for watershed management
Area protected: Watershed Partnership lands statewide
Proposed funding: \$10,000

Integrated Pest Management for Christmasberry and Miconia

Project type: Development of techniques to control widespread watershed altering weeds
Area protected: Watershed Partnership lands statewide
Proposed funding: \$50,000

Statewide Information on Watershed Protection and Management

Project type: Develop statewide information on watershed protection and management
Area protected: Watershed Partnership lands statewide
Proposed funding: \$19,956

CONCLUSION

For more information contact:

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To download a copy of this report, please go to <http://hawaii.gov/dlnr/reports>

Photos clockwise from left: Volunteers planting trees in Leeward Haleakala, Maui; Monitoring damage from pigs uprooting Kauai forests; Puu O Umi Natural Area Reserve fence protecting forest, Kohala, Hawaii; Building fence in Hanawi Natural Area Reserve, Maui



LNR 407 WATERSHED EXPENDITURE PLAN BUDGET SUMMARY FY 13

General Obligation Bond Expenditure Planned Projects

Hono O Na Pali Natural Area Reserve	\$ 200,000
Ewa Forest Reserve	\$ 500,000
Kahikinui Forest Restoration	\$ 415,000
Hanawi Natural Area Reserve	\$ 200,000
Hana Forest Reserve	\$ 225,000
Puu O Umi Natural Area Reserve	\$ 250,000
Mauna Kea Forest Restoration Project	\$ 200,000
Kau Forest Reserve	\$ 510,000

Total = \$2,500,000

Special Fund Expenditure Plan

Kauai Watershed Alliance	\$ 300,000
Kaluanui Natural Area Reserve	\$ 200,000
Koolau Mountains Watershed Partnership	\$ 125,000
Survey and Control of Miconia and Pampas Grass	\$ 27,909
Waianae Mountains Watershed Partnership	\$ 160,000
East Molokai Watershed Partnership	\$ 25,000
East Molokai Watershed Partnership Expansion	\$ 5,000
Molokai Forest Restoration, Kamakou Preserve	\$ 70,000
Lanai Forest and Watershed Partnership	\$ 90,000
East Maui Watershed Partnership	\$ 198,000
West Maui Watershed Partnership	\$ 330,000
Leeward Haleakala Watershed Restoration Partnership	\$ 185,000
Forward Looking Infrared for Ungulate Control	\$ 20,000
Kohala Watershed Partnership	\$ 115,000
Puu O Umi Natural Area Reserve Materials	\$ 40,635
North Kona Fencing, Hawaii Island	\$ 100,000
Three Mountain Alliance, Hawaii Island	\$ 180,000
Feral Cattle Control, Hawaii Island Forest Reserves	\$ 40,000
Puu Waawaa Fencing, North Kona, Hawaii Island	\$ 37,000
Mauna Kea Watershed Alliance	\$ 131,000
Integrated Pest Management of Naio Thrips	\$ 40,500
Integrated Pest Management for Christmasberry and Miconia	\$ 50,000
Statewide Information on Watershed Protection/Management	\$ 19,956
Building Watershed Data Management Capacity	\$ 10,000

Total = \$2,500,000