

LINDA LINGLE  
Governor

JAMES R. AIONA  
Lieutenant Governor



# Hawai'i Invasive Species Council

## MEMBERS

Co-Chairs:  
LAURA H THIELEN  
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## PARTICIPANTS

Major General Robert G.F. Lee  
Micah A. Kane  
Lawrence Reifurth

SENATORS:  
J. Kalani English  
Carol Fukunaga  
Gary L. Hooser  
Russell S. Kokubun

REPRESENTATIVES:  
Mele Carroll  
Hermina M. Morita  
Clift Tsuji  
Tommy Waters

COUNTIES:  
Mayor Charmaine Tavares  
Mayor Mufi Hannemann  
Mayor Harry Kim

FEDERAL:  
U.S. Department of Agriculture  
U.S. Department of the Interior  
U.S. Department of Defense

## PUBLIC MEETING NOTICE

**Thursday, July 24, 2008**  
**10:00 A.M. to 12:00 P.M.**  
**Rm 322B, 1151 Punchbowl Street**  
**Honolulu, HI, 96813**

## HAWAII INVASIVE SPECIES COUNCIL Established Pests (Response and Control) Working Group

## A G E N D A

1. Call to order
2. Introductions
3. Approval of minutes from last meeting.
4. Briefing on budget restrictions and background
5. Briefing of current HISC funded work and implications for 2008-2009
6. Discuss budget proposals with low & high alternatives.
7. Chair to work with group to approve a budget proposal for 2008-2009.
8. Announcements
9. New business
10. Public comments
11. Adjournment

Persons requiring special assistance or for more information should call the chair at (808) 587-0365 or the HISC Coordinator at (808) 587 4154 at least three business days before the meeting. Please communicate with the chair about your proposals before the meeting.

HISC Established Pest Project Proposal  
Environmental Assessment Facilitator

Summary: The Plant Pest Control Branch and the USDA Forest have encountered numerous obstacles while seeking approval to release biocontrol agents for the control of high priority target pests. We are proposing the creation of an EA Project Facilitator to define and develop the EA process for biocontrol agents to ensure the timely release of biocontrol agents.

The proposed activities of an EA Project Facilitator would be to:

- Identify project stakeholders
- Conduct outreach and education to project stakeholders
- Collect input from stakeholders
- Write draft and final EA's complying with all necessary federal and state requirements
- Collect public commentary during draft EA commenting period
- Formulate a final EA for publication in the appropriate forums.

The funds will be used to provide justification for the creation of a permanent position within the state to develop environmental assessments.

This proposal will meet the following HISC Prevention Working Group Objectives:

- **Review and revise regulations governing the introduction of biological control agents**

<u>Requested Funds</u>	High	Low
Staffing	\$65,000.00	\$65,000.00
Equipment and Supplies	\$25,000.00	\$0.00
<b>Total Requested Funds</b>	<b>\$90,000.00</b>	<b>\$65,000.00</b>
<u>Matching Funds</u>		
HDOA Staff	\$40,000.00	\$40,000.00
Forest Service Staff	\$30,000.00	\$30,000.00
HDOA Vehicle Use	\$5,000.00	\$5,000.00
HDOA Equipment for production of outreach materials	\$3,000.00	\$3,000.00
<b>Total Match Funds</b>	<b>\$78,000.00</b>	<b>\$78,000.00</b>

HISC Established Pest Working Group Proposal  
 Plant Pathology Capacity Building

Summary: Plant Pest Control is in possession of the only biosafety level 3 facility approved for plant/plant pathogen containment in the state of Hawaii. Organisms from foreign sources can enter into this facility that are otherwise restricted or prohibited entry into the state. This allows PPC to test and evaluate potential biocontrol organisms and to identify diagnostic samples submitted from Pacific Island partners. PPC pathologists also render identifications for Plant Quarantine’s inspection programs and for the general public. We are proposing the purchase of equipment to assist with these programs. Expected products of this request are:

- Improved diagnostic capability
- Improved photodocumentation of pests identified
- Identification of priority pests not known to occur in Hawaii but present within the Pacific
- Develop existing capacity for the evaluation and testing of plant pathogens for biological control

This proposal will meet the following HISC Prevention Working Group Objectives:

- **Implement improvements to the capacity for detection, eradication and control, e.g. increased staffing, training and infrastructure, to respond to both terrestrial and aquatic invasive species.**
- **Detect and immediately target high priority invasive species that are candidates for eradication in all or part of their range, e.g. coqui frogs on Oahu and Kauai.**
- **Identify terrestrial and aquatic species that are high risk of being introduced into the state or being spread within the state.**

This proposal will also assist in meeting the working group Measures of Effectiveness:

- Numbers of new invasive species detected at ports of entry
- Names and numbers of priority pests threatening Hawaii
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<u>Requested Funds</u>	High	Low
Microscopes	\$40,000.00	\$20,000.00
Biosafety Cabinet, Class IIA	\$9,000.00	\$9,000.00
<b>Total Requested Funds</b>	<b>\$49,000.00</b>	<b>\$29,000.00</b>
<u>Matching Funds</u>		
HDOA Staff	\$60,000.00	\$60,000.00
<b>Total Match Funds</b>	<b>\$60,000.00</b>	<b>\$60,000.00</b>

# **MAUI INVASIVE SPECIES COMMITTEE & MOLOKAI / MAUI INVASIVE SPECIES COMMITTEE: PROJECT PLANS FOR FY2009**

## **OVERVIEW**

For FY2009, the Maui Invasive Species Committee (MISC) and the Moloka'i / Maui Invasive Species Committee (MoMISC) will continue to focus on the early detection of incipient species and rapid response control of selected targets on the islands of Maui, Moloka'i and Lāna'i. The attached proposed budget will achieve these objectives through the following activities:

### **Early Detection**

- Survey a sample of landing zones on Maui to determine the risk associated with aerial operations in high-value natural areas.
- Identify the next priority for early detection on Maui. Options include: nurseries, roadsides, landing zones
- Conduct early detection surveillance activities for West Nile Virus and Avian Influenza
- Continued collaboration with USGS-PBIN to implement Early Detection Workshops for natural resource workers and members of the public
- Aerial surveys within the Molokai Watersheds to detect incipient invaders

### **Rapid Response**

- Ongoing review by Committee members to select potential targets for eradication, using established criteria
- Conduct surveys of selected targets for eradication to determine feasibility
- Implement control actions where feasible
- Participate in or lead rapid response actions to new vertebrates, including snake reports
- Develop increased capacity on Lāna'i & Moloka'i to address invasive species threats

### **Ongoing Control Efforts**

- Field staff will continue to focus on controlling high priority plant species including miconia, pampas grass, fountain grass, ivy gourd on Maui. High priority targets on Molokai include Australian tree fern, giant reed, rubber vine and other incipient species. Emphasis on protection of watersheds.
- Continued efforts to achieve eradication of previously identified "early detection" target species
- Collaborate with HDOA on select agricultural targets
- Vertebrate control activities on Maui will continue to focus on the coqui frog, veiled chameleon, and mitred conure. Emphasis for the coqui frog will be on the Māliko Gulch infestation

### **Data Management & Analysis**

- Collaborate with USGS-PBIN on improving shared statewide data management system
- Using statewide data set, analyze miconia data for international conference on miconia
- Provide database development and GIS assistance to partner agencies

## **Public Relations & Education**

- Provide education and outreach for statewide messages on invasive species
- Prepare and publish monthly article on invasive species issues in Maui's major newspaper
- Publish regular articles in Molokai "Newsflash" of The Nature Conservancy
- Publish semi-annual newsletter for Maui
- Participate in major community events
- Present information on invasive species to school groups & general public
- Promote the Hō'ike curriculum to local teachers and train statewide PR professionals in the curriculum; emphasize invasive species activities
- Develop invasive species module for Hō'ike curriculum
- Work with HDOA on education and outreach campaigns for agricultural target species

The proposed budget (\$520,000) covers activities for three islands since Maui County covers Moloka'i, Lāna'i and Maui. The amount requested is comparable to last year's State funding at \$516,000. Last year, Maui County received an additional \$200,000 from the State for work on the coqui frog. Additionally, under the FY09 budget passed by the Legislature, Maui County would have received an additional \$125,000 for coqui frog work. Funds originally allocated for Maui and Kauai were used to address overall budget shortfalls elsewhere. Thus, \$520,000 is a significant reduction from last year's State funding.

Funds spent on Maui County are highly leveraged. Funding from HISC at \$520,000 would be leveraged at a ratio of 4:1 (County and Federal funds: State funds). MISC's federal and county partners need to see significant State support to continue funding at these levels. These funds help meet the legislatively mandated 1:1 match for HISC funding.

Regarding the budget for a reduced level of funding, MISC could delay infrastructure improvements totaling \$40,000, although the water system is in constant disrepair. Loss of funding for the botanists would be a setback for early detection on Maui. Similarly, loss of the Hō'ike Specialist position would be unfortunate. The Hō'ike program has developed a reputation for providing local teachers with a relevant, Maui-based science curriculum and has fostered an enthusiastic core of teachers who are using the materials. Loss of any other staff positions would be most difficult given the significant training invested in current staff. Additionally, MISC is required by funding agreements with the National Park Service to increase staff capacity. MISC cannot simply replace existing staff positions lost through budget cuts with other funding.

**MISC & MoMISC Proposed FY09 HISC Budget**

**Requested HISC**

Salaries / Fringe	\$ 310,000	Field technicians (7.5 FTE); Botanists (0.5 FTE); Hoike Curriculum Specialist (0.4 FTE)
Contract (Helicopter)	\$ 20,000	Pampas grass aerial operations: \$825/hr.
TNC Contract	\$ 12,000	Office space and support for MoMISC operation
Contract (Infrastructure)	\$ 40,000	Septic system and water lines for Makawao office & baseyard
Truck	\$ 25,000	Lease for MoMISC truck expires this year
Travel	\$ 17,000	Backcountry travel for field work
Supplies	\$ 23,804	Herbicides, field gear
Rental	\$ 13,000	Lease for Hana field camp
Utilities	\$ 5,000	Makawao and Hana baseyards
PCSU OH (5%)	\$ 24,762	
UH Indirect (6%)	\$ 29,434	
<b>Total</b>	<b>\$ 520,000</b>	

**Reduced Funding (Low) HISC**

Salaries / Fringe	\$ 270,000	Field technicians (7.5 FTE)	Eliminate Early Detection Surveys; Hoike Specialist
Contract (Helicopter)	\$ 20,000	Pampas grass aerial operations: \$825/hr.	
TNC Contract	\$ 12,000	Office space and support for MoMISC operation	
Contract (Infrastructure)	\$ -		Eliminate infrastructure improvements
Truck	\$ 25,000	Lease for MoMISC truck expires this year	
Travel	\$ 17,000	Backcountry travel for field work	
Supplies	\$ 23,804	Herbicides, field gear	
Rental	\$ 13,000	Lease for Hana field camp	
Utilities	\$ 5,000	Makawao and Hana baseyards	
PCSU OH (5%)	\$ 20,500		
UH Indirect (6%)	\$ 24,376		
<b>Total</b>	<b>\$ 430,680</b>		



## OISC High HISC Request:

Salaries and Benefits for 16 positions: Includes: 5 Field Crew; 2 Americorps; Vertebrate Technician; 2 Early Detection Botanists; Outreach Specialist; GIS Specialist; Finance Specialist; Manager.	\$622,727
Supplies (includes fuel and truck maintenance)	\$65,000
Training	\$3,000
Helicopter Time	\$50,000
Baseyard infrastructure to match DoFAW's contribution (toilets, electricity, space for field crew)	\$35,000
Bishop Museum facilities use charge (Early Detection Program)	\$15,000
<u>PCSU/RCUH Fee</u>	<u>\$87,356</u>
<b>Total</b>	<b>\$878,083</b>
 <b>OISC HISC Request (High)</b>	 <b>\$499,631</b>
Shortfall for OISC to raise	\$378,452

### High Request Expected Accomplishments:

- Completion of initial miconia search area (areas within dispersal zone for miconia that have not yet been searched).
- Completion of miconia re-survey areas.
- Approximately 400 acres surveyed for miconia within the aerial buffer (this is important for finding outlier mature trees).
- Delimiting surveys for *Schizachyrium condensatum*.
- Continuing progress with other species including *Rubus discolor*, and *Tibouchina urvilleana*.
- Completion of early detection road surveys.
- Rapid response to new species found by early detection team (much of this is dependent on outreach, since the species are on private land).
- Unified baseyard for OISC (DoFAW is giving us an office trailer and some space to put it on—we need to provide space for the field crew to operate out of assist with other infrastructure such as toilets).

## OISC Low HISC Request

Salaries and Benefits for 13 positions: Includes: 4 Field Crew; 1 Americorps; Vertebrate Technician; 2 Early Detection Botanists; Outreach Specialist; GIS Specialist; Finance Specialist; Manager.	\$580,864
Training	\$3,000
Supplies (includes fuel and truck maintenance)	\$60,000
Bishop Museum facilities use charge	\$15,000
Baseyard infrastructure (toilets, electricity, but no space for field crew)	\$16,000
<u>PCSU/RCUH fee</u>	<u>\$74,556</u>
<b>Total</b>	<b>\$749,420</b>
 <b>OISC HISC Request (Low)</b>	 <b>\$424,000</b>
Shortfall to OISC to raise	\$325,452

### What won't get done with low request

- With less staff, miconia seed-bank areas that need to be re-surveyed in 2009 will not be completed, potentially allowing saplings to mature and set seed.
- No miconia aerial buffer will be surveyed (important for finding outlier mature trees).
- No delimiting surveys for *Schizachyrium condensatum*—will have to drop all work on this species.
- With less staff, OISC's ability to respond to new species found by early detection team will be reduced.
- Continuation of split office/baseyard between support staff and field crew

## KISC Proposed HISC Budget FY2009

	Scenario #1 Budget		Scenario #2 Budget	
<b>Salaries &amp; Benefits</b>				
<b>9 Staff</b>	\$338,056	<b>7 Staff</b>	\$278,776	• Decrease in staffing
Benefits	\$94,656	Benefits	\$78,057	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$432,712</b>		<b>\$356,833</b>	
<b>Services</b>				
PSA's	\$8,000	PSA's		• Eliminate PSA's
Helicopter time	\$5,100	Helicopter time	\$5,100	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$13,100</b>		<b>\$5,100</b>	
<b>Material and Supplies</b>				
Herbicides/other	\$7,000	Herbicides/other	\$5,500	• Decrease in most materials and supplies except fuel costs
Expendable safety gear	\$5,000	Expendable safety gear	\$2,500	
Office supplies	\$2,500	Office supplies	\$2,000	
Base yard supplies	\$2,000	Base yard supplies	\$2,000	
Computer/GPS/GIS tools	\$2,500	Computer/GPS/GIS tools	\$1,500	
Vehicle Gas	\$10,400	Vehicle Gas	\$10,400	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$29,400</b>		<b>\$23,900</b>	
<b>Travel</b>				
Per diem	\$2,500	Per diem	\$2,300	• Decrease in fuel costs
Travel	\$3,200	Travel	\$3,200	
Hotel/air fare	\$4,000	Hotel/air fare	\$3,000	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$9,700</b>		<b>\$8,500</b>	
<b>Print &amp; Publication</b>				
Maps, ref material:	\$500	Maps, ref materials	\$500	• Decrease in outreach and outsourced printing
Copies/printing	\$5,000	Copies/printing	\$1,500	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$5,500</b>		<b>\$2,000</b>	
<b>Utilities &amp; Communication</b>				
Cell Phones	\$2,000	Cell Phones	\$2,000	• Fixed expense
Office phone	\$800	Office phone	\$800	
Electric Bill	\$4,800	Electric Bill	\$4,800	
Postage/freight	\$500	Postage/freight	\$500	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$8,100</b>		<b>\$8,100</b>	
<b>Rental</b>				
Office/Base yard lease	\$16,000	Office/Base yard lease	\$16,000	• Fixed expense
Misc. equip rental	\$1,000	Misc. equip rental	\$1,000	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$17,000</b>		<b>\$17,000</b>	
<b>Repairs</b>				
Misc. repair work	\$3,000	Misc. repair work	\$3,000	• Fixed expense
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$3,000</b>		<b>\$3,000</b>	
<b>General</b>				
Training/Tuition/Conferences	\$3,000	Training/Tuition/Conferences	\$3,000	• Already decreased from previous year
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$3,000</b>		<b>\$3,000</b>	
<b>Administrative costs of grants</b>				
RCUH Indirect	\$31,291	RCUH Indirect	\$25,646	
PCSU admin	\$26,076	PCSU admin	\$21,372	
	<b>Subtotal</b>		<b>Subtotal</b>	
	<b>\$57,366</b>		<b>\$47,018</b>	
	<b>Totals</b>		<b>Totals</b>	
	<b>\$578,878</b>		<b>\$474,451</b>	
	<b>FS Funding</b>		<b>FS Funding</b>	
	<b>(\$88,452)</b>		<b>(\$88,452)</b>	
	<b>Total HISC need</b>		<b>Total HISC need</b>	
	<b>\$490,426</b>		<b>\$385,999</b>	

To effectively **implement the HISC goals of response and control**, KISC's budget Scenario #1 reflects continued progress in developing **Early Detection Tools**: following up on the roadside survey, developing a community based education and reporting program, developing web tools for information sharing and gathering. Budget shortfalls to the ISCs from the Legislature for **coqui control** and from DOFAW pass-through are also reflected in these budgets. To continue "holding-the-line" on established targets, including **Miconia control**, it is imperative that KISC be staffed adequately. Scenario #2 reflects a **decreased staff** as a means to decrease expenses. With less staffing, there will be a decrease in most categories of expenses for support. This would also reflect a decrease in acres covered during survey and treatment.

Scenario #2 reflects only a 0.4% increase over FY008 funding from HISC and coqui-dedicated funding, barely keeping in line with the US Inflation Rate Forecast.



## BIISC – HISC Request Fiscal 2009

**High HISC Request** **\$576,000**

BIISC Salaries & Fringe for 12 positions 529,415  
 (Manager, Field Supervisor, 5 Crew, 1 Equip/  
 DeconAide, 1 Admin, 2 ED, 1 GIS/Data Tech)

Expected accomplishments: Complete current buffer zone survey and control efforts for existing Miconia and Bocconia populations at core sites; complete survey and control project for Morella cerifera in Hilo populations; expand early detection surveys on roadsides and nurseries; continue efforts on other species such as Trithonia and Pampass grass; continue aerial control efforts in gultches for Miconia.

**Low HISC Request** **\$408,000**

BIISC Salaries & Fringe \$456,000\*

Expected consequences: Key vacancy to be left unfilled, loss of one FTE and possible reduction of another FTE to 50%. Current buffer and control sites for key target species to be reduced in size, jeopardizing containment of species for the last 10 years; reduction or elimination of 3 project sites; ability to respond to new species may be limited reducing effectiveness of early detection.

(\* Total includes key vacancy unfilled, and reduction of 1 FTE)

	High Request	Low Request
Salaries/Fringe	\$529,415.00	456,000
Contract (Helicopter)	16,000	12,000
Vehicles	0	0
Equipment	0	0
Travel	\$ 4,000 .00	4,000
Training	4,000	4,000
Supplies	25,000	25,000
Repairs	3000	3000
Rental	0	0
Utilities	2,000	2,000
Contractual (Service Fees)	3200	32000
PCSU Personnel Support		
PCSU OH		
UH Indirects	\$71,162	65,665
<b>Total</b>	<b>\$653,777.00</b>	<b>603,665</b>
<b>Request</b>	<b>\$576,000</b>	<b>\$408,000</b>
Raised by other sources	\$66,651	\$66,651
Shortfall (Need to raise)	\$11,126	\$129,014

For 2009, the AIS Team will be focused on four important areas of AIS work:

**Restoration** - The Team is focusing on work that help not just removing invasive species, but looking at enhancing factors that will help restore these areas.

- 1) Kaneohe Bay Supersucker – on specific patch reefs, mechanical removal in conjunction with a multi-faceted approach that also employs enhancing native herbivory (including lay gill net bans) as well as working with UH researchers studying the role that increased nutrients play in invasive algae blooms.
- 2) Kawaiiele Waterbird Habitat Restoration Project - a partnership with Hawaii DOFAW and USFWS that involves invasive fish removal for critical waterbird habitat restoration on Kauai. This will help enhance nesting sites for the endangered Hawaiian Stilt, Hawaiian Duck, and many migratory birds.
- 3) Maunalua Bay Invasive Algae Management - The AIS Team is also partnering with the University of Hawaii researchers in researching how the removal of invasive algae enhances native seagrass growth in Maunalua Bay as part of an overall Maunalua Bay Algae Management Plan.

#### **Early Detection –**

- 1) monitoring on the Kona side of Hawaii Island looking for new species of invasive algae, which occur on the Hilo side, but are not yet known on the Kona side
- 2) working with University of Hawaii researchers to study the movement of the invasive alga *Avrainvillea amadelpha* .
- 3) Working with Bishop Museum survey sites outside of harbors...There are several large obstacles in establishing an effective early detection program, but the team is working with a number of specialists to resolve these issues and establish a useful program.

**New technology** - because marine AIS control is such a relatively new concept, it is vital to continue to look for new and more effective control methods. The Team has done critical work in the past three years and they will continue to develop new methods to help control marine species, including

- 1) a “hot water gun” for possible use on fouling organisms,
- 2) refining the wrapping, smothering technique that has been developed
- 3) working with a federally funded researcher studying mechanical, chemical and other AIS Control methods

#### **Community Involvement & Education –**

- 1) Large project on Molokai with the Team spearheading an invasive algae removal involving many local groups as well as general public educational programs on invasive algae issues.
- 2) Developing signs at harbors and boat launches across the state reminding boaters to clean anchors, lines and trailers so they don't transport potential AIS from one area to another
- 3) Continuing the “Habitattitude – don't release your aquarium pets and plants” campaign with pet shop owners and the general public to address a major source of freshwater AIS.

<b>AIS 2009 Budget</b>	<b>Low</b>	<b>HIGH</b>
<b>Salaries</b>		
Supervisor		
2 Lead Techs		
urchin culturist		
4 techs		
intern		
Supersucker Crew		
Lead Tech (high only)		
3 techs (high only)		
<b>Salaries</b>	\$260,613.64	\$368,335.64
<b>Fringe</b>	\$72,971.82	\$103,133.98
<b>Annual Salaries &amp; Finge 2009</b>	\$333,585.46	\$471,469.62
<b>Supplies</b>	\$15,000.00	\$15,000.00
<b>Travel</b>	\$26,000.00	\$26,000.00
<b>Equipment</b>	\$20,000.00	\$20,000.00
<b>Other</b>	\$15,000.00	\$15,000.00
<b>Sub Total</b>	\$409,585.46	\$547,469.62
<b>Contractual Overhead (3.1%)</b>	\$12,697.15	\$16,971.56
<b>TOTAL</b>	\$422,282.61	\$564,441.18