

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Division of Forestry and Wildlife
Honolulu, Hawaii 96813

April 25, 2014

Chairperson and Members
Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

Land Board Members:

SUBJECT: REQUEST FOR AUTHORIZATION FOR THE CHAIRPERSON TO NEGOTIATE, SIGN, EXECUTE, AND AMEND A CONTRACT WITH THE UNIVERSITY OF HAWAII PACIFIC COOPERATIVE STUDIES UNIT TO PERFORM MITIGATIVE MEASURES AS PART OF THE *ABUTILON MENZIESII* HABITAT CONSERVATION PLAN

BACKGROUND:

In 2004, the State of Hawaii Department of Transportation (DOT) and Department of Land and Natural Resources (DLNR) completed a Memorandum of Agreement (MOA) for the Habitat Conservation Plan for *Abutilon menziesii* at Kapolei (HCP). The purpose of the MOA was to mitigate the potential impacts to a population of the endangered plant *Abutilon menziesii* due to the construction of the North-South Road in East Kapolei, Hawaii. The construction of the road affected the Kapolei population of the endangered plant; therefore, the DOT agreed to provide funding to the DLNR to perform mitigative actions outlined in the HCP, particularly the establishment and maintenance of three populations of the taxon in protected locations on Oahu.

The DOT delegated \$250,000 to insure funds to finance the HCP mitigative strategies costs for its first five years, then \$750,000, which was intended to provide funding for a period of fifteen years of HCP implementation, starting on August 1, 2006. There is \$245,000 of the DOT HCP delegated monies remaining.

DISCUSSION AND ANALYSIS:

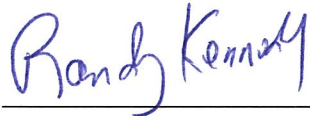
On June 30th, 2014, the special fund that the *Abutilon* HCP money is currently held in will be vacated and the remainder of the monies (\$245,000) will be deposited in the General Fund if the funds are not secured via contract. Therefore Staff feels entering into a contract with the University of Hawaii's Pacific Cooperative Studies Unit (UH PCSU) for the *Abutilon menziesii* HCP mitigation project is the most appropriate course of action. The funds will be used to provide the ongoing mitigative restoration efforts as directed by the HCP. This contract includes the salary and benefits of one full-time employee to carry out the habitat restoration efforts. For more information on the project and contract, please see the attached MOA, Summary portion of PCSU proposal, and the signed cover page of the proposal from the UH Grants Office.

RECOMMENDATIONS:


That the Board:

Authorize the Chairperson to negotiate, sign, execute, and amend a contract with the University of Hawaii Pacific Cooperative Studies Unit to perform mitigative measures as part of the *Abutilon menziesii* Habitat Conservation Plan.

Respectfully submitted,


for LISA J. HADWAY, Administrator
Division of Forestry and Wildlife

APPROVED FOR SUBMITTAL:



WILLIAM J. AILA, JR., Chairperson
Board of Land and Natural Resources

- Attachment 1. MOA with DOT
- Attachment 2. PSCU Proposal (Attachment A: Summary)
- Attachment 3. Signed Cover Page of Proposal from UH Grants Office

MEMORANDUM OF AGREEMENT BETWEEN
THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION,
AND
DEPARTMENT OF LAND AND NATURAL RESOURCES

THIS MEMORANDUM OF AGREEMENT, (hereinafter referred to as "MOA"), made and entered into on the 16th day of April, 2004, by and between the DEPARTMENT OF TRANSPORTATION, State of Hawaii, (hereinafter referred to as "DOT"), whose address and place of business is 869 Punchbowl Street, Honolulu, Hawaii 96813, and the DEPARTMENT OF LAND AND NATURAL RESOURCES, State of Hawaii, (hereinafter referred to as "DLNR"), whose address and place of business is 1151 Punchbowl Street, Honolulu, Hawaii 96813.

WHEREAS, the purpose of this MOA is to mitigate the potential impacts to a population of the endangered plant *Abutilon menziesii* due to the construction of the North-South Road; and

WHEREAS, the *Habitat Conservation Plan for Abutilon menziesii at Kapolei*, hereinafter referred to as "HCP", provides a description of the development actions proposed in East Kapolei, Hawaii, including the North-South Road, that would impact the *Abutilon menziesii* and proposes a series of mitigative strategies to address these impacts and promote the endangered species' recovery; and,

WHEREAS, DOT is proposing to develop the North-South Road, a federal-aid highway, which would be a principal arterial roadway providing regional access to the Interstate H-1 Freeway and would bisect the East Kapolei Master Plan project area; and,

WHEREAS, the North-South Road will affect the Kapolei population of *Abutilon menziesii*, the HCP serves as an "umbrella plan" for the endangered plant; and,

WHEREAS, the acceptance of the final environmental document for the North-South Road will specify the development and implementation of the HCP; and,

WHEREAS, DLNR has the knowledge, expertise, and permanent presence needed to implement the mitigation strategies for threatened and endangered species and agrees to implement the management of the *Abutilon menziesii* populations as outlined in mitigative strategies of the *Abutilon menziesii* HCP; and,

WHEREAS, DLNR, through partial funding provided by DOT and the Housing and Community Development Corporation of Hawaii, has managed the existing population of *Abutilon menziesii* at East Kapolei since 1998, propagating a complete genetic representation of the Kapolei population in appropriate protected habitats at Koko Crater Botanical Garden, Kaena Point State Park, and the Honouliuli Unit of the Pearl Harbor National Wildlife Refuge, and completed construction of a low-elevation greenhouse dedicated to propagating *Abutilon menziesii* and

other threatened, endangered and associated plant species on Oahu.

NOW THEREFORE, in consideration of the premises stated above, the parties deem it mutually advantageous and desirable to cooperate and hereby agree as follows:

1. On August 1, 2001, DLNR shall implement the tasks set forth in "Exhibit A", attached hereto and incorporated herein. DLNR shall provide reasonable safeguards to secure the existence of at least three (3) "wild" *Abutilon menziesii* populations in appropriate protected habitats.
2. These populations will be maintained and managed beginning on the 1st day of August, 2001, and ending on the 31st day of July, 2021 or until all of the "success criteria" of the HCP has been accomplished.
3. DOT has delegated the expenditure of \$250,000 from Act 328, SLH 1997, Item C0135, as amended by Act 116, SLH 1998, North-South Road, Kapolei Parkway to Interstate Route H-1, Oahu, to DLNR for the purpose of implementing mitigative strategies for the endangered *Abutilon menziesii*, thereby insuring funds to finance the HCP mitigative strategies costs for its first five years.
4. DOT shall also delegate to DLNR an additional lump sum amount of \$750,000, which is intended to provide adequate funding for a period of fifteen (15) years from August 1, 2006. The precise amount needed to finance the mitigation effort will be estimated by DLNR and approved by DOT. The estimate shall not exceed \$250,000 for 5 years, and this funding will be used specifically to cover the expenses of DLNR, which relate to the mitigation of impacts to the Kapolei *Abutilon menziesii*. Interest earned on the funding, as delegated to DLNR, shall be retained by DLNR, be reserved to finance any additional mitigation beyond the term of the HCP, and be utilized in accordance with the purposes of the HCP. If a portion of the funding is unexpended due to an early termination of this MOA or the HCP, such funding shall be returned to DOT.

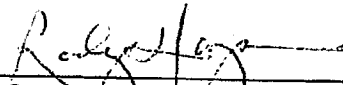
DOT shall also delegate to DLNR an additional lump sum of \$200,000 to serve as a "contingency fund", available over the term of the HCP. The contingency fund shall be used for emergency response, site development costs or other unanticipated expenditures required to fulfill the purposes of the HCP. The contingency fund is subject to legislative appropriation.

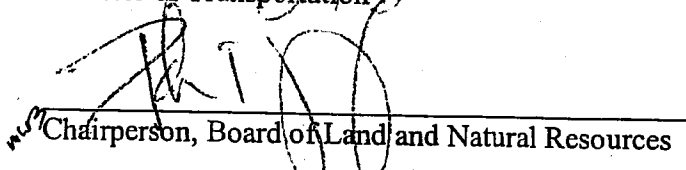
All funding as directly or indirectly transferred by DOT to DLNR, shall be retained by DLNR, for the planned recovery of the *Abutilon menziesii*, until the "success criteria" is fully attained. If it is determined that all of the "success criteria" have been satisfactorily accomplished, the unexpended funds as of the date of the determination, shall be returned to DOT.

In the event that additional funds for continued implementation of the HCP are needed, the DOT will seek alternative funding sources, including, but not limited to, transfers from the project's construction budget, participation by other State departments, and a separate legislative appropriation.

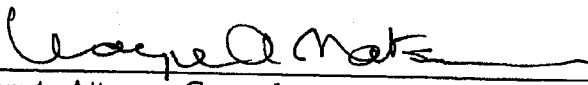
5. This MOA shall be null and void if the Board of Land and Natural Resources (or the State Legislature, as necessary) does not approve the HCP for the *Abutilon menziesii* in Kapolei.
6. The MOA may be terminated at any time by written consent of the parties of this agreement and any respective remaining funds shall be returned to DOT.
7. This MOA may be amended at any time by written consent of the parties of this agreement.

IN WITNESS WHEREOF, the undersigned have executed these presents as of the day and year first written above.

BY  Date MAR 24 2003
Director of Transportation

BY  Date APR 16 2004
Chairperson, Board of Land and Natural Resources

APPROVED AS TO FORM:

BY  Date 3/1/04
Deputy Attorney General
For Department of Transportation


BY  Date 4/7/04
Deputy Attorney General
For Department of Land and Natural Resources

Exhibit "A"
SCOPE OF SERVICES

A. Over the duration of the HCP, establish and maintain at least three (3) "wild" populations in appropriate and protected habitats. The purposes of the individual populations are, to allow for natural seedling recruitment and to establish the long-term viability of three (3) populations of *Abutilon menziesii*. This work will include the following:

1. Site preparation for the reintroduction site(s):
 - Water source
 - Soil testing
 - Threat control
 - Planting of *Abutilon menziesii* and, if appropriate, companion species
2. Control of threats:
 - Weeds – hand weeding, herbicide application, etc., as appropriate
 - Fire – develop fire management strategies or fire protection plan, as appropriate
 - Off-road vehicles – physical and legal barriers
 - Insects – application of pesticides, as appropriate
3. Monitoring:
 - Record growth and flowering
 - Record effectiveness of threat controls
 - Record seedling recruitment
4. Maintenance:
 - Irrigation systems as necessary
 - Fertilizer application as necessary
 - Site sanitation/weeding

B. Propagation of a total representation of plants through cuttings from the Kapolei *Abutilon menziesii* population. The Koko Crater outplanting site will be maintained to protect and secure the representation of *Abutilon menziesii* from Kapolei. These plants will be used to establish genetic representations of the stock and provide stock for outplanting purposes. Work will be done at the existing State DLNR, Division of Forestry and Wildlife (DOFAW) nurseries or co-operating nurseries.

1. Maintain low-elevation greenhouse (nursery) for *Abutilon* stock:
 - Greenhouse supplies
 - Equipment
 - Collect genetic representations from original population via seeds and deposit in Rare Plant Seed Storage Facility at Lyon Arboretum
 - Make available excess cuttings and/or seeds for research or landscaping projects
2. Provide maintenance for nursery plants:
 - Watering
 - Fertilizing
 - Disease control
 - Insect control

- Sanitation

C. Administration:

1. Document success attainments.
2. Prepare annual reports of progress and findings in compliance with the requirements of Chapter 195D, Hawaii Revised Statutes, as amended. Furnish DOT with copies of these reports.
3. Furnish DOT with an expenditure report, at the end of each fiscal year, which will document the actual expenses of this mitigation effort.
4. Participate in the development and monitoring of agreements, which involve the preparation of Certificates of Inclusion for the Incidental Take License as issued to DOT.
5. Maintain adaptive management strategy as needed to improve plant recovery and success.
6. Obtain approval from DOT for annual expenditures in excess of \$60,000 per year and non-emergency uses of the contingency fund in excess of \$20,000.

D. At the time of application and approval and using protocols stated in the Incidental Take Permit, DLNR shall remove the *Abutilon menziesii* in the North-South Road corridor and transplant them into the three (3) "wild" sites. Prior to the construction stage of the North-South Road, DLNR shall assist the DOT regarding:

1. The location and treatment of *Abutilon menziesii* along the project corridor.
2. The banking and distribution of soil which may contain seeds of the *Abutilon menziesii*.

E. At the end of the contract period, DLNR shall prepare a summary final report, providing recommendations for future actions and possible alternatives, if any, based upon documented findings and results.

ATTACHMENT-A

Restoration Research on Oahu's Lowland Rare Plant Species

June 1, 2014 – May 31, 2017

Summary

Native ecosystems of the Hawaiian Islands are among the world's finest showcase examples of the ecological and evolutionary process of speciation and adaptation. Millions of years of isolation from continental landmasses has resulted in outstanding adaptive radiations of native plants, birds, and insects from relatively few colonizing events. Notable examples are the endemic Hawaiian lobeliads (Lobeliaceae), honeycreepers (Drepanidinae, and pomice flies (Drosophilidae), each of which are represented by dozens to hundreds of species exhibiting a variety of forms and habitats, and each having evolved from perhaps a single colonizing event. These biological resources are integral elements of the natural and cultural heritage of the Hawaiian Islands and their people.

Hawaiian ecosystems are also among the world's most threatened, with hundreds of species known to be extinct with numbers of endangered species that are unmatched in the United States. Despite its tiny land mass compared with the rest of the U.S., more than a quarter of the national Endangered Species list are from Hawaii, with over 300 taxa of endemic plants. Possibly the greatest threat to native Hawaiian species is the continual loss and degradation of habitat that has been the hallmark of human colonization of the islands over the last 1600 years.

It is estimated that as much of the lowland vegetation of Hawaii was radically altered by Hawaiians before Western contact. The magnitude and rate of impacts to native taxa and ecosystems from habitat destruction and introduced taxa increased dramatically following the first Western contact. Cattle ranching impacted approximately one million acres of dry, mesic, and wet forests, leading to the decline of many native taxa. The widespread introduction of fire-adapted grasses is primarily responsible for the great increase of wildfires in Hawaii's more recent history. Agriculture destroyed thousands of low and middle elevation forests and shrublands. To protect watersheds, fast growing alien trees were planted by the millions, many of which are damaging invasive species.

Despite this damage, efforts continue to restore plant species, reflecting the past ecosystems to some degree. One of the principal tools to accomplish these efforts has been the cultivation and outplanting of rare species within a matrix of less rare plant species. Most efforts have focused at upper and middle elevations where native vegetation remains somewhat intact but pioneering efforts in coastal locations such as Kaena Point have shown that effective outplanting methods can be developed to be successful, even in extreme shoreline habitats where low rainfall, salt, wind, and human impact create a hostile environment for most plants.

Abutilon menziesii has been the focus of mitigative restoration efforts via a Habitat Conservation Plan (HCP) with Hawaii's Department of Transportation. This *Hibiscus* relative was discovered within the footprint of a housing development and road construction, leading to the funding of establishing three populations of the taxon in protected locations on Oahu. This project will support the existing lowland rare plant nursery and outplanting efforts for the *Abutilon* and additional rare lowland species on Oahu such as the Plant Extinction Prevention Program species (e.g. *Schiedea adamantis* and *Sesbania tomentosa*) when funding will allow.

Objectives

The aim of this project is to establish an effective outplanting/restoration effort for rare lowland plants on the island of Oahu, focusing on *Abutilon menziesii* and its Habitat Conservation Plan, as well as appropriate sites such as Kahuku, Kaena Point, Wildlife Refuges, State Parks, and offshore islets.

Expected Results

The project will develop a propagation program for rare lowland species, ranging from collection of propagules to adaptive management of outplanting sites. The project will maintain genetically diverse populations at outplanting sites to ensure reproductively viable offspring. The project will include outplanting and monitoring selected sites and develop effective techniques for successful outplanting. The genetic background, outplanting methods, treatment of propagules, resistance to diseases and insects will be documentation of the life histories of each individual plant.

Benefit to the State and the University of Hawaii

The University has maintained a long-standing commitment to conservation research, planning, and implementation. The University's role provides educational opportunities to students and provides strong, science-based training for the conservation biologists that are at work in the field now and into the future. The University's research programs on biodiversity will benefit from the need for information to provide the science for these conservation projects and agreements. The data will increase our understanding of habitat requirements of the rare plant species in Hawaii and will allow University students and staff to become involved in applied conservation biology research. The State of Hawaii will benefit from this project as conservation and management issues of Threatened and Endangered plants and other species of concern be addressed, decreasing their likelihood of extinction.

Budget

All of the funds will go for personnel, PCSU administration, and expenses. Operating costs will be paid directly by Hawaii's Department of Land and Natural Resources, Division of Forestry and Wildlife.

Risk Assessment

Work on unstable substrates and exposure to intense heat can be expected during outplanting activities. Application of pesticides will occur when deemed necessary by staff. Occasional operation of small engine machinery will be required. Staff will read and follow PCSU standard operating procedures and will respect cultural sites during outplanting activities.

Salaries-Restoration Staff	\$156,436
Fringe (33%)	\$51,624
Supplies	\$3,000
PCSU Direct Charge (5%)	\$11,667
Total Direct Cost	\$222,727
UH Indirect Costs (10%)	\$22,273
TOTAL	\$245,000

**A CONTINUING PROPOSAL
SUBMITTED BY
UNIVERSITY OF HAWAI'I**

**TO: Hawai'i Department of Land and Natural Resources
Division of Forestry and Wildlife**

PROJECT TITLE: "Restoration Research on Oahu's Lowland Rare Plant Species"

PRINCIPAL INVESTIGATOR: Dr. Clifford Morden

**DEPARTMENT: Pacific Cooperative Studies Unit
Department of Botany
University of Hawai'i at Mānoa**

PROJECT PERIOD: June 1, 2014 to May 31, 2017

AMOUNT REQUESTED: \$245,000.00

AUTHORIZING UNIVERSITY

OFFICIAL:  **DATE:** 4/03/14

**Georgette Sakumoto
Grants Specialist**

**ADDRESS: University of Hawai'i
Office of Research Services
2440 Campus Road, Box 368
Honolulu, HI 96822**

Please ensure that all correspondence regarding this application and project are addressed to the Office of Research Services.