

HAWAII WETLAND JOINT VENTURE MEETING MINUTES

Lyon Arboretum, Manoa

February 5, 2007

9: 30AM – 2:30PM

I. JOINT VENTURE INTRODUCTION & UPDATE

State Steering Committee Assembly – Joint venture state steering committees are comprised of representatives of the participating agencies and organizations. The committees are responsible for maintaining commitment and support to achieve the goals and objectives of the joint venture. The committee determines priorities for all aspects of joint venture activities. The following individuals have been approached to be on the Hawaii Wetland Joint Ventures Steering Committee. Names denoted in red are individuals who have not yet agreed or disagreed to sit on the board.

Executive Committee

- o Megan Laut – DLNR
- o Scott Fisher - MCLT
- o **Thomas Kiahakapu - DLNR**
- o Greg Koob – NRCS
- o Adonia Henry – FWS
- o Arleone Dibbon-Young – Molokai
- o Wendy Wiltse – EPA
- o David Penn – DOH
- o **Michelle Reynolds – USGS**
- o **Connie Ramsey - USACOE**
- o Glynnis Nakai - FWS
- o **Namaka Whitehead - KS**
- o Kim Uyehara – NRCS/ USGS
- o Ron Walker

Technical Committee

- o **Eric Vanderwerf – Pacific Rim Conservation**
- o **Michael Silbernagle – FWS**
- o **Fern DuVall - DOFAW**

Fall 2007 Wetland Workshop – The Hawaii Wetland Joint Venture is coordinating with Leigh Frederickson to hold a moist soil management Workshop this fall 2007. No dates have been set yet, however we are looking at holding the workshop on Kauai.

Logo – An art student at the University of Hawaii is working on developing a logo for the Hawaii Joint Venture. Logo design should be completed by April. Once the logo is accepted we will work on incorporating it into our website and other outreach materials.

Priorities – Questionnaires were distributed during the meeting and attendees were asked to prioritize Joint Venture projects. During our May 2006 meeting participants ranked

funding and wetland management as the two most important issues for the Joint venture to tackle. Several ideas for sustainable funding bases were discussed including a 1) Tourism tax that would provide funds for a wetland trust 2) A wetland trust funded by mitigation money. Wendy Wiltse suggested the latter and is willing to research the idea, finding out what it may take from the EPA side. Some present did not think that mitigation money may be the best way to create a sustainable funding base for wetlands as it may encourage wetland losses. As for wetland management the Hawaii Wetland Joint Venture is working to organize a moist soil management workshop in the fall, as well as other lecture series which would disseminate information regarding wetland restoration techniques.

II. PRESENTATIONS

Hawaii Wetlands Management Handbook – Leigh Frederickson (although not present) Management of tropical wetlands is poorly understood compared to wetlands in temperate climates. The management of Hawaii's limited wetland area is essential because these sites provide critical habitat for 5 endangered waterbirds: Nene, Hawaiian Coot, Hawaiian Moorhen, Hawaiian Stilt, and Koloa. Hawaii's wetlands have faced extensive loss and degradation, are typically overgrown with invasive species, have failing or inadequate infrastructures, and information on management results has not been summarized. In order to expand and/or enhance the area of suitable habitat for endangered waterbirds and other wetland dependent migrants, a summarization of information provides guidance for decision-making.

Table of Contents:

Geomorphology, Biogeochemistry, Hydrology and Climate

Land Use History

Status and Distribution of Wetlands

Wetland, Plant, Invertebrate, and Avian Ecology

Wetland Plant Management

 Food Production

 Plant

 Germination

 Growth

 Seed production

 Nesting Cover

 Invertebrates

 Making Food Resources Available

Avian Management

 Annual Cycle Events

 Temporal Use of Habitats

 Bioenergetics

 Nesting Cover

 Foraging Strategies

 Predation

 Disturbance

Designing and Developing Management Infrastructure
Integrating Habitat Needs with Life History Strategies
Appendices

Waterbirds

Brief Life History of wetland dependent species

Plants

Life History of Wetland Plants

Invertebrates

Life History of Wetland Invertebrates

National Wetland Inventory, Oahu Maps – Gordon Smith, USFWS

The FWS National Wetlands Inventory program creates digital geographic datasets of waterbodies of all types (streams, lakes, ponds, coastal marine/reef areas, and wetlands). Existing NWI coverage for Hawaii is based upon aerial photography from the late 1970's. New digital information is under development for Oahu. NWI products include coded information on bottom type, vegetation characteristics and hydrologic regime. The new NWI data for Oahu will be useful for analyzing current conditions as well as changes since the 1970's in the extent of aquatic habitats and associated substrate and vegetation characteristics. This would include changes to open water areas in wetlands, the increasing extent of mangroves-lined shorelines, and the creation of golf course ponds. The revised NWI maps are scheduled for release in late March.

EPA Wetland Monitoring Program – Greg Bruland, University of Hawaii

This is a 3-year project designed to assess the water quality and habitat functions of coastal lowland wetlands across Kaua'i, O'ahu, Moloka'i, Maui, and Hawai'i. In Phase I of the project (Spring 2007) we propose sampling 5-10 sites per each island (for a total of 40-50 sites). Our sampling design will involve 2 transects running along the major hydrologic gradients present at the sites. We will be collecting 3 soil cores per transect and sampling percent vegetative cover in plots adjacent to the soil cores. At the wet end of the transect we will also collect a surface water sample and sample fish community composition. In phase II of the project (Fall 2007-Fall 2009) we will establish a volunteer sampling network to assist in the sampling of water quality and vegetative communities at a subset of 2-4 sites per island to assess the temporal variability in water quality and vegetation. Sampling dates for the individual islands are tentatively scheduled as follows: Moloka'i (Mar. 19-21), Maui (Mar. 22-24), Kaua'i (Mar. 26-28), Hawai'i (Mar. 29-31), O'ahu (April 3-20). These dates may change depending on site access, availability, and other logistical issues. For more information about this project you can contact Greg at Bruland@hawaii.edu

Coastal Wetlands and Reefs Monitoring Program – Kim Peyton, UH

Kim Peyton, a PhD candidate from the University of Hawaii shared information regarding her recently funded wetland and reefs monitoring program. The project will sample coastal wetlands as well as near shore coral reef habitats to provide information on habitat quality and to decipher if management performed in coastal wetland areas is having an impact on coral reef health. The study will consist of one year of sampling.

Kim is planning to sample reefs and wetlands on each of the main islands. For more information on the project you can e-mail Kim at peyton@hawaii.edu

Wetland Public Relations – Caroline Warner, San Francisco Joint Venture

Caroline Warner, attended the meeting for the San Francisco Bay Joint Venture to talk about Public Outreach – why it is important and how it can be effective to help achieve wetland project goals. A public outreach strategy is an essential part of any campaign to help protect wetlands. In general, any project will need the support of the public to get funded or sometimes to help do the enhancement, clean-up etc. The only way the population will become familiar with the work going on, is through outreach and education.

When considering effective outreach it is essential to determine:

- the goal and objective – preferably with a measurable result;
- your target audience – the less general, the better;
- key messages – with language tailored to meet the audience “where they are”
- tools – suited to fit your demographic
- evaluation/timeline – when possible

“Mission 37” is an example of an outreach campaign the SFBJV has been involved with for the past year. To reach travelers along a 17 mile stretch of highway traversing over 30,000 acres of protected wetlands, their strategy included these components:

- partnering with local government to change the name of the highway to “the North Bay Flyway Highway” and encouraging regional pride by adopting a proclamation for the two “bookend” cities being “the gateway to your wetlands”
- creating a user-friendly website: www.yourwetlands.org to educate the public and host audio files for downloading information about wetlands that people can listen to on cd or ipod when traveling the highway. The website was promoted through postcards, news paper articles, local magazines, and other medium
- developing an integrated sign campaign involving interpretive signs at various stops along the way as well as hoping to use existing billboards that will soon come down to raise awareness about wetlands and their values;
- annual legislative and other decision maker tours of the projects in the area to keep this key audience apprised of the projects

III. DISCRETIONAY FUNDS APPLICATIONS

A total of seven applications were received for this years discretionary funds grant program. The Pacific Coast Joint Venture received over 50 applications throughout the region and will probably only fund 10 total (which means Hawaii may only have 2 proposals funded). Below are a brief descriptions of proposals submitted:

Mana Plain Restoration Engineering - The planning proposed for this application will provide the basis for restoration actions on 36 acres of wetland and sand dune habitat in the Mānā Plain, Kauai. Planning activities that will be completed with PCJV discretionary funds include: 1) engineering designs for shallow water wetlands and coastal strand habitat that provide optimal waterbird habitat; 2) auto-cad designs for

construction management; and 3) continued monitoring of hydrological and biological resources. Results of these planning activities will guide restoration efforts and ensure effective management of water and invasive vegetation.

DOFAW Wetlands Educational Brochure – This project will allow DLNR/DOFAW to initiate a public outreach campaign on two levels: 1) a regional effort, applicable throughout Hawaii, 2) a local effort targeting the Hamakua Marsh State Wildlife Sanctuary on Oahu. A result of this campaign will be the creation of a wetland brochure that discusses the importance of wetlands in Hawaii, native animal and plant species that inhabit wetlands, and threats to Hawaii’s wetlands. This brochure would be made available to local schools and any agency involved in wetland based projects.

Kilauea Estuary Acquisition Appraisal - Grant funding is being sought to obtain an official government sanctioned appraisal of a parcel of private land for sale within the Kilauea River estuary on the island of Kaua’i. The private owners do not have the funds to hire a Federal Qualified Appraiser which is a fundamental step in the process of allowing this parcel to move from private hands into public lands - in perpetuity.

Kure Atoll Management Plan - The Wildlife Society, Hawaii Chapter seeks funding to develop a comprehensive science-based conservation plan that will provide managers with the information and tools to prevent new species introductions, eradicate *Verbesina* and other invasive weeds, and ultimately restore ecosystem function at Kure Atoll State Wildlife Sanctuary in the North Western Hawaiian Islands.

Hawaii Wetlands Information Network Database - The Hawaii Wetland Information Network (WIN) is an education and outreach tool that will increase public awareness of Hawaii’s wetlands, increase data sharing capabilities among resource professionals, and provide a basis for the development of a wetland curriculum for Hawaii’s schools. The Hawaii WIN will integrate information on Hawaii’s wetlands, which is presently stored in a variety of locations and formats, and make that information available to the public through an interactive web interface. Information will include all aspects of wetland ecology related to biological (e.g., birds, vegetation, and invertebrates) and physical (e.g., hydrology and soils) factors.

Hawaii Nature Center (submitted after meeting) - The Hawaii Nature Center seeks \$10,000 to finance the continued coordination, planning and implementation related to the relocation and development of Halau Ku Mana New Century Charter School to Makiki Valley in Honolulu, Hawaii where it will work in collaboration with the Hawaii Nature Center in the delivery of culturally based, place based environmental education programs to students in grades K-12.

USFWS CCP Project (submitted after meeting) – Project funds are requested to provide the Oahu NWR Complex with a Comprehensive Conservation Plan (which will include: a review, synthesis, and summary of grey and published literature; and GIS assistance in developing data layers for the document). The preparation of this document will encompass the “Affected Environment” section of the CCP and Environmental Assessment for the newly approved boundary, 1,100 acres, of James Campbell NWR.

Ranking- Attendees ranked proposals for funding priority. Only the first five proposals listed above were received before the meeting, allowing participants to prioritize them.

Based on ranking forms, projects ranked as such:

- 1) Mana Plain Restoration Engineering
- 2) DOFAW Wetlands Educational Brochure
- 3) Kure Atoll Management Plan
- 4) Kilauea Estuary Acquisition Appraisal
- 5) Hawaii Wetlands Information Network Database

The Pacific Coast Joint Venture will take the Hawaii ranking into consideration when they award project funding in March.

IV. USFWS COASTAL GRANTS PROGRAM

The Coastal Wetlands Planning, Protection, and Restoration Act (Section 305, Title III, Public Law 101-646, 16 U.S.C. 3954) established the National Coastal Wetlands Conservation Grant Program to acquire, restore, and enhance wetlands in coastal States through competitive matching grants to State agencies. The primary goal of the National Coastal Wetlands Conservation Grant Program is the long-term conservation of coastal wetland ecosystems.

Three Hawaii Projects were awarded funding this fiscal year:

- a. Pouhala Marsh, Oahu - \$400,000
- b. Nu'u Wetland, Maui - \$1,000,000.00
- c. Mānā Plain, Kauai - \$1,000,000.00

Applications due to the Regional Fish and Wildlife Service (Portland, Oregon) Federal Assistance Office by June 29, 2007, 4:00 pm. To see full RFP visit the below website:

<http://www.grants.gov/search/search.do?oppId=12543&mode=VIEW>

If you have questions regarding the USFWS Coastal Grant program contact Chris Swenson at Chris.Swenson@fws.gov. If you are interested in submitting an application contact Megan Laut at DLNR at Megan.E.Laut@hawaii.gov.

V. RESTORATION PROJECT UPDATES

Oahu Waterbird Survey Maps – Megan Laut, DLNR, DOFAW

Maps for Oahu waterbird survey locations have been developed and are currently available (not to the public) at: <http://www.hawaii.gov/dlnr/waterbirds survey/>. Use the following password and login to access the site:

login: WATERBIRD

password: WBS007

Maps are still in draft form and any corrections should be noted and sent to Megan Laut at DLNR at Megan.E.Laut@hawaii.gov. Once Oahu maps have been finalized, the next step is the development of survey maps for the island of Kauai.

Koloa Hybrid Identification – Kim Uyehara, NRCS/ USGS

The Koloa hybrid identification project is still on going and field testing is scheduled to begin this summer. Managers have helped to contribute additional samples for the genetic portion of the study, and results have been inconclusive to date. It seems that the pure koloa genotype is much more complex than first thought. Dr. John Eadie and Andy Engilis are planning on coming to Hawaii in April to do additional sampling. USGS has provided \$25K in funds to develop a 4 page brochure regarding the threats to Koloa.

Wetland Predator Control – Norma Bustos, DLNR, DOFAW

During the last waterbird survey Norma observed high densities of predators at many state owned wetland areas. Norma expressed concern that the birds in these areas are not able to reproduce due to depredation. She gave an example of a wetland on the North Shore where a farmer has seen moorhen population steadily decrease (18 birds to 4 birds) over the last 17 years. Norma questioned the effectiveness and/or lack of current predator control. She suggested the State seek funds to provide predator control year round, or at the very least, during the breeding season in these wetland areas. It was also suggested that the State work with private landowners interested in assisting the State with these efforts. NRCS WHIP program can provide funding for fences and predator control on state lands. Arleone has used netting over stilt nesting areas, which has proven successful at keeping cattle egrets at bay. Feral cat colonies were discussed and the group agreed that something needs to be done (continuation of discussion from October's seabird management meeting). It was suggested that a special working committee on predator control be coordinated.

Water Quality Monitoring Program – David Penn

Currently the Department of Health has no wetland programs, and no specific water quality standards for wetlands. DOH is in need of baseline data to create water quality standards and maximum daily loads for wetland systems. Currently, DOH administers 401 regulator permit process, which affects near shore waters and wetlands. DOH is interested in assessment methodologies for wetlands in order to create baseline data, which will be used to create standards. DOH will work with Greg Brudland's, EPA wetlands monitoring project to obtain wetland water quality data.

DOH prompted discussion regarding the dredging of Kaelepulu pond (enchanted lake). If dredging were to occur than it may decrease waterbird habitat, though it may improve water quality. However when sediments are disturbed (via dredging), water quality may be degraded temporarily due to the re-suspension of solids and nutrients held in bottom sediments.