



## *hui o ko'olaupoko*

### 2011 Annual Report

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#### *Executive Summary*

Aloha and mahalo for taking the time to read Hui o Ko'olaupoko's (HOK) 2011 Annual Report. HOK's mission is to: *protect ocean health by restoring the 'āina: mauka to makai*. This work is accomplished in three program areas, including:

- *Watershed/ahupua'a restoration and monitoring;*
- *Natural resource coordination/stakeholder involvement; and*
- *Scientific data and information dissemination.*

In 2011, HOK worked on and completed several restoration, education and community-based projects. All these projects have their roots in the organization's three program areas as noted above. HOK's most successful effort involved community volunteer and engagement. Overall, volunteer hours decreased slightly from 2010 to 2011 as HOK moved from a four-hour to a three-hour volunteer event at *He'eia Stream Riparian Restoration*. However, HOK continued to have strong volunteer and community support for all programs offered including education, water quality monitoring, watershed walks, watershed clean-ups and restoration. In 2011, over 1,400 volunteers contributed over 4,400 hours of service to restoration, education and water quality monitoring.

New programs were started in 2011 that will continue to grow in 2012 and beyond. Most notably are the *Native Plant Foster Care Program* and the *Ko'olaupoko Residential Rain Garden Co-op*. The following is a summary of HOK projects worked on in 2011:

- *He'eia Stream Riparian Restoration*
- *Ko'olaupoko Residential Rain Garden Co-op Program*
- *Ko'olaupoko Urban Sub-basin Action Plan*
- *Reef, Rays and Community Science*
- *Waimānalo Community Recycling Day*
- *Snapshot Water Quality Monitoring*
- *Beach Education and Outreach*
- *Pacific Island Watershed Institute*
- *Ka'elepulu Stream Storm Water Retrofit*

HOK continues to strengthen its connection with local businesses in Ko‘olaupoko and island wide. Significant donations and partnerships have been established with local business as well as larger companies throughout O‘ahu. Partners, supporters and volunteers contributed over \$190,000 of in-kind match to the various HOK programs and projects.

We hope this report provides a better understanding of our accomplishments and breadth of our work undertaken to improve watershed health. We look forward to continuing our efforts and reporting to the community about our accomplishments into the future. **Mahalo for your support.**



He'eia Stream Riparian Restoration:

This project entails the removal of invasive species along ±2,000 linear feet of stream and replanting the area with native vegetation. Additionally, erosion control practices are being installed to address the erosion of stream banks. Water quality monitoring is being conducted via a partnership with Hawai'i Pacific University professors and students.

In 2011, He'eia Stream had over 800 volunteers contribute over 2,200 hours of service to riparian restoration. Additionally, over 500 hours were contributed to water quality monitoring from HPU students. In August 2011, HOK held a Homeowners Clean Watershed Workshop educating landowners in He'eia about individual actions they can implement to protect the health of He'eia Stream.



Partners:

This project is a partnership with Hui Ku Maoli Ola and Papahana Kuaola. The project is being funded by the Environmental Protection Agency and Hawai'i Department of Health §319 grant.

Ko'olaupoko Residential Rain Garden Co-op Program

In March 2011, HOK began its *Residential Rain Garden Co-op Program* with the construction of a rain garden at He'eia State Park. HOK is currently writing the *Hawai'i State Residential Rain Garden Manual*. When completed in mid-2012, residents across the State will have the opportunity to construct their own rain gardens to address non-point source pollution and storm water runoff. Additionally, over the course of 2012/13, HOK will work with private landowners to install fifty rain gardens throughout Ko'olaupoko.



Partners:

This project is funded by the Environmental Protection Agency and Hawai'i Department of Health §319 grant. Project partners include Hawai'i Pacific University professors and

students implementing effectiveness monitoring of rain gardens.

#### Ko‘olaupoko Urban Sub-basin Action Plan

Completed in September 2011, the *Ko‘olaupoko Urban Sub-basin Action Plan* assessed opportunities for Low-Impact Retrofits (LIR) in the urban areas of Ko‘olaupoko. The work focused on the business/urban areas of Ko‘olaupoko and identified fifty-three potential projects for LIR implementation to reduce non-point source pollution and storm water runoff. HOK developed new methods for assessing these landscapes to prioritize projects that will have the greatest impact to pollution reduction and provide public education through interpretive signs. The document can be downloaded at: [http://www.huihawaii.org/projects\\_documents/USBAP.pdf](http://www.huihawaii.org/projects_documents/USBAP.pdf)

#### Partners:

The project was funded through a grant from the Harold K. L. Castle Foundation. A major project partner included NOAA’s Pacific Services Center.

#### Reef, Rays and Community Science

This project includes volunteers working with researchers from Hawai‘i Institute of Marine Biology to electronically tag stingrays in Kāne‘ohe Bay and track their movements via an underwater detection system. Real-time data will be uploaded to a website for the community to view the movements of the rays. This will help determine the migration patterns of the rays, habitats being used and provide a link to the community to better understand rays as well as real-world science projects. This project will also help strengthen the community’s understanding between land-based pollution and the impacts to marine life.

#### Partners:

The project was funded through a grant from the Disney Worldwide Conservation Fund. A major project partner includes the Hawai‘i Institute of Marine Biology.

#### Waimānalo Community Recycling Day

HOK and O‘ahu Resource Conservation & Development Council (ORC&D) partnered with Schnitzer Steel Hawai‘i, the City and County of Honolulu and the Hawai‘i Department of Health to host the third annual community-based recycling day for Waimānalo residents. At this annual event, Waimānalo community members have the opportunity to recycle cell phones, computers, batteries, tires, scrap metal and many other items. HOK offers curbside pick-up of bulky items and free towing of unwanted vehicles. Recycling these items reduces the amount of trash going to landfills, and helps protect local streams and Waimānalo Bay. Additionally, students from Hui Mālama o Ke Kai mapped locations in the watershed for trash removal as part of a grant from the Harold K. L. Castle Foundation. This effort allows the event to be more successful and effective at reaching our goal of an extensive watershed cleanup.

The following is a brief summary of the 2011 event and recycled items:

- ✓ 140 volunteers engaged in the cleanup and recycling of items
- ✓ 500 volunteer hours committed to keeping Waimānalo clean and green
- ✓ 19 curbside pickup locations of bulky items

- ✓ 2 roll-off bins of scrap metal, 17,900 Lbs.
- ✓ 3 roll-off bins of trash and bulky items
- ✓ 1,500 Lbs. of phonebooks and magazines
- ✓ 40 bags of household items donated to Goodwill
- ✓ 6 pallets of computers & electronics
- ✓ 80 batteries
- ✓ 102 tires

Partners:

Schnitzer Steel Hawai'i and City and County of Honolulu sponsor Aloha 'Āina Earth Day. Additional partners and sponsors include Hawai'i Department of Health Clean Water Branch, Castle Medical Center, Hawaiian Memorial Park, Waimānalo Agricultural Association, Pioneer, Sweet Home Waimānalo, Keneke's, Nalo Farms, Waimānalo Department of Parks & Recreation, Honolulu Police Department, and volunteers from Job Corps Hawai'i, O'ahu Community Correctional Center, Bank of Hawai'i, Hui Mālama o Ke Kai and individual community members.



Snapshot Water Quality Monitoring

Water Quality Snapshot Days were created as a tool to promote environmental awareness and to help citizens gain first-hand experience in assessing the health of their local watersheds. Easy-to-use test kits enable everyone regardless of age or experience to sample for a core set of water quality parameters including temperature, dissolved oxygen, pH (acidity), and turbidity (clarity).



Data collected at the event is used to create a base line for local water quality and is compared to past events across the State. Participants also learn about ways to improve water quality on their own property. Results can be found at:

<http://www.huihawaii.org/data.html>

HOK hosts four Water Quality Snapshot Days in Ko'olaupoko each year. Locations include Kualoa Beach Park, He'eia State Park, Kailua Beach Park and Waimānalo Beach Park. Additional monitoring & education days in 2011 were also

held in partnership with Hui Malama O Ke Kai and the Kailua Boys & Girls Club.

Partners:

Waikiki Swim Club, Kama'āina Kids, Sweet Home Waimānalo, Windward Watersports.

### Kaha Park Native Plant Garden

HOK continued to mālama *Kaha Park Native Plant Garden* at Kawainui Neighborhood Park in Kailua. The project was completed in 2007 as a way to showcase a selection of native Hawaiian plants homeowners can use in their own landscapes. The Garden has fifteen different native plant species that are cared for by community volunteers and the Women's Community Correctional Center. Kaha Garden plays host each year to an Earth Day activity engaging the community in native plant propagation, rain barrels and Garden maintenance.

#### Partners:

City and County of Honolulu Parks, Lani-Kailua Outdoor Circle and Women's Community Correctional Center.

### Ka'elepulu Stream Storm Water Retrofit

This project will improve 24,000 sq. ft. of an existing parking lot owned by City and County of Honolulu Parks Department adjacent to Ka'elepulu Stream in Kailua to improve the quality of storm water runoff. Pervious pavers will be installed in the parking stalls to initially capture storm water runoff. Additionally, the project will improve over three hundred feet of riparian habitat through the installation of a vegetated bio-swale to capture storm water and allow for infiltration back into the ground before it enters Ka'elepulu Stream.

#### Partners:

The project is funded by grants from the Environmental Protection Agency, Hawai'i Department of Health and the Hawai'i Tourism Authority. Project partners include the City and County of Honolulu Parks Department, Lanikai Elementary Public Charter School and Lani-Kailua Outdoor Circle.

### Beach Education and Outreach

In 2011, with the help of a full time summer intern, HOK created the *Beach Education and Outreach* program located on various Ko'olaupoko beaches to discuss local watershed and water quality issues with residents and tourists. HOK created an education tent consisting of banners presenting HOK's mission, identifying the threats to our streams and oceans, information on marine debris and offshore islands and simple ways to make a difference on an individual level. The intern staffed the education tent multiple times per week and tested different methods to attract beach users via recent water quality data monitoring results, samples of bleached and healthy coral and displaying containers of debris from curbside sweeping. Additionally, data was collected regarding if those interested were local residents or tourist.

#### Partners:

Hawai'i Institute of Marine Biology

### Pacific Island Watershed Institute

From June 13-16 2011, HOK in partnership with the National Oceanic Atmospheric Administration (NOAA) sponsored the *Pacific Island Watershed Institute*. The four-day intensive workshop brought ninety watershed practitioners from Hawai'i and other islands such as Guam, CNMI and Palau together. The workshop focused on elements of effective watershed

plans, assessing urban areas for pollution reduction, riparian restoration, rain garden construction, erosion and sediment control and networking.

Partners:

NOAA, Horsely Witten, Center for Watershed Protection and Kāma‘aina Kids

Volunteers

Community volunteers are a main reason HOK is successful in their programs to directly address water quality problems and ocean health. In 2011, over 1,400 volunteers committed over 4,400 hours of service to restoration, water quality monitoring, education and technical services to HOK (see Chart One). Overall, this averages more than three hours per volunteer per event (see Chart Two). Fifty percent of volunteer efforts in 2011 were focused on He‘eia Stream Riparian Restoration Project; with as many as one-hundred eighty volunteers participating in a single monthly Saturday restoration effort.



Chart One

## Percentage of all volunteer hours HOK: 2011

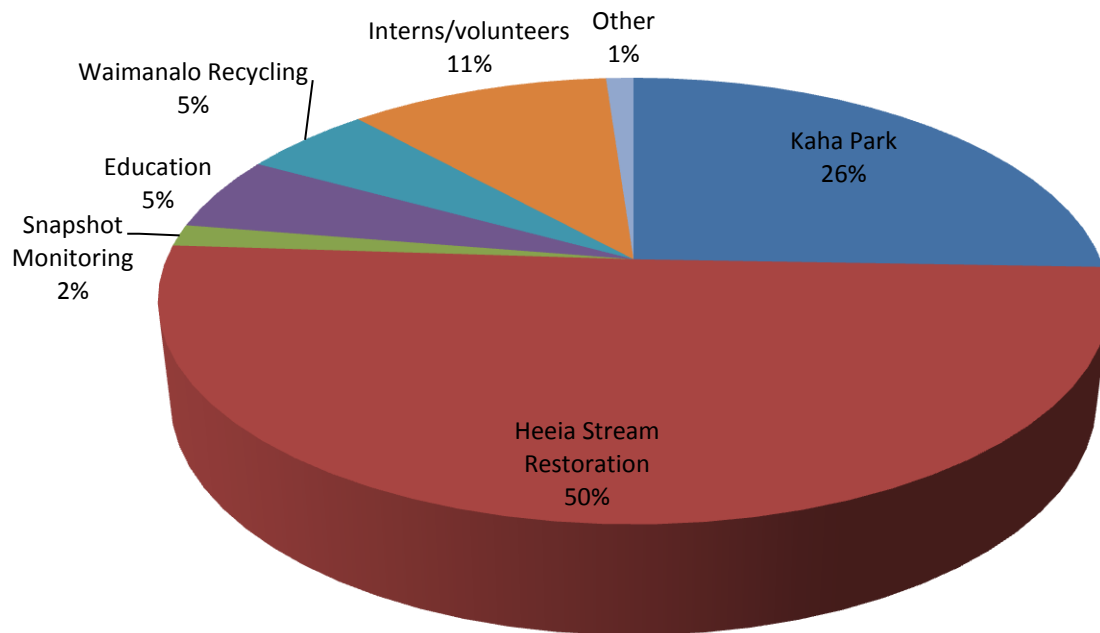
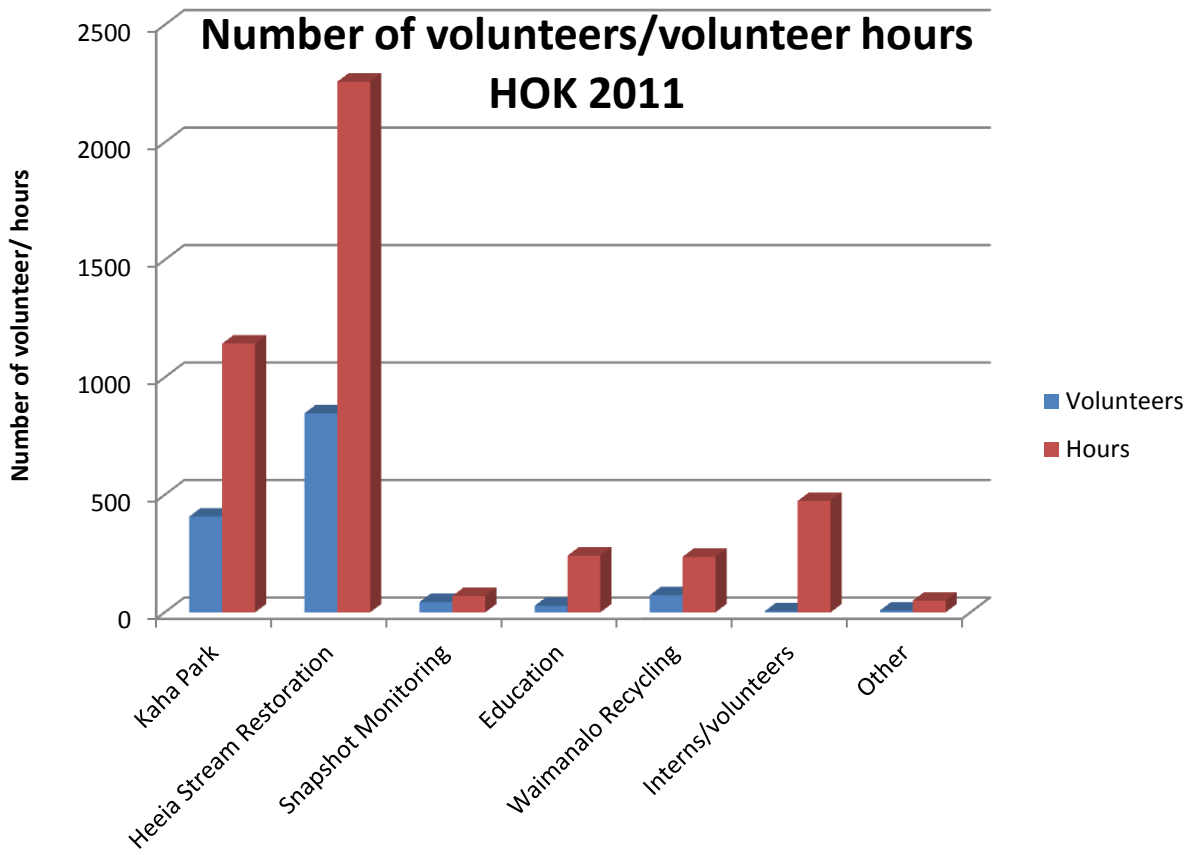




Chart Two

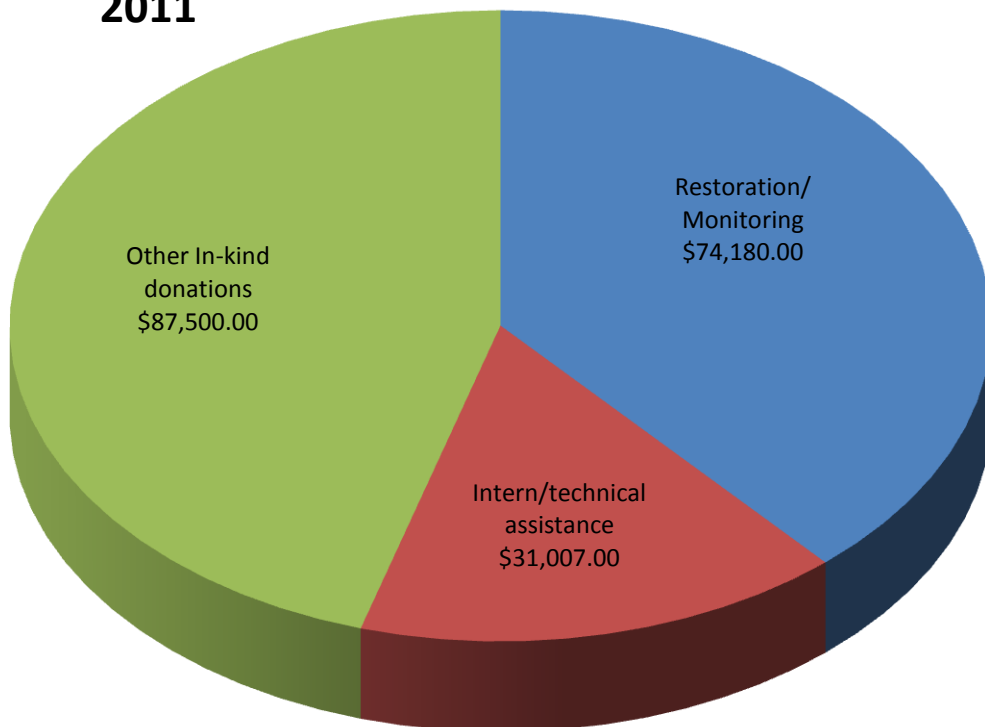


Along with the many volunteers who participated in on-the-ground restoration and education projects, HOK received significant technical support for various projects. Most notably was the Technical Advisory Committee for our *Urban Sub-Basin Action Plan* as well as engineering and hydrology expertise for the Rain Garden Manual.

Volunteers and other in-kind donations to HOK are critical to the organization's success. Chart Three shows a total in-kind value of \$192,687 for 2011. This is calculated by factoring a \$20 per hour rate for volunteers for restoration work and water quality monitoring; technical assistance resources are calculated at an hourly rate consistent with current industry standards for each profession. Additionally, Chart Three shows the value of in-kind product donation such as native plant material and other products from project partners provided to HOK in 2011.

Chart Three

## Total in-kind dollar value 2011



### Funders, Donors and Partnerships

As with the past, HOK received grant funding from a variety of sources for the various projects including:

- Disney Worldwide Conservation Fund
- Environmental Protection Agency
- Harold K. L. Castle Foundation
- Hawai'i Department of Health, Clean Water Branch
- Hawai'i Tourism Authority
- Waikiki Swim Club

## New Projects for 2012 and Beyond

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HOK has secured funding from a variety of sources for new projects in 2012 from federal and private funds. New projects starting in 2012 include the following:

### He‘eia Stream Restoration Phase II

*Environmental Protection Agency/Hawai‘i Department of Health: 319: He‘eia Stream Riparian Restoration: Phase II: **Funding: \$215,526, Match: \$232,238, Total Project Cost: \$447,764.***

This project builds on the success and efforts in He‘eia Stream since December 2009. The work will continue supporting restoration with the help of community volunteers to remove invasive species and plant native vegetation along an additional ±2,000 linear feet of stream corridor. Additionally, Hawai‘i Pacific University will conduct project effectiveness monitoring.

### Hakipu‘u Stream Riparian Restoration

*National Oceanic Atmospheric Administration (NOAA), Hawai‘i Community Foundation and Harold K. L. Castle Foundation: Hakipu‘u Stream Riparian Restoration: **Funding: \$79,530 Match: \$67,500, Total Project Cost: \$147,030***

This project is similar to work being implemented in He‘eia Stream to remove invasive species and plant native vegetation. Additionally, fencing will be erected to keep cattle out of the stream to improve both erosion and stream health. The project is in partnership with Kualoa Ranch.

### Low-Impact Retrofits in Urban Ko‘olaupoko

*Hawai‘i’s Thousand Friends, Our Children’s Earth Foundation and Sierra Club: **Funding: \$230,000***

This project will implement projects prioritized in HOK’s *Ko‘olaupoko Urban Sub-basin Action Plan*. Projects include constructing LIRs at Windward Community College as well as other developed sites to address non-point source pollution and urban runoff. Project planning has started in early 2012 with implementation slated for 2014.

Hui o Ko‘olaupoko looks forward to building the community capacity to directly address watershed health through volunteer restoration projects in 2012 and beyond. HOK plans to implement more restoration projects, conduct additional scientific monitoring and increase opportunities for community volunteers—in an effort to protect ocean health.

Mahalo to all of our funders, members, volunteers, sponsors and advisors who allow this organization to address critical issues in the Ko‘olaupoko community.