

Pelekane watershed restoration project to finish on time, on budget

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Environmental benefits is the focus of the \$2.9 million Pelekane Bay Watershed Restoration Project, but Melora Purell also shed light on economic factors Sunday during the Kawaihae Local Resource Council's monthly meeting.

About 92 percent of this federal money was spent locally. It went toward purchasing soil, nursery and building supplies from Big Island businesses, as well as buying used four-wheel drive vehicles and generating business for mechanics who repaired those vehicles. Money also went toward employing and training 35 people over the course of this 18-month project, said Purell, coordinator of the Kohala Watershed Partnership.

Inside the Hamakua Macadamia Nut Factory, Purell happily reported the Pelekane Bay Watershed Restoration Project will finish "on time and on budget." She called the restoration crew "amazing" and shared the project's accomplishments.

Kohala Watershed Partnership is a voluntary coalition of private landowners and state land managers that formed in 2003 to work cooperatively across property boundaries to manage this forested watershed of Kohala Mountain and protect it from threats. It received \$2.69 million in federal funds through a National Oceanic and Atmospheric Administration coastal restoration grant through the American Recovery and Reinvestment in June 2009, Purell said.

Pelekane Bay Watershed Restoration Project was one of two Hawaii habitat restoration projects selected out of 814 "shovel ready" projects nationwide. Only 50 projects throughout the country were selected to help jump start the economy and restore the environment, Purell said.

Kohala Watershed Partnership used the funds to improve the watershed's condition and to help restore the coral reef habitat of Pelekane Bay, adjacent to Kawaihae Harbor, by reducing land-based sediment inputs into the nearshore environment. Long-planned, the restoration work involved fencing several hundred acres in the watershed to keep out feral goats, sheep and other ungulates that eat native plants and trample plant habitat; improving groundcover; as well as restoring native riparian forest and shrubland. Decades of rampant invasive species growth resulted in significant amounts of sediment settling in Pelekane Bay, once teeming with fish, Purell said.

The work began in August 2009 and was originally expected to be completed in December 2010. However, the completion date was extended to February 2011 because the funding was not awarded until August 2009. The habitat restoration projects that received stimulus funding were given 18 months from the funding award to completion, Purell said.

Because of extended and serious drought conditions affecting the project's outplanting of native plants, Kohala Watershed Partnership received a \$300,000 supplemental grant from NOAA to install a gravity flow irrigation system. Now a 10-mile drip system feeds more than 30 different native species, totaling about 30,000 plants, Purell said.



Workers pound fence posts in January 2010 as part of the Pelekane Bay Watershed Restoration Project. - WHT File Photo

Crews restored 400 acres of native vegetation along 6 miles of stream corridors. They removed invasive species, collected native seeds, tended to plants at the state tree nursery, planted the seedlings and saplings in the field, and watered the plants using water cans prior to the installation of the irrigation system. The survival rate of the outplantings is between 80 and 90 percent, Purell said.

Crews restored eroding sites, such as head-cutting gullies, by installing 13 acres of erosion control fabric embedded with native seeds and constructed 60 sediment check dams in barren areas. Rock, polypropylene cloth and hog wire are used to form the dams, resembling a big burrito, which trap the sediment that is washed downstream during times of heavy rainfall. On average, each dam collects 10 tons of sediment, Purell said.

Construction of 18 miles of fencing -- about 4 feet tall with three strands of barbed wire at the top and a strand flush with the ground, with hog wire in between -- was completed last week. There is now less than 100 goats in the 11,750 acres, which crews plan to track and remove from the area by the end of this month, Purell said.

She also mentioned Kohala Watershed Partnership recently received approximately \$80,000 from the Hawaii Community Foundation to maintain the fencing, employ a three-person crew, plant 5,000 more native plants and construct at least 10 sediment check dams. This funding is expected to last 12 months, she added.

For more information, call Purell at 333-0976 or visit hawp.org/kohala.asp.