

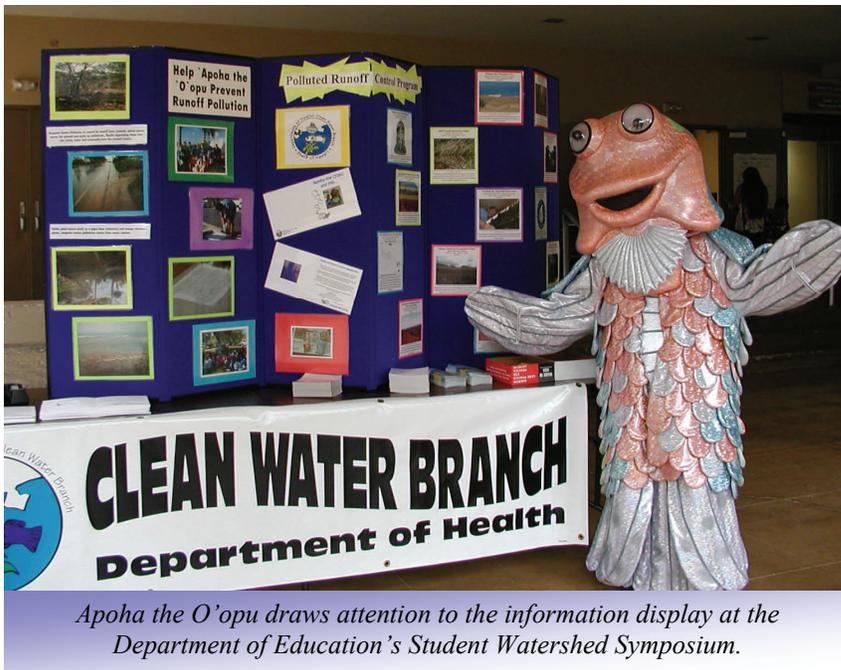
Hawaii's Polluted Runoff Control Program End of Year Report - Fiscal Year 2003



Department of Health Clean Water Branch Polluted Runoff Control

Overview

Nonpoint source pollution is a major cause of water pollution throughout the nation and in Hawaii. Sediment and chemicals running off our agricultural operations and urban developments, eroded stream banks, and the average homeowner washing things down the storm drain all contribute to the polluted runoff problem.



Apoha the O'opu draws attention to the information display at the Department of Education's Student Watershed Symposium.

Each year the Department of Health (DOH), Clean Water Branch (CWB) partners with other government agencies and non government organizations to address nonpoint source pollution. Through the thirty plus contracted projects managed by the Polluted Runoff Control (PRC) Program this year, the State has implemented management measures, demonstrated best management practices, developed and implemented Watershed Based Plans, and provided outreach and education.

October 1, 2002
through
September 30, 2003

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Communities throughout the state face the constant problem of illegal dumping and littering. Projects hoping to restore stream banks and wetland areas to help mitigate erosion often spend hours hauling out trash from their sites. Even after sites are planted with native vegetation, groups must continue to clean up rubbish left by careless others.

Human Resources

Denis Lau, Chief of the Clean Water Branch continues to oversee the program. In July the Program welcomed Brian Hunter to serve as the Program Planner. Brian comes to us with a wealth of experience in the field of planning. He will work closely with the CZM Planner to meet the remaining conditions of the State's Coastal Nonpoint Pollution Control Plan. He will also be working with various groups throughout the state to update the Implementation Plan for Polluted Runoff Control.

The Public Participation Coordinator (PPC), Lawana Collier, has been working with our many partners in an effort to share information on polluted runoff. The PPC is blessed with supportive program staff who make it possible for the program to reach thousands of people through participation in outreach and education events. The Grants Management Specialist (GMS), Colin Tanaka, has again refined the Request for Proposal (RFP) process to make our grant program more appealing to the more nontraditional applicants. His oversight of our project contracts help provide assurance that the 319 funds are being properly and effectively allocated. The Environmental Health Specialist (EHS), Jessica Pepler, continues to visit project sites and work with contractors to complete their scopes of services. She has assisted the CWB Monitoring Section and the contractor hired to develop a statewide strategy for water quality monitoring.

Public Outreach and Education

This year the Program doubled the number of outreach materials distributed and the number of educational events we participated in. Getting information into people's hands is our first step. The more people hear about nonpoint source pollution issues and what they can do to help, the more potential there is for people to change their behaviors to prevent and control polluted runoff. The Program is still looking for opportunities to measure the amount of behavior change we are initiating with our outreach efforts. We believe that over a long period of time we will see behavior change, we will see children learn from our programs and grow up to make environmentally conscious decisions, and then we will see improvement in water quality and reductions in pollutant loads in our water bodies.



High school students from Kamehameha School volunteered to assist in our outreach efforts by taking turns in the Apoha costume at the Office of Hawaiian Affairs Family Event.

The Program continues to participate in the State Farm Fair, the County Fairs and the Keiki Water Festivals to share the message of nonpoint source pollution prevention with the mass public. This year the Program also participated in a new event, the Office of Hawaiian Affairs Family Event, on September 7, 2003. This event drew thousands of people, including masses of native Hawaiians, and we distributed NPS pollution information through our various media. Just in the month of September over 2,000 students, teachers and community members participated in our educational events, not including many other education efforts conducted through 319 funded projects. Many of our partners use our outreach materials in their communities along with watershed specific materials they develop.

Hawaii's Implementation Plan for Polluted Runoff Control, July 2000

This year wraps up the first five year Implementation Plan for Polluted Runoff Control. The State is currently evaluating our success in meeting the goals outlined in the plan. With input from the community and our many partners, we will look at what we've accomplished over the past five years, and where we want to go from here. The Program will work with our partners in developing the next five year Implementation Plan.

Looking at the State's three long term goals identified in the Implementation Plan, we can see that the Program continues to make progress toward these goals each year.

"Ensure that Hawaii's coastal waters are safe and healthy for people, plants, and animals and protect and restore the quality of Hawaii's streams, wetlands, estuaries, and other inland waters for fish and wildlife, recreation, aesthetic enjoyment and other beneficial uses by 2013."

Yet, looking at the measures of success, it is difficult for the program to quantify the amount of progress made toward meeting each goal. For example, one measure of success is a decrease in the number of beach closures due to nonpoint source pollutants. The beaches have not been closed due to nonpoint source pollutants this year, nor in previous years., therefore, this is really not a good measure of success. Another measure of success is evidence of increased knowledge of polluted runoff sources, a ten percent increase in outreach activities and a ten percent increase in the number of volunteers participating in watershed activities or clean ups. The number of people involved in our program's education and outreach activities has doubled within the last year, but this does not necessarily translate into evidence of increased knowledge of polluted runoff sources. One potential measure of our knowledge of nonpoint source pollutants is Total Maximum Daily Loads (TMDLs), and over the past five years we have gone from zero to three completed TMDLs, and should double that number by next year. It will take a great deal of time, money and effort to continue to progress toward our goal.

"Identify impaired water bodies and restore their designated uses through a Statewide approach to watershed management within 15 years."

In 1998, the Hawaii Unified Watershed Assessment identified priority watersheds with impaired waterbodies. The State has used this assessment to guide their use of incremental funding, for the development of what were originally called Watershed Restoration Action Strategies (WRASs), and what are currently identified as Watershed Based Plans (WBPs), and their implementation. The process of gaining the commitment of communities to develop and implement these plans has been slow. Groups are not jumping to the front to lead this effort. EPA's requirements for WBPs is beyond the capacity of most watershed groups, and some of the groups the State worked with to develop WRASs are discouraged by the moving target EPA sets. Success however has come in the form of the various Mountain Watershed Partnerships. These groups primarily consist of land owners and true stewards

of the land. The Department of Health, Clean Water Branch is an Associate Member of the Koolau Mountains Watershed Partnership and our Program is currently funding the implementation of BMPs in the Koolau Mountains Watershed Partnership, the West Maui Mountains Watershed Partnership, and the East Maui Mountains Watershed Partnership. As the State completes the TMDls and the TMDL Implementation Plans, the State will be able to include them in the WBPs and continue our statewide efforts in watershed management.

“Develop and implement economically achievable management measures, as identified in Section 6217 of the Coastal Zone Act Reauthorization Amendments, which are appropriate to Hawaii’s physical, economic, cultural, and social environment by 2013.”

The State worked diligently this year to meet the conditions for approval of the Coastal Non-point Pollution Control Program by the June 2003 deadline. With over a dozen Management Measure conditions still unmet, the Program continues to work with the Coastal Zone Management Program, EPA, and NOAA to prepare the necessary submissions for federal approval. A huge hurdle in the effort is the fact that many conditions, or activities necessary to meet the conditions are out of our control, and therefore we are sometimes working on other agencies’ timeframes. In essence, our urgency to meet deadlines does not mean these activities have the same priority in other agencies.

The AG-2 Management Measure for Erosion and Sediment Control and Grazing was to be met with the development of a State Agricultural BMP Manual based on the NRCS Field Office Technical Guide (FOTG). The Program intended for a student intern to assist in this activity, but, the new State Administration terminated existing student hires and would not authorize future student hires. This delay prompted CZM to offer to complete this activity, yet with an overburdened workload, this task was not the highest priority. Then in December 2002 the NRCS e-FOTG became available to the public on the internet. The State intends to meet with NRCS to determine if their concerns with direct referencing of the FOTG in this Management Measure still exists, or if referencing the NRCS e-FOTG will be appropriate.

The URB-1 Management Measure for Urban Runoff for New Developments may meet federal approval if at least three counties can meet the management measure. Currently only the City and County of Honolulu and Maui County meet the management measure. The County of Hawaii and the County of Kauai are at various stages in updating their County ordinances however they do not meet the management measure. The Program will continue to work with both counties so the management measure is met statewide.

The URB-7 Management Measure for OnSite Disposal Systems requires the State to describe a means to eliminate cesspools over time. The Program worked closely with the Waste Water Branch (WWB) to develop a strategy and schedule that would satisfy this condition. Considering the hundreds of thousands of OSDSs statewide this was an important issue to address, and adding the lack of resources to inspect all OSDSs on a regular basis to look for potential nonpoint source pollution problems,

a reasonable schedule is difficult to determine. The State submitted a draft to EPA and NOAA in September 2003 and received comments. The Program must meet with the WWB to address the comments and will submit a revised draft next quarter.

The EPM-13 Management Measure for Statewide Enforceable Policies and Mechanisms (EPMs) appears to be met now that the current State Attorney General has given the opinion that the State already has existing policies and mechanisms to enforce against nonpoint source pollution. The State is drafting the submission to EPA and NOAA. At the beginning of this fiscal year, the State Attorney General's office was in the opinion that we lacked statewide EPMs and it was necessary to develop rules specific to nonpoint source pollution. In October 2003 we met with the community statewide to present draft rules and receive comments. The State made every best effort to address the comments and redraft the rules. A public hearing was scheduled for June 2003, but was canceled when the new Deputy Director of Environmental Health determined that it would be advantageous to request another opinion from the Attorney General's office. The staff resources expended to draft and redraft rules and take them to the public statewide for comment, and to work to get the rules through the administration was quite extensive.

Current projects are underway to continue to demonstrate best management practices and reduce the pollution in the water. Watershed planning continues in communities where partnerships are coming together to address water quality and runoff issues.



This year twelve 319(h) funded projects were completed. The projects were successful for the most part in achieving their goals. However, results that can be shown in a specific water quality improvement or load reduction is not simple, and the projects will have more long term effects than immediate results.

The Table beginning on page 9 describes the various workplan activities completed during this fiscal year. The Program intends to fund projects received under the August 2003 Request for Proposals, and eliminate the current unobligated FY03 grant funds.



319(h) Projects Completed in FY 2003



Cover Cropping to Reduce Soil Nitrogen, Waialua

Hawaii Farm Bureau Federation, \$40,000

March 21, 2002–September 21, 2003

This project demonstrated the use of barely and oat cover crops as successful and cost-effective best management practices.



Demonstration and Training in Critical Area Stabilization Techniques on Agricultural Roads and Unprotected Waterways, East and West Kauai

Kauai Soil and Water Conservation Districts, \$39, 502

June 29, 1998–September 23, 1999

This project demonstrated the use of locally available materials in developing best management practices for road surface, road drainage, and road bank improvements that will reduce the amount of sediment in runoff.

Examples of best management practices that were installed include, rolling dips, waterbars, drains, roadside ditches, and road crowning. And, although not numerically documented, this project has resulted in the reduced sediment loading of Kuia Stream, Huleia Stream, Nawiliwili Bay, and Glass Beach.



Kalihi Subwatershed Project

Protect the Planet, \$38,500

July 29, 2002–July 29, 2003

This project was able to educate residents and over one hundred x grade students at Kalihi Waena Elementary School about their watershed and nonpoint source pollution. Educational and outreach efforts included, storm drain stenciling, informational canvassing, interviewing community gardeners, and conducting educational workshops for students. This project also restored a 100 foot section of Kalihi stream by removing invasive plant species and replanting with native plant species.



HACD Water Quality Grant

Hawaii Association of Conservation Districts, \$50,000

January 15, 2003–September 30, 2003

For the eleventh year in a row, the HACD sponsored and organized a very successful and dynamic Interagency Water Quality Conference. X people attended, representing State, Federal, and County agencies, the public, private landowners, businesses, and nonprofit organizations.

This year, conference topics included,

319(h) Projects Completed in FY 2003



Sanitary Sewer Overflow Protection

Hawaii Water Environment Association, \$30,000

August 28, 2001–September 30, 2003

This project reduced the amount of pathogens, nutrients, and suspended solids polluting surface and ground waters throughout the state by educating the public about nonpoint source problems associated with sewage spills and improperly maintained on-site disposal systems.

Educational outreach included the development of public service announcements and brochures.



Updating Rainfall Frequency Atlas Maps for Hawaii

University of Hawaii, Department of Meteorology, \$69,683

October 26, 2001–September 25, 2003

By providing the state data to the National Weather Service, this project greatly improved the accuracy of the rainfall frequency atlas for Hawaii. Because of this, more accurate runoff coefficients and pollutant loads can be determined by engineers and scientists statewide.



Heeia Coastal Restoration Project

Friends of Heeia State Park, \$84,000

May 14, 2001–December 31, 2002

This project restored 500 feet of Heeia Stream by removing invasive, non-native mangroves and replanting with non-invasive, native plant species. This project conducted several educational outreach activities, including lectures to the community, clean-up days, presentations to children, and presentations at neighborhood board meetings.

The project also collected baseline water quality data to assess the overall health of the watershed.



Implementing Best Management Practices to Reduce Sediment Runoff

West Maui Soil and Water Conservation District, \$47,000

May 17, 2001–June 30, 2003

This project reduced further degradation of near coastal waters by constructing and enhancing best management practices. The Hawaii Natural Resources Conservation Service estimates that sediment runoff has been reduced by 68% because of the best management practices implemented

on Maui Pineapple Company Land over the past twenty years.

Examples of practices implemented for this project include, grass filter strips, sediment retention basins, reinforced drainage ways, diversions, grassed water ways, culverted crossings, and drainage improvements.

319(h) Projects Completed in FY 2003



Waimanalo Watershed Restoration Corps

Waimanalo Health Center, \$77,333

May 1, 2000—November 15, 2002

This project restored 2000 feet of stream bank within the Waimanalo Watershed by removing invasive plant species and replanting with noninvasive native plants. This restoration stabilized eroding stream banks and caused the stagnant, weed-clogged stream to flow again.



HACD Agricultural Road Stabilization

Hawaii Association of Conservation Districts, \$60,000

September 28, 2001—July 28, 2003

This project demonstrated the use of chemical dust suppressants to mitigate the erosion of roadways and the suppression of fugitive dust production which contribute to sediment pollution in coastal waters.



Nawiliwili Bay Watershed Restoration

Pacific Islands Sustainable Community Ecosystems, \$64,000

June 21, 2001—December 31, 2002

This project successfully installed and monitored 25 storm drain inserts demonstrating their use as best management practices for controlling urban runoff. The project collected baseline water quality data in four streams within the watershed and conducted several educational and outreach activities, including a watershed festival, watershed workshops, and the development of a video.



West Maui SWCD Best Management Practice Improvement on Maui Pineapple Company and Pioneer Mill Company Land

West Maui Soil and Water Conservation District, \$285,000

April 19, 2000—April 30, 2003

This project reduced further degradation of near coastal waters by constructing and enhancing best management practices. The Hawaii Natural Resources Conservation Service estimates that sediment runoff has been reduced by 68% because of the best management practices implemented on Maui Pineapple Company Land over the past twenty years.

Examples of practices implemented for this project include, reinforced road drains, sediment retention basins, and reinforced ford river crossings.



Table of Workplan Activities For FY 03