State of Hawaii, Department of Health, Clean Water Branch

Hawaii's Polluted Runoff Control Program
End of Year Report
Fiscal Year 2004

October 1, 2003—September 30, 2004

Overview

In the East Maui mountains, fencing helps prevent ungulates from increasing erosion and polluted runoff.

Nonpoint source pollution in Hawaii occurs throughout our watersheds. In the upper forested conservation lands there is erosion and sediment runoff occurring due to natural causes and ungulates such as wild pigs and goats. In agricultural areas, especially where land is changing from large plantations to smaller diversified ag operations, land owners are looking for cover crops to keep topsoil in place while the land is fallow. In urban areas, illegal dumping, and trash or non storm water materials going down the storm drains is a constant polluted runoff issue.

The State's Polluted Runoff Control Program addresses these issues with the assistance of Federal Clean Water Act Section 319(h) grant funds from the United States Environmental Protection Agency. Currently the program has six grants, from FY1999 through FY2004, totaling approximately $10,000,000. Funds support staff to implement the program and on the ground demonstration projects to address nonpoint source pollution. On average the program oversees 35—40 projects, including stream bank restoration, best management practices on agricultural land, watershed based planning, and polluted runoff education.

Illegal dumping is one of Hawaii's biggest issues affecting our waterways.

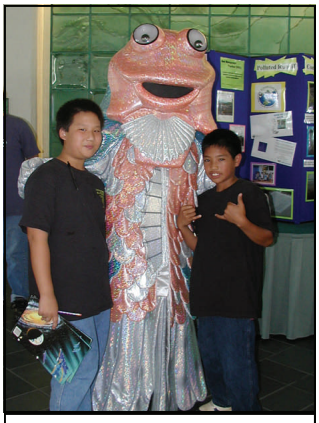
Measuring Our Success

In July 2000, the State of Hawaii published "Hawaii's Implementation Plan for Polluted Runoff Control" (Implementation Plan), outlining the State's goals, how we would reach those goals, and how we would measure our success along the way. Progress in some areas has been exceptional, while other areas have struggled to slowly move forward. The State will update this plan over the next year and revisit our goals and milestones, in an effort to not only address the nonpoint source issues throughout the state, but to also be able to demonstrate our success with quantitative results.

More Measures Of Success

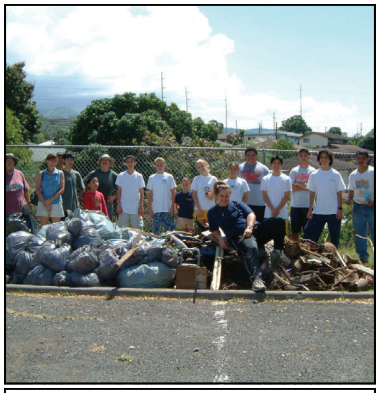
Within the Polluted Runoff Control Program we have achieved specific objectives identified in our work plan that are tied to goals outlined in the Implementation Plan. One of our measures of success is *evidence of increased knowledge of polluted runoff sources* among targeted groups. This is achieved in part through our Student Watershed Symposium project with the Department of Education, where 750 students from 4 different schools, came together with 12 different agencies for one full day of nonpoint source pollution presentations and discussions. Approximately 250 students went from having little or no knowledge of nonpoint source pollution to presenting research projects, reports, displays and public service announcements on the subject to their peers for evaluation. The Kalihi Community Resource Improvement Stream Project also worked with school children to increase the awareness of NPS issues through the development and distribution of a coloring book specifically written for the Kalihi watershed. Their success is evidenced in the increased number of students able to identify NPS problems in Kalihi and potential solutions, and the increased participation in community stream clean up and restoration events. Targeting the agricultural producer, the University of Hawaii's Comprehensive Nutrient Management Plan (CNMP) workshops have assisted growers or producers to develop their own CNMP. This project invited 14 dairy producers, 10 beef producers, 16 poultry producers, 85 swine producers and 9 slaughter operators, and a total of 47 attended the workshops. It is somewhat difficult to entice agriculture producers to attend these workshops on a voluntary basis, however, the people that did attend were able to take advantage of the University of Hawaii Cooperative Extension Agents and the USDA Natural Resource Conservation Service staff's knowledge, experience and assistance in developing their CNMP.

It is more difficult to measure the success of our efforts in the general community. Some 319 projects have attempted to do pre surveys to measure the level of NPS knowledge within their community and then after they make presentations and involve people in their project, they conduct post surveys to measure the effectiveness of their outreach efforts. Although an increase in knowledge is always measured, the percentage of participants in both the pre and post surveys is low. At various community events, the State attempts to distribute information to a vast majority in anticipation that there will be an increase in knowledge and awareness in the general public, however, actual numbers and measurements of increased knowledge are difficult to report. What we do expect is that as we continue to distribute information and involve people in various 319 projects, we will see changes in attitude and behavior over time. And as a state it would be fair to say that we have met and likely surpassed our goal of a ten percent increase in the number of participants in polluted runoff outreach activities, and a ten percent



Student presenters say hello to Apoha the O'opu, our NPS mascot, at the 2004 Watershed Symposium held at the Hawaii Convention Center.

" . . . As we continue to distribute information and involve people . . . We will see changes in attitude and behavior over time."



Tons of trash removed at one stream clean up in Kalihi.

More Measures Of Success

increase in the number of volunteers participating in watershed activities or community clean up events.

Another measure of success identified in the Implementation Plan is *measurable improvements in coral reef ecosystem health in areas with increased nonpoint source pollution controls*. In West Maui, millions of dollars, both public and private, have been spent on implementing best management practices (BMPS) in the upper watershed, in order to abate nonpoint source pollution and protect and improve the coral reef ecosystem below. 319 funded projects in the area however, can only estimate the amount of sediment contained in their retention basins or the amount of runoff deterred by BMPS and are not able to tell us if the coral reef ecosystems have improved as a result of the BMPS. Monitoring of the coral reef health has not been part of the 319 projects however, the Land Based Pollution Threats to Coral Reefs Steering Committee has developed a Local Action Strategy and are looking at potential projects and issues in the area.

West Maui coral reefs are still vulnerable to the sediment runoff during heavy rains. Can additional bmps prevent this runoff?

A few measures of success involve water quality monitoring, such as, *increase in water quality data collected in priority watersheds*. This has occurred as more TMDLs get underway. This year TMDL work has taken place in Hilo Bay Watershed (Waiakea and Alenaio streams), Pearl Harbor Watershed (Halawa, Aiea, Kalauao, Waimalu, Waiawa, Waimano, Kapakahi, Waikele, Kipapa, and Honouliuli streams), Kailua Bay Watershed (Kapaa Stream and Kaelepulu Stream System), Kaneohe Bay Watershed (Kawa, Kaneohe, and Kamooalii streams), Nawiliwili Bay Watershed (Nawiliwili, Puali, Papakolea, and Huleia streams), and Hanalei Bay Watershed (Hanalei Stream System).

Stream Restoration projects begin the implementation of the Waimanalo TMDL Implementation Plan.

Other measures of success focus on the *number of projects implemented in water quality limited segments under Watershed Restoration Action Strategies*. Related to this are two program measures for the State NPS Program, identified in the EPA Strategic Plan; *Number of watershed-based **plans** (and water miles/acres covered), supported under State NPS Management Programs since the beginning of FY 2002 that have been **substantially implemented**; and the number of watershed-based **plans** (and water miles/acres covered), supported under State NPS Management Programs since the beginning of FY 2002 that have been **developed** and the number of watershed-based plans (and water miles/acres covered) where watershed based plans are **being implemented***. The State currently has no Watershed Based Plan that meets the nine elements required by EPA, and therefore has no plan that is substantially implemented. Previously funded Watershed Restoration Action Strategies must be updated to meet Watershed Based Plan requirements in order to qualify for funding for implementation. The following Watershed Based Plans are being developed

"Previously funded Watershed Restoration Action Strategies must be updated to meet Watershed Based Plan requirements in order to qualify for funding for implementation."

More Measures Of Success

and supported by the State NPS program; Hanapepe, Maui; Hilo Bay, Big Island; Kapakahi, Oahu; Koolaupoko, Oahu; Nawiliwili, Kauai; and South Molokai. These plans will be completed over the next two years.

A few measures of success are tied to the Coastal Nonpoint Pollution Control Program (CNPCP), the most significant being *an approved CNPCP for Hawaii*. The Department of Health and Office of Planning have worked diligently with EPA and NOAA to meet the conditions of the program's approval, however, it has been a long and tedious task. The State intends to have all necessary documents submitted to EPA and NOAA by the end of the year. Significant milestones reached this year include an agreement from EPA and NOAA that an Attorney General's Opinion dated September 8, 2003, is an official opinion and provides enforcement authority. The Alternative Nutrient Management Measure was submitted to EPA and NOAA with follow up via a conference call with technical experts to address EPA and NOAA concerns. The State is waiting for an official response from EPA and NOAA. A strategy to address the management measure for On Site Disposal Systems (OSDSs) was developed and revised with input from the DOH Wastewater Branch. DOH had discussions with the University of Hawaii to possibly assist in developing a database of current OSDSs. DOH would then use the database to implement the strategy required under CZARA to inspect OSDSs statewide. Dialogue between all parties involved continues.

Watershed Based Plans

The following WBPs are being developed to meet EPA's 9 key elements.

- *Hanapepe, Maui*
- *Hilo Bay, Big Island*
- *Kapakahi, Oahu*
- *Koolaupoko, Oahu*
- *Nawiliwili, Kauai*
- *South Molokai*

319 Project Highlight

The Waimanalo Stream Restoration and TMDL Implementation Project conducted by the University of Hawaii Pacific Biomedical Research Center was completed in June 2004. 750 feet of stream was cleared. Some areas were revegetated with sedges and coir logs, some were still being revegetated at the end of the project, and some had a bare toe section. Major community clean ups were conducted, with one particular clean up resulting in 40 bags of trash and some miscellaneous large objects being removed. Outreach and education took place in the form of a Keiki Water Festival for 300 Waimanalo fourth, fifth and sixth grade students, 99 streamside residents were sent information offering assistance in clearing clogged waterways along their property, 150 copies of "Plants to Control Stream Bank Erosion" were distributed, and sinage, banners and murals were posted in the community to raise the awareness of the project and nonpoint source pollution.

Stream banks revegetated with sedges and coir logs.

Program Human Resources

Currently the Program is staffed with a Public Participation Coordinator, Lawana Collier, a Grants Management Specialist, Colin Tanaka, and a Planner, Brian Hunter. The Program's Environmental Health Specialist left the program in June and has not yet been replaced. The lack of an Environmental Health Specialist leaves the Program with a need for outside technical assistance in reviewing monitoring plans and evaluating certain project proposals. The State will conduct interviews for the EHS position during the first week of October, and hopes to have the position filled before the end of the calendar year.

PRC staff conduct annual site visits to 319 projects.

Request for Proposals

Finding qualified projects, qualified contractors, and non-federal match has been a hurdle for the State. This year the Request for Proposals was issued in May 2004. Nine proposals were received, and six have been selected for funding. The State had hoped to receive more proposals, and specifically proposals to develop Watershed Based Plans (WBPs). Two of the six projects will develop WBPs. Each year the State revises the Request for Proposals to try to encourage applications from a larger number of organizations, however, it appears there are not as many qualified projects from qualified contractors willing to provide a dollar for dollar match or in-kind service, as we need. The State will talk with some of our agency partners and community groups to find out how we can be more effective in getting the 319 funding working on the ground to address Hawaii's nonpoint source problems.

What is the State looking for?

Qualified projects.
Qualified contractors.
Non-Federal match.

Outreach and Education

The Clean Water Branch (CWB) Monitoring Supervisor, Watson Okubo, volunteered as Site Coordinator for Ala Moana Beach Park, in this year's National Get the Drift and Bag It/Public Lands Day Event. DOH Deputy Director, Larry Lau, Clean Water Branch Chief, Denis Lau, and about a dozen more CWB staff and their families came to clean up the beach, joined by five girl scout troops and 60 Honolulu Police Department recruits. 300 volunteers removed an estimated 6 tons of trash from sites including the Ala Moana Beach, the Magic Island "rock wall", Ala Wai Small Boat Harbor, Ala Wai Canal, Hawaii Convention Center and the Fort Derussy berm. The largest amount of any one type of trash picked up that day was 5,000 cigarette butts.

Picking up the trash on the beach keeps it out of our ocean.

Outreach and Education continued

Other outreach events this year included the Waipahu Keiki Water Festival, Watershed Model Contest for Make a Difference Day, Stream Fair in Koolaupoko, Hawaii Water Environment Association Conference, Student Watershed Symposium, Makiki Stream Day, Earth Day events on Oahu, Kauai, and Molokai, Heeia Family Day, Kalihi Stream Day, the State Farm Fair, presentations at pre-schools, elementary schools, and universities, and also a presentation at a "Pre-RFP Technical Assistance Workshop". Along with the many actual appearances and presentations the program makes, we also provide our nonpoint source outreach materials (coloring books, brochures, pencils, stickers, posters, and t-shirts) for other water related events or to classrooms studying related subjects.

Over the years the program has found greater success in talking to the community through students. When a presentation is done at a school, the children take home the materials and our message and share it with their families. Parents are more likely to listen to what their child learned at school, and less likely to read a brochure or handout sent directly to them in the mail.

CWB partners with Windward Oahu Soil & Water Conservation District at the Koolaupoko Stream Fair.

The State recently contracted a group to help expand an existing program to include nonpoint source education and go into elementary schools statewide. Using songs to teach kids about NPS pollution is fun and effective.

What did we distribute?

4,000 pencils
755 stickers
3,500 brochures
300 posters
4,450 coloring books
1,200 Apoha picture frames with polaroid picture
1,250 Activity sheets
225 NPS shirts

Appendix A , on the following five pages describes the Program's activities and workplan accomplishments for FY20004.

Appendix B, describes ongoing 319 projects.

Native plants like this help cover the bare land on Kahoolawe and prevent soil runoff.

APPENDIX A

Activities and accomplishments of the program during fiscal year 2004.

Management of Ongoing CWA Section 319(h) Grants

FY99 April 2004, Grant Extended to December 31, 2005

FY00 September 2004, Requested Grant Extension to December 31, 2005, and workplan revisions to include three projects not previously listed in the approved workplan

FY01 September 2004, Requested Grant Extension to December 31, 2006, and workplan revisions to include four projects not previously listed in the approved workplan, and to remove two projects no longer being funded under this grant.

FY02 September 2004, Requested Grant Extension to December 31, 2007, and workplan revisions to include seven projects not previously listed in the approved workplan, and to remove two projects no longer being funded under this grant.

FY03 June 2004, Grant amended to increase funds by $826,833, including $772,700 in incremental funds, $23,646 carried over from the FY96 Grant, and $30,487 carried over from the FY97 Grant, and extend the Grant to December 31, 2008

FY04 August 2004, Grant was awarded to DOH

SRF Loans

SRF Loan Officer retired. PPC will meet with new Loan Officer when hired.

Management of Ongoing CWA Section 319(h) Projects

First Quarter:

Conducted five (5) site visits. Held meetings with seven (7) contractors.

Second Quarter:

Conducted four (4) site visits. Held thirteen (13) meetings with contractors.

Third Quarter:

Conducted seven (7) site visits. Held nineteen (19) meetings with contractors.

Fourth Quarter:

Conducted seven (7) site visits. Held meetings with five (5) contractors.

Request for Proposals No. CWB-PRC 04-01

October 2003	Evaluation Committee met with ten (10) Priority Listed Offerors to discuss sub mittal of Best and Final offers
November 2003	Received nine (9) Best and Final Offers (1 Best and Final received after the deadline)
December 2003	Nine (9) Offerors notified that their project was selected for award
January 2004	Two (2) proposals were removed from consideration for various legal reasons
March 2004	1 contract executed
April 2004	3 contracts executed
May 2004	2 contracts executed
June 2004	1 contract executed (delayed due to resolution of EPA concerns)

Request for Proposals No. CWB-PRC 04-03

May 2004	Published Request for Proposals
	Mailed 425 letters to potential applicants
	Posted Request for Proposals to email lists
June 2004	Received 9 proposals
	Evaluation Committee (Lawana Collier (CWB-PRC), Brian Hunter (CWB-PRC), Watson Okubo (CWB-Monitoring), Hudson Minsheew (NRCS)) completed review
July 2004	Met with applicants to discuss best and final offers
	Received 6 Best and Final Offers
August 2004	Selected 6 proposals to be awarded, 3 not selected
September 2004	Notified contractors of selection and non-selection. Two proposals were questionable as to their qualification for 319 funding. DOH discussed issues with EPA and concluded that both projects were eligible for funding and would be awarded contracts.

Contract Development

13 Contracts Executed

14 Contract Modifications Executed

Monitoring

November 2003 CWB Monitoring staff collected water quality samples in Waimanalo, Waimea, Hanapepe, Kalihi, Kihei, and Pelekane Bay near 319 project sites. Data was collected, analyzed, and sent to 319 Project Managers and also entered into STORET.

December 2003 EHS worked on Monitoring Strategy and provided comments on the DOH Monitoring Strategy to the contractor.

Water quality monitoring is conducted under some of the 319 projects and will be reported when those projects submit final reports. The PRC program does not conduct any water quality monitoring, and the CWB Monitoring staff priority is beach monitoring and monitoring to assist in TMDLs.

Meeting Conditions for Approval of Hawaii's CNPCP

Nutrient MM submitted to EPA/NOAA in December 2003. Received comments. Held conference call with technical experts. Draft Final sent to EPA/NOAA in July 2004. State waiting for response from EPA/NOAA.

OSDS MM submitted to EPA/NOAA in January 2004. Comments received in March 2004. Conference calls held in June and July 2004. State response to EPA/NOAA comments sent in October 2004.

Update Hawaii's Implementation Plan for Polluted Runoff Control

Per the direction of EPA, the update of the Implementation Plan remains a secondary priority to the approval of the CNPCP. State continues to seek public input related to the plan. Coastal Zone Management Program will contract a consultant to assist in the update beginning November 2004.

Watershed Based Management

Meetings held for the following specific watersheds: Koolaupoko, Hilo Bay, Nawiliwili, South Molokai and Kaelepulu.

Staff attended various watershed symposiums, seminars, and meetings with other agencies to discuss potential watershed based management efforts.

Specifically requested proposals to develop Watershed Based Plans under RFP No. CWB-PRC 04-03.

Committee Participation

- *Coral Reef Land Based Pollution Committee:* a collaborative planning process between the USGS, EPA, USDA-NRCS, NOAA, US FWS, DLNR, DOH, and CZM to develop and implement a strategy that includes overall goals, objectives, and measures of success for Hawaii's Local Action Strategy for priority areas of Hanalei, Honolua, and South Molokai.

- *NPS Outreach Committee*: conference calls conducted monthly with EPA and States nationwide to discuss nps outreach at the national level and state level, share ideas for improved outreach and increased use of nps educational materials

- *Conservation Funders Group:* interagency group meets every other month to coordinate information and action on conservation funding opportunities and projects. Local , state and federal agency representation.

- *TMDL Working Group:* group meets at least quarterly to discuss progress of current TMDL development and potential future TMDL work, PRC program participates to both learn and share information on areas where TMDL and 319 projects overlap

- *State Technical Committee:* coordinated by NRCS, the committee meets quarterly to discuss USDA-NRCS programs in the state, provides an opportunity for PRC program to look for projects that may overlap between the Farm Bill objectives and 319 objectives

- *State Livestock Nutrient Management Committee:* coordinated by HACD, the committee meets to discuss issues surrounding livestock nutrient management

- *HACD Water Quality Committee:* committee assists HACD in planning the annual Water Quality Conference

- *State NPS Technical Committee:* quarterly meetings held in conjunction with HACD meetings, committee provides feedback to PRC program on current nps activities and issues

- *South Molokai Watershed Advisory Group:* PRC program participates as needed to assist group in development of a Watershed Based Plan for South Molokai

Public Participation and Outreach

Participated in nineteen (19) major outreach events statewide.

Materials distributed:

4,000	pencils
755	stickers
3,500	brochures
300	posters
4,450	coloring books
1,200	Apoha picture frames with poloroid picture
1,250	activity sheets
225	NPS t-shirts

Training

- NPS Information & Education Conference in Chicago
- NOAA presentation on mapping
- GRTS Training in San Francisco
- "Fostering Sustainable Behavior" workshop
- Watershed Management Seminar
- Organize and attend Clean Water Act Training for the State
- Presentation on "flock logs" and nps pollution
- Drug & Alcohol Supervisor Training
- Erosion & Sediment Control Workshop
- Communications and Media Training
- NOAA Project Design & Evaluation Workshop
- QA/QC Training
- Risk Communication Workshop
- Performance Appraisal System Training
- Data Quality Objectives Training
- Stream Restoration Workshop