

Clean Water Branch- Polluted Runoff Control Program

Quarterly Status Reporting Form
Clean Water Act 319(h) NPS Implementation Program

Quarterly Status Reports are required per contract terms. If no work was done during the reporting period, the CONTRACTOR must provide an explanation of the circumstances.

This Quarterly Status Report is for the period indicated below (**check only one and insert year**):

- ☐ January 1 – March 31, _____ (Due April 15th)
☐ April 1- June 30, _____ (Due July 15th)
☒ July 1 – September 30, 2017 (Due October 15th)
☐ October 1 – December 31, _____ (Due January 15th)

Project Title: MANOA WATERSHED IMPROVEMENT PROJECT

Project Start/Completion Date: June 5, 2014 – June 30, 2018

Estimated % of Project Completed: 95%

Estimated % of Grant Funds Previously Requested: 99.9%

Quarterly Status Report Number: 13

Name, telephone number, and e-mail of person to be contacted for questions regarding this report: Karen Ah Mai, phone: 808-732-7321, email: ahmai@hawaii.rr.com

Please provide the following information for this reporting period. Additional sheets may be attached:

1. Progress/tasks started and/or completed as defined in the Contract's Scope of Services during **current** reporting period.

A. Summary of work completed (list all tasks and deliverables)

Task/Deliverable	Due Date	Date Task Completed/ Deliverable Submitted
Press Release	11/1/17	
Second community meeting		7/29/17
Second Riparian Restoration Workshop	10/14/17	10/14/17

B. GRTS Load Reductions: no action yet.

	Estimated Load Reduction
Nitrogen (lbs/yr)	
Phosphorus (lbs/yr)	
Sediment (tons/yr)	

C. Narrative Progress Report

Most of the work this quarter was along Waihi stream. Over 500' on the west bank and 600' on the east bank were cleared to create 30' wide corridors to install streambank and riparian buffer plants. Once the corridors were cleared, there was sufficient sunlight for the plants to survive.

Volunteers planted most of the west bank of Waihi with ahu'awa. Hawaii 5-0 was filming on site and during their presence, they moved an estimated 2,700 plants positioned near the stream access points for planting. After the move, 775 plants were found, only about 300 useable; 1,925 plants 'disappeared.' We are in discussions with them about replacing them. This has caused severe logistics problems as we were arranging volunteer teams to plant them. Without plants, we had to cancel the volunteer days.

Test planting of pohinahina and ilie'e as buffer species was done earlier in the summer along Kamoawa'a Stream. The pohinahina is slowly growing but the ilie'e is not as robust and we will not be using it in future plantings. Installation along Waihi will take place in early fall. Continuous maintenance is required for all areas previously planted.

We have installed a total of 6 sets of trail stairs for stream access. We plan 3 more at critical locations.

We did an overhead drone flight to document the condition of the canopy along both streams after the major clearing. This will be compared to Google maps to see the project's riparian improvement progress.

Major power tool work is almost complete - only one section remains and that is dependent on scheduling of equipment and manpower. Most of the grounds are ready for volunteers.

The second community meeting was held July 29, 2017. Community members and those with an interest in the Ala Wai watershed were invited to a walk-through of the project site, where background, purpose, and improvements were featured. Several contacts for future volunteer efforts were made.

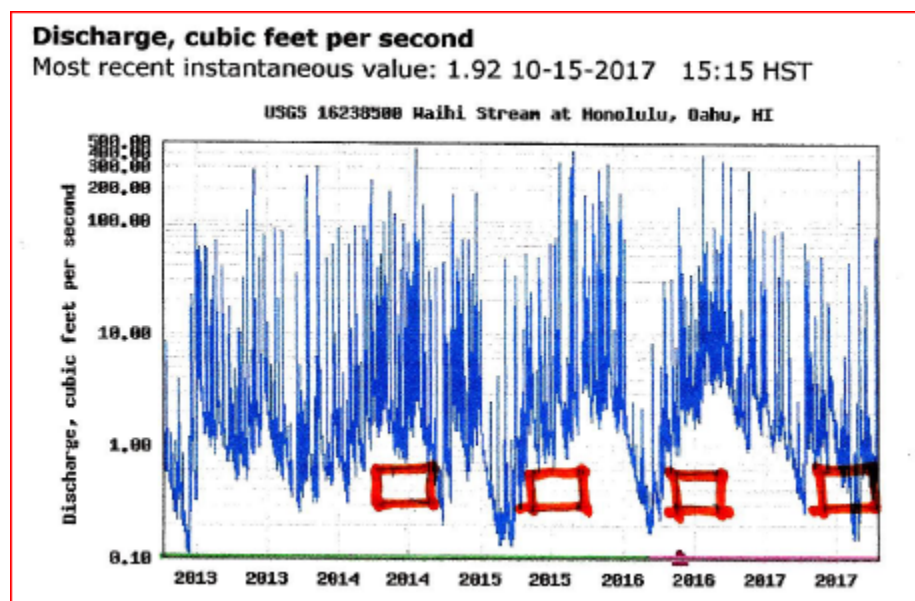
The volunteer program is critical to maintenance and monitoring. Maryknoll school has dedicated their environmental program to the Ala Wai watershed, with the focus on sediment reduction in the Ala Wai canal. View Maryknoll's video at: <https://www.youtube.com/watch?v=IrlKDEIkPaw&feature=youtu.be> Their 1,500 students, plus faculty, Board, and parents will be active in this on-going effort. Publicity in the Honolulu Star Advertiser (see attachment) also resulted in many calls from the general public to participate in AWWA field events.

2. Description of any major issues/problems encountered and/or resolved that may affect the CONTRACTOR's ability to complete the project as required (i.e., weather, personnel, equipment, etc.). If there is a change in the project timeline or budget, provide an explanation, revised timeline, budget, and completion schedule. (Please note that no-cost extensions must be applied for through the Department, and will only be granted when the CONTRACTOR has demonstrated unforeseeable setbacks.)

A. Missing plants – described above. This is not expected to affect the project in the long run.

3. Description of any significant findings, results, or conclusions. If none, please indicate so.

A. Weather Conditions: Streamflow



Ground preparation and planting window: May-September, just before rainy season. Orange boxes are the windows. USGS data shows that in 2014, 2015, and 2016, the water

level in Waihi stream was far above safety and operational conditions. 2017 is the first year since 2013 that the water levels were low enough to do substantial streambank work.

B. Weather Conditions: Effect of Dry Spring and Summer

We informally asked earlier if certain parts of Waihi Stream could be eliminated from the planned riparian improvements because of dangerous conditions caused by falling large albizia branches. This area is in the albizia forest section of the stream. Resources planned for this area were re-directed to canopy reduction in other areas to minimize the danger from falling branches of other trees. The dry spring and summer appears to have increased the brittleness of branches as well as reducing our supply of plants from other sites. See attachment for details on the albizia problem.

4. Based on the Scope of Services, a description of tasks expected to be completed in the next reporting period.

- Host the third Community meeting.
- Submit final monitoring plan
- Begin sediment monitoring

Summary of expenditures and in-kind contributions previously requested in comparison with the Contract's project budget and remaining funds. The summary must be actual cumulative amounts for each line item (i.e., personnel services, travel, operating expenses, equipment acquisition, construction materials, other, etc.) current as of this quarterly status report. Please see the example on Page 4 if necessary.

Grant Funds

No.	Description	Original Contract Amount	Contract Amounts from Preceding QSR	Expenditures during this Quarterly Reporting Period	Current Contract Amount (Remaining Funds)
A.	Personnel Services	\$166,400.00	\$125,864.35	32,686.25	7,849.40
B.	Travel	\$1,650.00	1,302.01	1,586.79	-1,238.80
C.	Operating Expenses	\$13,410.00	7,040.23	6,732.04	-362.27
D.	Equipment	\$2,000.00	479.95		1,520.05
E.	Professional Services	\$50,000.00	37,300.00	46,705.00	-34,005.00
F.	Construction Materials and Supplies	\$42,010.00	16,183.63	7,334.51	23,072.04
G.	Other Misc. Expenses	\$22,742.00	11,856.59	2,754.33	8,131.08
TOTALS		\$298,212.00	200,379.28	97,798.92	33.80

In-Kind Contributions (Matching Funds)

No.	Description	Original Contribution Amounts	Contribution Amounts from Preceding QSR	Contributions during this Quarterly Reporting Period	Current Contribution Amount
A.	Personnel Services	\$ 75,000.00	31,399.26	4,522.50	39,078.24
B.	Travel	\$			
C.	Operating Expenses	\$	666.00	1,062.00	-1,728.00
D.	Equipment	\$	1,529.90		-1,529.90
E.	Professional Services	\$	3,000.00		-3,000.00
F.	Construction Materials and Supplies	\$	2,021.00		-2,021.00
G.	Other Misc. Expenses	\$	\$ 0	0	0
TOTALS		\$75,000.00	\$38,616.16	\$5,584.50	\$30,799.34

Albizia Threat on Waihi Stream



[1] fallen albizia in B-3 (February) is leaning more precariously as branches decay, right across from planned stream entry.



[2] fallen albizia branch right next to entry to B-2 area; about 4' high and 40' horizontally.



[3] Area B-2, B-3, and B-4: streambank root structures of albizia trees, contributing to falling trees. The stream has undercut the ground below and trees are susceptible to falling at any time.



[4] Stream shot of B-4. This area was later cleared of movable branches in early July 2017. In the background is the dam, since cleared, built up by fallen branches.



[5] Close up of dam; person on left is holding up a 4' marker.



[6] Close up of size of trees/branches in [4]. Note legs of stream worker standing behind logs, giving an idea of how large they are. While we have removed the smaller branches, these are beyond our capacity to cut and move. Tree trimmers have also expressed hesitation on cost of removal since they cannot get excavators into the site.



[7] Albizia leaning across Waihi stream from west bank, supported only by branches of a tree on the opposite bank. Fall is imminent. Tree is right next to the stream entry in [8].



[8] Entry in B-4 to Waihi Stream, view from stream.

[9] Entry path to B-4 to Waihi Stream, view from forest along Kamoawaa Stream. A tree fell, completely blocking entry path, less than 2 weeks after crews cleaned Area B-4 of movable branches and dams.



[10] View from residential area below forest.

Circled: skeletons of dead albizia trees with branches continuously falling off. These are within reach of the stream.

Line: approximate path of Waihi Stream through the albizia forest.

Hawaii News

Cleanup of Ala Wai has start in Manoa

By [Allison Schaefer](#)s

Posted August 06, 2017

August 6, 2017



JAMM AQUINO / JAQUINO@STARADVERTISER.COM

Volunteer Frank Dietsch looks at a felled albizia branch in Manoa. The Ala Wai Watershed Association is working with several organizations and Paradise Park's owners, Warren and Napua Wong, to remove fast-growing plants and overhanging trees to shore up crumbling banks at the two streams in the area with the aid of a \$298,000 grant from the state DOH.

Fast-growing invasive plants are taking over Manoa's shuttered Paradise Park, contributing to the stream bank erosion in the Ala Wai Watershed, which sends 995 tons of sediment annually to the Ala Wai Canal.

But the Ala Wai Watershed Association is on a mission to get to the root of the problem, literally. They've joined with Paradise Park's owners, Warren and Napua Wong, and several organizations to remove invasives and plant native Hawaiian plants to shore up the crumbling banks at the two streams that wind through the site.

Thanks to volunteer labor and a \$298,000 grant from the state Department of Health, they've removed large albizia trees from the site and cleared upper portions of stream banks of overhanging trees and debris that block volunteer access and provide too much shade for stabilizing plants to grow. They've installed rebar and erosion socks and are using native plants such as aeae and ahuawa to spread stabilizing root systems that shore up the Ala Wai Watershed, a 19-square-mile area that joins water bodies from the ridge of the Koolau Mountains to Malama Bay's near-shore waters.

ADVERTISING



"If we all work together, I think we can make a huge difference," said Karen Ah Mai, Ala Wai Watershed Association executive director, during a July instructional site visit to Paradise Park. "We're increasing absorption capacity and reducing sediment and pollution. We've always said we need ecosystem restoration along with bridges, walkways and flood mitigation. We can't solve all the problems for the conservation area, but at least we can start."

Maryknoll School is the latest group to answer Ah Mai's call.

"We wanted to find a service project where we could learn and make an impact," said Maryknoll School President Martin Perry, who joined Ah Mai and more than a dozen volunteers on the recent site visit. "We see this as an important outdoor-classroom

experience. We hope our students and their families will serve as trailblazers for the community.”

With 4,000 pohinahina plants expected to arrive for planting by September, Ah Mai said volunteers can’t come fast enough. More importantly, she’s also on a hunt to recruit more people to learn conservation skills and spread them throughout the community.

Ah Mai said the association is working with partners like the Oahu Resource Conservation & Development Council, the Hawaii Association of Conservation Districts, and the Natural Resource Conservation Services to pilot national conservation standards that could be applied to problem areas throughout the Ala Wai Watershed.

Since the upper watershed is connected to the lower waters, efforts like these are critical to managing sediment and restoring the Ala Wai Canal, said Dolan Eversole, who serves as Waikiki Beach management coordinator through the University of Hawaii Sea Grant College Program.

“The Ala Wai Canal is meant to be 6 to 10 feet deep, but sediment has reduced parts of it to only 2 feet deep,” said Eversole, who joined volunteers on the Saturday site visit. “As the canal fills in, it doesn’t have the capacity to hold storm water. As the sediment washes out of the canal, it can impact the coastal near waters.”

Risk experts have warned state lawmakers that continuing the Ala Wai Watershed’s vulnerability could result in financial devastation. If a Category 4 hurricane hit Oahu, some estimate damage to Waikiki alone could hit \$30 billion, in part because of the watershed’s current state. A 100-year flood in the watershed could cost an estimated \$318 million in damage. Even heavy rain can cause major sewage spills that shut down Waikiki beaches, contributing to the canal’s reputation as one of the nation’s most heavily polluted water bodies.

“It’s so cool to be up here in the mountains helping out the coral reef,” said Judy Bowman, who volunteers with Ah Mai’s crew. “Right now, I’m clearing out elephant ear plants. It’s hard work, but it’s worth it to know that I am doing something important for the environment.”

For information about volunteering, contact the Ala Wai Watershed Association at alawaiwatershed@gmail.com.

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