

Harry Kim
Mayor

Roy Takemoto
Managing Director



William A. Kucharski
Director

Diane A. Noda
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

345 Kekūanāo'a Street, Suite 41 · Hilo, Hawai'i 96720

Ph: (808) 961-8083 · Fax: (808) 961-8086

Email: cohdem@hawaiicounty.gov

January 23, 2019

Ms. Sina Pruder, P.E., Chief
State of Hawai'i Department of Health
Environmental Management Division
P.O. Box 3378
Honolulu, Hawai'i 96801-3378
Via email: sina.pruder@doh.hawaii.gov

**Subject: Kaloko Housing Wastewater Treatment Plant (WWTP)
Affirmative Action Plan SFY19**

Dear Ms. Pruder:

The County of Hawai'i Department of Environmental Management, Wastewater Division has received your response regarding the Kaloko Housing Wastewater Treatment Plant Affirmative Action Plan SFY19, which was dated December 16, 2019, and provides the response below to the item listed in the letter:

*Please submit an updated AAP that addresses repair work for the second train.
The schedule should include start and completion dates for the work that is
needed to place the second train online.*

Attached is the revised AAP.

Should you have any questions, please contact Dora Beck, Wastewater Division Chief, at 808-961-8513 (dora.beck@hawaiicounty.gov) or Eric Takamura, Wastewater Deputy Chief, at 808-961-8533 (eric.takamura@hawaiicounty.gov).

Sincerely,

Handwritten signature of William A. Kucharski in black ink.

William A. Kucharski, Director
Department of Environmental
Management

Handwritten signature of Duane T. Hosaka in black ink.

Duane T. Hosaka, Housing Administrator
Office of Housing and Community
Development

cc: Dora Beck, P.E., Wastewater Division Chief
Enclosure: Revised AAP

Revised Affirmative Action Plan (January 23, 2020)
County of Hawai'i Department of Environmental Management
Kaloko Housing WWTP Improvements

Introduction:

An Affirmative Action Plan (AAP) was prepared at the request of State of Hawai'i Department of Health's letter dated November 5, 2019, and presents a proposal for rehabilitation of the Kaloko Housing WWTP facility. This Revised Affirmative Action Plan (January 23, 2020) provides an update to that original AAP.

The County of Hawai'i Department of Environmental Management, Waste Water Division ("DEM-WWD") was presented with an outline of five deficiencies listed in the letter dated November 5, 2019, from the State of Hawai'i Department of Health:

1. For treatment train no. 1, the automatic controls (PLC and HMI) are inoperable and have been replaced with manual timers. The County is proposing to treat the wastewater from Kaloko Housing development at Kealakehe WWTP and therefore does not plan to repair the automatic controls. The timeframe to complete the wastewater infrastructure to service Kaloko Housing is about four (4) years. Plant personnel indicated the design of the project has not been started;
2. Treatment train no. 2 remains inoperable. Treatment train no. 1 is handling all incoming flow and the plant is operating above its design capacity of 16,000 gallons per day (gpd) with an average flow of 25,100 gpd for the period July 2018 to May 2019. According to the O&M Questionnaire, there are plans to put train no. 2 online pending purchase of new and rebuilt equipment;
3. Effluent grab sampling was not conducted in February 2019. Per Section 11-62-26(b)(1)(B) and (2)(B), grab sampling shall be performed at least monthly;
4. Biochemical oxygen demand (BOD5) results were exceeded on two (2) occasions. In May 2019, the recorded BOD result was noted as "fail." The result should be properly recorded instead of a "fail" note. Multiple samplings were conducted in June 2019 with one (1) result recorded as 72 mg/l. Per Section 11 62-26(b)(1)(E), BOD5 in the effluent shall not exceed 60 mg/l. Train no. 1 is handling excessive flow and thus, may not be effectively treating the wastewater. Recurring exceedances will result in formal enforcement action; and
5. At time of inspection, there was excessive sludge mixed with the media in the anoxic Bio-Chip Reactor. The sludge should be pumped out as part of plant maintenance.

Affirmative Action Plan:

The AAP will consist of the following action items to correct the five deficiencies above:

1. Potable Water Reduction Program

Currently, the Office of Housing and Community Development is using water efficient plumbing fixtures to maintain low water usage. Toilets at Uluwini/Kaloko are "Cadet 3" Right Height Elongated Toilet rated low consumption at 6.0 LPF/1.6 GPF. Bathroom fixtures are "Symmons Symmetrix Single-Handle Lavatory Faucet" S-20 with a flow rate of 5 GPM/1.9L minimum flow restrictor outlet spray; Shower system uses "Symmons Visu-Temp 1-25VT-FS" with flow rate of 2.5 GPM/9.5 LPM flow restrictor and hand sprayer; and kitchen sink faucets are "Chicago Faucets No. 785-245CP gooseneck" with flow rate of 2.2 GPM/8.3 LPM. The OHCD will work with Hawaii

Affordable Properties Inc. to devise a voluntary program that will provide education, techniques and tips and possible retrofitting of fixtures to reduce the amount of potable water usage at Uluwini, also known as the Kaloko Housing Program. We will stress the importance of water conservation in the residential component of the program as well as the commercial component, which is made up of the Food Basket, Police Evidence Warehouse and Habitat for Humanity. Residents will be educated on taking shorter showers and turning off the faucet when they are brushing teeth, for instance. OHCD will also be turning off the automatic sprinklers for the landscaping and do only hand watering. While our goal is to reduce water usage as much as possible, we believe that educational activities should result in an immediate reduction in use by 10 to 15 percent. These will be the cornerstones of our educational efforts:

1. Turn off faucets
2. Use every drop
3. Double-dip dishes
4. High-efficiency washers
5. Go with Lo-Flow
6. Shorten showers

2. Hauling of wastewater to Kealakehe WWTP

Per DOH letter dated December 16, 2019 which stated that hauling wastewater to the Kealakehe WWTP is not a corrective action, DEM-WWD has therefore removed this proposed interim measure from this AAP.

3. Effluent Grab Samples

Operation staff shall perform grab samples monthly as required per Section 11-62-26(b)(1)(B) and (2)(B).

4. Record Keeping

In the future, all failed tests results will report the value of the test accompanied by a "Test Failed" mark instead of the "fail" note.

5. Excessive Sludge

Operation staff will perform a daily visual inspection of the anoxic Bio-Chip Reactor and if excessive sludge is observed, the services of a licensed septage hauler truck will be retained to pump the excess sludge and deposit it at the Kealakehe WWTF.

6. Consultant Selection

Since the AAP submittal on December 9, 2019, DEM-WWD have selected R.M. Towill to prepare and issue a Design-Build-Operate- Maintain (DBOM) Request for Proposal (RFP). The RFP will investigate two alternative corrective actions to relieve the excess stress from Train 1. One alternative item is to discharge to the Kaloko Heights Affordable Housing Off-Site Sewer Project via a new sewer pump station and force main. The second alternative item is to evaluate package WWTP systems to treat the existing and excess flow or restoration of Train 2. The RFP will allow for either restoring Train 2 or a new mobile package WWTP (DEM-WWD are anticipating that the SPS/FM alternative will have a long delivery schedule). Both scenarios will be specified to treat 30,000 gallons per day. The DBOM RFP will also include rehabilitating Train 1 as an option.

DEM-WWD are now in the process of preparing this contract with R.M. Towill.

7. Construction of Preferred Corrective Action Alternative

Affirmative Action Plan (AAP) Schedule:

The dates below are contingent of the AAP being approved by State of Hawai'i Department of Health. If additional time is required, the schedule will be revised as approved by State of Hawai'i Department of Health.

January 21, 2020

Item	Action	Start Date	Completion Date
1.	Portable Water Reduction Program	3-months after DOH approval of AAP	December 1, 2021
2.	Hauling	Not approved by State Health	
3.	Effluent Grab Samples	3-months after DOH approval of AAP	On-going*
4.	Record Keeping	3-months after DOH approval of AAP	On-going*
5.	Excessive Sludge	3-months after DOH approval of AAP	On-going*
6.	Consultant Selection	3-months after DOH approval of AAP	6 months after Notice to Proceed
		Consultant selected	as of 1/22/2020
		Scope of work complete	as of 1/22/2020
		Preparing contract	
7.	Construction	December 1, 2020	December 1, 2021
	a.) DBOM RFP	October 1, 2020	October 31, 2020
	b.) DBOM Bids	October 31, 2020	November 30, 2020
	c.) DBOM Contract NTP	December 1, 2020	
	d.) Construction	December 1, 2020	December 1, 2021

Original schedule has a start date of December 2019.

Revised schedule has a start date of January 2020.

Note: * If the new sewer pump station and force main is the preferred alternative, testing and sampling requirements would be eliminated.